CHAPTER TWO

REVIEW OF LITERATURE

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2.0 INTRODUCTION:

Asset Liability Management (AIM) as a concept is gradually gaining ground in Indian condition in the wake of the on going financial sector reforms. The technique of managing both assets and liabilities together has come into being as a strategic response of banks to inflationary pressure, volatility in interest rates and severe recession trends which marked the global economy in the seventies and eighties. There are three distinct phases of the evolution of the concept. While the first has witnessed, immerge of highly volatile global financial environment in seventies, the second phase was marked by the explosive growth of new financial products leading the banks in develop economics to focus on liability management and spread management. In decade to follow, due to new regulatory standards, better internal policy development and rapid advancement in information technology the experiments of last two-three decades have converged into a comprehensive technique of managing the entire bank balance sheet in cohesive and co-ordinate manner, which later come to known as Assets-Liability Management.

The concept of Assets Liability Management has its genesis in USA and Canada in 1970. This was largely due to emergency of volatile financial commodity market, new technologies and deregulated financial system. In view of resultant keen competition and provisioning requirements, banking become a riskier business. The objective of ALM is to manage various holding of remunerative assets in a manner which results in lesser cost and higher yields so as to maximize profits. ALM involved matching of short-term liabilities with short-term assets and medium term liabilities with medium term assets. Banks role is essential for converting the acquired money into long-term assets as liabilities are accepted by banks in advance of commitments and deployed in remunerative assets. Interest rate volatility in financial markets lead to the emergence of ALM as a tool for increased profitability and managing interest rate by International Banks since late seventies.

The past few years witnessed significant developments in the Indian money market. New financial instrument has been introduced and existing instruments activated. Interest rates in the money market have been completely freed. More participants have given access to the money market. These developments, no doubt have posed challenges for the banking system, but also given opportunities, for banks in developing new possibilities in their ALM.

The first major step, heralding departure from the administered interest rate regime was the introduction of 182 days Treasury Bills by the RBI in November 1986 on a monthly auction basis at flexible discount ratios. The periodicity of auctions was changed from monthly to fortnightly in July 1988 so that, participants would have an opportunity for investments in 13 maturities spanning a period of six months. At around the same time a working Group (Chairman Shri N Vaghul) was going into the various aspects of developing active money market. The Group submitted its report in January 1987 and based on it recommendations RBI announced series of measures relating to reforms in the money market in its successive credit policy announcement. The reforms and liberalization were introduced step by step so that the financial system has sufficient time to adjust to the changing scenarios. In March 1988 discount and financial House of India Ltd. (DFHI) was set up by the RBI jointly with public sector banks and all India financial institution to import improved liquidity to the money market instruments. As a first step towards liberalization in interest rate, DFHI was exempted from the applicability of ceiling rate on commercial bill. In July 1998, DFHI was exempted from the ceiling rates on the call/notice money market set by the India Banks Association.

Other significant milestones in activating the money market was the removal of ceiling rate in call, notice and term money market, commercial bill rediscounting market and on the inter bank participation without risk sharing. This was effective from May 1, 1989.

The process of change from regulated money to a liberalized money market has led to transitional difficulties for some banks. These difficulties were compounded by the fact that some other segment of the financial system was still under the administered interest rate regime. A major fall out of this situation was that some shift of financial assets from the regulated market to unregulated market was inevitable. The introduction of certificates of deposits at the market-related rates has led to the higher funding cost.

For introduction of Commercial Paper, it was argued, could result in banks losing quality advances. To protect themselves against interest rate risk, some banks had started fixing their lending rate to customers in tune with the money market rates.

It is in these contexts that banks need to respond to the challenges thrown by a liberalized money market by involving new strategies for enlarging their business activities. In view of the discontinuance of the refinance, there is a need for greater flexibility in banks operations. They must be in a position to shuffle their assets and liabilities smoothly under a given situation in short notice.

The basic function of banks and Financial Institutions is mediation. Banks reap rewards and risk for discharging this mediation function. The reward is "Net Interest Income." Interest spreads is function of the Central Bank. Banks and Financial institutions accept deposits at regulated interest rate and lend at the regulated rate and earn the stipulated 'Spread'. In a deregulated environment there are no such free lunches. The banks have to fish out their rewards considering the risks to be get drawn by managing their assets and liabilities prudently. ALM as a discipline is nearly 20 years old in the developed and deregulated western world. Hence, it is useful to fall back on the experience of deregulated markets. "No discussion on ALM would be complete without mention of saving and loan Association's Thrifts experience in USA during 80's. The debark of during saving and loan 80's drive home the importance of Assets –liabilities management as a discipline and strategy for survival on a deregulated environment".[1]

"Rate for 3-6-3 banking was standing banks during 60s and early 70s. In these days a banks takes deposits at regulated rate of 3%, lends at regulated rate of 6% and secure in the spread of 3%. So in this environment more the deposits more the loan and borrow the spread. This game went on for decades but interest rate were deregulated and this saw the demise of 3-6-3 banking. The root cause of saving and loan debacle (mismatch), which had cost US tax payers a couple of hundred billion US$ (nearly 70 times of own security scam losses) was selling fixed rate long-term mortgages and funding the same through deposits that were essentially short term. We observed that Bank of India building up assets with dependence on call money borrowing and certificate of deposits. Interest rate deregulated and left to be determined by market

[1] IBA Bulletin, June 1998.

forces, when the gaps at the on going market rates which were much higher them fixed rate mortgages".[2]

Thus, bank obsession of increasing deposits and loans and failure to recognize interest rate risks and maturity mismatches had nearly wiped out Thrift industries.

"India has embarked on the path of deregulation of interest rate as a part of economic reforms. ALM can be ignored at banks own peril. The interest rate gyrations (to move in circle or spiral) witnessed during Sept. 1995/ Feb. 1996 exposed the vulnerability of mismatches. Banks and financial Institutions which ignored ALM disciplined and were happy building up "assets" with short-term funding in a low interest rate environment were caught hopping when the call money sky rocketed to dizzy heights of 80% to 90% or even higher. Take care of expansion and expansion will take care of profits is no longer a valid proposition. Now the reverse is true. Take care of profits and the profit would take care of expansion as profit alone would attract further capital and infuse confidence of depositors. Hence banker should be more ready examine profitability and risk associated with it. However, profitability is not the sole aim of co-operative banks but it is indeed necessary to survive".[3]

It is not possible to give every details of the historical aspect that will relate this study however, an attempt is made to consider maximum of such in form of the review of literature that comprises of various studies related to co-operative banks, cost management in banks, risk management, asset-liability management and other related aspects are as follows.

2.1 **M.K. Goyal**[4] studied the Debt-equity ratio of all the Apex cooperative banks in two ways.

Ratio of deposits to own funds: Owned funds serve as cushion to depositors. According to Guthmann deposits to owned funds relationship is the rough equivalent of the debt-to-net- worth.

Ratio of total outside liabilities to owned funds: In the words of Metcalf and Titaed, this ratio expresses a relationship between total liabilities and total owner's equity. In terms of its significance, it is similar to the debt-assets ratio and the equity-assets ratio. A very high debt equity ratio would indicate to the creditor that he is financing most of the

[2] IBA Bulletin, October 1998.
[3] IBA Bulletin, April 2000
[4] Indian Cooperative Review, January 1985

business. It would also indicate the owner that his claim in the business is relatively sm all. In this study standard deviations, co-efficient of variation and co-efficient of correlation are computed. The co-efficient of correlation shows a perfectly positive relationship on the series.

2.2 **N. Narayanasamy and S.R. Ramachandran**[5], in a case study about profitability performance of a district central cooperative bank examines the impact of interest earned, interest paid and establishment expenses on profitability with the help of key ratios derived by relating various components of profit account statement to a common denominator, volume of business, defined as balance sheet total less contra items.

The results of the study reveal that the profitability of the bank has decreased over a decade. The fall in the profitability ratio can be attributed to higher rate of decline in the spread ratio than the burden ratio coupled with rise in the interest paid ratio. At the same time the profit of the bank has increased due to the rise in the volume of business over a decade.

He suggested that there is a vast scope to increase the profit and profitability, if proper attention is paid on areas like recovery, deposit mobilization, branch expansion, reduction in manpower and operating expenses, building up of more owned, and scientific management of funds.

2.3 **B.U. Bhatt, R.L. Shiyani and N.M. Patel**[6] made a case study on credit deposit (C/D) ratio for Junagarh District central cooperative bank. The C/D ratio is worked out by using following formula:

$$\text{C/D ratio (\%)} = \frac{\text{Total outstanding advances}}{\text{Total deposits}} \text{ X } 100$$

The net outstanding advances are worked out by deducting the overdue amount from the total outstanding, with a.view to compute the effective C/D ratio. The difference between two C/D ratios is tested by 't' test. The departure of C/D ratio from unity is also tested by 't' test. It is found out from the results that effective C/D ratio reflect the real picture about management of deposits and credit of the two estimates, viz., C/D ratio (based on total outstanding), effective C/D ratio (based on net outstanding). They suggested that

[5] Indian Cooperative Review, October 1987
[6] Indian Cooperative Review, January 1988

effective C/D ratio should be used for judging performance efficiency, in relation to credit and deposits, of banking function in rural area.

2.4 M.R.Naidu, P.C. SAI Babu, C.V. Hanumamthaiah and C. Srirama Murthy[7] studied the factors determining the overdue pattern and net profit in cooperative urban banks in Andhra Pradesh. The study is based on the secondary data collected for the period 1960-61 to 1985-86. The Cobb-Douglas Production function are fitted separately with net profits and overdue of the banks as dependent variables with all other factors namely loans, deposits, reserve fund membership and working capital as independent variables. The result of the study indicates that the bank branches despite large amounts of overdue are making lucrative profits because of their significant deposit mobilization. The over due of the bank has alarmingly increased because of the little attention of the bank personnel on one hand and their concentration in building up the reserve fund on the other hand.

Based on the result of the study it is concluded that the bank should pay more attention towards the recovery of the loan besides keeping pace with the building up of the reserve fund and mobilization of the deposits.

2.5 Dr. V. Alagappan and V. Rengasamy[8] studied the factors influencing profitability in Tamilnadu state cooperative bank for a period of 11 years. It is analyzed through linear multiple regression. The linear multiple regression analysis reveals that interest rate spread, salary and other expenses of the state cooperative bank jointly account for 99 per cent of variation in its annual net profit.

2.6 Dr. Abdul Noor Basha, K.V. Krishna Rao & J.V. Subba Rao[9] in a case study of Vijayawada cooperative central bank emphasis on factors affecting deposits advances and profits using multiple regression technique to the specific models.

In this study an attempt is made to ascertain the impact of certain important factors over deposits, advances and net profit of the bank with an object to identify the strong and weak factors of growth.

[7] Indian Cooperative Review, July 1988
[8] Indian Cooperative Review, July 1989
[9] Indian Cooperative Review, April 1990

2.7 W.S Saraf and S.R.Kamath[10] in their research paper on "Strategies for ALM in banks in framework of liberalized money market" outlined the new possibilities in bank's ALM in a liberalized set up of the money market. The paper is divided in two sections. First section summaries the developments in the money market since 1986 and their implications for the banking system. Second section explores the strategies that can be adopted by banks in the ALM. Some future possibilities are also discussed. Some policy issues, which have bearing on the banks fund management, are detailed out.

2.8 C.V. Nair[11], former director, RBI, in his study paper about new economic policy and cooperative banking system narrated the challenge before the cooperatives "Favoured treatment to the RRB segment of the commercial banking system as against all conceivable obstacles to the establishment of a National Co-operative Bank with none of the concessions or Government support as envisaged for the RBI asked for together with the eloquent silence of the NEP (New economic policy) on cooperatives and the committee on financial reforms on cooperative banking should be taken as Government's intention to show the exit done to the cooperatives in the emerging setup under the NEP".

2.9 Ganti Subrahmanyam[12], Professor, NIBM, Pune, in his study on "ALM for banks in deregulated environment" stated that the purpose of liability management is to allow adjustments in the assets, so earnings growth becomes cogent and risk remains low in all facets". He focused "The basic objective of all bank managements is to maximize income and control risk exposure of their activity. It requires that banks need to emphasize four related areas of which interest margin or spread, liquidity and capital are directly amenable (answerable) for attaining optimal level of income with acceptable risk. Interest margin or spread management focuses what bank pay for funds, given the quality and maturity of credits underlined by the loan policies of banks and the general economic environment. In fact, management is considered as key measure of success of both asset and liability management over a period of time. Adjunct to ALM is liquidity management as a means of risk control. The outlook of for the banking environment in India in the 1990s and beyond is filled with many challenges. In such an environment; the greatest risk lies in the accessibility of funds that ensures a reasonable and consistent return.

[10] Report on 'BECON' 15th Bank Economist Conference 1992, p 230.
[11] New economic policy and cooperative banking system, The Cooperator, July 1994, p 8.
[12] ALM for banks in deregulated environment, Prajnan, Vol.XXXIII, No 1, 1994-95

Banks need to undertake active ALM strategies so as to ensure stable and consistent spread in the years ahead."

2.10 Dr. S.O. Junare[13], in his study about "Concept of cost in UCBs" narrated, "The cost of funds can be changed by changing the proportions of 'cost bearing ' and 'non-cost bearing' funds. In fact, banks can manage 'cost bearing' funds only. Further bank may go for deposit-mobilization or borrowing in the market or inversely, may not opt for higher resource mobilization. The items under 'non cost- bearing' are such that which are more or less steady and hardly any effort can yield result. The item like branch adjustment and other liabilities shall normally depend on the systems and procedures of bank other remittance business that bank may handling".

2.11 Janardhan Amballa[14], BMC, Bombay in his paper "Cooperative urban should brace up to Competition" stated that in the changing scenario, it is imperative for cooperative banks to venture in to some other activities, so as to strengthen their bottom line. It is high time the urban cooperative banks to joined the bandwagon and start merchant banking so as to maximize profits."

2.12 Dr. Shirish R. Kulkarni[15], in his book 'Urban Co-operative Banks- An Appraisal', analyses the financial management practices adopted by Urban Co-operative Banks (UCBs) in achieving significant position in Indian Economy. By introducing several schemes Urban Co-operative Banks have gained trust and faith of urban people in them. The deposit mobilization, loan and advances by UCBs are elaborately analyzed in this book. Different techniques of financial management are used to study the profitability of UCBs. Earning per share (EPS) profit to working capital, profit to business are some of the Ratio's used. The book contains performance appraisal of six UCBs in Vadodara city including oldest urban co-operative bank like Anyonya Co-operative bank.

2.13 S.K. Kalia[16], former managing director, NABAD, noted, " the resource base of co-operative banks, particularly deposits portfolio, needs to be strengthened to make them self reliant over a period time of as concessional refinance support from higher level agencies should not be and will not be a perennial arrangement. As such there is a need

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[13] Concept of Cost in Urban Co-operative Banks, SAHYOG 1995, p 69
[14] Cooperative urban should brace up to Competition, THE COOPRETOR, February 1995, p 454.
[15] Urban Co-operative Banks- An Appraisal Anmol Publications Pvt Ltd New Delhi, First edition, 1996
[16] Co-operative banks - Needs for Professional Approach, THE COOPERATOR, August 1996, p 39-40

for concerted efforts on the part of banks to mobilize deposits, particularly, the low cost, by tapping the vast potential available. Further, steps for active involvement of staff and introduction of new products specially designed to suit the needs of the different groups are also required"

With respect to ALM he mentioned that, "the bank should match their assets and liabilities in such a way that they not only maximize return but would also be in a position to honour the claims of their depositors and creditors as provided in under Section 22(3)(a) of B.R. Act 1949. This mismatch could be due to (a) use of short term resources towards longer maturity loan and (b) asset management and consequential erosion in the realizable value of assets."

2.14 Suresh P. Prabhu[17], former chairman, Saraswati Cooperative bank in his study on the problems faced by UCBs in their function of treasury operation narrated, " the function of ALM has become increasingly important in the recent years. The margins on loans have decreased dramatically, the interest rates being flexible. There has been increased volatility in exchange and interest rates making function of ALM all the more important. The banks' assets are namely loans, cash, bonds, bills, certificates of deposit and the banks' liabilities are primarily current and deposit accounts, time deposits, long term debt and equity."

2.15 A.V.Rajwade[18], consultant in F.E. Management and International Finance, says, "While on the general subject of ALM, one ironic feature of the regulatory régime in India is worth noting. While the supervisory authorities have always been very conscious and controlled tightly the gap in the foreign exchange book, an equal emphasis has never been placed on the gaps in the rupee book-whether by the supervisory authorities or by banks managements. The major problem here is the mismatch between relatively short-term liabilities and the long maturity asset held, particularly in the SLR portfolio. Since the latter still forms a significant proportion of bank's assets, and is increasingly required to be marked to market, the banking system runs a very large interest rate risk".

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[17] The Treasury operations and the problems faced by the UCBs in their function of treasury operation, THE COOPERATOR, August 1996, p 43
[18] International banking and asset-liability management, The Journal of Indian Institute of Bankers, Oct-Dec 1996, p169.

2.16 B.S. Murty[19], narrating the role of Managers in ALM system stated, "Managers shall feed forward the treasury on clearing positions especially huge positive and negative positions on huge time basis to facilitate tactical ALM. Deposit acceptance and asset creation are no longer passive dynamic activities. Proposal for large deposit/advances should be put to ALM test of interest rate risk, liquidity risk that stem from maturity mismatch. Managers ultimately have to learn to live with budgets for mismatch not just deposits and advances budget as they are used to know. That is the ultimate role of Managers in the emerging scenario".

2.17 Pavan Sukhdev[20], putting the techniques for structure prices of assets and liabilities in a deregulated market describes that " possible and impending deregulation in the Indian context would lead to greater interest rate volatility and lower NIM (net interest margin). Under the changed circumstances, if the banks are to maintain their profitability, efficient techniques of structuring prices of Assets and Liabilities assume significance".

2.18 Dheeraj Vasishth[21], describes the cost and benefit of an ALM programme. The direct costs associated with ALM are those involving purchase of development of a software model, hard ware cost, and personnel cost of the ALM staff. Indirect costs include the time spent by ALCO (asset-liability committee) and the cost incurred in accessing data for ALM.

The benefit would far outweigh the other cost as focused ALM allows the banks to plan for risks well ahead of the time they can prove damaging, to price its loans and deposits in a competitive manner to structure products which positively affect the bank's client relationship and image. The ALM functions if implemented properly, would enable the bank management to enhance the quality of its earning by imparting stability to its interest margins. A higher quality of earning would directly translate into higher shareholder value, which is the real touchstone of a successful risk management programme.

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[19] ALM and Managers Role, The Journal of Indian Institute of Bankers, Oct-Dec 1996, p174

[20] Techniques for structure prices of assets and liabilities in a deregulated market, The Journal of Indian Institute of Bankers, Oct-Dec 1996, p177

[21] Asset Liability Management in banks, The Journal of Indian Institute of Bankers, Oct-Dec 1996, p 179.

2.19 Dr. C. Rangarajan[22], Ex-Governor, RBI on the conferment of schedule status to A.P. Mahesh Urban Co-operative bank said that, "The Indian bank and financial system has been undergoing some significant changes in the recent years. The aim of financial sectors reforms that is currently under way is to create a system that is both viable and efficient. With reduction in reserve requirement, the lendable resources of banks have expanded. They have also great freedom to determine the interest rate. Banks are operating in a more competitive environment and the need to take care of customers' requirements has been most urgent. The Urban Co-operative banks are an integral part of our financial system. They have local touch and meet the requirement of small and medium borrowers. It is however important that they remain financially sound. Efficiency is not a function of size. Small and medium size banks can be efficient and customer friendly. The UCBs must prove the adage small is beautiful"

2.20 Dr.Jayantilal Jain and K. Balachandran[23], in their study about managing financial risk in banking wrote "the risk dimensions facing the Indian commercial banks have multiplied and also magnified with the liberalization of the economy in general and the financial sector in particular. Banks, which were familiar only with credit risk relating to non-payment earlier, are now facing multiple financial risks in the form of credit risk relating to both non-payment and non performing risk, interest rate risk, exchange risk, maturing gap risk, technology risk, to only a few vital risks".

Management of risk has thus become an important element in keeping the financial health of any bank in good condition. This calls for proper analysis of various risk elements that have come into being the management of bank and adopting techniques such ALM, Exchange rate management, Credit management, Manpower planning, HRD, Information technology, Recapitalisation, and Profit planning for minimizing/eliminating the impact of these risks on the financial health of banks.

2.21 S. Rajagopal[24], in his study paper 'Bank Risk Management –A Risk Pricing Model' mentioned, "Good risk management is good banking. And good banking is essential for profitable survival of institution. A professional approach to identification, measurement and control of risk will safeguard the interest of the banking institution in the long run"

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[22] Importance of Co-operative banks under the changed banking scenario, Ex-Governor, RBI, THE BANKER, Sept 1997, p 17
[23] Managing financial risk in banking, THE BANKER, August 1997
[24] Bank Risk Management- A Risk Pricing Model, THE BANKER, April 1998, p 25

2.22 Dr. Navin Chandra Joshi[25], describing the need of bank risk management says, "Banks need to deal with credit by fixing prudential limits on exposure to specified regions, Industry groups, corporate houses and so on so as to have well-diversified portfolio of loan assets. The truly successful banks will be those which in a timely and prudent manner embrace developments in risk management techniques."

2.23 Vasant C. Joshi and Vinay V. Joshi[26] focused that the best way to understand the role of asset-liability management is to view it within the context of the overall sources and uses of funds at a bank. Bank funds are obtained from a variety of sources including current deposits, savings, time deposits, short-term borrowings, long-term borrowings and equity capital. The mix of sources chosen by the bank's management determines the average cost of funds and their stability. From this pool of funds, the banks must make choices about acquiring assets that serve its needs for meeting legal requirements, earning incomes and providing liquidity. Reserve requirements imposed by RBI must of course be met before purchasing earning assets. The funds available after meeting reserve requirements can then be invested to produce an income for the bank. The flexibility of managing the sources and uses of funds varies considerably depending on the time horizon. In the short run, the number of sources and their uses that may be changed are relatively limited. Over a more extended period, the flexibility increases, although long-range management is really a part of strategic planning rather than of asset/liability management.

Asset/liability management focuses on the net interest income of the institution. Net interest income is the difference between the amount of interest received from loans and investments and the amount of interest paid for deposits and other liabilities.

Net interest income = interest revenue – interest expense

Expressing the net interest income as a percentage of earnings allows us to express the interest income as a margin. The total net interest income may not be meaningfully compared between banks of different size but the margin may be meaning fully compared.

Net Interest Margin = net interest income / earning assets.

[25] Bank risk management is need of the Hour, THE BANKER, April 1998, p 30
[26] Managing Indian banks – The Challenges a head, 1999, p 227

2.24 Madhu Sehgal and Rajni Kher[27], " ALM envisages the process of managing net interest margin (NIM), with over all risk. The key objective of ALM is that of sustaining profitability in such a manner as to augment capital resources. It calls for an integrated approach towards simultaneous decision making with regard to type and size of financial assets and liabilities; their mix and volume so as to insulate the spread from moving in adverse direction. The success of a bank hangs on its ability to match its assets with its liabilities in terms of Rate and Maturity to optimize the yield".

ALM in practical terms amounts to management of balance sheet dynamics with regards to its size and quality and involves:

- Conscious decision making with regard to asset liability structure in order to maximize interest earning within the framework of perceived risk.
- Quantification of risk and evolving of suitable risk management techniques to minimize the probable loss.

2.25 K.G. Subramanian[28], in his study about role of branches in ALM system concluded that ALM is a profit-planning tool, which manages interest rate volatility. This integrated approach to branch financial management requires simultaneous decision about asset liability mix and volume. Further, ALM in a branch requires thorough knowledge about the behavioural pattern of their customers and also an understanding of the market area in which the branch operates, this concept of 'behavioural pattern' has been given due importance similar to that of 'residual maturity' in the RBIs final guidelines on ALM.

The entire branch should necessarily practice this scientific profit-planning tool not only to enhance the branch's profitability but also contribute considerably to improve the bank's bottom line. Last but not the least, the branches should contribute their mite towards effective functioning of the ALM department functioning at central office by taking earnest steps in furnishing error free input data in time enabling the ALCO to take the important business decisions.

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[27] Management of Banking and Financial Institutions - P Mohan Rao and T.K. Jain, Deep & Deep publications, New Delhi, p 91
[28] Management of Banking and Financial Institutions - P Mohan Rao and T K Jain, Deep & Deep publications, New Delhi, p 268

2.26 Dr.Jayantilal Jain[29], General Manager, Indian Banks, Chennai in research paper on 'Strategic planning for ALM' says, "ALM in commercial banks continue to pose serious challenges world over. Going by the spate of bank failures in United States and Japanese banks facing operating loses due to excess exposure on real estate related lending indicate how far the banks today are vulnerable to change in market environments and operating environments within the banks. The picture in India is not very different as there are a number of banks incurring losses and other under profit pressures. Bankers world over have innovated new financial instruments as hedging tool. But the instruments by themselves are carting new threats as evidenced by the collapse of impregnable bank belonging to house of Bearing Bros., UK, by its lone rogure dealers in Singapore. The threats posed by regulatory authorities in their anxiety to make balance of banks more transparent on sound lines of capital adequacy and provisioning on posing new challenges. Under these circumstances, the strategic planning of ALM should be increasingly felt in the coming years than before. Banks in India is no exception to take up strategic planning exercise for ALM, in order to survive and grow in the ever increasing competitive and risk.

2.27 Dr Yang Kai-Sheng[30] at 'Asia-Pacific NPL Forum'-In case of Management of Non-Performing Loans (NPLs) or Non-Performing Assets (NPAs) some measures by our neighboring country is worth noting. In the field of financial sector reforms, the biggest problem faced by China was NPLs. In 1999, a study showed that NPLs of the four big state owned banks in China were about 40% of total loans. If more stringent delinquency norms of either 6 or 3 months were applied, the proportion of NPLs would be about 50% of their total Loans.

In real terms, the NPLs of China are estimated to be US $ 500 billion (about 50% of GDP) which appears to be very huge when compared with the NPLs of US $ 13.33 billion for India

Apart from Debts Equity Conversions another mechanism employed by Asset Management Companies (AMC) of China for recovery is the sale of NPLs by public auction. The Great wall AMC of China has asserted that they "would actively participate in the property right transaction market and asset auction market, where NPLs will be

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[29] Strategic planning for ALM environment, Journal of National Federation of Urban Co-operative Banks, p 173
[30] Country Economic Review – People's Republic of China, October 2000, p 15

publicly sold by auction of traded after being combined or packaged with a view to expediting the liquidation, realization and treatment of NPLs".

Dr Yang Kai-Sheng President of China Huarong AMC has stated, " we welcome foreign investors to participate in China's NPL disposition process, we are willing to co-operate with all interested foreign institutions in NPL Management and disposition. This is an important aspect of our operation and disposition policy".

It was a presentation by Mr. Wang Xing-Yi, President & CEO of China Great Wall AMC, in the 'Asia-Pacific NPL Forum'. -Economic Environment and Strategic Preference para 3c, by Dr Yang Kai-Sheng President of China Huarong AMC.

2.28 Mr. Kannan[31], Ex-Chairman and Managing Director, Bank of Baroda, narrating relevance and importance of ALM in banks says, " The process of deregulation, particularly partial deregulation of interest rates has put up stiff challenges before the banking industry in India. Although not equal measure, banking sector is taking its share of miseries and comforts with equal restraints. What is more significant is that banks are at least reactive enough to take the hardships in their strides and have shown a positive mind set in adoption to the new rules of the game. While sceptics (one who question the truth of doctrine or theory) are still debating over the appropriateness of sequencing of reform measures, banking industry is slowly but surely maturing in experience, learning from the mistakes of the past and, at the same time, tightening their belt for the final show down. However, all efforts made by banks to cope up with the growing volatility in the environment are set-off by the existence of policy constraints".

2.29 Dr. Shirish R. Kulkarni[32], in his book 'Cost Management of Deposits-A study of Urban Banks' aims at examining performance of deposits and deposits mobilization; analysis and identification of fixed cost components; ascertaining variable cost of deposits; evaluating the impact of financial sector reforms on costs; comparing inter-banks cost ratios and also cost with earnings and reviewing the major determinants of profit and profitability and many more related aspects of urban co-operative banks

The study refers to selected urban co-operative banks from all over Gujarat. Information's and data related to ten years from 1986-87 to 1995-96 was collected and

[31] Relevance and importance of ALM in banks, Journal of National Federation of Urban co-operative Banks, p 155
[32] Cost Management of Deposits-A study of Urban Banks', Anmol Publications Pvt Ltd , New Delhi, first edition 2000.

analyzed on the basis of constructive average balances of various items of assets and liabilities. Statistical tools like mean, standard deviation and co-efficient of determination are used to analyze the data. Multivariate Analysis of Variance (MANOVA) is used to test the Hypothesis. The trend analysis and ratio analysis are used to derive growth and also determinants of cost.

The study revels that all the eight elements of fixed cost remain stable during ten years of observations, which was expected. The author stress up on " The Costing as a technique is very useful not only in manufacturing but in banking sector as well". He suggested a cost sheet for banks and thrust up on understanding the characteristics of cost in banks, which strongly influences the viability of a bank.

2.30 R. Rangarajan[33]in his case study of Indian Overseas bank about ALM focused " ALM in banks requires a standard norms in order to have the financial strength and optimum growth in long run. To achieve this judicial, legal, supervisory and administrative authorities support will be the prime requisite. Secondly, the people's opinion on bank debt should gradually change in the aspects of massive waive (refrain from insisting or using), liberal attitude of judicial authorities etc. The timely review in the changes in the financial environment in the world and the up gradation of norms to meet the global standards and a follow up of them will be the optimum solution for Qualitative ALM in banks".

2.31 Dr. G. Veerakumaran[34] made a diagnostic study about ALM of primary agricultural credit societies (PACS) in Kerala. The PACS in Kerala lend small amount to a large numbers of customers by mobilizing high cost deposits. As a result, the PACS in Kerala fall in the range of 'high risk' related to credit and liquidity. It was in this context an attempt was made to go for an in depth study of the assets-liability structure of PACS in two blocks of Thrissur district in Kerala. The study was based on financial data collected from 1993-94 to 1996-97 using a structured format; the data was analyzed by working out relevant financial ratios based on the balance sheet and income statement.

The study has been able to highlight some weakness of the ALM of PACS. The accumulated losses of some individual societies had completely eroded their 'Owned funds' and were on the verge of liquidation.

[33] Banking in the New Millennium– Issues, Challenges and Strategies- S Gurusawmy, Kanishaka Publications, 2001, New Delhi.
[34] ALM of PACS in Kerala-A Diagnostic Study, Cooperative in new millennium, 2001, p 109

The PACS, in their own enthusiasm for deposit mobilization, collected high cost deposits through innovative fixed deposit schemes with out even looking into their viability. However, the societies forgot or, failed to create assets matched the risk return complexion of the liabilities they floated either due to the negligence or ignorance of the personnel.

2.32 Dr. M.R. Patil[35], made a SWOT (P) analysis of Goa urban cooperative bank Ltd. Cooperative banks have played an important role in the Goan economy in terms of meeting the credit requirements of small scale industrials, businessmen, small traders, petty shopkeepers, service operators etc. as industry, tourism, mining, fisheries and service sector are the main economic activities of the state, keeping all the above factors in view, an attempt was made to evaluate the performance of Goa urban cooperative bank in the state of Goa.

The ratio analysis tool is employed to analyze the financial statements of the bank. The relevant liquidity ratios, productivity ratios and the ratios developed by relevant various components of profit and loss account to a common denominator i.e., volume of business defined as total of the balance sheet less contra items for analyzing the profitability performance of the bank is worked out for the period of 12 years. Finally, SWOT (P) management technique is employed to introspect the performance and functioning of the Goa urban cooperative bank from the four broad angles viz. Strengths (S); weakness (W); Opportunities (O) and Threats (T) or Problems (P).

2.33 Dr. Mrs. P.P. Koli[36], discussed the need of management audit and benefits of ISO-9000 Quality system in UCBs. The objective of management audit is to have an independent and systematic appraisal of the management, its strengths, weakness, capabilities and constraints in achieving the organizational objectives.

Professionalism in UCBs is the need of the hour and setting up ISO-9000 Quality system will serve the need. The benefits can be summarized as under:

- Competitiveness through cost reduction by eliminating waste of resources.
- Improved employee efficiency, productivity and house keeping.
- Improved time cycle for various transactions.
- Improved employee morale resulting in term building.

[35] Liquidity, Productivity and Profitability Analysis of Goa urban cooperative bank Ltd a SWOT (P) analysis, Cooperative in new millennium, 2001,p123

[36] Emerging Environment and urban cooperative banks, Cooperative in new millennium, 2001, p 137

- Improved communication, MIS and quality information.
- Increased customer confidence.

2.34 Dr. P. Rajendran[37] in his study paper ' Developments in cooperative banking' analyze the performance of primary, central and state co-operative banks along with the policy initiatives undertaken in the area of rural and co-operative banking. He suggested "to strengthen the co-operative system, the existing regulation should totally be changed. The proposed regulation should restrict the entry of politician in the administration of the co-operatives. Only genuine farmers should be allowed to become administrators in the co-operatives"

2.35 Arundeep and N.S. Toor[38], the authors felt the importance of the risk management, which assumes a great importance in the present day financial intermediation, they have splendidly covered entire strum of risk management in various chapters ranging from Credit risk concept, Risk identification, Credit risk rating and pricing, Risk mitigation tools, Credit sanctioning process, Risk control monitoring and to various guidelines and principals issued by RBI.

The authors highlight some of the problems surfacing as signs of distorted credit culture. These include, poor credit selection of risk, anxiety over income, ineffective credit review process, inadequate monitoring etc. They also gave the different types of credit risk rating models such as Z Score Model, JP Morgan's Credit Risk+, and KMV's Expected Probability Frequency etc. The authors have underlined the Credit Risk Scoring Model, as it would help banks in different ways to maintain the quality of loan assets. The authors also explain the present Risk Management system being followed by Indian banks as per the RBI directions. The seventh chapter of the book elaborates the RBI's Circular dated 7.10.1999 and gave detailed guidelines for establishing a proper and well-defined Risk management System to be implemented in the banks. The book also provides some case studies covering three loan accounts of a branch as per the model in the third chapter.

2.36 K. Seethapathi[39], editor of the Book 'Risk Management –An Introduction' has compiled various aspects of risk management. The last chapter discusses the Asset-

[37] Developments in cooperative banking, Cooperative in new millennium, 2001, p 141
[38] Credit Risk Management – A Practical Approach, Skylark Publications, New Delhi, First edition 2002
[39] Risk Management –An Introduction, Risk management series, The Institute of Chartered Financial Analysts of India 2002, ICFAI Press, p 185-190.

Liability Management as a tool for risk management in banks. In the book it is said, "In Indian banks the ALM is given lot of importance as it encompasses the liquidity and the interest rate risk. ALM helps in strategic and business planning apart from helping in assessing the risk in advances". It further discuss that the process of ALM is very simple. It reviews the product pricing for assets and liabilities. The model suggested by the RBI on ALM is finally aimed at enabling banks to tackle the liquidity risk and interest rate risk. One of the tools to manage the interest rate risk is "Gap Analysis". The chapter of 'Survival Strategies through Gap Analysis' is a case study of the asset-liability management of a bank.

2.37 Meera Sharma[40], the article surveys the methodologies and regulations surrounding the measurement of entire banking books. A survey of the interest rate environment pertinent to banks is carried out to identify the source of interest rate risk. Greater volatility in interest rates, greater sensitivity of banks liabilities to interest rate differentials, and shifts in composition of bank asset and liability portfolios are some of the sources identified. The study outlines the methods of calculation of interest rate risk, namely the simple GAP analyses and the duration Gap analysis. It covers both, the calculation and the exposure aspect. Exposure is defined as the sensitivity of key performance parameter of a bank to an unexpected change in interest rate. The study also takes in to consideration the international guidelines on interest rate risk measurement and sources.

In the calculation of Simple GAP, selection of timeframe and time bands over a period of one year is important. The Basel Committee recommends that, " the number and specific categories of time bands chosen should be sufficient to provide supervisors with a reasonable basis for identifying potentially significant repricing mismatches." The accepted technique is to lengthen the time bands that are goes into the future. The schedule used by RBI is given below:

1-28 days	> 1year and up to 3 years
29 days and up to 3 months	> 3years and up to 5 years
> 3 months and up to 6 months	> 5 years
> 6months and up to 1 year	Non-sensitive

Source: Asset Liability Management system, February 1999, RBI.

[40] Measuring Interest Rate Risk for the Banking Book, IBA bulletin, January 2003, p 6-13.

The number of time bands chosen reflects a decision about the necessary level of precision and the cost of greater accuracy.

2.38 Ernst and Young's Report[41], "the actual level of non-performing assets (NPAs) of India is around $40 billion. This difference is largely due to the discrepancy in the accounting of non-performing assets followed by India and rest of the world. The accounting norms in India are less stringent than those of the developed economies. Considering the Gross Domestic Product (GDP) of India, which is around $470 billion, NPAs were around 8% of GDP. On an aggregate level, Asia's NPA have increased from $ 1.5 trillion in 2000 to $ 2.5 trillion in 2002 – an increase of 33%. This accounts for 29% of the Asian countries' total GDP. The global slowdown is due to government hesitancy and inconsistency on dealing with the NPA problem".

However, looking from a positive angle, India's Ordinance on Securitisation and Reconstruction of Financial Assets and Enforcements of Security Interest is step in the right direction. This Ordinance will help banks including urban co-operative banks to concentrate on good business by eliminating the business of bad loans.

2.39 R.S. Raghavan[42] in his Article "Risk Management in Banks" provided a view that, the objective of risk management is not to prohibit of prevent risk taking activity, but to ensure that the risks are consciously taken with full knowledge, clear purpose and understanding so that it can be measure and mitigated. He further stressed, " There may not be one size-fits-all risks management module for all banks to be made applicable uniformly".

While expressing his views about liquidity risk in the article, he says " The Asset-Liability Management is a part of the over all risk management system in the banks. It implies examination of all the assets and liabilities simultaneously on a continuous basis with a view to ensure a proper balanced between funds mobilization and their deployment with respect to maturity profile, cost, yield, risk exposure, etc. it includes

[41] Ernst and Young's Asian Non-Performing Loan Report for 2002, IBA Bulletin January 2003, p 36.
[42] Faculty Member, ICAI, ' The Chartered Accountant', Journal of the Institute of Chartered Accountants of India, Volume 51, No 8, February 2003, p 841

product pricing for deposits as well as advances, and the desired maturity profile of assets and liabilities.

According to him tolerance level on mismatches should be fixed for various maturities depending up on the asset liability profile, deposit mix, nature of cash flow etc. Bank should track the impact of pre payment of loans and premature closure of deposits so as to realistically estimate the cash.

He concluded with suggestions like-

(1) A committee approach to manage various risks. Risk Management Committee, Credit Policy Committee, Asset-Liability Committee, etc are such committees that handle management aspect.
(2) Management Information System, computerization and net working of the branch activities.

He rightly said, "Managing Transformation would be the biggest challenge but transformation and change are the only certainties of the future".

2.40 Ranbir Singh[43], Member of Faculty, Sir SPBT College, Mumbai, has made an important study about "Profitability Management in Banks –Under Deregulated Environment" for scheduled commercial banks comprising of four major competitive groups of public sectors banks, old private sector banks, new private sector banks and foreign banks. According to him in post reforms period of liberalization, privatization and globalization during 1990s the focus of banking changed towards increasing the productivity, profitability, improving operational efficiency in the banking sector and so the profit planning become a complex phenomenon under the competitive and deregulated environment He says that, profitability to a great extent also depends up on the policy environment, the skills of bank in balance sheet management, risk management, the international developments, the impact of markets forces on technology, management systems and controls the human resources management in banks.

In his study he discussed that Net Interest Income (NII) is a function of Asset-Liability Management (NII is arrived at by deducting interest expenditure from interest income).

[43] Member of Faculty, Sri SPBT College, Mumbai, "Profitability Management in Banks –Under Deregulated Environment", IBA Bulletin, July 2003, p 19

The change in the NII is the effect of changing rates on net income for banks with different gap maturities. Therefore in profit planning under deregulated environment, banks need to assess the impact of changing interest rates on assets and liabilities through perfect Asset-Liability Management practices. He has studied the impact of change in interest rates through Gap Analysis. Where,

Gap = Risk sensitive Assets (RSA) minus Risk sensitive Liabilities (RSL)

While concluding the study he suggested that a successful ALM process requires a perfect management information system (MIS), which should fast, cost effective and reliable for taking timely decisions in the fast changing environment and the technology should be an aid in this development of strong MIS.

2.41 **Arvind Deshpande**[44], Chief Executive and Secretary, The Maharashtra State Co-operative Bank responded on the issue of RBI treating Co-operative Banks at par with other banks in term of application of regulation. "The RBI has cut off the means to garner capital by banning the declaration of dividends by non-Grade-I banks. I wonder which sensible investor will stay invested if there is no return on investment. There could be a shake out in this sector if the RBI does not lift the ban on dividend declaration". He further says, " Co-operative banks wonder why the RBI wants to impose on them prudential norms that are applicable to big public, private and foreign banks. We are small and different. It's but logical that the same yardstick (prudential norms as laid out by Basle Capital Accord) cannot be used to compare us with the big daddies in the business like SBI or ICICI bank. Our clientele is different and so are our ethos and culture".

2.42 **Parthiv Adhyaru**[45], chairman of the Nutan Nagrik Co-operative Bank, feels that putting co-operative banks on a par with commercial banks will help co-operative banks at a national level. However, the structure and purpose of co-operative banks will be in jeopardy. " It's good of the financial and economic aspect of co-operative banks are brought on a par with nationalized banks but the management structure should not be tempered with".

[44] Chief Executive and Secretary, The Maharashtra State Co-operative Bank, 'We Are Special Please', Business Standard- Banking Annual October 2003, p 46.
[45] Chairman, Nutan Nagrik Co-operative Bank, 'We Are Special Please", Business Standard- Banking Annual October 2003 p 46

2.43 The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002[46], "Though the banking industry in India is progressively complying with international prudential norms and accounting practices there are certain areas in which the banking sector do not have a level playing field as compared to other participants in the financial markets in the world. There is no legal provision to facilitate securitisation of financial assets of banks and financial institutions. Further, unlike international banks, the banks and financial institutions in India do not have power to take possession of securities and sell them. Our existing legal framework relation to commercial transactions has not kept pace with the changing commercial practices and financial sector reforms. This has resulted in slow pace of recovery of deflating loans and mounting levels of non-performing assets of banks. Narasimham Committee I and II and Andhyarujina Committee constituted by Central Government for the purpose of examining banking sectors reforms have considered the need for changes in the legal system in respect of these areas. These have suggested enactment of a new legislation for securitisation and empowering banks to take possession of the securities and to sell them without the intervention of Financial Assets and Enforcement of security Interest Ordinance, 2002 was promulgate on the 21st June, 2002 to regulate securitisation and reconstruction of financial assets and enforcement of security interest and for matters connected therewith on incidental thereto. The provisions of the Ordinance would enable banks to realize long-term assets, manage problem of liquidity, asset liability mismatches and improve recovery by exercising power to take possessions of securities, sell them and reduce non-performing asserts by adopting measures for recovery".

2.44 E. Madhavan and R. Raghavan[47] in their book provide a comprehensive coverage and valuable insight into bank financial management. The subject matter is spread over seven modules comprising of:

- Introduction to bank financial management
- Interest rate risk management
- Liquidity management
- Derivatives
- Credit risk

[46] Universal's "The Securitisation and Reconstruction of Financial Assets and Enforcement if Security Interest Act 2002", Bare Act with short notes, Universal Law Publishing Company Pvt Ltd New Delhi, 2004, p 1
[47] Member of Faculty, Bankers training college, RBI, Mumbai 'Bank Financial Management', module II, Indian Institute of banking and Finance, Taxmann Publications Pvt Ltd , New Delhi, July 2004, p 73 –76

- Profitability
- Bank stock and valuation.

In the II module of the book 'An approach to Asset-Liability Management' the above-mentioned authors has provided very useful points, which are summarized below.

When RBI regulated the interest rates, banks were concerned about how the assets can be expanded securely and profitably. This is Asset management strategy.

Liability management implies ensuring optimum cost and maturities in respect of the liabilities raised by a bank.

Asset-Liability Management involves managing the cost/return, volume and maturity of asset and liabilities.

Under ALM, management control would comprehensively embrace all the business segment of the bank. Such management control should be coordinated and internally consistent and should include pricing policies covering all products.

Interest rate risk affects NII and Market Value of Equity (MVE), Management of NII normally has the performance horizon in view and is essentially issue and is addressed by banks with a long term perspective.

The four methods of ALM are (1) Traditional/Standardized Gap Method (2) Duration Gap Method (3) Simulation and (4) Value at Risk. While (1) and (2) address the impact of interest rate risk on NII and MVE respectively, other two methods attempt to address the impact of interest rate risk on both NII and MVE.

2.45 A. Venkateswara Rao and Dr.Jayantilal Jain[48]- The present study deals with the pricing of bank products taking Asset Liability Management (ALM) as a tool. This study is mainly undertaken as it is a good tool in pricing bank products. The study is conducted on 3 SBI group banks, 14 nationalized banks, 6 private banks and one foreign bank. The study covers the ALM system existing in the banks viz., compilation of data, submission of ALM returns to RBI, behavioral studies conducted in determining the in-

[48] Asset-Liability Management-A tool for Pricing Banks Products, C H Bhabha Research Scholarship Project Report 2004, IBA Bulletin Sept. 2004, p 14

deterministic products, empirical studies made on unavailed portion of cash credits and devolvement in letter of credits and invocation in bank guarantees.

Due to liberalization, deregulation of interest rates, competition from foreign banks made the public sectors banks to think of new strategies. By fixing own interest rates on deposits and advances with the help of ALM has led banks to price their products not only through traditional methods but also through this tool in a rational way. In fact the main purpose of this pricing should again reflect to enhance the market value of equity of the banks, which protects the shareholders value.

Stating the objective of the study the authors said, "Pricing of bank products is based on cost of funds, profit margin and risk aspect. To fine tune their profit margins and to minimize risks involved in managing the assets and liabilities, it has become necessary to take ALM systems".

The tools used in ALM systems are viz., Models used in determining the core and volatile proportions in in-deterministic products, Duration GAP analysis, Optimization of NII using Optima Solver, Theil's Entropy model to analyze the concentration in maturity profiles of banks, Value at Risk to capture the default risk, Securitisation to minimize long term mismatches etc.

Methodology for pricing deposits taking ALM as tool:

<u>For pricing of Retail Term Deposits</u>- contractual maturity profile of deposits, behavioral study of deposits, cost of deposits, Gaps observed in the structural liquidity statement etc.

<u>For pricing Wholesale Term Deposits</u>-Whether funds raised can be deployed immediately to get better yield and cap in floating such funds with the period of accepting the deposits.

<u>For pricing of Advances</u>- concept of Bench Mark Prime Lending Rate (BMPLR) was used.

According to them, "The BMPLR should be fine tuned by using ALM systems. The term premia should be effectively arrived by taking the maturity profiles of advances from structural liquidity statement (SLS). The premia should be calculated for three periods viz., short term covering the period up to 1 year, Medium term covering period from 1 to 3 years and long term covering period above 3 years".

The term prima is arrived by using the formula:

$$\textbf{Prima} = \frac{\textbf{Amount}}{\textbf{Total Liabilities}} \times \textbf{Period}$$

The final formula arrived to price the advances using BMPLR is as follows:

$$\textbf{BMPLR} = \begin{matrix}\textbf{(Funds Cost + Term Prima + Transaction}\\ \textbf{Cost + Default Prima + Profit Margin)}\end{matrix} - \begin{matrix}\textbf{(Subsidy for}\\ \textbf{Ancillary income)}\end{matrix}$$

In case of advances financed to corporate borrowers the ration systems are used. The credit ration enables bank to find out the credit risk involved to a particular segmented portfolio. The rates of applicable spreads are charged depending upon the ration given such as 'A+++' be charged with no spread or with least spread and 'A++' has been loaded with a spread of less than 'A+' borrowers. In this way the spreads will be loaded to the derived BMPLR and finally the price is arrived.

Thus, the study reveals that by using the tools discussed in the project can strengthen the ALM system. By using these ALM systems, the pricing of bank products can be fine tuned effectively.

2.46 S.R. Utekar[49] as an expert in co-operative banking narrated the Role of Co-operative banks. He said, " Today, the banking sector is passing through a phase of transition due to the acceptance of various prudent norms and international standards in business practices. Though, survival of the fittest is the need of the hour, a level playing field for basic survival has to be provided by financial regulators. Equal support in crisis, occurred by whatever reason, should support all kinds of restructures and realignment of the banking sector so that it can regain customer confidence".

Predicting the future of cooperative banking he said, "In the emerging competitive environment, only those cooperative banks that adhere to stick financial discipline, will survive. The future of this sector primarily depends on the strong belief on its core competence, its local operations with global vision, the integration of weak players with strong ones and proper risk management policies. This sector should not be unduly concerned about its size, instead, try to capitalize on its inherent strengths".

[49] Additional General Manager, The Thane Janata Sahakari Bank Ltd , Chartered Financial Analysts (Section – Experts View)"Role of Co-operative banks", November 2004, p38

2.47 **Dr. A.P.J. Abdul Kalam**[50], Honorable President of India, Inaugural address, at Bankers' Conference (BANCON-2004) "The bankers have to scout for prospective entrepreneurs coming out of Technology Business Incubators (TBI) programme started by the department of Science and Technology providing venture capital to scale up and lead to quantity production. Actually in this situation, there are certain risks. But in the history of great industrial development, risks always accompany success. If you take such risks, you can reap the benefit of generating billion-dollar company. Are you ready?"

2.48 **Dr. Y.P. Reddy**[51], Governor, RBI, " Banking in modern economies is all about risk management. The successful negotiation and implementation of Basel II Accord is likely to lead and even sharpen focus on the risk measurement and risk management at the institutional levels. Thankfully, the Basel Committee has, through its various publications, provided useful guidelines on managing the various facts of risk. The institution of sound risk management practices would be an important pillar for staying ahead of the competition. Banks can, on their own part, formulate 'early warning indicators 'suited to their own requirements, business profile and risk appetite in order to better monitor and manage risks."

2.49 **Anne O. Krueger**[52], Deputy Managing Director, International Monetary Fund (IMF) at Bankers' Conference (BANCON-2004) "No longer is a bank a physical building that individuals and firms visit to discuss their financial needs. Banking has a global business and banks increasingly need to think globally if they are to be successful. They must assess risk, match exposures and provide a full range of financial services because as firms grow bigger, and more diversified, so do they're financial needs. Successful firms need to be able to compete at the global level, and they need correspondingly sophisticated financial services. Banks need increasingly to be able to respond to these demands".

2.50 **S.N. Bidani, P.K. Mitra and Promod Kumar**[53], the book 'Credit Risk Management' focuses on credit risk as it represents the major risk faced by the banks, which is inherent in their business of lending. Credit risk here, is defined as possibility of

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[50] Inaugural Address 'Multi-dimensions of Banking' by Honorable President of India at Bankers' Conference (BANCON-2004) on 10th November 2004 at Vigyan Bhavan, New Delhi

[51] Pre-Inaugural Address 'Banking Sector in Global Perspective', Governor, RBI, at Bankers' Conference (BANCON-2004) on 10th November 2004 at Vigyan Bhavan, New Delhi.

[52] Keynote address 'Banking needs a Global Economy', by first Deputy Managing Director, International Monetary Fund (IMF) at Bankers' Conference (BANCON-2004) on 10th November 2004 at Vigyan Bhavan, New Delhi.

[53] Credit Risk Management- Taxmann Allied Services Pvt Ltd , New Delhi, Edition-January 2004

losses associated with diminution in the credit quality of borrowers or counter parties. In bank's loan portfolio, losses stem from outright default due to inability and unwillingness of some borrowers of counter parties to repay the loan or meet their commitments as per sanctions.

According to Basel Committee, the credit risk is caused mainly due to weakness in credit administration and risk management functions more specifically related to lack of proper pre-sanction appraisal and credit granting process, adverse credit distribution, ineffective loan, monitoring and audit functions, delayed identification and initiation of remedial actions in problem exposures; inadequate credit policy directions, etc. The importance of the risk management function in banks can by gauged from the fact that even RBI is evolving a system of Risk Based Supervision (RBS) of banks which will focus on assessment of the inherent risks in the business undertaken by the banks and the efficiency of the system evolved by them to manage risks.

The topics discussed under the subject of credit risk management in the book include monitoring of the loans at pre and post-operational stages, methodology for undertaking on the spot study and utility of financial statements. The book has a special chapter on credit risk evaluation and management, which discusses some credit risk models to ultimately suggest a simple model based on operational, financial parameters, which have predictive powers.

2.51 Parasmal Jain[54], Faculty Member, UCO Bank, Regional Training Center, Ahmedabad, on Basel II Accord says, "The object of new Capital Accord is to have an improved Capital Adequacy Framework to foster a strong emphasis on risk management. Here the definition of risk-weighted assets is modified. It emphasizes on treatment of credit risk in a more scientific way and also on introduction of an explicit treatment of operational risk.

$$\frac{\begin{array}{c}\text{Regulatory capital}\\ \text{(Definition Unchange)}\end{array}}{\begin{array}{c}\text{Measure of risk exposure}\\ \text{(Risk weighted assets)}\\ \text{(Measure revised)}\end{array}} = \begin{array}{c}\text{Minimum required}\\ \text{Capital ratio}\\ \text{(8\% minimum unchanged)}\end{array}$$

[54] Faculty Member, UCO Bank, Regional Training Center, Ahmedabad, 'Basel II Accord Issues and Suggestions', IBA Bulletin, June 2004

2.52 A. Karunagaran[55] "As the appetite for risk taking and actual amount of risk taken by universal bank and commercial and cooperative banks differ drastically, accordingly the regulatory/supervisory norms/prescriptions need to differ. Sufficient proactive policy environment needs to be created for the banks to opt for healthy and transparent mergers and consolidations based on the economies of scale/scope to reap the benefits of synergies. However, banks need to put in sophisticated risk management techniques".

[55] Towards Universal Banking in India. Some regulatory and Supervisory Issues, Paper Submitted at the Banking Conference, IBA Bulletin, January 2005, p 139