

**FINANCIAL RISK MANAGEMENT**  
**IN**  
**SBI & ICICI**  
**(B.M.S. PROJECT)**

**BY**  
**AADITYA VIJAY WAJE**  
**UNDER THE SUPERVISION OF**  
**Prof. KRIPA SHAH**

**DEPARTMENT OF MANAGEMENT STUDIES**  
**D.G.RUPAREL COLLEGE**  
**MUMBAI - 400016**  
**JANUARY 2012**

## **STATEMENT BY THE CANDIDATE**

I, **Aaditya Vijay Waje**, wish to state that the work embodied in this project entitled **“Financial Risk Management In SBI & ICICI”** is carried out under the supervision of **Prof. Kripa Shah**, Department of Management Studies, D.G.Ruparel College, Mumbai. This work has not been submitted for any other degree of this or any other universities.

**Prof. Kripa Shah**  
**Aaditya Waje**

**DR. Prakash Salvi**  
**(Co-ordinator , B.M.S.)**

## **ACKNOWLEDGEMENT**

First I would like to thank “UNIVERSITY OF MUMBAI” for giving me an opportunity to do a project work. Through the project work I got to know how the banking sector works financially. Due to this project I could grab lot of knowledge about financial operations of banks that was not of my domain.

I would also like to thank my project guide Prof. kripa Shah to help me out in doing this project because without her help & guidance I couldn't have been able to complete my project successfully. I am very thankful of Prof. kripa Shah to give right path & suggestions for project to work upon.

Finally, I would like to thank the co-ordinator of BACHLOR OF MANAGEMENT STUDIES Dr. Prakash Salvi, all professors for giving me such a platform to do a project work which will definitely help me in my near future& all my friends who assume major part in helping me out to work upon the project.

## **CONCEPTUAL FRAMEWORK**

The world of banking has assumed a new dimension at dawn of the 21<sup>st</sup> century with the advent of tech banking, thereby lending the industry a stamp of universality. In general, banking may be classified as retail and corporate banking. Retail banking, which is designed to meet the requirement of individual customers and encourage their savings, includes payment of utility bills, consumer loans, credit cards, checking account and the like. Corporate banking, on the other hand, caters to the need of corporate customers like bills discounting, opening letters of credit, managing cash, etc. Metamorphic changes took place in the Indian financial system during the eighties and nineties consequent upon deregulation and liberalization of economic policies of the government. India began shaping up its economy and earmarked ambitious plan for economic growth.

consequently, a sea change in money and capital markets took place. Application of marketing concept in the banking sector was introduced to enhance the customer satisfaction the policy of privatization of banking services aims at encouraging the competition in banking sector and introduction of financial services. Consequently, services such as Demat, Internet banking, Portfolio Management, Venture capital, etc, came into existence to cater to the needs of public. An important agenda for every banker today is greater operational efficiency and customer satisfaction.

The introduction to the marketing concept to banking sectors can be traced back to American Banking Association Conference of 1958. Banks marketing can be defined as the part of management activity, which seems to direct the flow of banking services profitability to the customers. The marketing concept basically requires that there should be thorough understanding of customer need and to learn about market it operates in.

Further the market is segmented so as to understand the requirement of the customer at a profit to the banks. The banking industry, one of the most important instruments of the national development occupies a unique place in a nation's economy. Profit is the main reason for the continued existence

of every commercial organization and profitability depicts the relationship of the absolute amount of profit with various other factors. The main source of operating income of a commercial bank are- interest and discount earned, commission, brokerage, income from non banking assets and profit from sale of or dealing with such assets and other receipts. The expenditure broadly consists of - interest paid on deposits and borrowings and non interest cost or charges incurred on staff salary, stationery, rent, law charges, postage, telegram, telephone etc. In this context, some attempts have already been made at individual as well as at the official level and various aspects of commercial banking profitability have been discussed. Banks play an active role in the economic development of a country. Their ability to make a positive contribution in igniting the process of growth depends on the effective banking system.

These banks mostly deal with money collected in the form of deposits along with their own funds in the form of share capital and resources constituting around 5% of the total resources of the banks. So the banks have the obligation of meeting the demand of the customers promptly, paying interest for the amount and meeting the expenses to carry out its activities. This necessitates the banks to maintain adequate liquidity and earn required profit from their activities.

### **Nationalized Banks**

Nationalized banks dominate the banking system in India. The history of nationalized banks in India dates back to mid-20th century, when Imperial Bank of India was nationalized (under the SBI Act of 1955) and re-christened as State Bank of India (SBI) in July 1955.

### **Private Banks in India**

Initially all the banks in India were private banks, which were founded in the pre-independence era to cater to the banking needs of the people. In 1921, three major banks i.e. Banks of Bengal, Bank of Bombay, and Bank of Madras, merged to form Imperial Bank of India

## **LITERATURE REVIEW**

1. Chidambaram R. M and Alamelu (1994) in their study entitled, "Profitability in Banks, a matter of survival", pointed out the problem of declining profit margins in the Indian Public Sector Banks as compared to their private sector counterparts. It was observed that in spite of similar social obligations; almost all the private sector banks have been registering both -high profits and high growth rate with respect to deposits, advances and reserves as compared to the public sector banks. Regional orientation, better customer services, proper monitoring of advances and appropriate marketing strategies are the secrets behind the success of public of the private sector banks.

2. Das A.( 1997) in his paper on "Technical allocation and Scale Efficiency of the Public Sector Banks in India" The study found that there is decline in overall efficiency due to fall in technical efficiency which was not offset by an improvement in allocative efficiency. However, it is pointed out that the deterioration in technical efficiency was mainly on account of few nationalized banks.

3. Deb and Kalpada (1998) in their study entitled, "Indian Banking since Independence", studied the growth of banking in India covering the period from 1966-1987. The analysis revealed that the structure of the banking system changed considerable over the years. It was further pointed out that the quantitative growth of the public sector banks was no doubt significant in some of the areas, but qualitative improvement, by and large lacked in desired standards. In spite of substantial increase in deposit mobilization, their share in national income continued to be very low. It was concluded that the public sector banks were neither guided by the consideration of returns nor were they very much concerned with developmental strategies.

4. S. and Verma, S. (1999) determined the factors influencing the profitability of public sector banks in India by making use of ratio of net profits as percentage of working funds. They concluded that spread and burden play a major role in determining the profitability of commercial banks.

5. Chandan, C.L. and Rajput, P.K.(2002) measured the performance of bank on basis on the basis of profitability analysis.

6. Sangami M. (2002) in his study has suggested that the position of operating cost can be improved with the introduction of high level technology as well as by improvement the per employee productivity.

7. Qamar, F (2003) in his paper examined commercial banks in terms of endowment factors, risk factors, revenue diversification, profitability and efficiency parameters.

8. Chawla, A.S.(2006) made an attempt to analyze the emerging trends in profits and profitability of four banks, two each from public sector and private sector banks.

9.Sanjay J. Bhayani(2006) in his study, "Performance of New India Private Banks: A Comparative Study", analyzed the performance of new private sector banks with the help of CAMEL model. The study covered 4 leading private sector banks- ICICI,HDFC, UTI and IDBI for a period of 5 years from 2000-01 to 2004-05.It is revealed that the aggregate performance of IDBI Bank is best among all the banks, followed by UTI.

10. Uppal, R.K. and Kaur, R. (2007) emphasized that cost should be properly managed to improve the profitability of banks because the net profits were affected by the increase or decrease in operating cost.11.Chowdari Prasad and K.S. Srinivasa Rao (2004)in their paper, "Private Sector Banking in India- A SWOT Analysis" studied the performance of all private sector banks. As per the criteria selected like efficiency, financial strength, profitability and size of scale, it is revealed that the private sector banks are in position to offer cost-effective, efficient products and services to their customers using technology, best utilization of human resources along with professional management and corporate governance principles.

## **OBJECTIVES**

1. To analyze the business model of State Bank of India.
2. To analyze the business model of ICICI bank.
3. To analyze the financial performance of State Bank of India.
4. To analyze the financial performance of ICICI bank.
5. To compare State Bank of India and ICICI bank on the basis of their business model and financial performance.

## **RESEARCH METHODOLOGY**

The study will be conducted with reference to the data related to State Bank of India and ICICI bank. These banks have been studied with the belief that they hold the largest market share of banking business in India, in their respective sectors.

## **WHAT IS FINANCIAL RISK MANAGEMENT?**

### **FINANCIAL RISK MANAGEMENT**

Financial risk management is the practice of creating economic value in a firm by using [financial instruments](#) to manage exposure to [risk](#), particularly [credit risk](#) and [market risk](#). Other types include Foreign exchange, Shape, Volatility, Sector, Liquidity, Inflation risks, etc. Similar to general [risk management](#), financial risk management requires identifying its sources, measuring it, and plans to address them.

Financial risk management can be qualitative and quantitative. As a specialization of [risk](#) management, financial risk management focuses on when and how to [hedge](#) using financial instruments to manage costly exposures to risk.

In the banking sector worldwide, the [Basel Accords](#) are generally adopted by internationally active banks for tracking, reporting and exposing operational, credit and market risks.

### **THE RISK**

The word "Risk" can be traced to the Latin word "Rescum" meaning Risk at Sea or that which cuts. Risk is associated with uncertainty and reflected by way of charge on the fundamental/ basic i.e. in the case of business it is the Capital, which is the cushion that protects the liability holders of an institution. These risks are inter-dependent and events affecting one area of risk can have ramifications and penetrations for a range of other categories of risks. Foremost thing is to understand the risks run by the bank and to ensure that the risks are properly confronted, effectively controlled and rightly managed.

Each transaction that the bank undertakes changes the risk profile of the bank. The extent of calculations that need to be performed to understand the impact of each such risk on the transactions of the bank makes it nearly impossible to continuously update the risk calculations. Hence, providing real time risk information is one of the key challenges of risk management exercise. Till recently all the activities of banks were regulated and hence operational environment was not conducive to risk taking. Better insight,

sharp intuition and longer experience were adequate to manage the limited risks. Business is the art of extracting money from other's pocket, sans resorting to violence. But profiting in business without exposing to risk is like trying to live without being born. Everyone knows that risk taking is failure prone as otherwise it would be treated as sure taking. Hence risk is inherent in any walk of life in general and in financial sectors in particular.

## **MANAGEMENT**

In the process of financial intermediation, the gap of which becomes thinner and thinner, banks are exposed to severe competition and hence are compelled to encounter various types of financial and non-financial risks. Risks and uncertainties form an integral part of banking which by nature entails taking risks. Business grows mainly by taking risk. Greater the risk, higher the profit and hence the business unit must strike a trade off between the two.

The essential functions of risk management are to identify, measure and more importantly monitor the profile of the bank. While Non-Performing Assets are the legacy of the past in the present, Risk Management system is the pro-active action in the present for the future. Managing risk is nothing but managing the change before the risk manages. While new avenues for the bank has opened up they have brought with them new risks as well, which the banks will have to handle and overcome.

### **When to use financial risk management**

Finance theory (i.e., [financial economics](#)) prescribes that a firm should take on a project when it increases [shareholder](#) value. Finance theory also shows that [firm managers](#) cannot create value for shareholders, also called its [investors](#), by taking on projects that shareholders could do for themselves at the same cost.

When applied to financial risk management, this implies that firm managers should not hedge risks that investors can hedge for themselves at the same cost. This notion was captured by the [hedging irrelevance proposition](#): *In a [perfect market](#), the firm cannot create value by hedging a risk when the price of bearing that [risk](#) within the firm is the same as the [price](#) of bearing it outside of the firm.* In practice, financial markets are not likely to be perfect markets.

This suggests that firm managers likely have many opportunities to create value for shareholders using financial risk management. The trick is to determine which risks are cheaper for the firm to manage than the shareholders. A general rule of thumb, however, is that [market risks](#) that result in [unique risks](#) for the firm are the best candidates for financial risk management.

The concepts of financial risk management change dramatically in the international realm. [Multinational Corporations](#) are faced with many different obstacles in overcoming these challenges. There has been some research on the risks firms must consider when operating in many countries, such as the three kinds of foreign exchange exposure for various future time horizons: transactions exposure, accounting exposure, and economic exposure.

[Megaprojects](#) (sometimes also called "major programs") have been shown to be particularly risky in terms of finance. Financial risk management is therefore particularly pertinent for megaprojects and special methods have been developed for such risk management.

## **RISK MANAGEMENT IN INDIAN BANKS**

Risk is inherent in any walk of life in general and in financial sectors in particular. Till recently, due to regulated environment, banks could not afford to take risks. But of late, banks are exposed to same competition and hence are compelled to encounter various types of financial and non-financial risks. Risks and uncertainties form an integral part of banking which by nature entails taking risks. There are three main categories of risks; Credit Risk, Market Risk & Operational Risk. Main features of these risks as well as some other categories of risks such as Regulatory Risk and Environmental Risk. Various tools and techniques to manage Credit Risk, Market Risk and Operational Risk and its various components, are also discussed in detail. There are also mentioned relevant points of Basel's New Capital Accord' and role of capital adequacy, Risk Aggregation & Capital Allocation and Risk Based Supervision (RBS), in managing risks in banking sector.

The fast changing financial environment exposes the banks to various types of risk. The concept of risk and management are core of financial enterprise. The financial sector especially the banking industry in most emerging

economies including India is passing through a process of change. Rising global competition, increasing deregulation, introduction of innovative products and delivery channels have pushed risk management to the forefront of today's financial landscape. Ability to gauge the risks and take appropriate position will be the key to success.

Today, The Indian Economy is in the process of becoming a world class economy. The Indian banking industry is making great advancement in terms of quality, quantity, expansion and diversification and is keeping up with the updated technology, ability, stability and thrust of a financial system, where the commercial banks play a very important role, emphasize the very special need of a strong and effective control system with extra concern for the risk involved in the business.

Globalization, Liberalization and Privatization have opened up a new methods of financial transaction where risk level is very high. In banks and financial institutions risk is considered to be the most important factor of earnings. Therefore they have to balance the relationship between risk and return. In reality we can say that management of financial institution is nothing but a management of risk. Managing financial risk systematically and professionally becomes an even more important task. Rising global competition, increasing deregulation, introduction of innovative products and delivery channels have pushed risk management to the forefront of today's financial landscape. Ability to gauge the risks and take appropriate position will be the key to success. It can be said that risk takers will survive, effective risk managers will prosper and risk averse are likely to perish.

The risk arises due to uncertainties, which in turn arise due to changes taking place in prevailing economic, social and political environment and lack of non-availability of information concerning such changes. Risk is an exposure to a transaction with loss, which occurs with some probability and which can be expected, measured and minimized. In financial institutions risk result from variations and fluctuations in assets or liability or both in incomes from assets or payments and on liabilities or in outflows and inflows of cash. Today, banks are facing various types of risks that financial intermediaries are exposed to, in the course of their business

## **TYPES OF RISKS IN BANKS**

When we use the term “Risk”, we all mean financial risk or uncertainty of financial loss. If we consider risk in terms of probability of occurrence frequently, we measure risk on a scale, with certainty of occurrence at one end and certainty of non-occurrence at the other end. Risk is the greatest where the probability of occurrence or non-occurrence is equal. As per the Reserve Bank of India guidelines issued in Oct. 1999, there are three major types of risks encountered by the banks and these are Credit Risk, Market Risk & Operational Risk. As we go along the article, we will see what are the components of these three major risks. In August 2001, a discussion paper on move towards Risk Based Supervision was published.

Further after eliciting views of banks on the draft guidance note on Credit Risk Management and market risk management, the RBI has issued the final guidelines and advised some of the large PSU banks to implement so as to gauge the impact. A discussion paper on Country Risk was also released in May 02. Risk is the potentiality that both the expected and unexpected events may have an adverse impact on the bank’s capital or earnings. The expected loss is to be borne by the borrower and hence is taken care of by adequately pricing the products through risk premium and reserves created out of the earnings. It is the amount expected to be lost due to changes in credit quality resulting in default. Where as, the unexpected loss on account of the individual exposure and the whole portfolio in entirety is to be borne by the bank itself and hence is to be taken care of by the capital.

Thus, the expected losses are covered by reserves/provisions and the unexpected losses require capital allocation. Hence the need for sufficient Capital Adequacy Ratio is felt. Each type of risks is measured to determine both the expected and unexpected losses using VAR (Value at Risk) or worst-case type analytical model.

### **A) Financial Risks**

**1) Credit Risk:** Credit risk is defined as the possibility of losses associated with decrease in the credit quality of the borrower or the counter parties. In the bank's portfolio, losses stem from outside default due to inability or unwillingness of the customer or the counter party to meet the commitments, losses may also result from reduction in the portfolio value arising from actual or perceived deterioration in credit quality.

Credit Risk is the potential that a bank borrower/counter party fails to meet the obligations on agreed terms. There is always scope for the borrower to default from his commitments for one or the other reason resulting in crystallisation of credit risk to the bank. These losses could take the form outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default. Credit risk is inherent to the business of lending funds to the operations linked closely to market risk variables.

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, which is nothing but the outstanding loan balance as on the date of default and the quality of risk, viz, the severity of loss defined by both Probability of Default as reduced by the recoveries that could be made in the event of default. Thus credit risk is a combined outcome of Default Risk and Exposure Risk. The elements of Credit Risk is Portfolio risk comprising Concentration Risk as well as Intrinsic Risk and Transaction Risk comprising migration/down gradation risk as well as Default Risk.

At the transaction level, credit ratings are useful measures of evaluating credit risk that is prevalent across the entire organization where treasury and credit functions are handled. Portfolio analysis help in identifying concentration of credit risk, default/migration statistics, recovery data, etc. In general, Default is not an abrupt process to happen suddenly and past experience dictates that, more often than not, borrower's credit worthiness and asset quality declines gradually, which is otherwise known as migration. Default is an extreme event of credit migration. Off balance sheet exposures such as foreign exchange forward contracts, swaps options etc are classified in to three broad categories such as full Risk, Medium Risk and Low risk and then translated into risk Weighted assets.

### **Tools of Credit Risk Management.**

The instruments and tools, through which credit risk management is carried out, are detailed below:

**a) Exposure Ceilings:** Prudential Limit is linked to Capital Funds – say 15% for individual borrower entity, 40% for a group with additional 10% for infrastructure projects undertaken by the group, Threshold limit is fixed at a level lower than Prudential Exposure; Substantial Exposure, which is the sum total of the exposures beyond threshold limit should not exceed 600% to 800% of the Capital Funds of the bank (i.e. six to eight times).

**b) Review/Renewal:** Multi-tier Credit Approving Authority, constitution wise delegation of powers, Higher delegated powers for better-rated customers; discriminatory time schedule for review/renewal, Hurdle rates and Bench marks for fresh exposures and periodicity for renewal based on risk rating, etc are formulated.

**c) Risk Rating Model:** Set up comprehensive risk scoring system on a six to nine point scale. Clearly define rating thresholds and review the ratings periodically preferably at half yearly intervals. Rating migration is to be mapped to estimate the expected loss.

**d) Risk based scientific pricing:** Link loan pricing to expected loss. High-risk category borrowers are to be priced high. Build historical data on default losses. Allocate capital to absorb the unexpected loss. Adopt the RAROC framework.

**e) Portfolio Management:** The need for credit portfolio management emanates from the necessity to optimize the benefits associated with diversification and to reduce the potential adverse impact of concentration of exposures to a particular borrower, sector or industry. Stipulate quantitative ceiling on aggregate exposure on specific rating categories, distribution of borrowers in various industry, business group and conduct rapid portfolio reviews. The existing framework of tracking the non-performing loans around the balance sheet date does not signal the quality of the entire loan book. There should be a proper & regular on-going system for identification of credit weaknesses well in advance. Initiate steps to preserve the desired portfolio quality and integrate portfolio reviews with credit decision-making process.

**f) Loan Review Mechanism:** This should be done independent of credit operations. It is also referred as Credit Audit covering review of sanction process, compliance status, review of risk rating, pick up of warning signals and recommendation of corrective action with the objective of improving credit quality. It should target all loans above certain cut-off limit ensuring that at least 30% to 40% of the portfolio is subjected to LRM in a year so as to ensure that all major credit risks embedded in the balance sheet have been tracked. This is done to bring about qualitative improvement in credit administration. Identify loans with credit weakness. Determine adequacy of loan loss provisions. Ensure adherence to lending policies and procedures. The focus of the credit audit needs to be broadened from account level to

overall portfolio level. Regular, proper & prompt reporting to Top Management should be ensured. Credit Audit is conducted on site, i.e. at the branch that has appraised the advance and where the main operative limits are made available. However, it is not required to visit borrowers factory/office premises.

**2) Market Risk:** Market risk is the risk of incurring losses on account of movements in market prices on all positions held by the banks. Liquidity risk of banks arises from funding of long term assets (advances) by short term sources (deposits) changes in interest rate can significantly affect the Net Interest Income (NII). The risk of an adverse impact on NII due to variations of interest rate may be called interest rate risk. Forex risk is the risk of loss that bank may suffer on account of adverse exchange rate movements against uncovered position in foreign currency.

Market Risk may be defined as the possibility of loss to bank caused by the changes in the market variables. It is the risk that the value of on-/off-balance sheet positions will be adversely affected by movements in equity and interest rate markets, currency exchange rates and commodity prices. Market risk is 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.

Market Risk Management provides a comprehensive and dynamic framework for measuring, monitoring and managing liquidity, interest rate, foreign exchange and equity as well as commodity price risk of a bank that needs to be closely integrated with the bank's business strategy. Scenario analysis and stress testing is yet another tool used to assess areas of potential problems in a given portfolio. Identification of future changes in economic conditions like - economic/industry overturns, market risk events, liquidity conditions etc that could have unfavourable effect on bank's portfolio is a condition precedent for carrying out stress testing. As the underlying assumption keep changing from time to time, output of the test should be reviewed periodically as market risk management system should be responsive and sensitive to the happenings in the market.

**a) Liquidity Risk:**

Bank Deposits generally have a much shorter contractual maturity than loans and liquidity management needs to provide a cushion to cover anticipated deposit withdrawals. Liquidity is the ability to efficiently

accommodate deposit as also reduction in liabilities and to fund the loan growth and possible funding of the off-balance sheet claims. The cash flows are placed in different time buckets based on future likely behaviour of assets, liabilities and off-balance sheet items. Liquidity risk consists of Funding Risk, Time Risk & Call Risk.

**Funding Risk** : It is the need to replace net out flows due to unanticipated withdrawal/nonrenewal of deposit.

**Time risk** : It is the need to compensate for nonreceipt of expected inflows of funds, i.e. performing assets turning into nonperforming assets.

**Call risk** : It happens on account of crystallisation of contingent liabilities and inability to undertake profitable business opportunities when desired.

The Asset Liability Management (ALM) is a part of the overall risk management system in the banks. It implies examination of all the assets and liabilities simultaneously on a continuous basis with a view to ensuring a proper balance between funds mobilization and their deployment with respect to their a) maturity profiles, b) cost, c) yield, d) risk exposure, etc. It includes product pricing for deposits as well as advances, and the desired maturity profile of assets and liabilities.

Tolerance levels on mismatches should be fixed for various maturities depending upon the asset liability profile, deposit mix, nature of cash flow etc

### **b) Interest Rate Risk**

Interest Rate Risk is the potential negative impact on the Net Interest Income and it refers to the vulnerability of an institution's financial condition to the movement in interest rates. Changes in interest rate affect earnings, value of assets, liability off-balance sheet items and cash flow. Hence, the objective of interest rate risk management

is to maintain earnings, improve the capability, ability to absorb potential loss and to ensue the adequacy of the compensation received for the risk taken and effect risk return trade-off.

Management of interest rate risk aims at capturing the risks arising from the maturity and re-pricing mismatches and is measured both from the earnings and economic value perspective. Earnings perspective involves analyzing the impact of changes in interest rates on accrual or reported earnings in the near term. This is measured by measuring the changes in the Net Interest Income (NII) equivalent to the difference between total interest income and total interest expense.

In order to manage interest rate risk, banks should begin evaluating the vulnerability of their portfolios to the risk of fluctuations in market interest

rates. One such measure is Duration of market value of a bank asset or liabilities to a percentage change in the market interest rate. The difference between the average duration for bank assets and the average duration for bank liabilities is known as the duration gap which assesses the bank's exposure to interest rate risk. The Asset Liability Committee (ALCO) of a bank uses the information contained in the duration gap analysis to guide and frame strategies. By reducing the size of the duration gap, banks can minimize the interest rate risk. Economic Value perspective involves analyzing the expected cash in flows on assets minus expected cash out flows on liabilities plus the net cash flows on off-balance sheet items. The economic value perspective identifies risk arising from long-term interest rate gaps.

The various types of interest rate risks are detailed below:

**Gap/Mismatch risk:** It arises from holding assets and liabilities and off balance sheet items with different principal amounts, maturity dates & repricing dates thereby creating exposure to unexpected changes in the level of market interest rates.

**Basis Risk:** It is the risk that the Interest rate of different Assets/liabilities and off balance items may change in different magnitude. The degree of basis risk is fairly high in respect of banks that create composite assets out of composite liabilities.

**Embedded option Risk:** Option of pre-payment of loan and Fore-closure of deposits before their stated maturities constitute embedded option risk. Yield curve risk: Movement in yield curve and the impact of that on portfolio values and income.

**Reprice risk:** When assets are sold before maturities.

**Reinvestment risk:** Uncertainty with regard to interest rate at which the future cash flows could be reinvested.

**Net interest position risk:** When banks have more earning assets than paying liabilities, net interest position risk arises in case market interest rates adjust downwards.

There are different techniques such as a) the traditional Maturity Gap Analysis to measure the interest rate sensitivity, b) Duration Gap Analysis to measure interest rate sensitivity of capital, c) simulation and d) Value at Risk for measurement of interest rate risk.

The approach towards measurement and hedging interest rate risk varies with segmentation of bank's balance sheet. Banks broadly bifurcate the

asset into Trading Book and Banking Book. While trading book comprises of assets held primarily for generating profits on short term differences in prices/yields, the banking book consists of assets and liabilities contracted basically on account of relationship or for steady income and statutory obligations and are generally held till maturity/payment by counter party.

Thus, while price risk is the prime concern of banks in trading book, the earnings or changes in the economic value are the main focus in banking book. Value at Risk (VaR) is a method of assessing the market risk using standard statistical techniques. It is a statistical measure of risk exposure and measures the worst expected loss over a given time interval under normal market conditions at a given confidence level of say 95% or 99%.

Thus VaR is simply a distribution of probable outcome of future losses that may occur on a portfolio. The actual result will not be known until the event takes place. Till then it is a random variable whose outcome has been estimated. As far as Trading Book is concerned, bank should be able to adopt standardized method or internal models for providing explicit capital charge for market risk.

### **c) Forex Risk**

Foreign exchange risk is the risk that a bank may suffer loss as a result of adverse exchange rate movement during a period in which it has an open position, either spot or forward or both in same foreign currency. Even in case where spot or forward positions in individual currencies are balanced the maturity pattern of forward transactions may produce mismatches. There is also a settlement risk arising out of default of the counter party and out of time lag in settlement of one currency in one center and the settlement of another currency in another time zone.

Banks are also exposed to interest rate risk, which arises from the maturity mismatch of foreign currency position. The Value at Risk (VaR) indicates the risk that the bank is exposed due to uncovered position of mismatch and these gap positions are to be valued on daily basis at the prevalent forward market rates announced by FEDAI for the remaining maturities. Currency Risk is the possibility that exchange rate changes will alter the expected amount of principal and return of the lending or investment.

At times, banks may try to cope with this specific risk on the lending side by shifting the risk associated with exchange rate fluctuations to the borrowers. However the risk does not get extinguished, but only gets converted in to credit risk. By setting appropriate limits-open position and gaps, stop-loss limits, Day Light as well as overnight limits for each currency, Individual Gap Limits and Aggregate Gap Limits, clear cut and well defined division of responsibilities between front, middle and back office the risk element in foreign exchange risk can be managed/monitored.

#### **d) Country Risk**

This is the risk that arises due to cross border transactions that are growing dramatically in the recent years owing to economic liberalization and globalization. It is the possibility that a country will be unable to service or repay debts to foreign lenders in time.

It comprises of Transfer Risk arising on account of possibility of losses due to restrictions on external remittances; Sovereign Risk associated with lending to government of a sovereign nation or taking government guarantees; Political Risk when political environment or legislative process of country leads to government taking over the assets of the financial entity (like nationalization, etc) and preventing discharge of liabilities in a manner that had been agreed to earlier; Cross border risk arising on account of the borrower being a resident of a country other than the country where the cross border asset is booked; Currency Risk, a possibility that exchange rate change, will alter the expected amount of principal and return on the lending or investment.

In the process there can be a situation in which seller (exporter) may deliver the goods, but may not be paid or the buyer (importer) might have paid the money in advance but was not delivered the goods for one or the other reasons. As per the RBI guidance note on Country Risk Management published recently, banks should reckon both fund and non-fund exposures from their domestic as well as foreign branches, if any, while identifying, measuring, monitoring and controlling country risk.

It advocates that bank should also take into account indirect country risk exposure. For example, exposures to a domestic commercial borrower with large economic dependence on a certain country may be considered as subject to indirect country risk. The exposures should be computed on a net basis, i.e. gross exposure minus collaterals, guarantees etc. Netting may be considered for collaterals in/guarantees issued by countries in a lower risk category and may be permitted for bank's dues payable to the respective countries.

RBI further suggests that banks should eventually put in place appropriate systems to move over to internal assessment of country risk within a prescribed period say by 31.3.2004, by which time the new capital accord would be implemented. The system should be able to identify the full dimensions of country risk as well as incorporate features that acknowledge the links between credit and market risks. Banks should not rely solely on rating agencies or other external sources as their only country risk-monitoring tool.

With regard to inter-bank exposures, the guidelines suggests that banks should use the country ratings of international rating agencies and broadly classify the country risk rating into six categories such as insignificant, low, moderate, high, very high & off-credit. However, banks may be allowed to adopt a more conservative categorization of the countries. Banks may set country exposure limits in relation to the bank's regulatory capital (Tier I & II) with suitable sub limits, if necessary, for products, branches, maturity etc.

Banks were also advised to set country exposure limits and monitor such exposure on weekly basis before eventually switching over to real time monitoring. Banks should use variety of internal and external sources as a means to measure country risk and should not rely solely on rating agencies or other external sources as their only tool for monitoring country risk. Banks are expected to disclose the "Country Risk Management" policies in their Annual Report by way of notes.

## **B) Non-Financial Risk**

Non-financial risk refers to those risks that may affect a bank's business growth, marketability of its product and services, likely failure of its strategies aimed at business growth etc. These risks may arise on account of management failures, competition, non-availability of suitable products/services, external factors etc. In these risk operational and strategic risk have a great need of consideration.

**1) Operational Risk:** It may be defined as the risk of loss resulting from inadequate or failed internal process people and systems or because of external events. Always banks live with the risks arising out of human error, financial fraud and natural disasters. The recent happenings such as WTC tragedy, Barings debacle etc. has highlighted the potential losses on account of operational risk. Exponential growth in the use of technology and increase in global financial inter-linkages are the two primary changes that contributed to such risks.

Operational risk, though defined as any risk that is not categorized as market or credit risk, is the risk of loss arising from inadequate or failed internal processes, people and systems or from external events. In order to

mitigate this, internal control and internal audit systems are used as the primary means. Risk education for familiarizing the complex operations at all levels of staff can also reduce operational risk. Insurance cover is one of the important mitigators of operational risk.

Operational risk events are associated with weak links in internal control procedures. The key to management of operational risk lies in the bank's ability to assess its process for vulnerability and establish controls as well as safeguards while providing for unanticipated worst-case scenarios.

Operational risk involves breakdown in internal controls and corporate governance leading to error, fraud, performance failure, compromise on the interest of the bank resulting in financial loss. Putting in place proper corporate governance practices by itself would serve as an effective risk management tool. Bank should strive to promote a shared understanding of operational risk within the organization, especially since operational risk is often intertwined with market or credit risk and it is difficult to isolate.

Over a period of time, management of credit and market risks has evolved a more sophisticated fashion than operational risk, as the former can be more easily measured, monitored and analysed. And yet the root causes of all the financial scams and losses are the result of operational risk caused by breakdowns in internal control mechanism and staff lapses. So far, scientific measurement of operational risk has not been evolved. Hence 20% charge on the Capital Funds is earmarked for operational risk and based on subsequent data/feedback, it was reduced to 12%.

While measurement of operational risk and computing capital charges as envisaged in the Basel proposals are to be the ultimate goals, what is to be done at present is start implementing the Basel proposal in a phased manner and carefully plan in that direction. The incentive for banks to move the measurement chain is not just to reduce regulatory capital but more importantly to provide assurance to the top management that the bank holds the required capital.

**2) Strategic Risk:** Strategic risk is the risk that arises from the inability to implement appropriate business plans and strategies, decisions with regard to allocation of resources or adaptability to dynamic changes in the business/operating environment. These are a number of other risk factor through which operations risk, credit risk and market risk may manifest. It should be recognized that many of these risk factors are interrelated, one results to other.

## **Process of Risk Management:**

To overcome the risk and to make banking function well, there is a need to manage all kinds of risks associated with the banking. Risk management becomes one of the main functions of any banking services risk management consists of identifying the risk and controlling them, means keeping the risk at acceptable level. These levels differ from institution to institution and country to country. The basic objective of risk management is to stakeholders; value by maximizing the profit and optimizing the capital funds for ensuring long term solvency of the banking organization. In the process of risk management following functions comprises:

- Risk identification
- Risk measurement or quantification
- Risk control
- Monitoring and reviewing

**Risk Identification:** The risk identification involves 1. the understanding the nature of various kinds of risks. 2. the circumstances which lead a situation to become a risk situation and 3. causes due to which the risk can arise.

**Risk Quantification:** Risk quantification is an assessment of the degree of the risk which a particular transaction or an activity is exposed to. Though the exact measurement of risk is not possible but the level of risk can be determined with the help of risk rating models.

**Risk Control:** Risk control is the stage where the bank or institutions take steps to control the risk with the help of various tools.

### **Tools for Risk Control**

- Diversification of the business
- Insurance and hedging
- Fixation of exposure ceiling
- Transfer the risk to another party at right time
- Securitization and reconstruction.

**Risk Monitoring:** In risk monitoring the bankers have to fix up the parameters on which the transaction is to be tested to be sure that there is no risk to viable existence of the financial unit or investment of the bank.

## **Risk Management in Bank: Basel Committee Approach**

In order to help the banks to recognise the different kinds of risks and to take adequate steps to overcome the under capitalisation of banks assets and lessen the credit and operational risks faced by banks. Banks of International Settlement (BIS) set up Basel Committee on banking supervision in 1988, which issued guidelines for updating risk management in banks. These guidelines brought about standardization and universalization among the global banking committee for risk management and seek to protect the interest of the depositors/shareholders of the bank. As per the guidelines issued, capital adequacy was considered panacea for risk management and all banks were advised to have Capital Adequacy Ratio (CAR) at at least 8%. CAR is the ratio of capital to risk weighted assets and it provides the cushion to the depositors in case of bankruptcy. In January 1999, the Basel Committee proposed a new capital accord, which is known as **Basel II**.

A sound framework for measuring and quantifying the risk associated with banking operations put by it. The emphasis of New Basel Accord is on flexibility, efficient operations and higher revenues for banks with full acknowledgement of risks. The New Accord makes clear distinction between the credit risk, market risk and operational risk stipulating assessment of risk weightage covering all the three categories separately. Also it provides a

range of options for determining the capital requirements for credit risk and operational risk. Banks are required to select approaches that are most appropriate for their operations and financial markets.

The finalized Basel II Accord was released in June 2004. The midterm review of annual policy for the year 2006-07 from the Reserve Bank of India (RBI) revealed that the intended date for adoption of Basel II, i.e. March 2007, had to be postponed by two years, taking into consideration the stake of preparedness of the banking system in the country. This accord is based on three pillars, viz.

Pillar I: Minimum Capital Requirement

Pillar II: Supervisory Review

Pillar III: Market Discipline

### **Minimum Capital Requirement (Pillar I)**

The Minimum Capital Requirement (MCR) is set by the capital ratio which is defined as  $(\text{Total Capital} - \text{Tier I} + \text{Tier II} + \text{Tier III}) / (\text{credit risk} + \text{market risk} + \text{operational risk})$ . Basel I provided for only a credit risk charge. A market risk was implemented in 1996 amendments. In the initial stage, all banks are required to follow standardized approach in credit risk, basic indicator approach in operational risk and standardized duration approach in market risk. Migration to higher approaches will require RBI permission. Higher approaches are more risk sensitive and may reduce capital requirement for banks following sound risk management.

### **Supervisory Review Process (Pillar II)**

The supervisory review process is required to ensure adequacy as well as to ensure integrity by the risk management processes. The Basel Committee has started four key principles of supervisory review as under:

- Bank should have a process for accessing its overall capital adequacy in relation to its risk profile, as well as, a strategy for maintaining its capital levels.
- Supervisors expect banks to operate above the minimum regulatory capital ratios and ensure banks hold capital in excess of the minimum.
- Supervisory shall review bank, internal capital adequacy assessment and strategy, as well as compliance with regulatory capital ratios.
- Supervisors shall seek to intervene at an early stage to prevent capital from falling below prudent levels.

The Reserve Bank of India being the supervisor of the banking operation in India is expected to evaluate how well banks are assessing their capital needs relative to their risks. When deficiencies are identified, prompt and decisive actions are expected to be taken by the supervisors to reduce the risk.

**Market Discipline (Pillar III)** Effective market discipline requires reliable and timely information that enables counter parties to make well established risk assessment. Pillar III relates to periodical disclosures to regulator, Board of Bank and market about various parameters which indicates the risk profile of the bank. Reserve Bank of India has stipulated that banks should provide all Pillar III disclosures, both quantitative and qualitative as at the end March each year along with the annual financial statement. The banks are required to put such disclosures on its websites. Market discipline promotes safety and soundness in banks and financial system and facilitates banks conducting their business in a safe, sound and efficient manner.

## **Challenges in the Indian context**

Basel II is intended to improve safety and soundness of the financial system by placing increased emphasis on bank's own internal control and risk management processes and models, the supervisory review process and market discipline. Indeed, to enable the calculation of capital requirements under the new accord requires a bank to implement a comprehensive risk management framework. However, these changes will also have wide ranging effects on bank's information technology systems, processes, people and business, beyond the regulatory compliance, risk management and finance functions. Though every bank has to invest lot of time, manpower and energy in the implementations of Basel II, yet it helps the banks to assess the risks associated with the business effectively. More so, it facilitates the banks to produce quantified and more realistic measure of the risk. Basel II enables the banks to handle business with more confidence and make better business decisions. But the techniques and the methods suggested in the new accord would pose considerable implementation challenges for the banks especially in a developing country like India; some of them are described as under:

- Implementation of the new framework will require substantial resources and commitment on the part of both banks and supervisors. Banks are required to make enormous improvements in the areas of policies, organisational structure, MIS, tools for analysis, process, specified training of staff etc. It will involve huge cost both for the banks as well as for supervisors.
- The new norms will increase the capital requirements in all the banks due to introduction in multiple risk weights with preferential treatment for high rated assets. Although the capital requirement for credit risk may go down due to adoption of more risk sensitive techniques such as securitization, derivatives, melting services, equity holdings, venture capital and guarantees etc.
- Risk management is extremely data-intensive. Accurate, reliable and timely availability of data is crucial for proper risk management. Banks need to implement substantial changes to their internal systems to prepare for appropriate data collection and revised reporting requirements. These changes may require systems integration, modification and introduction of new software. Banks need to assess the capabilities of their present systems and review the necessary system changes required.
- To provide the basis for forecasting and building of models in respect of various activities, such as loaning, security and foreign exchange transactions, a lot of historical data is required. In the Indian context major handicap is the absence of data series, particularly, related to the transactions in individual loan accounts.
- The new capital accord assigns risk-weight of sovereign at 0-50%. These 13 also a higher risk weight to the small and medium enterprises. In India, the PSBs have more than 40 percent of their lending to priority sector. The implementation of Basel II can adversely affect the priority sector lending.
- Even the G-10 countries are finding it difficult to implement the Basel II accord in all the banks. Therefore, longer time may be required for its implementation in some or all the banks in India.
- In India, credit rating is restricted to issues and not to the issuers. While Basel II gives some scope to extend the rating of issues to issuers. This would be an approximation and it would be necessary for the system to move to the rating of issuers. Encouraging rating of issuers would be a challenge.
- Yet another requirement for establishing risk management system is trained and skilled manpower. The managers should understand both the

theory and practice of risk. To reach such an understanding undoubtedly involves a continuous learning process in the new technologies. Inducting a continuous learning process in the line managers and educating them in risk management is a task to be addressed on priority by the banks for the smooth adoption of the risk management principles and practices and Basel-II recommendations across the banks. Skill development for risk management approaches, both at the bank level and at supervisors' level, would be a tough task ahead.

## **Top six liquidity risk management challenges for global banks**

The credit crisis has placed liquidity risk management front and center in the global banking industry, presenting some weighty challenges that global banks must address. Liquidity risk management is now a major focus for regulators, and global banks must navigate a range of regulatory requirements and guidance that is not always clear or well-aligned.

What is clear is that liquidity risk must be owned from the top of the organization down. Without maintaining a constant pulse on their liquidity position, banks can quickly face serious reputational damage or, worse, insolvency. From our perspective, there are six key challenges in effectively managing liquidity risk:

1. Moving from tactical stop-gap solutions to a long-term strategic model for risk management, and cascading the new governance structure through all levels of management.
2. Having clear guidance and requirements when global regulators are lacking alignment.
3. Committing huge resources to implement needed changes in liquidity risk management and regulatory compliance.
4. Re-thinking the viability of a business operating model that has traditionally relied on the wholesale funding markets to fund business growth.
5. Integrating stress-testing (vs. using a siloed stress-test approach) when complications arise between intra-day, short-term scenarios vs. longer term scenarios.
6. Projecting contractual cash flows for underlying transactions when some institutions manage millions of transactions.

### **Asset - Liability Management System in banks - Guidelines**

Over the last few years the Indian financial markets have witnessed wide ranging changes at fast pace. Intense competition for business involving both the assets and liabilities, together with increasing volatility in the domestic interest rates as well as foreign exchange rates, has brought pressure on the management of banks to maintain a good balance among spreads, profitability and long-term viability. These pressures call for structured and comprehensive measures and not just adhoc action. The

Management of banks has to base their business decisions on a dynamic and integrated risk management system and process, driven by corporate strategy. Banks are exposed to several major risks in the course of their business - credit risk, interest rate risk, foreign exchange risk, equity / commodity price risk, liquidity risk and operational risks.

This note lays down broad guidelines in respect of interest rate and liquidity risks management systems in banks which form part of the Asset-Liability Management (ALM) function. The initial focus of the ALM function would be to enforce the risk management discipline viz. managing business after assessing the risks involved. The objective of good risk management programmes should be that these programmes will evolve into a strategic tool for bank management.

The ALM process rests on three pillars:

1. ALM information system.  
Management Information System  
Information availability, accuracy, adequacy and expediency
2. ALM organization  
Structure and responsibilities  
Level of top management involvement
3. ALM process  
Risk parameters  
Risk identification  
Risk measurement  
Risk management  
Risk policies and tolerance levels.

## **1. ALM information systems**

Information is the key to the ALM process. Considering the large network of branches and the lack of an adequate system to collect information required for ALM which analyses information on the basis of residual maturity and behavioral pattern it will take time for banks in the present state to get the requisite information. The problem of ALM needs to be addressed by following an ABC approach i.e. analyzing the behavior of asset and liability products in the top branches accounting for significant business and then making rational assumptions about the way in which assets and liabilities would behave in other branches.

In respect of foreign exchange, investment portfolio and money market operations, in view of the centralized nature of the functions, it would be much easier to collect reliable information. The data and assumptions can then be refined over time as the bank management gain experience of

conducting business within an ALM framework. The spread of computerization will also help banks in accessing data.

## **2. ALM organization**

**a)** The Board should have overall responsibility for management of risks and should decide the risk management policy of the bank and set limits for liquidity, interest rate, foreign exchange and equity price risks.

**b)** The Asset - Liability Committee (ALCO) consisting of the bank's senior management including CEO should be responsible for ensuring adherence to the limits set by the Board as well as for deciding the business strategy of the bank (on the assets and liabilities sides) in line with the bank's budget and decided risk management objectives.

**c)** The ALM desk consisting of operating staff should be responsible for analyzing, monitoring and reporting the risk profiles to the ALCO. The staff should also prepare forecasts (simulations) showing the effects of various possible changes in market conditions related to the balance sheet and recommend the action needed to adhere to bank's internal limits.

The ALCO is a decision making unit responsible for balance sheet planning from risk - return perspective including the strategic management of interest rate and liquidity risks. Each bank will have to decide on the role of its ALCO, its responsibility as also the decisions to be taken by it. The business and risk management strategy of the bank should ensure that the bank operates within the limits / parameters set by the Board.

The business issues that an ALCO would consider, inter alia, will include product pricing for both deposits and advances, desired maturity profile of the incremental assets and liabilities, etc. In addition to monitoring the risk levels of the bank, the ALCO should review the results of and progress in implementation of the decisions made in the previous meetings. The ALCO would also articulate the current interest rate view of the bank and base its decisions for future business strategy on this view.

In respect of the funding policy, for instance, its responsibility would be to decide on source and mix of liabilities or sale of assets. Towards this end, it will have to develop a view on future direction of interest rate movements and decide on a funding mix between fixed vs. floating rate funds, wholesale vs. retail deposits, money market vs. capital market funding, domestic vs.

foreign currency funding, etc. Individual banks will have to decide the frequency for holding their ALCO meetings.

### **Composition of ALCO**

The size (number of members) of ALCO would depend on the size of each institution, business mix and organizational complexity. To ensure commitment of the Top Management, the CEO/CMD or ED should head the Committee. The Chiefs of Investment, Credit, Funds Management / Treasury (forex and domestic), International Banking and Economic Research can be members of the Committee. In addition the Head of the Information Technology Division should also be an invitee for building up of MIS and related computerization. Some banks may even have sub-committees.

### **Committee of Directors**

Banks should also constitute a professional Managerial and Supervisory Committee consisting of three to four directors which will oversee the implementation of the system and review its functioning periodically.

### **3. ALM process:**

The scope of ALM function can be described as follows:

1. Liquidity risk management
2. Management of market risks  
(Including Interest Rate Risk)
3. Funding and capital planning
4. Profit planning and growth projection
5. Trading risk management

The guidelines given in this note mainly address Liquidity and Interest Rate risks.

## **Liquidity Risk Management**

Measuring and managing liquidity needs are vital activities of commercial banks. By

Assuring a bank's ability to meet its liabilities as they become due, liquidity management can reduce the probability of an adverse situation developing. The importance of liquidity transcends individual institutions, as liquidity shortfall in one institution can have repercussions on the entire system. Bank management should measure not only the liquidity positions of banks on an ongoing basis but also examine how liquidity requirements are likely to evolve under crisis scenarios.

Experience shows that assets commonly considered as liquid like Government securities and other money market instruments could also become illiquid when the market and players are unidirectional. Therefore liquidity has to be tracked through maturity or cash flow mismatches. For measuring and managing net funding requirements, the use of a maturity ladder and calculation of cumulative surplus or deficit of funds at selected maturity dates is adopted as a standard tool. The format of the Statement of Structural Liquidity is given in Annexure I.

The Maturity Profile as given in Appendix I could be used for measuring the future cash flows of banks in different time buckets. The time buckets given the Statutory Reserve cycle of 14 days may be distributed as under:

- i) 1 to 14 days
- ii) 15 to 28 days
- iii) 29 days and up to 3 months
- iv) Over 3 months and up to 6 months
- v) Over 6 months and up to 12 months
- vi) Over 1 year and up to 2 years
- vii) Over 2 years and up to 5 years
- viii) Over 5 years

Within each time bucket there could be mismatches depending on cash inflows and outflows. While the mismatches up to one year would be relevant since these provide early warning signals of impending liquidity problems, the main focus should be on the short-term mismatches viz., 1-14 days and 15-28 days. Banks, however, are expected to monitor their cumulative mismatches (running total) across all time buckets by establishing internal prudential limits with the approval of the Board / Management Committee. The mismatch during 1-14 days and 15-28 days should not in any case exceed 20% of the cash outflows in each time bucket.

If a bank in view of its asset -liability profile needs higher tolerance level, it could operate with higher limit sanctioned by its Board / Management Committee giving reasons on the need for such higher limit. A copy of the note approved by Board / Management Committee may be forwarded to the Department of Banking Supervision, RBI. The discretion to allow a higher

tolerance level is intended for a temporary period, till the system stabilizes and the bank are able to restructure its asset -liability pattern.

The Statement of Structural Liquidity ( Annexure I ) may be prepared by placing all cash inflows and outflows in the maturity ladder according to the expected timing of cash flows. A maturing liability will be a cash outflow while a maturing asset will be a cash inflow. It would be necessary to take into account the rupee inflows and outflows on account of forex operations including the readily available forex resources ( FCNR (B) funds, etc) which can be deployed for augmenting rupee resources.

While determining the likely cash inflows / outflows, banks have to make a number of assumptions according to their asset - liability profiles. For instance, Indian banks with large branch network can (on the stability of their deposit base as most deposits are Renewed) afford to have larger tolerance levels in mismatches if their term deposit base is quite high. While determining the tolerance levels the banks may take into account all relevant factors based on their asset-liability base, nature of business, future strategy etc. The RBI is interested in ensuring that the tolerance levels are determined keeping all necessary factors in view and further refined with experience gained in Liquidity Management.

In order to enable the banks to monitor their short-term liquidity on a dynamic basis over a time horizon spanning from 1-90 days, banks may estimate their short-term liquidity profiles on the basis of business projections and other commitments. An indicative format ( Annexure III ) for estimating Short-term Dynamic Liquidity is enclosed.

## **Currency Risk**

Floating exchange rate arrangement has brought in its wake pronounced volatility adding a new dimension to the risk profile of banks' balance sheets. The increased capital flows across free economies following deregulation have contributed to increase in the volume of transactions. Large cross border flows together with the volatility has rendered the banks' balance sheets vulnerable to exchange rate movements.

Dealing in different currencies brings opportunities as also risks. If the liabilities in one currency exceed the level of assets in the same currency, then the currency mismatch can add value or erode value depending upon the currency movements. The simplest way to avoid currency risk is to ensure that mismatches, if any, are reduced to zero or near zero. Banks undertake operations in foreign exchange like accepting deposits, making

loans and advances and quoting prices for foreign exchange transactions. Irrespective of the strategies adopted, it may not be possible to eliminate currency mismatches altogether. Besides, some of the institutions may take proprietary trading positions as a conscious business strategy.

Managing Currency Risk is one more dimension of Asset- Liability Management. Mismatched currency position besides exposing the balance sheet to movements in exchange rate also exposes it to country risk and settlement risk. Ever since the RBI (Exchange Control Department) introduced the concept of end of the day near square position in 1978, banks have been setting up overnight limits and selectively undertaking active day time trading. Following the introduction of "Guidelines for Internal Control over Foreign Exchange Business" in 1981, maturity mismatches (gaps) are also subject to control.

Following the recommendations of Expert Group on Foreign Exchange Markets in India (Sodhani Committee) the calculation of exchange position has been redefined and banks have been given the discretion to set up overnight limits linked to maintenance of additional Tier I capital to the extent of 5 per cent of open position limit.

Presently, the banks are also free to set gap limits with RBI's approval but are required to adopt Value at Risk (VAR) approach to measure the risk associated with forward exposures. Thus the open position limits together with the gap limits form the risk management approach to forex operations. For monitoring such risks banks should follow the instructions contained in Circular A.D (M. A. Series) No.52 dated December 27, 1997 issued by the Exchange Control Department.

### **Interest Rate Risk (IRR)**

The phased deregulation of interest rates and the operational flexibility given to banks in pricing most of the assets and liabilities have exposed the banking system to Interest Rate Risk. Interest rate risk is the risk where changes in market interest rates might adversely affect a bank's financial condition. Changes in interest rates affect both the current earnings (earnings perspective) as also the net worth of the bank (economic value perspective). The risk from the earnings' perspective can be measured as changes in the Net Interest Income (Nil) or Net Interest Margin (NIM). In the context of poor MIS, slow pace of computerization in banks and the absence of total deregulation, the traditional Gap analysis is considered as a suitable method to measure the Interest Rate Risk.

It is the intention of RBI to move over to modern techniques of Interest Rate Risk measurement like Duration Gap Analysis, Simulation and Value at Risk at a later date when banks acquire sufficient expertise and sophistication in MIS. The Gap or Mismatch risk can be measured by calculating Gaps over different time intervals as at a given date. Gap analysis measures mismatches between rate sensitive liabilities and rate sensitive assets (including off-balance sheet positions). An asset or liability is normally classified as rate sensitive if:

- i) Within the time interval under consideration, there is a cash flow;
- ii) The interest rate resets/reprises contractually during the interval;
- iii) RBI changes the interest rates (i.e. interest rates on Savings Bank Deposits, advances up to Rs.2 lakhs, DRI advances, Export credit, Refinance, CRR balance, etc.) in cases where interest rates are administered ; and
- iv) it is contractually pre-payable or withdrawable before the stated maturities.

The Gap Report should be generated by grouping rate sensitive liabilities, assets and off balance sheet positions into time buckets according to residual maturity or next reprising period, whichever is earlier. The difficult task in Gap analysis is determining rate sensitivity. All investments, advances, deposits, borrowings, purchased funds etc. that mature/reprise within a specified timeframe are interest rate sensitive.

Similarly, any principal repayment of loan is also rate sensitive if the bank expects to receive it within the time horizon. This includes final principal payment and interim installments. Certain assets and liabilities receive/pay rates that vary with a reference rate. These assets and liabilities are reprised at pre-determined intervals and are rate sensitive at the time of reprising. While the interest rates on term deposits are fixed during their currency, the advances portfolio of the banking system is basically floating. The interest rates on advances could be reprised any number of occasions, corresponding to the changes in PLR. The Gaps may be identified in the following time buckets:

- i) Up to 1 month
- ii) Over one month and up to 3 months
- iii) Over 3 months and up to 6 months
- iv) Over 6 months and up to 12 months
- v) Over 1 year and up to 3 years
- vi) Over 3 years and up to 5 years
- vii) Over 5 years
- viii) Non-sensitive

The various items of rate sensitive assets and liabilities in the Balance Sheet may be classified as explained in Appendix - II and the Reporting Format for interest rate sensitive assets and liabilities is given in Annexure II.

The Gap is the difference between Rate Sensitive Assets (RSA) and Rate Sensitive Liabilities (RSL) for each time bucket. The positive Gap indicates that it has more RSAs than RSLs whereas the negative Gap indicates that it has more RSLs. The Gap reports indicate whether the institution is in a position to benefit from rising interest rates by having a positive Gap ( $RSA > RSL$ ) or whether it is in a position to benefit from declining interest rates by a negative Gap ( $RSL > RSA$ ). The Gap can, therefore, be used as a measure of interest rate sensitivity.

Each bank should set prudential limits on individual Gaps with the approval of the Board/Management Committee. The prudential limits should have a bearing on the total assets, earning assets or equity. The banks may work out earnings at risk, based on their views on interest rate movements and fix a prudent level with the approval of the Board/Management Committee. RBI will also introduce capital adequacy for market risks in due course.

The classification of various components of assets and liabilities into different time buckets for preparation of Gap reports (Liquidity and Interest Rate Sensitivity) as indicated in Appendices I & II is the benchmark. Banks which are better equipped to reasonably estimate the behavioral pattern, embedded options, rolls-in and rolls-out, etc of various components of assets and liabilities on the basis of past data / empirical studies could classify them in the appropriate time buckets, subject to approval from the ALCO / Board. A copy of the note approved by the ALCO /Board may be sent to the Department of Banking Supervision.

## **State Bank of India**

The State Bank of India, the country's oldest Bank and a premier in terms of balance sheet size, number of branches, market capitalization and profits is today going through a momentous phase of Change and Transformation - the two hundred year old Public sector behemoth is today stirring out of its Public Sector legacy and moving with an ability to give the Private and Foreign Banks a run for their money.

The bank is entering into many new businesses with strategic tie ups - Pension Funds, General Insurance, Custodial Services, Private Equity, Mobile Banking, Point of Sale Merchant Acquisition, Advisory Services, structured products etc - each one of these initiatives having a huge potential for growth. The Bank is forging ahead with cutting edge technology and innovative new banking models, to expand its Rural Banking base, looking at the vast untapped potential in the hinterland and proposes to cover 100,000 villages in the next two years.

It is also focusing at the top end of the market, on whole sale banking capabilities to provide India's growing mid / large Corporate with a complete array of products and services. It is consolidating its global treasury operations and entering into structured products and derivative instruments. Today, the Bank is the largest provider of infrastructure debt and the largest arranger of external commercial borrowings in the country. It is the only Indian bank to feature in the Fortune 500 list.

## **The Bank's Operations and Performance**

### **Business Turnover**

The gross business turnover of the Bank crossed the major milestone of Rs. One lakh crore in December 2010. The total business of the Bank stood at Rs.104,202 crore on 31st March 2011, registering a growth of 16.63% from the level of Rs.89,345 crore as on 31st March 2010. 2.2 Working Results and Operating Profit Operating profit (after staff provisions) of the Bank for 2010-11 went up by 21% to Rs.1,175.97 crore from Rs. 972.27 crore for the previous year. Net Profit for the year stood at Rs.727.73 crore as compared to Rs.684.27 crore in 2009-10. The Earnings per share (of Rs.10 face value) stood at Rs. 145.55 compared to Rs.136.85 at the end of the previous year. The Net Interest Income increased by 21% from Rs.1,400 crore in FY 09-10 to Rs. 1696 crore in FY 10-11. Net Interest Margin stood at 2.87%.

### **Dividend**

The Bank declared a higher dividend of Rs. 18 per share (180%) for the year to the shareholders, entailing a total payout of Rs. 90 crore. Of this, an interim Dividend of Rs. 8 per share (80%) was paid out in October 2010. The Pay-out ratio works out to 12.41% of the distributable profit (excluding dividend tax).

**Capital Augmentation & Capital Adequacy** The Bank's capital funds improved from Rs.4397 crore as at the end of March 2010 to Rs.4881 crore as at the end of March 2011. The capital adequacy Ratio under Basel II stood at 12.54% in March 11 as compared to 13.74% in March 10 against a minimum of 9% stipulated by RBI. The Tier-I CRAR on this date is 9% as against 9.24% as at the end of the previous year. The Bank's Board of Directors had approved a Rights Issue of shares to the shareholders for an amount of Rs. 500 crore. The approvals from the RBI and State Bank of India for the issue have been received. The capital augmentation will serve to improve the Capital adequacy ratio of the Bank in 2011-12.

## **Deposits**

Aggregate Deposits of the Bank registered a growth of 15.49%, reaching the level of Rs.57,599 crore as on 31<sup>st</sup> March 2011 as against Rs. 49,874 crore as on 31st March 2010. Personal Deposits, which contribute the bulk of the resources, grew by Rs.3,618 crore to reach Rs. 36,096 crore. NRI Deposits recorded improved performance State Bank of Travancore Annual Report 2010-2011 -7- compared to the previous year, grew by Rs. 725 crore and stood at Rs.11,562 crore. NRI Deposits constituted 20.07% of the Aggregate Deposits of the Bank as on 31st March 2011. Total Deposits of the Bank [including Inter Bank Deposits] moved up to Rs. 58,158 crore as on 31st March 2011 from Rs. 50,883 crore as on 31<sup>st</sup> March 2010.

## **Advances**

Advances of the Bank registered a growth of 19.72% during the year and reached a level of Rs. 46,044 crore as on 31st March 2011 as against Rs. 38,461 crore as on 31st March 2010. The main contributions came from the C&I segment [growth of Rs.4,637 crore] and Agriculture segment [growth of Rs.2,280 crore]. The Bank's Retail lending stood at Rs.23,055 crore and constituted 50% of Total Advances as at the end of March 2011. The Credit Deposit Ratio of the Bank stood at 79.17% as on 31<sup>st</sup> March 2011 as against 75.59% as on 31st March 2010.

## **Market Share**

Bank's All India market share in Deposits has improved from 1.09% on 31st March 2010 to 1.10% on 26th March 2011. The market share in Advances has been static at 1.16% in the same period. However, the market share would be 1.17% if the Rs.1,000 crore of Inter Bank Participation Certificate (IBPC) issued by the Bank during the year is included. The Bank continued to maintain its position as the premier bank in Kerala with a market share in business of 22.13% as at September 2010 [the latest date up to which data has been released by RBI] with 14% of the total branch network in the state.

## **Priority Sector lendings**

The Bank continued to give special emphasis on lending to the Priority Sector in conformity with the national policies, expectations and fulfilment of social objectives. Bank's gross Advances to the Priority Sector increased from Rs. 14,260 crore as at the end of March 2010 to Rs.17,353 crore as at the end of March 2011, and constituted 44.07% of the Adjusted Net Bank Credit against the benchmark of 40%.

## **Agricultural and Rural Finance & Self Help Groups**

Agriculture segment was the standout performer during the year under review. Bank has disbursed an amount of Rs. 5,716 crore under Agriculture segment as at the end of March 2011 against the Special Agricultural Credit Plan target of Rs.4,000 crore. The level of lending to agriculture sector stood at Rs. 5,580 crore as on 31st March 2011. Agri segment showed a positive growth of Rs. 2,280 crore as at the end of financial year 2010-11 compared to a growth of Rs.449 crore during the same period last year. The share of Agriculture Advances to Adjusted Net Bank Credit [ANBC] improved sharply to 14.17% from 10.33% at the end of the previous year. During the current fiscal 16,677 Kisan Credit Cards (Working capital facility to farmers) and 4,519 Kisan Gold Cards (Investment credit to farmers) were issued with an outlay of funds of Rs. 146 crore and Rs. 182 crore respectively. During the current year, the level of Kissan Credit Card loans increased by 29% and 79% in number and amount respectively against the RBI stipulation of 20%. The growth in Agriculture lending was driven by an intensive agriculture lending campaign called "SBT- Haritotsavam- 2010" during the period June to September 2010. Against a lending target of Rs.1,000 crore, the amount disbursed during the period was Rs.1,424.25 crore, benefiting 2,04,082 farmers. Bank continued to be active in assisting Self Help Groups and financing them through MFIs and NGOs. 84,787 groups were assisted so far with a financial outlay of Rs.656 crore. Bank has entered into an MOU with Kudumbasree (State mission for poverty alleviation) for giving loans to SHGs at low rate of interest. The notable feature of the programme is community farming by women neighbourhood groups with bank assistance. 600 women who are active in Self Help Groups were honoured with SBT Kudumbasree Award. Farmers meetings were conducted at various centres to give wide publicity for schemes available to farmers. A special brochure on agricultural schemes in local languages was printed and supplied to the branches for the benefit of farmers. The Bank stands in the first position in terms of number of Farmers Clubs among Commercial banks in Kerala. The farmers Clubs sponsored by Pattanakkad and Bharananganam branches were awarded merit certificates by NABARD for their farmer friendly performance.

## **Lending to Micro, Small and Medium Enterprises (MSMEs)**

The Bank continued to extend support to Micro, Small and Medium Enterprises, in conformity with national objectives. The total lending to MSME sector recorded a growth of 14.49% over previous year to touch Rs. 8,487 crore. The lending to Micro & Small Enterprises [MSEs] stood at Rs. 5,061

crore which is 18.69% higher over the previous year level. The Small Scale Industries and Small -8- State Bank of Travancore Annual Report 2010-2011 Business segment recorded a growth of Rs.214 crore during the year, reaching a level of Rs.3906 crore as on 31st March 2011. The growth in this sector was fuelled by an intensive MSME lending campaign conducted from 01st October 2010 to 31st January 2011. Against a target of Rs. 500 crore under MSME segment [including Rs.150 crore under micro segment, Rs. 150 crore under small segment and Rs. 200 crore under medium segment], the total lending during the campaign period was Rs.628 crore. 1% reduction in interest and waiver of processing charges were offered during the campaign period. Road Transport Operators (RTO) segment has recorded steady progress after liberalization of collateral security norms and interest rate concession. The lending to the sector grew by 43.98% to reach Rs. 514 crore as at March 31, 2011. Tie up arrangements with various manufacturers / dealers of commercial vehicles served to increase the presence in the market. The Bank is a Member Lending Institution under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for providing collateral free loans. Awareness programmes / workshops / seminars were conducted in all Regional Offices of the Bank / Training sessions and other important centres for operating staff about the scheme. Meetings of entrepreneurs were also conducted to educate them about the scheme. 10,350 loans amounting to Rs. 316 crore have been extended under the scheme so far. The Bank's Technical Consultancy Cell carried out three project appraisals, four rehabilitation studies and two general studies during the year. The cell also involved in the three Entrepreneurship Development Programmes (EDPs) conducted by the Bank during the year.

### **Commercial & Institutional Finance**

The Bank performed well under the segment by tapping the potential in market and C&I advance of the Bank reached Rs. 23,835 Crore as on 31st March 2011. This segment contributes more than 50 % of Bank's total advances, which comprises financing Trade and Services, Industry, Infrastructure, financing Corporate customers and other institutions. The 4 Industrial Finance Branches at New Delhi, Bangalore, Chennai and Ernakulam were redesignated as Commercial Branches, to sharpen their focus and broad base their portfolio. The 5 Commercial Network branches (including the Corporate Finance Branch at Mumbai) contribute 40% of the Credit growth. These branches' share of the Credit of the Bank has moved up from 22% to 25% during the year. Their share of the Nonfund based income of the Bank improved from 19% to 23% in the same period. Account Planning

Initiative was rolled out at these branches during the year to improve the share of income of the Bank from major accounts.

### **Personal Finance**

The Bank continued to be active in extending finance to Personal Segment, mainly by way of Housing Loans, CarLoans and Educational Loans. The Personal segment Advances went up to Rs. 13,345 crore as at March 2011 from Rs. 12,696 crore as at the end of the previous year, recording a growth of 5.11%. As many as 20,646 Housing Loans aggregating Rs. 2,363 crore were extended during the period under review, taking the outstanding Housing Loan level to Rs. 6,714 crore as at 31 Mar 2011, an improvement of 20.34% over March 2010 level of Rs. 6144 crore. Similarly 17,215 Car Loans aggregating Rs. 590 crore were extended during the same period, taking the outstanding Car Loan level to Rs. 1,420 crore as at 31 Mar 2011, which is higher by Rs. 96 crore over March 2010 level of Rs. 1,324 crore. As in the previous years, the Bank continued to support the growing generation to prosecute higher studies by extending Educational Loans under Gyan Jyothi Schemes. The Bank has granted the maximum number of education loans in the State of Kerala. During the year under report, Bank sanctioned 19,782 Educational loans amounting to Rs. 565 crore. The total amount outstanding under this head stood at Rs. 1,713 crore. The Bank also extended the subsidy assistance provided by the Government for Housing Loans and Educational Loans. These included the 1% interest Subvention for Home Loan borrowers up to a limit of Rs.10 lac where the estimate/cost of construction should not exceed Rs.20 lac, (applicable to the loans disbursed from 01st October 2009 to 31st March 2011), Interest Subsidy for Housing Urban Poor (ISHUP) Scheme to provide home loans with interest subsidy to Economically Weaker Sections (EWS) / Low Income Groups (LIG) for acquisition/construction of house and Central Scheme to provide Interest Subsidy on Education Loan borrowers. Maximum permissible loan amount under ISHUP is Rs.1 lac for EWS and Rs.1.60 lac for LIG category of borrowers (maximum amount eligible for subsidy is Rs.1 lac). The subsidy scheme for education loans is available to students belonging to Economically Weaker Sections whose State Bank of Travancore Annual Report 2010-2011 -9- parental annual income does not exceed Rs.4.5 lac. Interest Subsidy will be provided by the Government during the moratorium period for the disbursements made on or after 01st April 2009.

### **Policies and Guidelines**

A comprehensive Policy for lending to Micro Finance Institutions (MFIs)/Non Governmental Organizations(NGOs) has been formulated for regulating and standardizing the Advances to the sector. The policy gives detailed guidelines to enable the Bank to increase the outreach by financing large number of SHGs/JLGs in a cost effective manner and supplement the efforts of the branches in financing SHGs/JLGs and enabling financial inclusion. The policy will also act as a precaution to pursue caution while funding micro finance institution (MFIs/NGOs) by adhering to the norms for funding. Interest rate and charges on Bill Discounting under Inland Letter of Credit Scheme have been revised in line with the market condition to make the products the best in the market and to maintain the profitability. The Policy on valuation of properties and empanelment of values has been revised comprehensively in order to improve smooth and quick delivery of credit and also to ensure speedy recovery of NPAs.

### **Introduction of Base Rate**

The Bank has introduced Base Rate System effective on July 1, 2010, in conformity with RBI guidelines. Base rate was set at 7.75% on date, which has since been increased three times in tune with the market conditions. The Base rate of the Bank stands at 9% as at 31st March 2011.

### **Internal Control Systems & Supervision (SBI)**

#### **Integrated Risk Management**

The Bank's risk management philosophy is based on a clear and timely identification of various types of risks, accurate risk assessment and measurement procedures and continuous monitoring. The risk management architecture of the Bank consists of the Board of Directors at the top having overall responsibility to implement Risk Management System in the Bank. Subordinate to the Board, Risk Management Committee of the Board has been constituted to have an oversight on all the risks assumed by the Bank and to decide appropriate policy and strategy for risk management.

In order to have focused attention on various risks, Credit Risk Management Committee (CRMC), Market Risk Management Committee (MRMC) and Operational Risk Management Committee (ORMC) are in place to manage Credit Risk, Market Risk and Operational Risk respectively at the granular level. The General Manager (P&D) is designated as the Chief Risk Officer (CRO). The Integrated Risk Management Department headed by Deputy General Manager is responsible for the overall daily management of risks at

micro level. Management of all the risks is governed by various policies such as Credit Risk Management Policy, Loan Policy, Market Risk Management Policy, Investment Policy, Operational Risk Management Policy, etc.

As part of credit risk management, the Bank has a structured and standardized credit approval process, which includes comprehensive credit rating of proposals. The market risk is largely managed through adherence to various position limits, stop loss limits, Value at Risk [VaR] limits etc. The operational risk management framework comprises risk and controls selfassessment (RCSA) and identification, measurement and monitoring of various losses experienced by the Bank and mitigation of risks. The risk management objectives will be accomplished by leveraging technology. The Bank is closely monitoring the roadmap for migration to advanced approaches of Basel-II with respect to all risks by striving to create sufficient and accurate database and ensuring involvement and awareness among all the staff members of the Bank.

**During the financial year 2010-11, the following major risk management initiatives were taken:**

- New Credit Rating models were introduced for NBFCs (Non Banking Financial Companies) and infrastructure projects.
- Retail Pool Scoring Models were introduced for personal loans, housing loans, education loans, car loans and two wheeler loans.
- Credit Rating models for trading and manufacturing sector were modified.
- The Bank started computing Value at Risk for all investments in trading book as part of risk management.
- As part of spreading awareness and risk management culture all over the Bank, during the quarter October- December 2010, officials from risk management department conducted daylong workshops for the Controllers and the AGMs and Chief Managers heading branches in Thiruvananthapuram, Ernakulum and Kottayam zones and all Branch Managers and Controllers in Mumbai and Delhi regions.

**Asset Liability Management**

The Asset Liability Management System implemented effective from 1st April 1999 is functioning as per the guidelines prescribed by Reserve Bank of India. The Asset Liability Management Committee (ALCO), headed by Managing Director, meets regularly. Liquidity and Interest Rate Risks are identified, measured and monitored by ALM Section through Duration Gap

Analysis, Stress Testing on Liquidity and Interest Rate Risks etc. and put up to ALCO for discussion and decision making. ALCO also discusses in detail other statements of Structural Liquidity & Interest Rate Sensitivity, Short Term Dynamic Liquidity, Quarterly Review of Contingency Funding Plan, etc. The ALM Section prepares the statements of Structural Liquidity & Interest Rate Sensitivity and Short Term Dynamic Liquidity which helps to monitor the liquidity levels vis-à-vis the benchmark levels fixed by RBI / as per Bank's ALM Policy and proposes corrective action wherever found necessary. Various interest rate revisions including the revisions of the Benchmark Prime Lending Rate (BPLR) and Base Rate (BR) of the Bank are discussed and decided by the ALCO. The ALCO also discusses the current financial position of the country on an ongoing basis. The changes in the market are monitored continuously and decision support papers on the current economic developments are up to the Top Management.

### **Inspection and Supervision**

The Bank has put in place an effective institutional mechanism for Risk Based Supervision through RBS Cell in Inspection Department. As envisaged by the regulator, the Bank introduced Risk Focused Internal Audit (RFIA) under RBS w.e.f 1st April 2003, where business parameters have been de-linked from the Risk Parameters. With effect from 1st April 2010, score for Business Parameters has been taken out of RFIA. In addition to the regular internal inspection, IS Audit, Compliance Audit, Surprise Inspection, System Audit of Zonal Offices and Head Office departments, etc. are conducted by the Inspection Department. Following the migration to the Core Banking System, RFIA was revamped by way of revision in Audit Report Formats, rating mechanism, grouping of branches, sampling norms and periodicity of Inspection. The Information System Audit (IS Audit) cell was formed within the Inspection Department.

### **Credit Audit**

The audit of high value credit accounts is undertaken by the Credit Audit Department, with the aim of improving the asset quality of the Bank. Accounts with total exposure of Rs. 2 crore and above are covered under Credit Audit. The Department conducted audit of 1,077 accounts during the year, covering the pre-sanction and post sanction aspects. This includes 14 AUC accounts and 73 accounts with exposure below Rs. 2 crore and above Rs.1 crore on a random basis during the year. With the integration of Credit

Audit with Risk Focused Internal Audit (RFIA), the marks awarded by the credit auditor are normalized by the internal auditors under Credit Risk Management, wherever necessary. Monthly performance reports of the department are regularly submitted to the Audit Committee of the Executives and the review reports are being submitted to the Audit Committee of the Board at its next meeting for information.

### **Inter-Office Reconciliation**

As per RBI guidelines, all high value debit entries of value Rs.1 lac and above and 99.99% of debit amount need to be reconciled within a period of six months from the date of their origin. The Bank has completed reconciliation of Inter-branch accounts up to 30th September 2010 achieving 100% reconciliation of debit entries. The Bank is committed to perform better than the target set by RBI and shall aim at reconciling all entries within three months of their origin.

### **Compliance**

The Bank ensures that GOI and RBI directives/instructions received are being complied with promptly. Quarterly review reports on the compliance status and performance of the department are regularly submitted to the Audit Committee of the Board for information.

### **KYC norms & AML/CFT measures**

The Bank has put in place a Board approved revised policy and procedural guidelines on Know Your Customer (KYC)/ Anti Money Laundering (AML) /Combating of Financial Terrorism (CFT) measures in line with the master policy and subsequent guidelines issued by Reserve Bank of India. A dedicated KYC-AML Cell is functioning in the Head Office to oversee the compliance of KYC/AML/CFT measures. Deputy General Manager (Compliance) is the designated Principal Officer for KYC/AML in the Bank.

Monitoring of transactions is carried out to submit the required reports to Financial Intelligence Unit-India, (FIUIND), as mandated by Prevention of Money Laundering Act 2002. With a view to implementing and supporting monitoring of transactions, the Bank has acquired appropriate software, which is processing all transactions handled by all branches of the Bank, on a

day-to-day basis. Monthly Cash Transaction Reports (CTRs) are being generated by the system along with Suspicious Transaction alerts daily, for analysis by the KYC-AML Cell.

After due analysis, suspicious transactions are reported to FIU-IND through STRs where ever necessary. Counterfeit Currency Reports (CCRs) are also being submitted to FIU-IND as and when detected. Data cleansing of the existing database of customers is now under progress to update in the Core Banking System [CBS] all relevant customer data. The progress in the implementation is being reported to the Board periodically. KYC/AML Cell is publishing a quarterly newsletter and maintaining a web site to provide relevant and up to date information for Branches / Administrative Offices. Training on KYC / AML is being imparted on an ongoing basis in the Bank. Staff awareness programmes are conducted regularly through seminars on Zonal/ Regional Office levels, Learning Centers and branch visits.

## **RISK MANAGEMENT & INTERNAL CONTROLS Risk Management (SBI)**

### **Risk Management Structure**

- An independent Risk Governance Structure is in place for Integrated Risk Management covering Credit, Market, Operational and Group Risks. This framework visualizes empowerment of Business Units at the operating level, with technology being the key driver, enabling identification and management of risk at the place of origination.

- The Risk Management Committee of the Board (RMCB) has the overall responsibility to monitor and manage Enterprise Wide Risk. The Credit Risk Management Committee (CRMC), Market Risk Management Committee (MRMC), Operational Risk Management Committee (ORMC), Group Risk Management Committee (GRMC) and Asset Liability Management Committee (ALCO) support RMCB.

- MD & Group Executive (Associates & Subsidiaries) and MD & Group Executive (International Banking) are the members of RMCB, while MD & Group Executive (National Banking) and MD & Chief Financial Officer are invited to attend all the meetings of the Committee. The Deputy Managing Director & Chief Credit and Risk Officer head CRMC, MRMC, ORM and GRMC. ALCO is headed by the Managing Director & Chief Financial Officer.

- Risk Management is perceived as an enabler for business growth and in strategic business planning, by aligning business strategy to the underlying risks. This is achieved by constantly re-assessing the inter-dependencies / interfaces amongst each silo of Risk and business functions.

- Bank is in the process of implementing Enterprise Risk Management (ERM) that will integrate all the Risk Management functions of the Bank, explore inter-dependencies amongst various risk types and act as a support system to strategic decision-making process.

## **Basel II Implementation**

- In accordance with RBI guidelines, the Bank has migrated to the Basel II framework, with the Standardized Approach for Credit Risk and Basis Indicator approach for Operational Risk w.e.f. March 31, 2008, having already implemented the Standardized Duration Method for Market Risk w.e.f. March 31, 2006.

- Simultaneously, the Bank is updating and fine-tuning its Systems and Procedures, Information Technology (IT) capabilities, Risk Assessment and Risk Governance structure to meet the requirements of the Advanced Approaches under Basel II.

- Various initiatives such as new Credit Risk Assessment Models, independent validation of Internal Ratings, loss data collection and computation of market risk Value at Risk (VaR) and improvement in Loan Data Quality would facilitate efficient use of Capital as well as smooth transition to Advanced Approaches.

- Risk Awareness exercises are being conducted across the Bank to enhance the degree of awareness at the Operating levels, in alignment with better

risk management practices, Basel II requirements and over-arching aim of conservation and optimum use of capital.

- Keeping in view the changes that the Banks portfolios may undergo in stressed situations, the Bank has in place a policy, which provides a framework for conducting the Stress Tests at periodic intervals an initiating remedial measures wherever warranted. The scope of the test is constantly reviewed to include more stringent and new scenarios.

### **Credit Risk Management**

- Credit Risk Management process encompasses identification, assessment, measurement, monitoring and control of the Credit Exposures. Well-defined basic risk measures such as CRA (Credit Risk Assessment) models, Industry Exposure norms, Counter-party Exposure limits, Substantial Exposure limits, etc., have been put in place.

- Credit Risk components such as Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) are being computed.

- Frequency of Stress Tests in respect of Credit Risk has been increased from Annual to Half-yearly, to identify Credit Risk at an early stage and to initiate appropriate measures to contain/ mitigate Credit Risk.

### **Market Risk Management**

- Market Risk Management is governed by the Board approved policies for investment, Private Equity & Venture Capital, trading in Bonds, Equities, Foreign Exchange and Derivatives.

- Exposure, Stop Loss, Modified Duration, PV01 and Value at Risk (VaR) limits have been prescribed. These limits, along with other Management Action Triggers, are tracked daily and necessary action initiated, as required, to keep Market Risk within approved limits.

### **Operational Risk Management**

- The Bank manages operational risks by having in place and maintaining a comprehensive system of internal controls and policies.

- The main objectives of the Banks Operational Risk Management are to continuously review systems and control mechanisms, create awareness of operational risk throughout the Bank, assign risk ownership, alignment of risk management activities with business strategy and ensuring compliance with regulatory requirements.

- The Operational Risk Management policy of the Bank establishes consistent framework for systematic and pro-active identification assessment, measurement, monitoring and mitigation of operational risk. The Policy applies to all business and functional areas within the Bank, and is supplemented by operational systems, procedures and guidelines which are periodically updated.

### **Group Risk Management**

- The State Bank Group is recognized as a major Financial Conglomerate and as a systemically important financial intermediary, with significant presence in various financial markets.

- Accordingly, it is imperative, both from the regulatory point of view as well as from the Groups own internal control and risk management point of view, to oversee the functioning of individual entities in the Group and periodically assess the overall level of risk in the Group. This facilitates optimal utilization of capital resources and adoption of a uniform set of risk practices across the Group Entities.

- The Group Risk Management Policy applies to all Associate Banks Banking and Non-banking Subsidiaries and Joint Ventures of the State Bank Group under the jurisdiction of specified regulators and complying with the relevant Accounting Standards, where the SBI has investment in equity shares of 30% and more with control over management.

- With a view to enabling the Group Entities to assess their material risks and adequacy of the risk management processes and capital, all Group members, including Non-banking Subsidiaries are encouraged to align their policies and practices with the Group, follow Basel prescriptions and international best practices.

## **Asset Liability Management**

- The Asset Liability Management Committee (ALCO) of the Bank is entrusted with the evolution of appropriate systems and procedures in order to identify and analyse balance sheet risks and setting of benchmark parameters for efficient management of these risks.
- ALM Department, being the support group to ALCO, monitors the Banks market risk such as liquidity risk, interest rate risk etc., by analysing various ALM reports / returns. The ALM department reviews the ALM Policy and complies with the Banks / RBIs policy guidelines on an ongoing basis.
- The Market Related Fund Transfer Pricing Mechanism has been implemented for evaluating the business performance of the branches of the Bank.

## **Internal Controls**

The Bank has in-built internal control systems with well-defined responsibilities at each level. The Bank carries out mainly two streams of audits - Inspection & Audit and Management Audit covering different facets of Internal Audit requirement. Apart from these, Credit Audit is conducted for units with large credit limits and Concurrent Audit is carried out at branches having large deposits, advances and other risk exposures and selected BPR Outfits. Expenditure Audit, involving scrutiny of accounts and correctness of expenditure incurred, is conducted at Corporate Centre Establishments, Local Head Offices, Zonal Offices, On Locale Regional Offices, Regional Business Offices, Lead Bank Offices, etc. To verify the level of rectification of irregularities by branches, audit of compliance at select branches is also undertaken. The Information System Audit (IS Audit) of the centralised IT establishments is being conducted.

## **Risk Focussed Internal Audit (RFIA)**

The inspection system plays an important and critical role of introducing international best practices in the internal audit function which is regarded as a critical component of Corporate Governance. Inspection & Management Audit Department undertakes a critical review of the entire working of audit units. Risk Focused Internal Audit, an adjunct to risk based supervision as per RBI directives, is in vogue in the Banks audit system.

## **Inspection & Audit of branches**

All domestic branches have been segregated into 3 groups on the basis of business profile and risk exposures. While audit of Group I branches and credit oriented BPR entities (excepting SARC) is administered by Central Audit Unit (CAU) at Inspection & Management Audit Department headed by a General Manager (CAU), audit of branches in Group II Group III category and other BPR entities are conducted by ten Zonal Inspection Offices, located at various Centres, each of which is headed by a General Manager (I&A). The audit of branches and BPR entities is conducted as per the periodicity approved by Audit Committee of the Board (ACB) which is well within RBI norms. During the period from

01.04.2010 to 31.03.2011, 7,871 domestic branches (Group I: 86 Group II: 1,421; & Group III: 6,364) were audited.

## **Cluster Audit**

A number of Centres have been brought under the gamut of BPR and several branches are linked with BPR entities. To be able to identify and mitigate the risk at such branches, where the process is still underway, the department has introduced an initiative called 'Cluster Audit wherein a simultaneous audit of BPR entities and identified branches linked to the BPR in a particular centre is taken up. During the period from 01.04.2010 to 31.03.2011, Cluster Audit was conducted in 46 Centres covering 1,188 Branches & 125 BPR entities. This brought to light the audit health of the centre.

## **Management Audit**

With the introduction of Risk Focused Internal Audit, Management Audit has been reoriented to focus on the effectiveness of risk management in the processes and the procedures followed in the Bank. Management Audit universe comprises of Corporate Centre Establishments; Circles / Ape Training Institutions, Associate Banks; Subsidiaries (Domestic / Foreign); Joint Ventures (Domestic / Foreign), Regional Rural Banks sponsored by the Bank (RRBs). During the period from 01.04.2010 to 31.03.2011, Management Audit of 45 domestic offices/establishments was carried out.

### **Credit Audit**

Credit Audit aims at achieving continuous improvement in the quality of Commercial Credit portfolio of the Bank through critically examining individual large commercial loans with exposures of Rs. 5 crores and above. Credit Audit System (CAS), which has been aligned with Risk Focused Internal Audit, assesses whether the Banks laid down policies in the area of credit appraisal, sanction of loans and credit administration are meticulously complied with. CAS also provides feedback to the business unit by way of warning signals about the equality of advance portfolio in the unit and suggests remedial measures. It also comments on the risk rating awarded and whether it is in order. Credit Audit carries out a review of all individual advances above the cut off limit within 6 months of sanction/enhancement/renewal as off-site audit and a post sanction audit once in 12 months

as on-site. During the period 01.04.2010 to 31.03.2011, Credit Audit (on-site) was conducted in 456 Branches, covering 5,733 accounts with aggregate exposures of Rs. 5,72,958 crores. Credit Audit (Off-site) was conducted in 14 Circles (including MCROs/CAG functioning in the geographical area of the respective Circles) during the same period, covering 6,875 proposals (domestic) with aggregate exposure of Rs.8,43,864 crores.

### **Foreign Offices Audit:**

Home Office Audit was carried out at 40 Branches / offices during 01.04.2010 to 31.03.2011, which included Inspection and Audit of 31 Branches, Management Audit of 4 Representative offices, 1 Subsidiary and 4 Regional Offices.

## **CONCURRENT AUDIT SYSTEM:**

Concurrent Audit system is essentially a control process integral to the establishment of sound internal accounting functions, effective controls and overseeing of operations. It works as a tool for the Controllers of operations for scrutiny of day-to-day operations. Concurrent Audit System is reviewed on an on-going basis as per the RBI directives so as to cover 30-40% of the Banks Deposits and 60-70% of the Banks Advances and other risk exposures. Inspection & Audit department prescribes the processes, guidelines and formats for the conduct of concurrent audit at branches and BPR entities. As on 31.03.2011, the system covers 30.15 % of deposits and 75.21 % of advances and other risk exposures of the Bank.

## **Vigilance**

The main objective of vigilance activity in the Bank is not to reduce but enhance the level of managerial efficiency and effectiveness in the organization. Risk taking is integral part of the banking business. Therefore, every loss does not necessarily become subject matter of vigilance enquiry. Motivated or reckless decisions that cause damage to the Bank are essentially dealt as vigilance ones. While vigilance aims at punishing the delinquent employees, it also protects the legitimate and bonafide business decisions taken by them and any other action devoid of malafides. The Vigilance Department in the Bank functions on these principles. Based on the principle Prevention is Better Than Cure, the Vigilance Department is actively involved in the preventive measures, which aim at taking steps, which are essential for avoiding recurrence of similar nature of frauds in the Bank. At the same time, Vigilance department is taking proactive measures to prevent the incidences of frauds arising in CBS environment. Considering the size of the Organization, we have set up vigilance departments at each of the 14 Circles, headed by Deputy General Managers. At Corporate Centre, Vigilance set up is headed by Chief Vigilance Officer of the rank of Chief General Manager. The department reports to the Chairman directly and conducts its affairs independently. The guidelines of the Central Vigilance Commission (CVC) are followed in letter and spirit in its functioning.

## **ICICI Bank**

ICICI Bank is India's second-largest bank and the largest private bank in the country, having more than US\$50 billion in assets. The Bank has a network of 2,044 branches and about 5,546 ATMs in India and presence in 18 countries. ICICI Bank provides a wide range of banking products and financial services — investment banking, life and non-life insurance, venture capital and asset management to corporate and retail customers through a variety of delivery channels and specialized subsidiaries and affiliates. Customers of all the groups under the ICICI umbrella are served through roughly 614 branches and global services provided through 14 international offices. ICICI has incubated Financial Information Network & Operations Pvt. Ltd. (FINO).

## **RISK MANAGEMENT FRAMEWORK (ICICI)**

The Bank's risk management strategy is based on a clear understanding of various risks, disciplined risk assessment and measurement procedures and continuous monitoring. The policies and procedures established for this purpose are continuously benchmarked with international best practices. The

Board of Directors has oversight on all the risks assumed by the Bank. Specific Committees have been constituted to facilitate focused oversight of various risks, as follows:

The Risk Committee of the Board reviews risk management policies of the Bank in relation to various risks. The Risk Committee reviews various risk policies pertaining to credit, market, liquidity, operational and outsourcing risks, review of the Bank's stress testing framework and group risk management framework. The Committee reviews the risk profile of the Bank through periodic review of the key risk indicators and risk profile templates and annual review of the Internal Capital Adequacy Assessment Process. The Committee also reviews the risk profile of its overseas banking subsidiaries annually. The Risk Committee reviews the Bank's compliance with risk management guidelines stipulated by the Reserve Bank

of India and of the status of implementation of the advanced approaches under the Basel framework. The Risk Committee also reviews the stress-testing framework as part of the Internal Capital Adequacy Assessment Process (ICAAP). The stress testing framework included a wide range of Bank-specific and market (systemic) scenarios. Linkage of macroeconomic factors to stress test scenarios was documented as a part of ICAAP. The ICAAP exercise covers the domestic and overseas operations of the Bank, the

banking subsidiaries and the material nonbanking subsidiaries. The Risk Committee also reviews the Liquidity Contingency Plan (LCP) for the Bank and the threshold limits.

Apart from sanctioning credit proposals, the Credit Committee of the Board reviews developments in key industrial sectors and the Bank's exposure to these sectors as well as to large borrower accounts. The Credit Committee also reviews the non-performing loans, accounts under watch, overdues and incremental sanctions.

The Audit Committee of the Board provides direction to and also monitors the quality of the internal audit function and also monitors compliance with inspection and audit reports of RBI and statutory auditors.

The Asset Liability Management Committee is responsible for managing liquidity and interest rate risk and reviewing the asset-liability position of the Bank.

A summary of reviews conducted by these committees are reported to the Board on a regular basis.

Policies approved from time to time by the Board of Directors/Committees of the Board form the governing framework for each type of risk. The business activities are undertaken within this policy framework. Independent groups and sub-groups have been constituted across the Bank to facilitate independent evaluation, monitoring and reporting of various risks. These groups function independently of the business groups/sub-groups.

The Bank has dedicated groups namely the Risk Management Group (RMG), Compliance Group, Corporate Legal Group, Internal Audit Group and the Financial Crime Prevention and Reputation Risk Management Group (FCPRRMG),

with a mandate to identify, assess and monitor all of the Bank's principal risks in accordance with well-defined policies and procedures. RMG is further organized into Credit Risk Management Group, Market Risk Management

Group and Operational Risk Management Group. These groups are completely

independent of all business operations and coordinate with representatives of the business units to implement ICICI Bank's risk management policies and methodologies. The internal audit and compliance groups are responsible

to the Audit Committee of the Board.

## **RISK MANAGEMENT (ICICI)**

Risk is an integral part of the banking business and ICICI aim at delivering superior shareholder value by achieving an appropriate trade-off between

risk and returns. The key risks are credit risk, market risk and operational risk. Our risk management strategy is based on a clear understanding of various risks, disciplined risk assessment and measurement procedures and continuous monitoring.

The key principles underlying risk management framework of ICICI are as follows:

The Board of Directors has oversight on all the risks assumed by the Bank. Specific Committees have been constituted to facilitate focused oversight of various risks. Our Risk Committee reviews our risk management policies in relation to various risks and regulatory compliance issues relating thereto. It reviews key risk indicators covering areas such as credit risk, interest rate risk, liquidity risk and foreign exchange risk and the limits framework, including stress test limits for various risks. It also carries out an assessment of the capital adequacy based on the risk profile of our balance sheet and reviews the status with respect to implementation of Basel norms. Our Credit Committee reviews developments in key industrial sectors and our exposure to these sectors and reviews major portfolios on a periodic basis. Our Audit Committee provides direction to and also monitors the quality of the internal audit function. Our Asset Liability Management Committee is responsible for managing the balance sheet within the risk parameters laid down by the Board/Risk Committee and reviewing our asset- liability position.

Policies approved from time to time by the Board of Directors/Committees of the Board form the governing framework for each type of risk. The business activities are undertaken within this policy framework. Independent groups and sub-groups have been constituted across the Bank to facilitate independent evaluation, monitoring and reporting of various risks. These groups function independently of the business groups/sub- groups.

ICICI has dedicated groups namely the Risk Management Group, Compliance Group, Corporate Legal Group, Internal Audit Group and the Financial Crime Prevention & Reputation Risk Management Group, with a mandate to identify, assess and monitor all of the Bank's principal risks in accordance with well-defined policies and procedures. These groups are completely independent of all business operations and coordinate with representatives of the business units to implement ICICI Bank's risk management methodologies. The Internal Audit Group and Compliance Group are

responsible to the Audit Committee of the Board.

## **Credit Risk**

Credit risk is the risk that a borrower is unable to meet its financial obligations to the lender. All credit risk related aspects are governed by a credit and recovery policy which outlines the type of products that can be offered, customer categories, targeted customer profile and the credit approval process and limits. The credit and recovery policy is approved by our Board of Directors.

In order to assess the credit risk associated with any corporate financing proposal, we assess a variety of risks relating to the borrower and the relevant industry. We have a structured and standardised credit approval process which includes a well established procedure of comprehensive credit appraisal and credit rating. We have developed internal credit rating methodologies for rating obligors. The rating factors in quantitative and qualitative issues and credit enhancement features specific to the transaction. The rating serves as a key input in the approval as well as post-approval credit processes. A risk based asset review framework has also been put in place wherein the frequency of asset review would be higher for cases with higher exposure and/or lower credit rating. Industry knowledge is constantly updated through field visits and interactions with clients, regulatory bodies and industry experts.

The Bank has a strong framework for the appraisal and execution of project finance transactions that involves a detailed evaluation of technical, commercial, financial, marketing and management factors and the sponsor's financial strength and experience. The Bank identifies the project risks, mitigating factors and residual risks associated with the project. As a part of the due diligence process, the Bank appoints consultants, including technical advisors, business analysts, legal counsel and insurance consultants, wherever considered necessary, to advise the lenders. Risk mitigating factors in these financings include creation of debt service reserves and channelling project revenues through a trust and retention account. The Bank's project finance loans are generally fully secured and have full recourse to the borrower. In some cases, the Bank also takes additional credit comforts such as corporate or personal guarantees from one or more sponsors of the project or a pledge of the sponsors' equity holding in the project company. The Bank's practice is to normally disburse

funds after the entire project funding is committed and all necessary contractual arrangements have been entered into.

In case of retail loans, sourcing and approval are segregated to achieve independence. The Credit Risk Management Group has oversight on the credit risk issues for retail assets including vetting of all credit policies/operating notes proposed for approval by the Board of Directors or forums authorised by the Board of Directors. The Credit Risk Management Group is also involved in portfolio monitoring for all retail assets and suggesting/implementing policy changes. The Retail Credit and Policy Group is an independent unit which focuses on policy formulation and portfolio tracking and monitoring. In addition, we also have a Business Intelligence Unit to provide support for analytics, score card development and database management. Our Credit Administration Unit services various retail business units.

Its credit officers evaluate retail credit proposals on the basis of the product policy approved by the Committee of Executive Directors and the risk assessment criteria defined by the Credit Risk Management Group. These criteria vary across product segments but typically include factors like the borrower's income, the loan-to-value ratio and demographic parameters. The technical valuations in case of residential mortgages are carried out by empanelled valuers or technical teams. External agencies such as field investigation agencies and credit processing agencies are used to facilitate a comprehensive due diligence process including visits to offices and homes in the case of loans to individual borrowers. Before disbursements are made, the credit officer checks a centralised delinquent database and reviews the borrower's profile. In making our credit decisions, we also draw upon reports from credit information bureaus. It also uses the services of certain fraud control agencies operating in India to check applications before disbursement.

In addition, the Credit and Treasury Middle Office Groups and the Operations Group monitor operational adherence to regulations, policies and internal approvals. We have centralized operations to manage operational risk in most back office processes of the Bank's retail loan business. The Fraud Prevention Group manages fraud related risks through forensic audits and recovery of fraud losses. The segregation of responsibilities and oversight by groups external to the business groups ensure adequate checks and

balances.

Its credit approval authorization framework is laid down by our Board of Directors. We have established several levels of credit approval authorities for our corporate banking activities like the Credit Committee of the Board of Directors, the Committee of Executive Directors, the Committee of Senior Management, the Committee of Executives (Credit) and the Regional Committee (Credit). Retail Credit Forums, Small Enterprise Group Forums and Corporate Agriculture Group Forums have been created for approval of retail loans and credit facilities to small enterprises and agri based enterprises respectively. Individual executives have been delegated with powers in case of policy based retail products to approve financial assistance within the exposure limits set by our Board of Directors.

### **Market Risk**

Market risk is the possibility of loss arising from changes in the value of a financial instrument as a result of changes in market variables such as interest rates, exchange rates and other asset prices. The prime source of market risk for the Bank is the interest rate risk we are exposed to as a financial intermediary. In addition to interest rate risk, we are exposed to other elements of market risk such as liquidity or funding risk, price risk on trading portfolios, exchange rate risk on foreign currency positions and credit spread risk. These risks are controlled through limits such as duration of equity, earnings at risk, value-at-risk, stop loss and liquidity gap limits. The limits are stipulated in our Investment Policy, ALM Policy and Derivatives Policy which are reviewed and approved by our Board of Directors.

The Asset Liability Management Committee, which comprises wholetime Directors and senior executives meets on a regular basis and reviews the trading positions, monitors interest rate and liquidity gap positions, formulates views on interest rates, sets benchmark lending and base rates and determines the asset liability management strategy in light of the current and expected business environment. 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 on a daily basis by the Treasury Middle Office Group and reviewed periodically.

Foreign exchange risk is monitored through the net overnight open foreign exchange limit. Interest rate risk of the overall balance sheet is measured through the use of re-pricing gap analysis and duration analysis. Interest rate gap sensitivity gap limits have been set up in addition to limits on the duration of equity and earnings at risk. Risks on trading positions are monitored and managed by setting VaR limits and stipulating daily and cumulative stop-loss limits.

The Bank uses various tools for measurement of liquidity risk including the statement of structural liquidity, dynamic liquidity gap statements, liquidity ratios and stress testing. We maintain 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. Our international branches are primarily funded by debt capital market issuances, syndicated loans, bilateral loans and bank lines, while our international subsidiaries raise deposits in their local markets.

## **Operational Risk**

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It includes legal risk but excludes strategic and reputation risks. Operational risks in the Bank are managed through a comprehensive system of internal controls, systems and procedures to monitor transactions, key back-up procedures and undertaking regular contingency planning. The control framework is designed based on categorisation of all functions into front-office, comprising business groups; mid-office, comprising credit and treasury mid-offices; back-office, comprising operations; and corporate and support functions. ICICI Bank's operational risk management governance and framework is defined in the Operational Risk Management Policy, approved by the Board of Directors. While the policy provides a broad framework, detailed standard operating procedures for operational risk management processes are established. The policy is applicable across the Bank including overseas branches and aims to ensure clear accountability, responsibility and mitigation of operational risk. We have constituted an Operational Risk Management Committee (ORMC) to oversee the operational risk

management in the Bank. The policy specifies the composition, roles and responsibilities of the ORMC. The framework comprises identification and assessment of risks and controls, new products and processes approval framework, measurement through incidents and exposure reporting, monitoring through key risk indicators and mitigation through process and control enhancement and insurance. We have formed an independent Operational Risk Management Group for design, implementation and enhancement of the operational risk framework and to support business and operation groups in the operational risk management on an on-going basis.

### **Risk management is a key focus area at ICICI Bank**

Risk management is a key focus area at ICICI Bank and viewed as a strategic tool for competitive advantage. In the Indian context ICICI Bank has been doing pioneering work in this area since 1996, when a specialized risk management group was set up within the Bank.

RCAG is a centralized group based at Mumbai with the responsibility of enterprise wide risk management. RCAG is headed by a senior executive of the rank of General Manager who reports to the Executive Director (Corporate Center). The philosophy at ICICI Bank is to have a separate risk management group (independent of the business group) whose mandate is to analyse, measure, monitor and manage risks. Risk management is done

under the overall supervision of the Board of Directors and sub committees of the Board - Risk Committee, Credit Committee and Audit Committee.

RCAG is comprised of six groups - Corporate Credit Risk, Retail Risk, Market Risk, Credit Policies & Compliance, Risk Analytics and Internal Audit.

Corporate Credit Risk Group carries out analysis of various industries and does a credit rating of each borrower/ transaction in the portfolio. The group has evolved risk analysis and rating methodologies suitable for various industries/ products, including structured finance products. These methodologies have been developed through a combination of rigorous internal analysis and extensive interaction with domestic and international rating agencies. Each analyst in the group tracks a few industries and the prospects of the companies within that industry. Every proposal has to be rated by the Credit Risk Group prior to sanction. The Bank's portfolio is fully rated internally and risk based pricing methodology for credit products has been implemented, which is a significant achievement in the emerging markets context.

The retail portfolio of the Bank comprises a wide range of products including auto loans, housing loans, construction equipment, commercial vehicles, two wheelers, credit cards etc. Retail Risk Group is responsible for approving all product policies and monitoring the performance of the retail portfolio. Approval of this group is mandatory before any product policy is referred to the management. Analysis of the portfolio is done on a regular basis across products, geographic locations etc.

Market risk group analyses the interest rate risk, liquidity risk, foreign exchange risk and commodity risk. Contemporary tools such as gap analysis, duration, convexity and Value at Risk (VaR) are used to manage market risks. This group also works on limit setting and monitoring adherence to the limits.

Credit Policies & Compliance Group is responsible for design and review of all credit policies, ensuring regulatory compliance in all activities of the Bank and coordinating the inspections of Reserve Bank of India.

Risk Analytics Group provides the quantitative analysis and modelling support for risk management. This group is working on areas such as analysis of default rates, loss rates, risk based pricing, economic capital allocation and portfolio modelling. The group consists of analysts with a

strong academic background and work experience in quantitative analysis.

Internal Audit is responsible for managing Operational risk, which is an area of significant importance in a large, growing organisation with multiple products such as ICICI Bank. With the growth of retail business and introduction of technology based products, the challenges on this group have increased. The Internal Audit Group has developed a sophisticated methodology for conducting risk based audit, is equipped to handle IS Audit and has obtained ISO 9001 certification.

ICICI bank is at the forefront of evolving and implementing risk management concepts in the Indian context. There is a constant endeavor towards further improvement and benchmarking with international best practices. The bank focuses on providing training, learning opportunities to facilitate the move towards implementation of global best practices in risk management. The analysts from RCAG undergo training provided by renowned experts within India as well as overseas. RCAG regularly deposes analysts to specialized seminars and facilitates networking with international risk management experts in rating agencies, banks etc.

The desired key attributes for analysts in RCAG are - strong conceptual knowledge, ability to identify and analyze key issues, spot trends and interlinkages between issues, take a logical, independent position under pressure and communication skills.

## **S & P Ups ICICI Rating**

Internal credit rating agency Standard and Poor's (S & P) revised its rating outlook on ICICI Ltd to 'stable' from 'negative', even as it reaffirmed the financial institution's long-term rating of 'BB' and short-term foreign currency rating of 'B'.

With the upward revision in outlook, ICICI's rating is on par with India's sovereign rating and a notch higher than the long-term outlook of other financial rivals like IDBI and Bob at 'negative'. The other major player - BANKS - does not have a long-term rating.

In a release, S & P said the change in outlook is 'supported by continuing progress in the strengthening of ICICI's balance sheet and a lesser probability that asset quality will deteriorate significantly from current levels.

S & P said ICICI's steps towards universal banking have helped it diversify its risks better than its peers, which will give it a competitive advantage. However S & P said it would still take some time for ICICI's universal banking strategy to manifest itself fully in its balance sheet and earnings profile.

S & P has noted that by virtue of its expertise in innovative project and infrastructure financing, ICICI had taken a leadership position that should enable it to withstand increased competition from the commercial banks which are now entering this market.

But even while it revised its outlook upwards, S & P said that key concerns continued to be reflected in ICICI's ratings. This include a relatively higher risk business as it was predominantly project financing, although this had been reduced significantly in recent years; a high level of assets seen as impaired by global standards; wholesale funding concentrations and the risks associated with the Indian operating environment.

S & P's also commented on the company's improved accounting system as the company passes provisions for non-performing assets through the profit and loss account, rather than the capital account. ICICI has already audited its balance sheet according to US GAAP accounting principles.

### **Non Performing Assets of State Bank of India increased more than three-fold between 2008-09 and 2010-11**

August 31,2011 New Delhi : The government today said provisioning against the non-performing assets (NPAs) of State Bank of India (SBI) increased more than three-fold to Rs 8,792 crore in 2010-11 from Rs 2,474 crore in 2008-09 due to a rise in bad debt.

This provision in 2010-11 includes a counter cyclical buffer of Rs 2,330 crore toward achieving the 70 per cent Provision Coverage Ratio prescribed by the

Reserve Bank of India over-and-above the prudential provision, Finance Minister Pranab Mukherjee said in a written reply to a question in the Rajya Sabha. These include deposits of other countries' central banks, the Bank for International Settlements (BIS) and top-rated foreign commercial banks, besides securities representing the debt of sovereigns and supranational institutions with a residual maturity not exceeding 10 years, to provide a strong bias toward capital preservation and liquidity, Meena said.

At the end of March, 2011, Meena said out of the total foreign currency assets of USD 274.3 billion, USD 142.1 billion was invested in securities, USD 126.9 billion was deposited with other central banks, the BIS and IMF and USD 5.3 billion was placed with External Asset Managers.

The country's largest lender SBI, which has witnessed huge erosion in its net profit, has set up 14 account tracking centres to check non-performing assets, Parliament was informed on Tuesday.

"State Bank of India (SBI) has informed that they have set up account tracking centres in all 14 circles of the Bank to check non-performing assets (NPAs)," Minister of State for Finance Namo Narain Meena said in a reply in Rajya Sabha.

Mr. Meena also confirmed that the SBI has informed that the Institute of Chartered Accountants of India (ICAI) had sought reasons for higher provisions of NPAs for the fourth quarter of 2010-11.

SBI's Q4 profits plunged by nearly 99 per cent to Rs 20.88 crore for the quarter ended March 31, 2011 versus Rs 1,866.60 crore it had posted for the same period last year.

One of the major denting factors was a 82 per cent jump in its total provisioning which increased to Rs 6,059-crore.

To another query on the reason for SBI earmarking higher provision for bad loans, Mr. Meena said, "Fresh slippages to bad loans during the 4th quarter of the financial year 2010-11 were to the tune of Rs 5,645 crores for which higher prudential provisions were made as per Reserve Bank of India guidelines."

Another reason given by the bank was that during the nine-month period ended December 31, 2010, the Bank had made higher provisions for NPAs over and above the prescribed Income Recognition Asset Classification (IRAC)

norms to achieve the 70 per cent provision coverage ration as per RBI guidelines.

“During the quarter ended March 31, 2011, pursuant to the revised guidelines issued by RBI on April 21, 2011, the Bank had created countercyclical provisioning buffer of Rs 2,330 crore till March 31, 2011,” he said.

Mr. Meena added that the provisions made by SBI for NPAs during the last three years — 2009, 2010, 2011 — were Rs 2,474.97 crore, Rs 5147.85 crore and Rs 8792.09 crore, respectively.

Responding to another query, Mr. Meena said that as on March 31, 2011, the gross NPA of public sector banks stood at Rs 71,047 crore, which also include NPA of loans availed by industrial houses.

He added that RBI and banks have already taken various steps to improve the health of the financial sector, reduce NPAs, and to improve asset quality, like prescribing prudential norms for provisioning and classification of NPAs, guidelines for prevention of slippages, debt restructuring schemes, etc.

### **SBI sets up 14 tracking centres to check NPAs**

The country’s largest lender SBI, which has witnessed huge erosion in its net profit, has set up 14 account-tracking centres to check non-performing assets, Parliament was informed today.

“State Bank of India has informed that they have set up account tracking

centres in all 14 circles of the bank to check non-performing assets (NPAs)," the Minister of State for Finance, Mr. Namo Narain Meena, said in a reply in Rajya Sabha.

Mr. Meena also confirmed that the SBI has informed that the Institute of Chartered Accountants of India (ICAI) had sought reasons for higher provisions of NPAs for the fourth quarter of 2010-11.

SBI's Q4 profits plunged nearly 99 per cent to Rs 20.88 crore for the quarter ended March 31, 2011, versus Rs 1,866.60 crore it had posted for the same period last year.

One of the major denting factors was an 82 per cent jump in its total provisioning which increased to Rs 6,059-crore.

To another query on the reason for SBI earmarking higher provision for bad loans, Mr Meena said, "Fresh slippages to bad loans during the fourth quarter of the financial year 2010-11 were to the tune of Rs 5,645 crore for which higher prudential provisions were made as per the Reserve Bank of India guidelines".

Another reason given by the bank was that during the nine-month period ended December 31, 2010, the bank had made higher provisions for NPAs over and above the prescribed Income Recognition Asset Classification (IRAC) norms to achieve the 70 per cent provision coverage ration as per RBI guidelines.

"During the quarter ended March 31, 2011, pursuant to the revised guidelines issued by RBI on April 21, 2011, the bank had created countercyclical provisioning buffer of Rs 2,330 crore till March 31, 2011," he said.

Mr Meena added that the provisions made by SBI for NPAs during the last three years — 2009, 2010, 2011 — were Rs 2,474.97 crore, Rs 5,147.85 crore and Rs 8,792.09 crore, respectively.

Responding to another query, Mr Meena said that as on March 31, 2011, the gross NPA of public sector banks stood at Rs 71,047 crore, which also include

NPA of loans availed of by industrial houses.

He added that the RBI and banks have taken various steps to improve the health of the financial sector, reduce NPAs, and improve asset quality, like prescribing prudential norms for provisioning and classification of NPAs, guidelines for prevention of slippages, debt restructuring schemes, etc.

## **BIBLIOGRPHY**

### **WEBSITES :**

[www.icici.com](http://www.icici.com)

[www.sbi.com](http://www.sbi.com)

[www.moneycontrol.com](http://www.moneycontrol.com)

[www.scribd.com](http://www.scribd.com)

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

[www.indiastudychannel.com](http://www.indiastudychannel.com)

[www.dialabank.com](http://www.dialabank.com)

[www.equitybulls.com](http://www.equitybulls.com)

[www.linkedin.com](http://www.linkedin.com)

**BOOKS :**

1) BUSINESS ASPECTS IN BANKING & INSURANCE, P.K. BANDGAR, VIPUL PRAKASHAN.

2) BANKING & INSURANCE , CHAMPA L., RISHABH PUBLISHING HOUSE.