

## Risk Management in Indian Banking Sector and Role of RBI

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### ABSTRACT

Risk is the fundamental element that drives financial behaviour. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions, therefore, should manage the risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics. Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution. Credit risk is the oldest and biggest risk that bank, by virtue of its very nature of business, inherits. This has however, acquired a greater significance in the recent past for various reasons. Foremost among them is the wind of economic liberalization that is blowing across the globe. India is no exception to this swing towards market driven economy. Better credit portfolio diversification enhances the prospects of the reduced concentration credit risk as empirically evidenced by direct relationship between concentration credit risk profile and NPAs of public sector banks.

In the process of financial intermediation, banks face risks of different kinds which are financial and non-financial viz., credit, interest rate, foreign exchange rate, liquidity, equity price, legal, regulatory, reputational, operational etc. These risks are highly interdependent and events that affect one area of risk can have ramifications for a range of other risk categories. Thus, top management of the banks should attach considerable importance to improve the ability to identify measure, monitor and control the overall level of risks undertaken. For the purpose of risk management, banks also create suitable organizational structure and process which directly reports to top management in the bank. Following the internationally best practices, Reserve Bank of India (RBI) has directed the banks in the economy to adopt such procedures which includes capital adequacy, provisioning, and other steps vital to maintain and protect the banks in the event of crises. This research paper begins with explaining the need for risk management in the banks on account of various types of risks. The second part presents case studies of two leading commercial banks in India with their risk management structure and recent experience of non-performing assets (NPA) during 2011-14. Third part discusses RBI's efforts on risk management at the macro level and key macroeconomic factors regulatory and industry issues. The paper further attempts to develop early warning system (EWS) with a unique rating of stress and risky outcomes for a bank. Emerging horizons for the banks in the economy would form the Conclusion.

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### 1. Introduction

Worldwide recession and its impact on Global economy have highlighted the need for banks to incorporate the concept of Credit Risk Management particularly in Indian economy into their regular policies. In current scenario credit risk in Indian banks has increased due to market competition, social and economical condition, dynamics of market, and foreign exchange business and Global Business. Today, most of the banks in India are facing the default risk with respect to the retail loans and advances. As the increasing global competition by foreign banks, introduction of innovative products, and have forced the Indian banks to be prepared for the credit risk management specially retail customers. In recent years most of the Indian banks have started to expand their branches and diversify to other business such as insurance mutual funds etc., at a rapid rate and have reached great advancements in technology and quality of service. However, these expansions also bring risk for these banks. At the times of high volatility

and fluctuations in the market, banks need to prove their sustainability in terms of growth as well as have a share value. Hence, an important factor for credit risk management framework would be to steam line all the risks and maximize profit from the products and service offered by the bank. Banks are exposed to tough market competition and hence are compelled to take various types of financial and non-financial risks. There is a need that the banks have to discriminate avoidable and unavoidable risks and are required to decide on what extent such risks can be taken by banks. In banks and other financial institutions, risk plays a major part in the profit making of a bank. The high risk, high returns, hence, it is essential to maintain parity between risk and return.

#### **Default or Credit Risk**

If a borrower is failed to repay the debt amount which may raise default on a debt and this condition is known as a credit risk.

Credit risk is more simply defined as the potential of a bank borrower or counterparty to fail to meet its obligations in accordance with the agreed terms. For most banks, loans are the largest and most obvious source of credit risk. It is the most significant risk, more so in the Indian scenario where the NPA level of the banking system is significantly high. Now, let's discuss the two variants of credit risk – (a) Counterparty Risk: This is a variant of Credit risk and is related to non-performance of the trading partners due to counterparty's refusal and or inability to perform. The counterparty risk is generally viewed as a transient financial risk associated with trading rather than standard credit risk. (b) Country Risk: This is also a type of credit risk where non-performance of a borrower or counterparty arises due to constraints or restrictions imposed by a country. Here, the reason of non-performance is external factors on which the borrower or the counterparty has no control Credit Risk depends on both external and internal factors.

The internal factors include Deficiency in credit policy and administration of loan portfolio, Deficiency in appraising borrower's financial position prior to lending, Excessive dependence on collaterals and Bank's failure in post-sanction follow-up, etc. The major external factors are the state of Economy, Swings in commodity price, foreign exchange rates and interest rates, etc. Credit Risk can't be avoided but can be mitigated by applying various risk-mitigating processes

## 2. Significance of the study:

The fundamental business of lending has brought trouble to individual banks and entire banking system. It is, therefore, imperative that the banks are adequate systems for credit assessment of individual projects and evaluating risk associated therewith as well as the industry as a whole. Generally, Banks in India evaluate a proposal through the traditional tools of project financing, computing maximum permissible limits, assessing management capabilities and prescribing a ceiling for an industry exposure. As banks move in to a new high powered world of financial operations and trading, with new risks, the need is felt for more sophisticated and versatile instruments for risk assessment, monitoring and controlling risk exposures. It is, therefore, time that banks managements equip themselves fully to grapple with the demands of creating tools and systems capable of assessing, monitoring and controlling risk exposures in a more scientific manner. Credit Risk, that is, default by the borrower to repay lent money, remains the most important risk to manage till date. The predominance of credit risk is even reflected in the composition of economic capital, which banks are required to keep a side for protection against various risks. According to one estimate, Credit Risk takes about 70% and 30% remaining is shared between the other two primary risks, namely Market risk (change in the market price and operational risk i.e., failure of internal controls, etc.).

## 3. Literature Review

Tamimi and Mazrooei (2007) [1] in their study find that the credit risk in public sector banks bear the credit risk attached to forward contracts and advances from bank. Credit risk means the risk of defaults or protracted arrears on outstanding loan.

Dash & Kabra (2010) [5], revealed that large banks are not necessarily more effective in screening loan customers when compared to their smaller counterparts as there is no significant relationship between the size of a banking institution and the level of NPAs it reports.

Mallikarjun (2012) [9] stressed upon the various risks that Indian banks are facing; systematic risks, operational risks, liquidity risks and credit risks. He had suggested different plans and decisions should be taken by the banks to reduce these risks.

B.Selvarajan & Dr. G. Vadivalagan (2013) [13], stresses that the problem of NPA is not limited to only Indian public sector banks, but it prevails in the entire banking industry. Major portion of bad debts in Indian Banks arose out of lending to the priority sector at the dictates of politicians and bureaucrats. The top management of the banks was forced by politicians and bureaucrats to throw good money after bad in the case of unscrupulous borrowers. Agriculture advances have registered a 7 fold net increase, SSI advances have set a record net increase of 8.5 times and the advances to other priority sector have made a net increase of 4.5 times, that of their respective figures in 2001–02.

Nayan & Kumaraswamy (2014) [10] in their study find that the profit in PSBs was declining trend due to competition, lack of diversity of banking services and stringent rules of RBI before economic reforms. The profit was declining initial period due to operation was not linked with profit and lack of diversity in the banking services.

Lalon (2015) [8], it is imperative to mention that default clients have been a major problem for the banking financial institutions for long and the financial institutions have been trying to minimize the default problem all along. The Bangladesh Bank has been striving to assist the financial institutions to get out of the default risk problem and formulating policies for that purpose. As a continuance to this, Bangladesh Bank has been providing directives when and where it seems to be necessary.

Vivek Rajbahadur Singh (2016), in their study an attempt is made to understand the status and trend of NPAs in Indian Scheduled commercial banks, The factors contributing to NPAs, reasons for high impact of PAs on Scheduled commercial banks in India and recovery of NPAs through various channels. This study shows that extent of NPA is comparatively very high in public sectors banks. The NPAs level of our banks is still high as compared to the foreign banks.

## 4. Statement of Problem

Post liberalization, credit Risk Management has got much importance in the Indian Economy. The main challenges faced by the banking sector today are the challenge of identifying the risk and managing it. The risk is imbibed nature of the banking business. The main role of bank is of intermediate for those having surplus and those requiring resources. For risk management various risks like credit risk, market risk or operational risk have to be converted into one composite

measure. Therefore, it is necessary that measurement of credit risk should be in tandem with other measurements of operation and market risk so that the requisite composite estimate can be worked out. So, in banking sector credit risk management is being most important task of all.

### 5. Objectives of the Study

1. To understand the concept and nature of Retail Credit Risk Management of Commercial Banks in India.
2. To know the different types of credit risks and the techniques to manage risk in Indian Commercial Banks.
3. To analysis lending trend of Commercial Banks for retail borrowers.
4. To suggest the measures for improving credit risk management practices of Indian Commercial Banks.

### 6. Research Methodology

This study includes both primary and secondary data and. The secondary data have been collected were studied and data available on internet and other sources have also been used.

#### Research Type

This research is descriptive cum case study in nature which is relevant to an inquisitive study as it requires some analysis on the efficient management of bank's credit risk relating to NPAs.

#### Types of Data

The secondary sources of data have been collected from annual report of RBI publications including Trend and Progress of Banking in India. Statistical Tables relating to Banks in India, Articles, books, website and Papers published in different journal and magazines concentrated on Commercial Banks only information.

#### Data Analysis Tools

After collecting the relevant data, the relevant data is analyzed under case study method.

### 7. Data Analysis and Interpretation

Case studies of major banks on risk management

After describing the types of risks faced by banks, here we present two case studies of leading Indian banks, one from public sector bank, State Bank of India and another one from private sector bank, ICICI Bank for their risk management processes and the related live data.

#### SBI Risk Management Structure and process:

SBI resorts to various strategies to resolve stressed assets. Some of these are enumerated below:

Restructuring of both Standard assets and NPAs, either through the corporate debt restructuring mechanism or through a bilateral arrangement.

Recovery through auction of assets using the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) route.

Filing suits in Debt Recovery Tribunals and other Courts for recovery of dues.

Identifying and engaging with strategic investors for takeover of stressed assets.

Sale of NPAs to Asset Reconstruction Companies.

Entering into One-time Settlements with borrowers.

Using Resolution Agents to take possession of properties mortgaged to the Bank and arranging for their auction.

Using the e-auction platform to reach out to as many prospective bidders as possible.

Considering debt Asset swaps in some cases.

Engaging investigation agencies to tract out unencumbered promoter and guarantor assets and obtaining attachment before judgments over these properties.

Identifying Companies and promoters as Willful Defaulters and arranging for display of their names on the websites of Credit Information Companies such as CIBIL. These names are also re-posted to the RBI.

Publishing photographs of defaulters in newspapers when warranted.

Persuading Large Corporate borrowers under stress to sell non-core assets dilute their shareholding and bring in strategic investors thus reducing debt and improving viability.

Despite a harsh environment last year, SBI achieved a deceleration in NPA accretion due to SAMG's relentless efforts along with the support of stressed assets recovery units. The SAMG and other recovery outfits of the SBI are fully geared to meet the asset quality challenges of FY 2014-15, when near – term pressure is expected to continue. SBI is formulating an Early Warning System (EWS) to identify incipient sickness and stress in loan accounts so that we can take in advance corrective action, including timely restructuring in deserving cases and would prevent slippages and maintain good asset quality.

#### ICICI Bank

ICICI Bank's Risk Management structure and process Risk is an integral part of the banking business and ICICI aims at delivering superior shareholder value by achieving an appropriate trade-off between risk and return .ICICI Bank has constituted a Board Level Committee which is empowered to review ICICI Bank's risk management policies pertaining to credit, market, liquidity, operational, outsourcing, reputation risks, business continuity and disaster recovery plan.

The Committee is also empowered to review the Enterprise Risk Management (ERM) framework of the Bank, risk appetite, stress testing framework.

Internal Capital Adequacy Assessment Process (ICAAP) and framework for capital allocation. The Committee is empowered to review the status of Basel II and Basel III implementation, risk return profile of the Bank, outsourcing activities, compliance with RBI guidelines pertaining to credit, market and operational risk management systems and the activities of Asset Liability Management Committee.

The Committee also reviews the risk profile template and key risk indicators pertaining to various risks. In addition, the Committee has oversight on risks of subsidiaries covered under the Group Risk Management Framework.

The Asset Liability Management Committee (ALCO) comprises whole time Directors and senior executives. ALCO meets periodically and reviews the Bank's business profile and its impact on asset liability management and determines the asset liability management strategy in light of the current and expected business environment. ALCO reviews the positions of the trading groups and the interest rate and liquidity gap positions on the banking book. ALCO also sets deposit and benchmark lending rates.

The Market Risk Management Group recommends changes in risk policies and controls and the processes and methodologies for quantifying and assessing market risks. Risk limits including position limits and stop loss limits for the trading book are monitored by the Treasury Control and Services Group and reviewed periodically.

Foreign exchange risk is monitored through the net overnight open position limit. Interest rate risk is measured through the use of re-pricing gap analysis and duration analysis. Interest rate risk is further monitored through interest rate risk limits approved by ALCO.

ICICI Bank uses various tools for measurement of liquidity risk including the statement of structural liquidity, dynamic liquidity gap statements, liquidity ratios and stress testing.

ICICI Bank maintains diverse sources of liquidity to facilitate flexibility in meeting funding requirements.

Incremental operations in the domestic market are principally funded by accepting deposits from retail and corporate depositors. The deposits are augmented by borrowings in the short-term inter-bank market and through the bonds. Loan maturities and sale of investments also provide liquidity.

International branches are primarily funded by debt capital market issuances, lines of financing from export credit agencies, syndicated loans, bilateral loans and bank lines, while ICICI Bank's international subsidiaries raise deposits in their local markets.

The Board level committees that undertake supervision and review of operational risk aspects are the Risk Committee, Fraud Monitoring Committee, Audit Committee and Information Technology Strategy Committee.

The Bank has also constituted an Operational Risk Management Committee (ORMC) to oversee the operational risk management in the Bank. The ORM Policy specifies the composition, roles and responsibilities of the ORMC. Other executive level committees that oversee operational risk related aspects are Product and Process Approval Committee, Outsourcing Committee, information Security Committee and Business Continuity Management Steering Committee. Some of ICICI's Focused Risk Management efforts are discussed briefly:

The Asset Liability Management Committee, which comprises whole time Directors and senior executives meets periodically and reviews the positions of trading groups, interest rate and liquidity gap positions on the banking book, sets deposit and benchmark lending rates, reviews the business profile and its impact on asset liability management and determines the asset liability management strategy, as deemed fit, in light of the current and expected business environment.

The Market Risk Management Group recommends changes in risk policies and controls the processes, methodologies for quantifying and assessing market risks. Risk limits including position limits and stop loss limits for the trading book are monitored by the Treasury Middle Office Group and reviewed periodically. Foreign exchange risk is monitored through the net overnight open position limit. Interest rate risk is measured through the use of re-pricing gap analysis and duration analysis.

Interest rate risk is further monitored through interest rate risk limits approved by the Asset Liability Management Committee. Risks on trading positions are monitored and managed by setting value-at-risk limits and stipulating daily and cumulative stop-loss-limits. ICICI Bank uses various tools for measurement of liquidity risk including the statement of structural liquidity, dynamic liquidity gap statements, liquidity ratios and stress testing. It maintains diverse sources of liquidity to facilitate flexibility in meeting funding requirements, incremental operations in the domestic market are principally funded by accepting deposits from retail and corporate depositors.

The deposits are augmented by borrowings in the short-term inter-bank market and through the issuance of bonds; Loan maturities and sale of investments also provide liquidity. Its international branches are primarily funded by debt capital market issuances, lines of financing from export credit agencies, syndicated loans, bilateral loans and bank lines, while the international subsidiaries raise deposits in their local markets. ICICI Bank seeks to ensure that our capital position is commensurate with the risks in our business and our future growth plans through a robust capital management framework. This includes a comprehensive internal capital adequacy assessment process conducted annually, which

determines the adequate level of capitalization necessary to meet regulatory norms and current and future business needs, including under stress scenarios.

ICICI Bank believes that the bank placed to comply with RBI's guidelines on the implementation of the Basel III framework in India. ICICI Bank is also working towards migration to the advanced approaches under the Basel II framework over the medium term, subject to applicable RBI guidelines and approvals.

RBI's efforts to contain NPA include a number of macro and various focused strategies. With regard to market risk, banks in India have been using the Standardized measurement Method (SMM) since March 2005. The guidelines for the advanced Internal Models Approach (IMA) to market risk assessment for regulatory capital calculation were issued by Reserve Bank in April 2010. Reserve Bank has already undertaken the process of validation of market risk models in respect of two banks. These banks have been suggested to upgrade their market risk management systems and processes before the migration to IMA is allowed. Provisions against loan losses can be broadly divided into two categories: general and specific. The present provisioning policy, consisting of general and specific provisions, has several limitations. First, the rate of provisions on standard assets is not based on any scientific analysis. Second, banks make floating provisions without any pre-determined rules. Third, the provisioning framework does not have cycle smoothing elements built into it. A need was, therefore, recognized for introducing a comprehensive provisioning framework that has dynamic and countercyclical elements. Arising from the above discussions, an attempt is made to formulate an Early Warning System at the bank level:

## 8. Findings of the Study

RBI understands that India is one of the fastest growing economies in the world and is set to remain on that path, backed by the growth in infrastructure, industry services and agriculture. To support this growth, credit flow to various sectors of the economy has been increasing. Strong and sustainable credit growth is almost synonymous with a healthy operating environment and strong economic growth. This trend by and large leads to healthy and profitable asset creation within the economy and the banking sector. However, high growth phases are also when SAs are generated within the banking sector. This is due to excess capacity creation, easy availability of credit, less strict underwriting and easier monitoring during such a phase. This SA accumulation is however masked by strong credit growth. As a result, SAs look very low during this growth phase of the economy. A period of downturn reverses this trend of low SA levels and asset quality concern increases as the growth in SA outpaces credit growth in the banking system. As a result, growth in SA increased significantly.

Credit risk management performance of commercial banks in India is not satisfactory. The present study revealed the retail credit management practices in Indian private sector banks and management of loans and advances. The private sector banks today are offering all most all services that are

offered by public or international bank in retail. The private sector banks have linkage with mutual funds, capital market, insurance etc.

The study found out that the profit in private sector banks was increasing trend due to competitive advantage, diversity of banking services provided by the private sector banks and rules of RBI after economic reforms. The private sector banks are facing the problem of liquidity due to the period of retail credit like house loan whose repayment period is between 25 – 30 years long. The banks were not segmenting the customers as per their requirement. It is revealed from last five years data that the housing finance is having almost half of the total share in personal loans as it fulfill one of the basic needs of human being. The private sector banks are satisfying the needs of customers by providing housing loan at an affordable interest rate

Finally it can be concluded that the banks should manage its retail credit risk more consciously, anticipates adverse changes and hedges accordingly, so that it can be used as a competitive advantage.

## 9. Suggestions

1. To reduce the NPAs in retail credit the private sector banks must follow the guidelines of the RBI. Banks should have Loan Review Policy and it should be reviewed annually by the Board. The main objectives of Loan Reviews are to provide feedback on effectiveness of credit sanction and to identify deterioration in quality of portfolio.
2. Private sector Banks have to maintain an effective management information system through which the banks can know the history of borrowers which help them to decrease the no. of defaulters and which automatically decrease the NPAs. The effectiveness of risk management depends on efficient information system, computerization and networking of the branch activities.
3. In today's competitive environment, private sector banks may train their employees as per demand of the global retail market.
4. The private sector banks should decrease the rate of interest on personal credit.
5. Banks will, therefore, have to sharpen their credit assessment skills by providing better training to enhance their conceptual understanding of credit risk and improving their skills in handling it which lay more emphasis in providing finance to the wide range of activities in the services sector.
6. Private sector banks can strengthen retail banking services by reduce service charges on debit transactions. Banks should adopt a credit grading system which comprises the facilities of assigning a risk grade & the borrowers risk grades should be clearly stated on retail credit application.
7. The Basel Committee set up by BIS has been urging banks to set up internal systems to measure and manage credit risk. It is important that Indian banks use credit ratings available from agencies in

conjunction with their internal models to measure credit risk.

8. The employees of Private sector banks should carefully check the customers KYC form, and take enough collateral before providing them loan. KYC concept needs to be strengthened.
9. Before finalizing the proposal of retail loan the public sector banks should ensure that there is an adequate mortgage is provided by the borrowers.
10. Private sector banks should keep provision against the loans.

## 10. Conclusion

Risk Management is the proactive strategy to plan, organize, lead, and control the variety of risks that are associated with the organization's daily and long-term functioning. Credit risk analysis has emerged as a big challenge for the banks in India. It is imperative to mention that

default clients have been a major problem for the private sectors banks and others banks too for long and the banks have been trying to reduce the default problem all along. The Non-Performing Assets have always created a big problem for the banks in India. It is just not only problem for the banks but for the economy too. The bank management must speed up the recovery process. The problem of recovery is not with small borrowers but with large borrowers and a strict policy should be followed for solving this problem. There is an adverse effect on liquidity of the bank. The RBI has been striving to assist the Indian Banks to get out of the default risk problem by formulating policies. As a continuance to this, RBI has been providing directives when a where it seems to be necessary. Indian economy and banks has already prove their strength to the world at the time recession, now the Indian banks have just follow the RBI guidelines to reduces their NPAs.

## References

1. Al-Tamimi H, Al-Mazrooei M. Banks' Risk Management: A Comparison Study of UAE National and Foreign Banks, *The Journal of Risk Finance*. 2007; 8(4):394-409.
2. Altman, Edward I, Anthony Saunders. Credit risk measurement: Developments over the last 20 years. *Journal of Banking & Finance*. 1997; 21(11):1721-1742.
3. Berger, Allen N, Gregory F. Udell. Collateral, loan quality and bank risk. *Journal of Monetary Economics*. 1990; 25(1):21-42.
4. Bindseil U, Papadia F. Credit Risk Mitigation in Central Bank Operations and its Effects on Financial Markets: The Case of the Euro system. ECB Occasional Paper No. 49. Available at SSRN, 2006. <http://ssrn.com/abstract=807426>
5. Dash MK, Kabra G. The Determinants of Non-Performing Assets in Indian Commercial Banks – An Econometric Study, *Middle Eastern Finance & Economics* (Euro journals Publishing Inc.), 2010.
6. Jarrow RA, Lando DA, Turnbull SM. A Markov Model for the Term Structure of Credit Risk Spreads". *Review of Financial Studies*. 1997; 10(2):481-523. doi:10.1093/rfs/10.2.481. ISSN - 0893-9454.
7. Kanchu T, Kumar MM. Risk Management in Banking Sector: An empirical study. *International Journal of Marketing, Financial Services & Management Research*. 2013; 2(2):145-153
8. Lalon RM. Green Banking: Going Green, *International Journal of Economics, Finance and Management Sciences*. 2015; 3(1):34-42. doi: 10.11648/j.ijefm.20150301.15
9. Mallikarjuna TK, Maregoud R. Risks in Public Sector Banking: Identification and Management, *Indian Streams Research Journal*. 2012; 2:1-4.
10. Nayan J, Kumaraswamy M. Retail Credit Risk Management in Indian Public Sector Banks", *Global Journal for Research Analysis, Principles for the Management of Credit Risk - final document"*. Basel Committee on Banking Supervision. BIS. September 2000. Retrieved.2013-2014, 3.
11. Periasamy P. *Financial Management*. India Tata McGraw Hill Education India) Private Limited, 2008.
12. Reserve Bank of India: Reports on Trend and Progress of Banks in India.
13. Selvarajan B, Vadivalagan G. A Study on Management of Non Performing Assets in Priority Sector reference to Indian Bank and Public Sector Banks (PSBs), *Global Journal of Management and Business Research*. 2013; 13(1).
14. Sharma BR. *Bank Frauds - Prevention & Detection*, Universal law Publishing Co. Pvt. Ltd, 2003.
15. Singh V. A Study of Non-Performing Assets of Commercial Banks and it's recovery in India", *Annual Research Journal of SCMS, Pune*. 2016; 4:110-125.
16. Uppal RK. Banking Sector Reforms: Policy Implications and Fresh Outlook, *Information Management and Business Review* 2011; 2(2):55-64.