

## Credit Risk Management in Banking Sector in India

Keshav Gupta<sup>1</sup> • Ritika Gupta<sup>2</sup>

<sup>2</sup>Associate Professor, Satyawati College (eve.), University of Delhi, Delhi

<sup>1</sup>Assistant Professor, Satyawati Collge (eve.), University of Delhi, Delhi

Email Id: [k7gupta@gmail.com](mailto:k7gupta@gmail.com)<sup>1</sup> • [ritika.b83@gmail.com](mailto:ritika.b83@gmail.com)<sup>2</sup>

**Abstract.** Credit risk is one of the main cause of banking failure. Majority of things today a person buys on credit almost like increase use of credit cards. Similarly what is of utmost importance for Indian banks now a days is credit risk management. Credit risk is a risk of bank arising from a borrower who promised to repay certain some of money they took as loan and forgets to pay it on time. Such kind of events or losses we term as defaults. Another term of credit risk is default risk. Credit risk arises whenever a borrower is expecting to use future cash flows to pay a current debt. Banks are compensated for assuming credit risk by way of interest payments from the borrower or issuer of a debt obligation. The object of credit risk management is to minimize the bank risk. The paper highlights and discuss various tools of minimizing credit risk.

**Keywords:** Credit Risk, Management Banks

### 1 Introduction

Risk is an inherent part of every business in fact every sector and particularly the banking or the financial sector. It is most critical risk attached with banking sector and if it could managed properly it can led to banking crisis in form of increasing NPA's or bad assets and thereby reducing the profitability of banks which mite can led to bank failure or mergers. There are three major category of risk bank faces – credit risk, operational risk and market risk. In a banking portfolio risk arises when counterparty in unable to pay back to the financial institutions or is incapable of performing its commitment in context of lending, trading, settlement or any deals.

### 2. Literature Review

The credit creation process works well when funds flow from ultimate saver to borrowers, only then does the process completes (Bernanke, 1993). One of the biggest risk faced

by banking sector and financial intermediaries and institutions is the risk called as credit risk (Gray, Cassidy, & RBA., 1997). Credit risk is the risk that a loan which has been granted by a bank will not be either partially repaid on time or fully and where there is a risk of customer or counterparty default. Credit risk management processes enforce the banks to establish a clear process in for approving new credit as well as for the extension to existing credit. These processes also follow monitoring with particular care, and other appropriate steps are taken to control or mitigate the risk of connected lending (Basel, 1999). Commercial banking plays a dominant role in commercial lending (Allen & Gale, 2004). Commercial banks routinely perform investment banking activities in many countries by providing new debt to their customers (Gande, 2008).

To implement effective credit risk management practice private banks are more serious than state owned banks. A survey conducted by Kuo & Enders (2004) of credit risk management policies for state banks in China and found that mushrooming of the financial market; the state owned commercial banks in China are faced with the unprecedented challenges and tough for them to compete with foreign bank unless they make some thoughtful change. In this thoughtful change, the reform of credit risk management is a major step that determines whether the state owned commercial banks in China would survive the challenges or not. Research however faults some of the credit risk management policies in place the broad framework and detailed guidance for credit risk assessment and management is provided by the Basel New Capital Accord which is now widely followed internationally (Campbell, 2007).

Oldfield and Santomero (1997) investigated risk management in financial institutions. In this study, they suggested four steps for active risk management techniques:

1. The establishment of standards and reports;
2. The imposition of position limits and rules (i.e. contemporary exposures, credit limits and position concentration);
3. The creation of self-investment guidelines and strategies; and
4. The alignment of incentive contracts and compensation (performance-based compensation contracts).

Profits in public sector declined due to change in structuring and working culture of main PSU's banks in India, study was conducted to analyses impact on banking structure and it analyzed that

because profits were not linked with profitability hence where main concern of banking failures.(Nayan & kumaraswamy 2014). Credit worthiness analysis and collateral requirements are the two important factors for analyzing credit risk, in fact there is significant difference between public and pvt sector banks in analyzing credit risk (Arora Swaranjeet, 2013).

### **3. Objectives of the study**

- i. To understand the concept of credit risk management in Indian banks.
- ii. To discuss RBI guidelines in order to advert risk.
- iii. To analyses the need of credit risk management.
- iv. To analyze different types and approaches of credit risk.

### **4. Research methodology**

The paper is purely a work of conceptual data collection and there by interpreting the data to actually make masses understand the concept of credit risk management in context to Indian financial sector. Analyzing the root cause of problem and possible solution and outcomes. Data collected is from various researches and findings conducted by people worldwide and journals and articles and researched of various public and private sector banks and RBI.

### **5. Concept of Credit risk**

Credit risk is one of the kind of obvious risk encounter by banks.in terms of potential, it is by far the largest risk undertaken by banking sector. Credit risk is a risk when a borrower defaults or does not honor its debts on time. It occurs when counter party fails to make payments. There may be number of reasons for such a situation. Mostly in number of cases it occurs due to financial distress or a situation of bankruptcy arising in an organization leading to incapacity of parties there by to repay the money so borrowed. Technically defaults arises because of the flaw in flow of information system. A credit risk also arise in case of investment on debt of high – quality borrower of which the risk profile has deteriorated. In case of default it does not increase risk of bank, but risk depends on percentage that one can recover from defaulted counterpart and exposure of counterpart. The recovery depends on the presence of collateral and guarantees.

Credit risk consist of pre settlement and settlement risk:

**Pre-settlement risk:** this type of risk arises due to counterpart's default during the life of transaction (bonds, loans, derivative, and products). This kind of risk are often extended up till

life of an event beginning from the time it is contracted until final settlement. In addition to counterpart default risk there also exist a risk when counterpart of prohibited to pay when its country of domiciliation defaults and blocks all foreign payments. This risk is called sovereign foreign risk.

**Settlement Risk:** One is encountered with this risk when the final payment or exchange is not made directly to counterpart, but via one or more banks at the moment which may also default at the moment of exchange. The risk is present as soon as an institution makes the payment until the offsetting payment is received. The longer the time between two payments larger will be the risk attached. Large payment and payments in different time zones often have settlement risk.

Credit risk is typically understood by 3 kinds of factors: default risk, exposure risk and loss risk.

**Default Risk:** it is the possibility or probability that a borrower will be unable to meet its principal re payment obligation on a loan agreement. Default risk has a significant impact on the value of bonds

**Loss Risk:** the loss risk determine loss as a fraction of exposure in case of default. In the Basel – II terminology it is treated as loss given default (LGD). In the case of no loss, the LGD is equal to zero. When one loses the full exposure amount, the LGD is equal to 100%. A negative LGD indicates a profit (e.g., due to penalty fees and interest rate). In some cases, the LGD can be above 100%, e.g., due to litigation costs and almost zero recovery from the defaulted counterpart.

*Exposure Risk:* the exposure at the time of default may not be known before hand. For some products like a bond or a straight loan, the amount is a fixed amount. For credit cards and overdraft facilities the amount varies with liquidity needs of the borrowers. The counterpart can take loan up to the pre-decided negotiated credit limit. Other products have no such pre negotiated limit but each time they are required to take approval from the bank. The uncertainty of exact amount of the risk at every moment of future default is termed as exposure risk.

### **Objective of credit risk management policy**

1. To create an integrated framework of dividing and categorizing various types of loans and advances and determining the kind of risk attached.

2. Drawing up of suitable strategies at the corporate level to determine prescribe level of exposure and describe guidelines for strategic business units.
3. Create a suitable control or monitoring mechanism.
4. Review the exposure and performances periodically.
5. To provide support to banks by managing risk through integration, strengthening and up gradation of MIS and advising training needs of banks for credit management.
6. To establish risk management procedure and system through setting up of credit risk rating framework (CRRF), adopting of risk models, setting of benchmarks and limits.

### **Credit Risk management**

Credit risk arises when banks lend money to any business house or any borrower which could be another bank, financial institution, an individual etc. It consist of following forms:

1. In case of direct lending, fund will not be repaid.
2. In the business of security trading, that settlement will not be affected.
3. In case of cross border exposure, the availability and free transfer of currency is restricted.
4. In case of treasury product, the series of payment due from counterparty.

The more diversified a banking sector is, it will be more vulnerable to risk. This will include all categories of risk beginning from operational risk, political risk relating to place where they are operating, and government risk with the changeover of government where they are operating. Commercial and reputation risk of an organization. It is of utmost importance to analyse the overall risk associated with a particular loan i.e. comprehensive risk assessment and identification are of prime importance.

### **Strategy for effective credit risk management.**

It is essential that every bank must create its own structure of granting loan and undertaking risk. Without risk no organization can flourish, hence it is of prime importance that the organization must determine the risk taking capacity before providing any credit.

Bank strategy must comprise of bank willingness statement to grant loan based on type of economic activity, geographical location, market and profitability. This must emphasize on

identification of target market and diversification and concentration, the cost of capital in granting credit.

The credit risk strategy must be cyclical and must be on going continuous activity which works in continuation of economy circle. This strategy must be viable in long run incorporating all credit cycles. An organizations risk taking capacity depends on the loan given and magnitude of various possible risk in a balance sheet. Based on capital structure of banks, the banks are going to analyse their capacity to give loans keeping their profitability at prime importance.

### **Credit policy and procedure**

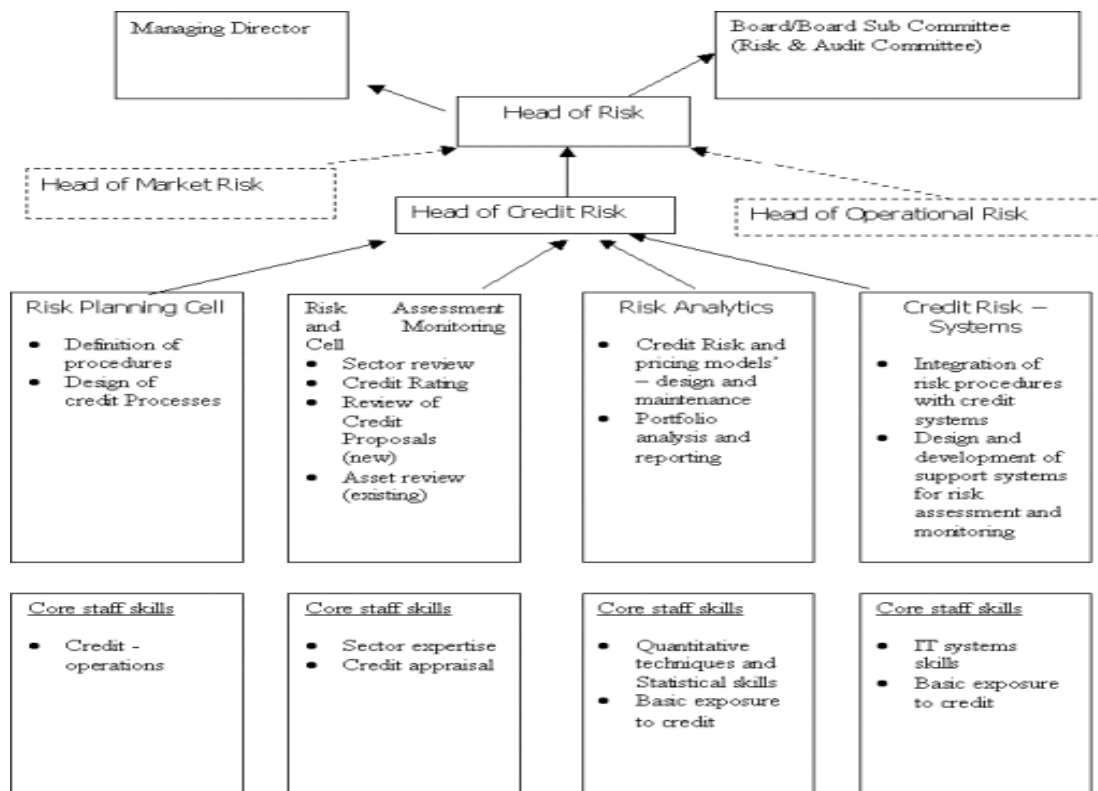
The banks must have the following credit policy structure and procedure:

1. Banks must have a written credit policy that must include the target market, criteria, credit origination, limits, maintenance procedure and guidelines for portfolio management.
2. A survey report of industries must be created before giving credit and based on that banks must give loans to the organizations.
3. Linking of credit rating, scoring and risk acceptance with risk rating of borrower in order to reject all loans below cut off level.
4. They should discuss concentration risk in an industry and discuss loan review and renewal mechanism.
5. Banks should create proactive credit risk management practice like half/annual studies of industries, reviewing of the weak credits or default making companies.
6. Business managers of banks will be accountable for managing risk in banks together with credit risk management committees.
7. The credit approving authority shall be granted to individual officer who has complete knowledge and experience in a particular domain.
8. Every obligor and authority is assigned a credit rating.
9. Banks should maintained a diversified portfolios of risk asset in line with capital desired to maintain such portfolio.
10. Banks must ensure that proper standards, rules and regulations are followed in case of providing credit and its renewal and extensions.

## Organizational structure

As per RBI guidelines usually every bank is having an individual group responsible for credit risk management in a particular organization. The main responsibility so such individual groups is to ensure transparency and efficiency in credit structure. The responsibilities of this team are the formulation of credit policies, procedures and controls extending to all of its credit risks arising from corporate banking, treasury, credit cards, personal banking, trade finance, securities processing, payment and settlement systems, etc. further the team is also required to analyse the portfolios of investor's borrowers and, lender on a continuous basis.

The credit risk strategy must be clearly explained in an organization and organizations must make each person accountable to responsible for any flaw if exists. There must be a clear cut structure of authority and responsibility required to be followed in organization structure with a main of analyzing all factors that affect organizations growth, reduces defaults and increases losses.



## *Tools of credit risk management*

The instruments and tools through which credit risk is carried out are:-

1. **Exposure ceiling:** prudential limits are linked to capital funds – for example 15% for individual borrower entity, 40% for a group with additional 10% for infrastructure projects taken up by group. Threshold limits are fixed at lower level than the prudential limits. Substantial exposure almost taken as total exposure, an exposure beyond the prudential limit and should not exceed 400% to 600% of capital funds of the bank.
2. **Risk based scientific pricing:** it's almost like linking of loans pricing to expect losses. High risk borrowers are priced high. Allocation of capital in order to overcome losses.
3. **Review or renewal:** multi – tier credit approving authorities, high delegated power for better rated consumers, hurdle rate , benchmark and renewal rates are further set on.
4. **Risk rating model:** set up comprehensive system of risk scoring on the scale of six to nine. Clearly defining credit rating limits, thresholds and regular reviewing of rating is necessary.
5. **Portfolio management:** the need for portfolio management arise from the diversification of risk of one particular sector. The existing structure of analyzing risk based on balance sheets is an old technique and does not provide us with the true and fair position. There must be a proper and ongoing process of managing portfolios and analyzing risk in a particular investment. A system involving regular steps for a consistent portfolio maintenance and checkup is required.
6. **Loan review mechanism:** this is often treated as credit audit and must be done separately which must be comprising of all details relating to the time when loan was sanctioned, instalments becoming due, compliance status, review of payments, warning signals and any corrective measures undertaken. It is done with an aim of bringing credit worthiness in an organization structure and in order to save organizations and banks from any kind of defaults.

#### *Mitigation of credit risk by bankers and lender*

The credit risk mitigation is a process of employing various tools for reducing the risk of lenders, banks and other people who offer credit facilities. Below mentioned are some of the ways how these lenders and borrowers mitigate their risk.



1. **Diversification:** usually there is concentration of risk at either one organization or towards a loss making organization. So lenders and borrowers use the practice of diversification in order to reduce their burden of loss.
2. **Deposit insurance:** Many governments establish deposit insurance to guarantee bank deposits of insolvent banks. Such protection discourages consumers from withdrawing money (when a bank is becoming insolvent, to avoid a bank run), and encourages consumers to holding their savings in the banking system instead of in cash.
3. **Tightening:** lenders have an option of curtailing credit facility when they come to know that particular borrower is a loss making borrower. This save them from future losses and warns the borrowers from there increasing defaults.
4. **Credit insurance and credit derivatives:** Lenders and bond holders may hedge their credit risk by purchasing credit insurance or credit derivatives. These contracts the transfer risk from the lender to the seller (insurer) in exchange for payment. The most common credit derivative is the credit default swap.
5. **Risk based pricing:** lenders generally charge high interest rate to to borrowers who makes maximum default termed as risk based pricing. This is again a smart tool of curbing losses, in this lender make an analysis of a portfolio, loan requirement, payments, defaults if any and yield ratio.
6. **Covenants :** Lenders may write stipulations on the borrower, called covenants, into loan agreements:
  - Periodically report its financial condition
  - Refrain from paying dividends, repurchasing shares, borrowing, further, or other specific, voluntary actions that negatively affect the company's financial position
  - Repay the loan in the full, at the lender's request, in certain events such as changes in the borrower's debt-to-equity ratio or interest coverage ratio.

## 6. Conclusion

Business grows only when an organization undertakes risk, but it's important to analyse the potential of risk taking before actually undertaking risk. The main function of banks and organizations before lending is to follow the clear cut directives issued time and again by RBI together with having a close eye look at portfolios of various investors. Credit risk management

is a need of hour to stop increasing NPA's of banking sector in India. It aims at providing the structure of competency and reliability for borrowers as well as lenders. With the globalization and changing scenario of banks where by credit facilities are provided in various ways and prohibiting or preventing risk is not a solution to growth. Hence risk must be averted after taking into consideration various credit management techniques and restructuring of every organization by creation of credit management department is essential which will analyse portfolios periodically that will help an institution from unavoidable and unmeasurable loss.

## 7. References

- Allen, F., & Gale, D. (2004). Financial intermediaries and markets. *Econometrica*, 72(4), 1023-1061.
- Altman, E., Caouette, J., & Narayanan, P. (1998). Credit-risk Measurement and Management: the ironic challenge in the next decade. *Financial Analysts Journal*, 54(1), 7-11.
- Basel. (1999). Principles for the management of credit risk *Consultive paper issued by Basel Committee on Banking Supervision, Basel.*
- Bernanke, B. (1993). Credit in the Macro economy. *Quarterly Review - Federal Reserve Bank of New York*, 18, 50-50.
- Oldfield, G.S. and Santomero, A.M. (1997). Risk Management in Financial Institutions. *Sloan Management Review*, 39(1), 33-46.
- Boyd, A. (1993). How the industry has changed since deregulation. *Personal Investment*, 11(8), 85-86.
- Campbell, A. (2007). Bank insolvency and the problem of nonperforming loans. *Journal of Banking Regulation*, 9(1), 25-45.
- Gande, A. (2008). Commercial Banks in Investment Banking. In V. T. Anjan & W. A. B. Arnoud (Eds.), *Handbook of Financial Intermediation and Banking* (pp. 163-188). San Diego: Elsevier.
- Gray, B., Cassidy, C., & RBA (1997). *Credit risk in banking : proceedings of a conference at H.C. Coombs Centre for Financial Studies, 1-2 May 1997*. [Melbourne?]: Reserve Bank of Australia, Bank Supervision Dept.
- Jimenez, G., & Saurina, J. (2006). Credit cycles, credit risk, and prudential regulation. *International Journal of Central Banking*, 2(2), 65-98.

Kanhaiya Singh,(2011), “Risk Management”, published by ArvindVivek Prakashan,1<sup>st</sup> edition, pp. 80-81.

Kuo, S. H., & Enders, W. (2004). The Term Structure of Japanese Interest Rate: The equilibrium spread with asymmetric dynamics. *The Japanese and International Economics*, 18, 84-98.

Macaulay, F. R. (1988). Some theoretical problems suggested by the movements of interest rate, bond yields, and stock prices in the United States since 1856., *New York, NBER*.

[www.iibf.org.in](http://www.iibf.org.in).

Fernando, A. C. “Business Environment”. Noida: Dorling Kindersley (India) Pvt. Ltd. (2011), pp. 549-553.

Zhao, T., Casu, B. and Ferrari, A. “Deregulation and Productivity Growth: A Study of The Indian Commercial Banking Industry”. *International Journal of Business Performance Management*, 10(4): 318-343, 2008.

Shrieves, R. E. “The relationship between risk and capital in commercial banks”. *Journal of Banking & Finance*, 16(2): 439–457, 1992.

Bagchi S K (2003), “Credit Risk Management – A Panacea or Conundrum?”, *SBI Monthly Review*, Vol. 42, No. 10, pp. 497-504.

Guidance Note on Credit Risk Management, October 12, 2002, Department of Banking Operations and Development, Reserve Bank of India.

Muninarayanappa and Nirmala (2004), “Credit Risk Management in Banks – Key Issues”, *Journal of Accounting & Finance*, Vol. 18, No. 1, pp. 94-98.

Rajagopal S (1996), “Bank Risk Management – A Risk Pricing Model”, *SBI Monthly Review*, Vol. 35, No. 11, pp. 553-567

Arora Swaranjeet (2013) “Credit Risk Analysis in Indian Commercial BanksAn Empirical Investigation”,*Asia – Pacific finance and accounting review* ISSN 2278-1838: Volume 1, No. 2, Jan - Mar 2013.