CHAPTER II

Banking Sector Reforms
and the Historical Evolution of ALM

In India the objectives of a planned economy had always been conditioned and controlled by the monetary and banking policy. As early as in 1955 it was felt necessary that the state ownership of banks and progressively the entire financial system should become the first step in gearing up the economy to major strides through planning and development. In a nutshell, the state ownership of the financial sector was made to serve three vital objectives. ¹

1 It was felt necessary that the distribution of credit was to be equitable and supportive of productive activity.

2 The organized financial system had to be expanded to cover all areas of the country as a part of conscious policy and the banking system had to become a major vehicle for mobilizing savings.

3 The financial system had to de-emphasize predatory profit maximization and the stress was to be on the social aspects of banking.

The banking institutions are the custodians of private savings and function as a powerful instrument to provide credit. They can mobilize the resources of the country by accepting deposits and channelising them for industrial and national development by granting
advances. Though the Imperial Bank of India was nationalized in 1955 and its undertaking was taken over by the State Bank of India, there were complaints about the commercial banks that they were not catering to the needs of the sectors demanding priority such as agriculture, small scale industry and exports. These banks were directing their advances to the large and medium scale industries. So a comprehensive scheme of social control on banks was enforced through legislative measures to serve the course of economic growth and to fulfil the social objectives more effectively. The aim of social control was to bring about changes in the management and credit policy of the commercial banks. As a first step in imposing social control over the commercial banks, the 'Banking Regulation Act 1949' was amended on 1 February, 1969. Under the provisions of the amended Act, the banks were required to perform certain functions for the social welfare of the weaker sections of the society. Although steps had been taken for imposing social control over the banks with a view to remedy the basic weakness of the Indian Banking System and to ensure that the banks would cater to the needs of the hitherto neglected and weaker sections of the community, it was felt that the imposition of social control had not changed the position very much.

Subsequently on 19 July 1969, 14 major commercial banks were nationalized through an ordinance each having deposits of more than Rs.50 crores and having among themselves an aggregate deposit of Rs.2632 crores and 4130 branches. The 14 nationalized banks were:

The nationalization of commercial banks was a revolution in the Indian Banking System. It was the beginning of a co-ordinated endeavour to use an important part of the financial mechanism for the country’s economic development. In nationalising the banks, the government was only putting into effect its programme for achieving a socialistic pattern of society. It was hoped that nationalisation would effectively decentralise credits with the result that the priority sectors such as agriculture, small scale industries, exports, self-employment etc., would be provided with liberal banking facilities and that banking units would be extended to rural areas. Nationalised banks were expected to give priority to the schemes of the neglected sectors and exports, to meet some of the demands of the public sector undertaking and to use the balance of the available resources for organised industries. This was based on the principle that new enterprises and those in backward areas should be preferred to the big business houses. A further step in the form of credit guarantee insurance payable by the stronger sectors of the society to insure the risks involved in the lending to the weaker sections was also envisaged.
The objectives of social control were also the same, but the government thought that it was not successful. It was stated that it would take a longer time for the banks to throw away their traditional outlook and however strong the laws might be, the banks could not easily achieve the purpose.

Another argument in favour of nationalisation was that the major banks were operating mostly with other people's money and the financial stake of the shareholders was almost negligible. Against a total deposit of Rs.2750 crores at the end of December 1968, the lending capital was only Rs.28.5 crores or quite a little over one per cent of the total deposit. Therefore the government thought that direct control would be more effective than social control. In nationalising the 14 banks, the government was merely putting into effect its own long-decided programme for achieving the socialist pattern of society.

The opponents of nationalisation argued that the period of social control i.e. 168 days, from 1 February 1969 to 19 July 1969 was too short a period to judge the results of 'social control' and there was no reason to conclude that it had failed. "From June 1968 to March 1969 the credit given by 20 major banks to agriculture increased from Rs.30 crores to Rs.97 crores and to small scale industries from Rs.167 crores to Rs.222 crores." This data revealed the fact that the banks had welcomed the spirit of social control and that they were acting not under compulsion but in the spirit of co-operation and willingness.
The post-nationalisation period saw the emergence of social or mass banking and geographically the thrust was to cover the under-banked hinterland and functionally to extend credit to agriculture, and small-scale industries. The aim of nationalisation was effective decentralisation of credit to the priority sectors such as agriculture, small scale industries, exports etc. and to provide liberal banking facilities by extending banking units to rural areas. To achieve these goals, sectors constituting weak and backward areas and the exporting sector were charged lower rates of interest than that charged on established business, thereby subsidizing these sectors.

On 15 April 1980, six more private sector banks having demand and time liabilities of not less than Rs.200 crores each were nationalised, extending further the area of public control over the country's banking system.

Performance of Commercial Banks after Nationalisation

The banking industry has made significant and impressive progress since nationalisation. The number of banks and bank offices increased giving an extensive coverage of the country, opening up banking facilities, new avenues of resource mobilization and deployment of credit to a wide spectrum of economic activities. The functional, institutional and structural aspects of banking underwent comprehensive changes, opening up various facilities for the expansion and growth of deposits and advances.
The commendable performance of banks with regard to geographical coverage of branches since nationalisation is evident from the fact that there was a sevenfold increase in the number of branches from 8262 in June 1969 to 60220 branches in March 1991. Out of these branches 35206 were in rural areas and 11344 in semi-urban areas (Table II (I)). The population per branch was reduced from 64 thousand to 14 thousand by the end of March 1991. Since there had been an extension of banking facilities in the rural and semi-urban areas, there was evidence of growth in deposits and the relative preference of the community in favour of bank money as against currency. The deposits of Scheduled Commercial Banks in India stood at Rs.4646 crores in 1969. By the end of March 1991 this has increased to Rs.201199 crores out of which demand deposits and time deposits constituted Rs.38300 crores and Rs.162899 crores respectively.

In the field of bank credit there was a shift in favour of priority sectors such as agriculture, small-scale industries, small business and small borrowers. During this period, the priority sector advances of these banks increased from Rs.504 crores (i.e. 14 per cent) in 1969 and to Rs.44572 crores (i.e.37.7 per cent) by the end of 1991.

Deposits per branch had increased from Rs.56 lakhs to Rs.354 lakhs and credit per branch had increased from Rs.44 lakhs to Rs.202 lakhs during the post-nationalisation period.
Table II (1)

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<tr>
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<tbody>
<tr>
<td>1 No of Commercial Banks</td>
<td>89</td>
<td>136</td>
<td>278</td>
<td>276</td>
</tr>
<tr>
<td>2 No of bank offices in India</td>
<td>8262</td>
<td>30202</td>
<td>57699</td>
<td>60220</td>
</tr>
<tr>
<td>(a) Rural</td>
<td>1833</td>
<td>13337</td>
<td>33014</td>
<td>35206</td>
</tr>
<tr>
<td>(b) Semi-urban</td>
<td>3342</td>
<td>7889</td>
<td>11166</td>
<td>11344</td>
</tr>
<tr>
<td>(c) Urban</td>
<td>1584</td>
<td>5037</td>
<td>7524</td>
<td>8046</td>
</tr>
<tr>
<td>(d) Metropolitan</td>
<td>1503</td>
<td>3939</td>
<td>5995</td>
<td>5624</td>
</tr>
<tr>
<td>3 Population per office (in Thousand)</td>
<td>64</td>
<td>22</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>4 Deposits of Scheduled Commercial Banks in India</td>
<td>4646</td>
<td>28671</td>
<td>147854</td>
<td>201199</td>
</tr>
<tr>
<td></td>
<td>Demand</td>
<td>2104</td>
<td>11050</td>
<td>25108</td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>2542</td>
<td>17621</td>
<td>122746</td>
</tr>
<tr>
<td>5 Credit of Scheduled Commercial Banks (Rs. Crores)</td>
<td>3599</td>
<td>19116</td>
<td>89080</td>
<td>121865</td>
</tr>
<tr>
<td>6 Deposit of Scheduled Commercial Banks per office(Rs. Lakhs)</td>
<td>56</td>
<td>95</td>
<td>255</td>
<td>354</td>
</tr>
<tr>
<td>7 Credit of Scheduled Commercial Banks per office (Rs. Lakhs)</td>
<td>44</td>
<td>63</td>
<td>154</td>
<td>202</td>
</tr>
<tr>
<td>8 Scheduled Commercial Bank’s Advance to Priority Sector (Rs. Crores)</td>
<td>504</td>
<td>5906</td>
<td>38086</td>
<td>44572</td>
</tr>
<tr>
<td>9 Share of Priority Sector Advance to total credit of Scheduled Banks (per cent)</td>
<td>14</td>
<td>30.9</td>
<td>42.6</td>
<td>37.7</td>
</tr>
<tr>
<td>10 Credit Deposit Rates</td>
<td>77.5</td>
<td>66.7</td>
<td>60.3</td>
<td>60.6</td>
</tr>
<tr>
<td>11 Investment Deposit Rates</td>
<td>29.3</td>
<td>32.7</td>
<td>38.9</td>
<td>37.7</td>
</tr>
<tr>
<td>12 Cash Deposit Ratio</td>
<td>8.2</td>
<td>12.5</td>
<td>16.2</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Source: Basic Statistical Returns – Banking Statistics 1972-1995 RBI

With regard to the deployment of funds, the CD ratio had declined from 77.5 per cent in 1969 to 60.6 per cent by the end of 1991, whereas the Investment Deposit Ratio had shown an increase from 29.3 per cent in 1969 to 37.7 per cent by March 1991. As the
Statutory Liquidity Ratio and Cash Reserve Ratio had increased during the post-nationalisation period. the Cash Deposit Ratio of the banks during this period had shown an increase from 8.2 per cent in 1969 to 17.6 per cent by the year 1991.

In order to meet the challenges following the nationalisation of commercial banks and a consequential change in the banking policy, the commercial banks had undertaken Management Development Programmes. The management structures of Commercial Banks had been changed to provide for quick and better decision making through a process of delegation down the line. The nationalised banks had played a vital role in the implementation of government's various anti-poverty programmes especially the Integrated Rural Development Programme (I.R.D.P). The post-nationalisation era witnessed a shift from security-oriented lending to purpose-oriented lending. "Direct linking in the priority sector through special schemes with concessional rate of interest was formulated with the sole objective of uplifting the deprived classes in the society. To a certain extent many of these schemes changed the Public Sector Banks into a level of charitable institutions. Waiver of loans to one section of the borrowers led to the other borrowers also demanding similar concessions or turning wilful defaulters."³

With the emphasis on social and development banking, the margin of loans and advances have narrowed down and their profitability has been affected. For various other reasons also the
profitability of Commercial Banks has been under severe strain for some years before the introduction of the reform measures. The Average Annual Growth Rate (AAG) of profits in the Public Sector Banks during the period 1982-92 was 26 per cent whereas in Private Sector Banks, the AAG showed a higher percentage, i.e., 37 per cent. The Indian Banks Association identified six factors, which have contributed to the declining profitability of Public Sector Banks. These are:

1. Large pre-emptions of lendable resources to continuous increase in SLR and CRR and increasing rigidity in their maintenance and penalty for default.

2. Persistent increases in lending to priority and preferred sectors at concessional rates of interest resulting in narrowing down margins of banks on loans and advances.

3. Increasing incidence of industrial sickness with interest acquired on bank advances locked up in sick industrial units being put separately in "accrued interest account" and thereby depriving the banks of this substantial income and so affecting the bank revenues.

4. Rapid expansion of branch network particularly in rural areas, which takes at least a five-year period to break even.

5. Administered interest rate structures for deposits, credit and refinance disadvantageous to banks, unfavourable change in deposit mix, the incremental growth being more in the high-cost
time deposit compared to low-cost demand deposits, thereby
pushing up the cost of funds of the banks over the years, and
6. Growing incidence of the process of financial disintermediation
on the part of the banking sector directly entering the capital
market to raise funds has affected the loan portfolio and
consequently the profitability of banks.

Introduction of Financial Sector Reform

The decade of 1980s has witnessed considerable diversification of
the money and capital market. The strong points of the Indian
financial system have been its ability to mobilise savings, its vast
geographical and functional reach and its institutional diversity. The
Indian financial system possesses an impressive network of banks and
financial institutions and a wide range of financial instruments. All the
indicators of financial development have significantly increased,
implying the growing importance of financial institutions in the
economy and growth of financial flows in relation to economic activity.
Despite the commendable progress in the financial system, several
weakness have developed, particularly in the banking sector due to its
rapid expansion, organizational inadequacies, and lags in the
introduction of computer technology. In the post-nationalisation era,
banking shifted from class banking to mass banking and consequently
social banking often had to overlook the profitability factor in banking.
Deposit mobilization, branch expansion and priority sector lending at
concessional rates occupied the centre stage of the banker's planning and performance.

The advent of nationalisation of banks helped to increase the number of branches, enhance in the volume of deposits and to ensure wider dispersal of the advances. But the following deficiencies also crept into this sector. These could be listed as follows:

1. Decline in the productivity and efficiency of the system.
2. Erosion of profitability of the system, which constrained its capability to expand.
3. Directed lending played a critical role in depressing the profits.
4. The directed investments in the form of SLR and CRR hindered the operational flexibility and income earning capability and potentials.
5. Portfolio quality suffered due to political and administrative interference in credit decision-making.
6. Technological backwardness continued resulting in increasing cost structure.
7. Average ratio of capital funds to risk-weighted assets remained low creating problems in international operations in particular.
8. The system remained de-linked from sound international banking trends.

Realising these ill-effects, efforts were made to bring reforms in the financial system of the country. There has been a growing concern over the deterioration in the operational efficiency of the banking
system. Low profitability, high and growing non-performing assets and relatively low capital base etc. were some of the features of the Indian banking system in the decade ending in 1980. The capital base of Public Sector Banks which was slightly over 2.85 per cent in 1990-91 was much lower than the international standards. Over the years the pressures to direct resources for the Five Year Plans and the need to contain inflationary pressures resulted in an inexorable increase in reserve requirements to quite clearly unsustainable levels. As a part of a conscious policy to re-orient credit flows, mandatory priority sector allocations became a large segment of the lendable resources of banks with varying degrees of concession in interest rates. With the wider geographical coverage, lines of control lengthened and were generally attenuated, while lending to risk-prone areas increased significantly resulting in deterioration in the quality of assets. As on 31 March 1992, the aggregate non-performing advances of all public sector banks constituted around 14.5 per cent of the total bank credit.

The balance sheet of performance of public sector banks is a mixed one, strong in widening credit coverage but weak as far as viability and sustainability are concerned. Dr. Manmohan Singh, the then Finance Minister emphasised in his budget speech on July 1991 that the problems faced by the banking and financial system could be the result of a combination of factors, both internal to themselves, arising out of organisational and management weakness and external in the form of policy direction and environment.7
Table II (2)

Profitability of Banks in the Pre-Reform and Post-Reform Periods

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-Reform Period</th>
<th>Post-Reform Period</th>
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<tr>
<td></td>
<td>Pvt. Sector Banks</td>
<td>Public Sector Banks</td>
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<td>Private Sector</td>
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<td>Banks</td>
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<td>Public Sector</td>
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<td></td>
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<td></td>
<td></td>
<td>Banks</td>
</tr>
<tr>
<td>1982</td>
<td>0.13</td>
<td>0.12</td>
<td>1991-92</td>
<td>0.57</td>
</tr>
<tr>
<td>1983</td>
<td>0.11</td>
<td>0.11</td>
<td>92-93</td>
<td>0.34</td>
</tr>
<tr>
<td>1984</td>
<td>0.11</td>
<td>0.09</td>
<td>93-94</td>
<td>0.56</td>
</tr>
<tr>
<td>1985</td>
<td>0.15</td>
<td>0.11</td>
<td>94-95</td>
<td>1.16</td>
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<tr>
<td>1986</td>
<td>0.15</td>
<td>0.15</td>
<td>95-96</td>
<td>1.06</td>
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<tr>
<td>1987</td>
<td>0.20</td>
<td>0.17</td>
<td>96-97</td>
<td>0.91</td>
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<tr>
<td>1988-89</td>
<td>0.25</td>
<td>0.19</td>
<td>97-98</td>
<td>0.81</td>
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<tr>
<td>1989-90</td>
<td>0.25</td>
<td>0.13</td>
<td>98-99</td>
<td>0.48</td>
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<tr>
<td>1990-91</td>
<td>0.35</td>
<td>0.18</td>
<td>99-2000</td>
<td>0.84</td>
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<td></td>
<td></td>
<td></td>
<td>2000-01</td>
<td>0.62</td>
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<td></td>
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<td>01-02</td>
<td>1.08</td>
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<td>0.72</td>
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Source: Compiled and Computed from IBA Bulletin and RBI Bulletin (various issues)

With the decline in the quality of loan assets, the need for provisioning has become more urgent and several banks were not in a position to make adequate provision for doubtful debts. It was against this background that financial sector reforms were initiated, aimed at addressing the causal factors both internal and external to the system.
The banks are going back to their commercial character. They play their role within the prescribed regulatory framework and the fast changing economic environment that is emerging in the post-liberalisation and globalisation era. Profitability has become the parameter that gives a competitive edge for banks in a market-oriented system.

**The Reform Package**

Indian banks have been operating hitherto in a partly regulated environment with policies of "Directed Investments" and "Directed Credits" for fulfilling social obligations of poverty eradication, employment creation etc. While banks world-wide are run on commercial lines, in the Indian context, the imposition of social obligations on the banks had an adverse impact on their profitability. The deteriorating state of Indian banks has been engaging the attention of the authorities and the financial community alike. With the imaginative and bold steps initiated by the government to liberalise and globalise trade, commerce and industry, it became appropriate to review the operations of Indian banks with a view to make them internationally competitive.

The World Bank, during the second half of the 1980s, had made a study of the financial sector of the country and made several recommendations covering areas of financial policy and institutional reforms. The recommendations broadly covered areas related to reduction in SLR/CRR, redefinition of the priority sector bringing down
the priority sector target, liberalisation of interest rate structure, autonomy of banks and financial institutions and permission to private sector to enter into investment banking and mutual fund business.

In August 1991, the Government of India set up a high level committee under the chairmanship of Mr. M. Narasimham, former Governor, RBI, to examine all aspects relating to the structure, organisation, functions and procedures of the financial system of the country for revealing certain rigidities and weaknesses that the system has developed in recent years. The committee was required to make recommendations for improving the efficiency and effectiveness of the system with particular reference to the economy of operations, accountability and profitability of commercial banks and financial institutions to enable them to become more efficient and competitive. The committee submitted its report to the government in November 1991.

The committee’s recommendations focussed on two areas — improving the profitability of banking operations on the one hand and enhancing the operational flexibility and autonomy in decision-making on the other. For improving bank’s net operating income and operations, the committee examined the present system of directed investment, directed credit programmes and the interest rate structure within the framework of prudential norms and regulations. The major areas of expenditure such as branch expansion and internal organisation including certain aspects of manpower management were
closely examined. The recommendations made by the committee, which are of far-reaching significance, were accepted by the government and it was decided to implement them in a phased manner over a three-year period from April 1992 to make the financial system more competitive, productive and viable.

**Interest Rate Deregulation**

Easing of the external constraints such as administered structure of interest rates, high level of pre-emptions in the form of resource requirements and credit allocation to certain sectors which have a bearing on the profitability of the banking system constitute the major part of the reform agenda. The Narasimham committee suggested that the existing interest structure on loans and deposits is very complex and there should be some market orientation. For long, an administered structure of interest rate was in vogue and the purpose behind this structure was largely to direct implicit subsidy to certain sectors and to enable them to obtain funds at concessional rates of interest. These concessional rates of interest provided to some sectors were compensated by higher rates charged on other non-concessional borrowers. In recognition of the problems arising from administered control over the interest rates, several attempts were made since the mid 1980s to rationalise the level and structure of interest rates in the country. In respect of banks, a major effort was undertaken to simplify the administered structure of interest rates. In September 1990, a process of simplification was undertaken by
reducing the number of slabs for which lending rates had hitherto been prescribed.

A gradual approach has been adopted in reforming the interest rate structure in India. The RBI has reviewed the position of interest rates and most of the rates on deposits as well as advances are now market driven. Care has been taken to ensure that banks and financial intermediaries do not have incentives, which tempt them to lend at high rates of interest assuming higher risk. Banks are now free to have their own reference rate known as Prime Lending Rate (PLR) instead of floor or ceiling rates and can fix individual borrower’s interest rate within a bank over PLR. In respect of deposits, the banks now have the freedom of fixing differential interest rates.

**Phased Reduction of Statutory Pre-Emptions**

The system of directed investments in the Statutory Liquidity Ratios and Cash Reserve Ratios has constricted the operational flexibility of banks, depressing banks’ income earnings. The directed investment accounts for a pre-emption of over half of the total resources mobilised by the banking system. In the past the Cash Reserve Rates (CRR) and the Statutory Liquidity Ratio (SLR) had to be maintained at high levels because of rising fiscal and monetary deficits.

The SLR, originally conceived as a prudent liquidity cushion, has emerged as an important instrument of resource mobilisation for a captive market for public sector. This policy-induced pre-emption of bank resources to the public sector has been one of the major factors in
the erosion of bank’s profitability. This is because of the fact that the earnings on such pre-empted diversion of resources have not been commensurate with the cost of funds to the banks. The committee recommended that SLR which had been prescribed at a level as high as 38.5 per cent in 1991 should be brought down in a phased manner to revert to its original level of 25 per cent within a period of three years. A reduction in SLR levels should enable banks to allocate their resources on a flexible and efficient basis to promote investment and production in agriculture, industry and trade with due regard to the productive use of their resources.

The high levels of SLR and CRR that were in operation till the end of 1991-92, i.e. 63.5 per cent (38.5% SLR, 15% CRR and 10% incremental CRR) were recommended to be brought down to 25% and 10% respectively. The committee recommended that the Reserve Bank should consider reducing the CRR progressively from its high level. Weighing the liquidity situation and the monetary policy considerations and the need to reduce pre-emption of bank resources, the Reserve Bank discontinued the 10 per cent incremental CRR in April 1992 and a release of one third of the impounded cash balance under the incremental CRR was announced in October 1992.

**Directed Credit**

The committee which was of the view that after two decades of extraordinary credit support, the beneficiary to priority sector credit should be regarded as having reached a stage where to those that can
afford to pay commercial rates and qualify on normal banking considerations, credit should be disbursed without any deviation from the principles of commercial viability. The committee while suggesting a gradual phasing out of the directed credit programmes proposes a redefinition of priority sector. The redefined priority sector should be limited to only small and marginal farmers, tiny sectors of industry, small business and transport operations, village and cottage industries, rural artisans and other weaker sections. The committee wants to exclude medium and large farmers and the larger among small industries from the purview of the directed credit programmes. The committee believed that the redefinition of priority sector lending and limiting it only to the genuinely needy was fully in consonance with the postulates of social banking and would restore the original idea of materialisation viz., of linking bank credit with production activity. For ensuring flow of credit to sectors excluded from the redefined priority sectors, the committee recommended the introduction of refinance facility from the Reserve Bank of India.

The committee recommended that the target for the redefined sector should be fixed at 10 per cent of aggregate credit, subject to taking a review after three years. A detailed assessment made by the Reserve Bank indicated that the redefined priority sector would account for significantly larger than 10 per cent of the total credit and as such the Reserve Bank was of the view that acceptance of the committee's recommendation would put a severe squeeze on the sectors within the
redefined priority sector. Accordingly the government has decided not to reduce the level of priority sector lending from 40 per cent, although, the priority sector definition has been enlarged to include certain categories of advances which were hitherto not part of priority sector.

Priority sector borrowers with credit needs of higher amounts will however be governed by the general interest rate prescriptions. This will ensure that a certain proportion of bank credit goes to the designated sector and to the needy borrowers, without unduly affecting the viability and profitability of banks.

Prudential Regulations

The financial health of the banking system in India has deteriorated over a period of time due to several reasons such as the deterioration in the quality of advances, operating of large number of branches, increasing volume of over dues, higher reserves to be maintained with the RBI to meet SLR and CRR requirements and competition from non-banking financial institutions. One of the major elements of financial sector reforms has been the introduction of prudential norms and regulations.

The Narasimham committee has recommended various remedial measures through this prudential norms and regulation for ensuring the safety and soundness of the financial system. Prudential norms introduced in India relate to income recognition, asset classification, provisions for bad and doubtful debts and capital adequacy, which
aimed at bringing out the true position of a bank’s loan portfolio and helping to prevent its deterioration.

**Income Recognition**

A proper definition of income is given by the RBI as per the recommendation of the committee in order to ensure that income is recognised by banks, which is actually received. Banks have been given a clear definition of what constitutes a non-performing asset and instructions have been issued that no interest should be charged on non-performing assets. As per the recommendations of the Narasimham committee, a non-performing asset has been defined as a credit facility or as an advance as on the date of balance sheet, in respect of which interest has remained unpaid for a period of four quarters during the year ending 31 March, 1993, for three quarters during the year ending 31 March, 1994 and for two quarters during the year ending 31 March, 1995 and onwards. The guidelines of the RBI with respect to identification of NPAs are implemented in a phased manner.

**Asset Classification**

For the purpose of making provisions for bad and doubtful debts, banks have been allowed to classify their loans and advances in the four broad groups: (1) Standard assets, (2) Substandard assets, (3) Doubtful assets, and (4) Loss assets. The provision requirement ranges from 10 per cent to 100 per cent depending on the category of the assets.
Capital Adequacy Norms

On the basis of the recommendations made by the Basle based Bank of International Settlement (BIS) that capital adequacy should be related to risk-weighted assets of the banks and also as per the recommendations of the Narasimham committee, the Reserve Bank of India has issued guidelines in April 1992 to the banks (including foreign banks) for adoption of capital standards. A capital risk-weighted asset system has been introduced more or less in conformity with international standards. Indian banks which have branches abroad were required to achieve the norms of 8 per cent as on 31 March, 1994 and other banks not having foreign branches were required to achieve the 4 per cent norm by 31 March 1993 and 8 per cent norm by 31 March, 1996. Foreign banks operating in India have to achieve this norm by 31 March 1993.

Entry of New Private Sector Banks

For instilling competition, one of the major recommendations of the Narasimham committee has been to liberalise the freedom of entry in the financial system by permitting the establishment of new banks in the private sector. The committee has also recommended that foreign banks should be allowed entry into India so that commercial banks in the country would be able to operate in a competitive environment.

Supervision of Commercial Banks

The Narasimham committee wants the RBI to assume the full responsibility of overseeing the function of Indian banks in both the
public and private sectors as a strong supervisory body and ensure a system of supervision as essential for a sound banking system. The committee has recommended the setting up of a Supervisory Board under the control of RBI for the financial supervision of banks and other financial institutions. The system of external supervision of banks has been revamped with the setting up of a separate Board for Financial Supervision (BFS) within the Reserve Bank. The Board can have powers to ensure implementation of regulations in the areas of credit management, asset classification, income recognition, provisioning, capital adequacy and treasury operation.

**Asset Reconstruction Fund**

In order to speed up the process of recovery of loans and enforcement of security charged to banks and other financial institutions, the committee proposed the establishment of an Asset Reconstruction Fund (ARF) which could take over from the banks and financial institutions a portion of bad and doubtful debts at discount. This agenda has not been introduced in the first phase of reform.

**Branch Expansion**

On the basis of the recommendations of the committee and on the basis of the suggestions received from banks, the Reserve Bank has decided to give greater freedom to banks to rationalise their branch network by relocating branches, opening of specialised branches, setting up of extension counters etc. and the necessary guidelines were issued in May 1992.
The Reform Phase

The reform measures undertaken in 1991 created in the financial system a conducive environment for competition, better operational efficiency and higher profitability. Meanwhile, development in the economic field, greater reliance on market instruments of monetary regulation especially on the interest rates, expanding scope for risk management strategies, management targeted towards global integration of financial services have all contributed much in reinforcing the necessity of building a sound and efficient financial system.

The Reform Package of 1991 focused on easing of the policy frame work in terms of the administered structure of interest rates, high levels of pre-emptions in the form of reserve requirements and credit allocation to certain sectors, introduction of prudential norms and regulations aimed at ensuring the safety and soundness of the financial system, imparting greater transparency and accountability in operations and restoring the credibility of the confidence in Indian Banking system, strengthening the system through re-capitalisation, improving the quality of loan portfolio, instilling greater element of competition and strengthening the supervisory process.

Accordingly, the specific objectives of the reform were:
(a) bringing suitable modifications in the policy frame work within which various components of the financial system operate which include rationalisation of the rate of interest, reduction in the levels of
resource pre-emption and improving the effectiveness of directed credit programmes.

(b) improving the financial health and competitive capabilities by means of prescription of prudential norms, re-capitalisation and restructuring of weaker banks, allowing free entry of new banks and generally improving the incentive system under which banks function and

(c) institutional strengthening of the financial structure relating to supervision, audit, technology and legal framework and upgrading of the level of managerial competence and quality of human resources of banks by reviewing the policies relating to recruitment training and placement.

For restoring the credibility and the confidence of the Indian Banking System various measures such as recapitalisation, improving the quality of loan portfolio, instilling greater element of competition and strengthening the supervising process were introduced as part of the recommendation of the Narasimham committee. A major component of the restructuring programme of the Public Sector Banks undertaken by the government and the RBI involves an aggressive programme to recapitalise them by injecting capital funds. With a view to restoring and maintaining the financial soundness of banks, particularly in the interest of the depositors, as also in enabling them to meet the gap created by the application of the first stage of prudential accounting standards and capital adequacy norms, the government has
contributed Rs.5700 crores as equity to recapitalise nationalised banks during the financial year 1993-94.

The first phase of reforms achieved certain milestones and covered partial transparency in accounting, fixation of standards for capital adequacy, laying prudential guidelines for income recognition and provisioning etc. The pace of reforms was being set at the convenience of the most laggard of banks. The process could have been effective in respect of some of the banks which were healthy and sound but it could not be uniformly so for others which were having weak financial sector as they could not have moved along in the same pace. The frequent changes as a result of prudential guidelines and deregulation, changing priorities etc. have resulted in a situation of confusion on a number of occasions.

In the second phase of reforms success has to depend upon the organisational effectiveness of banks for which initiatives have to come from the banks themselves. Banks will have to move away from excessive attention to asset management and adopt a more general approach of asset-liability management aimed at modifying their liability structure in consonance with the desired asset structure.

Historical Evolution of Asset Liability Management

Due to liberalisation, globalisation and computerization of financial information, financial markets in most of the countries have experienced many changes especially in the banking sector. During the seventies and eighties inflationary pressure and an unusual volatility
of interest rates coupled with recession became the trend in global economy. As a result the strategic planning of the management of assets and liabilities became vital for the survival of financial institutions.

During the forties and fifties, as the banks had plentiful low cost funds available in the form of demand deposits and saving deposits, the basic managerial problem before the banks was asset management. During the sixties and early seventies liability management was the dominant approach to the bank's balance sheet management as the demand for loans had become strong and as the funds had started to become less plentiful as a result of the corporate treasurers beginning to economise on cash balance. To finance the growth of loans, banks turned to managing the liabilities. Since banks were described as taking the purchased funds and lending them at profitable Spread, Spread Management also assumed significance among banks.

The volatile interest rate, inflation and severe recession during the middle of seventies caused the banks to concentrate more on the management of both sides of their balance sheet. So during the eighties, a co-ordinated management of the bank's entire balance sheet rather than a piecemeal approach (i.e. asset, liability and Spread Management) was developed. In the nineties, consolidation, product expansion, globalisation of money and capital markets, securitisation and change in regulation and deposit insurance have made the management of assets and liabilities even more challenging.
With more and more nations globalising their operations, recent times have witnessed an increasing number of free economies and closely regulated markets are giving way to market-driven economies. The free economic environment has influenced the interest rate structure, money supply and the overall credit position of the market, the exchange rates and price levels. If the interest rate movements are known with accuracy and the volatility in the exchange rates is considerably lower, tackling such a situation would be an easier task. While functioning as financial intermediaries, banks are faced with different types of risks such as credit risk, foreign exchange risk and liquidity risk. The liberalisation and globalisation processes have increased the magnitude of these risks.

In several cases, the banks have offered the same product that has been repackaged with certain differences and most of them have an impact on the risk profile of the bank thereby enhancing the need for Asset Liability Management. The regulatory bodies of various financial markets have initiated different measures for enabling banks to cope with the changing environment that has resulted due to the integration of domestic market with the international market. One step in this direction is the increased focus on the management of the bank's assets and liabilities.
Review of Literature

The literature which was reviewed as a part of this study includes articles, papers and books related to Asset Liability Management, Credit Risk, Non-Performing Assets and Profitability Analysis in the Post-Reform Phase of modern banking. The available literature is categorised into:

1. Studies making a prospective evaluation of Indian Banking in the reform phase.
2. Studies related to Asset Liability Management as theory and strategy.
3. Studies with specific focus on Credit Risk and NPA.

Articles and Research Papers

Studies Making a Prospective Evaluation of Indian Banking in the Reform Phase.

R. Ravimohan (1996) in an article on making Indian banks more competitive in the global environment suggests that the areas that one would prioritise to engage the attention of the management of the Indian banks would be:

a) increasing the productivity of the staff of the Indian banks.

b) enhancing the technological delivery capability of the Indian banking system.

c) adopting more vigil on asset quality

d) taking a more objective view on lending, costing and recovery of advances, and
e) improving the coverage of services through product innovation.9

Talwar S.P (1996) in an article on the current banking scenario and the need for a policy change, opines that a major concern addressed by the banking sector reform is the improvement of the financial health of banks. The introduction of prudential norms is better financial discipline by ensuring that the banks are alert to the risk profile of their loan portfolios. 10

D. Ajith and R.D Bangar (1997) in a study relating to financial intermediation in banks states that the interest rate deregulation has given greater degree of flexibility to banks to charge risk-premium and reduce credit-rationing. In a deregulated regime, the ability and efficiency of banks to screen and monitor projects have significant implications for the effectiveness of the system. 11

C. Rangarajan (1997) in an evaluation of the Indian experience in Financial Sector Reforms published in the RBI Bulletin gives stress to the view that the sustained improvement of the economic activity and growth is greatly enhanced by the existence of a financial system developed in terms of both operational and allocational efficiency in mobilising savings and in channelling them among competing demands. 12

Abhiman Das (1997) in a study relating to the efficiency of Public Sector Banks in India points out that the deregulation provided
increased opportunities for banks to expand their portfolios but at the same time introduced new uncertainties and risks.  

R. Narasimham (2000) in a study related to Public Sector Banks points out the “true reasons” for the crisis in public sector banks: These are:

(a) Problems encountered by the banking industry globally and the response by central bank.

(b) Prudential norms introduced by the RBI in 1993 and their impact on the banking system in India, and

(c) The transformation of banks and the banking business due to forces unleashed by the IT revolution.

Shyamji Agarval (2000) in an article on the mergers and acquisitions of commercial banks in the Indian context, holds the view that if the Indian banks are to be made more effective, efficient and comparable with their counterparts abroad, they would require to be more capitalised, automated and technology oriented even while strengthening their internal operations and systems.

Studies Related to Asset Liability Management as Theory and Strategy.

Dennis G. Uyemura (1991) in an interview with the Banker’s Magazine presents the view that ALM is the function of the bank that attempts to reconcile risks and returns. Trends such as the movement towards market value concepts, cash flow concepts and capital allocation activities are all part of ALM responsibilities and therefore are
deeply ingrained in some of the fundamental trends in the banking environment. 16

D. Gosh Roy (1995) in an article points out that Asset Liability Management as a tool for increased profitability and managing interest rate volatility have been in vogue in the international banking scenario since the late seventies. With the process of globalisation and deregulation setting in, Indian banks could no longer shy away from managing their assets and liabilities more so in the short run. 17

V.T Godse and K.C Chakrabarty (1996) in an article on risk management present the view that during the post-nationalisation phase of Indian banking industry, different words and concepts have attained significance at different times. Liberalisation and deregulations of interest rates, prudential norms, capital adequacy and asset liability management as also risk management have become buzzwords of the nineties. 18

G. Sreedhar (1996) in the article on the different aspects of treasury management strongly argues that in India the only plausible hedge available to banks against interest rate risks is the natural hedge arising out of investment of borrowed resources in assets that have matching term and maturities. Banks do not have flexible alternatives that are easily accessible to hedge perceived risks. 19

Jayanthi Lal Jain (1996) in an article on the strategic planning for ALM expresses the view that with the process of deregulation setting in, Indian banks are increasingly finding the need to manage assets
and liabilities efficiently. The acceptance of Narasimham Committee recommendations during 1991 by the RBI had put serious strain on profitability and the need of ALM was felt by all the commercial banks. The objective of ALM is to manage various holdings of remunerative assets in a manner, which results in lesser cost and higher yields so as to maximize profits. 20

K.K. Ammanynya (1996) in an article on Asset Liability Management strategies for banks affirms his view that ALM is ultimately discretionary fund management when the focal point is to increase or decrease interest sensitive funds at the initiative of the bank. It is nothing but a process of adjusting bank liabilities to meet loan requirements, liquidity needs and safety requirements. 21

Deeraj Varishth (1996) in an article on Asset Liability Management in banks expresses the view that the ALM function if implemented properly, would enable the bank management to enhance the quality of its earnings 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.22

A.V. Rajwade (1996) in his article on International banking asserts that ALM is crucial to both domestic and international banking and the basic objective is to ensure that a bank's profitability is not unduly exposed to changes in the interest rates which is a subject of
importance to assets and liabilities in home currency as well as foreign currencies.  

K.K. Kannan (1996) in his article on Asset Liability Management points out that the secret of successful banking under deregulated and competitive environment hinges on matching of the assets and liabilities in terms of rates and maturity with a view to obtaining optimum yield. Although the process is too complex to practise, it is perhaps the only solution for banks to survive in a dynamic environment, which requires more stress on the total balance sheet management.

Mohan N Shenoi (1996) in his article on treasury management for ALM expresses the view that in commercial banking assets and liabilities, which were stable earlier and showed consistent growth, have in the recent past exhibited volatility and large swings. Investment banking operations, which have relatively more flexibility, is therefore being increasingly used to neutralise the risks arising out of commercial banking and thus the treasury is made the focal point of asset liability management in banks.

Pavan Sukhdev (1996) in his article on ALM points out that the possible and impending deregulations in the Indian context will lead to greater interest rate volatility and lower NIM and under these changed circumstances if the financial institutions are to maintain their profitability, efficient techniques of structuring the process of assets and liabilities have to be given due significance.
A.K. Trivedi (1996) in a study related to ALM in Forex Business in India states that searching attributes responsible for progress in the ALM field would reveal that the growth of capital, money and foreign markets has fuelled the development of new hedging instruments and derivative products with increased hedging effectiveness. At the same time the growth of process is infusing liquidity in these products so as to make them efficient and useful. 27

S. Rajagopal (1996) in his article on the different aspects of bank risk management points out that in a competitive market environment a bank’s rate of return will be greatly influenced by its risk management skills and Asset Liability Management is a good example for risk measurement. Prudent banking lies in identifying, assessing and minimising the risks. 28

IJH Louis (1997) in her article on Asset Liability Management maintains the view that ALM focuses on profitability and long-term operating viability. Increasing uncertainties regarding interest rates and finding possibilities besides the emergence of many hedging instruments in the financial markets have all added to the importance of ALM in modern banking management. 29

Jayanthi Jain and K. Balachandran (1997) in an article opines that with the liberalisation of the economy in general and the financial sector in particular, the risk dimensions facing the Indian commercial banks have multiplied. Banks which were familiar only with credit risk relating to non-payment earlier are now facing multiple financial risk in
the form of credit risk relating to non-payment and non-performing risks, interest rate risk, exchange risk, maturity gap risk and technology risk.  

Swapan Kumar Bakshi (1997) in his article on the interest rate risk identification measurement and control points out that interest rate risk denotes possibility of loss due to change in interest rates which will result in erosion in the net profits of a firm and/or in the market value of its net worth. Every ALM portfolio is exposed to interest rate risk, if the principal amount maturity or reprising dates of liabilities assumed are not exactly matched with that of the assets acquired. 

S.R. Shinde (1998) in an insightful paper presented in a symposium organised by the Association of Professional Bankers at Colombo and published subsequently in *Programme in Asset Liability Management* takes the view that banks are ultimately economic entities securing profits by assuming the numerous risks inherent in their financial intermediary and payment function and sophisticated ALM is the key to successful bank management. ALM is the management of total balance sheet dynamics with regard to its size and quality. It is not limited to balance sheet assets and liabilities such as deposits and lending, but includes off-balance-sheet activity such as swaps, futures and options.

Susheela Subrahmanya (1998) in the editorial to *Southern Economist Magazine* states that deregulation of financial markets and
globalisation have increased the range of activities that banks can undertake and this can at the same time expose the banks to a number of risks. Embracing scientific risk management practices will improve the bank’s profit and credit management processes.  

A.K. Trivedi (1998) in his article on Asset Liability Management states that ALM is the process of adjusting bank liabilities to meet loan demands, liquidity needs and safety requirements. It is different from the passive acceptance of deposit liabilities from the public for regular intermediations and maturity transformations into assets.  

Kuvalkar and Kaveri V.S (1998) in a paper on Asset Liability Management in the banks hold the view that under the liberated and deregulated economic environment the banks face problems in resource mobilisation and allocation which will untimely affect their liquidity, profitability and growth of business. The magnitude of this problem can be effectively minimised by adopting the technique of ALM.  

Harrington (1998) in a significant paper on Asset Liability Management by banks presented at a programme on ALM in the National Institute of Bank Management, Pune, opines that the modern definition of ALM means continually monitoring the existing position of a bank, assessing how this differs from what is desirable, and undertaking transactions to move the bank towards the desired position. According to him the objective should be to sustain and whenever possible to enhance profitability while controlling and limiting the different risks inherent in the present day banking.
P.N. Joshi (1998) in a study on Asset Liability Mismatch points out that ever since the commencement of the reform process, among the various concepts and terminologies that have swarmed the financial sector, Asset-Liability Mismatch stands out prominently. With the liberalisation process, banks will have to be extremely watchful of the maturity pattern of their liabilities to avoid any danger of mismatch when the funds are deployed in different manufacturing or trading units.  

Ganti Subrahmanyam (1998) in a paper presented at the Bank Economists' Meet, Bangalore, states that Asset Liability Management (ALM) in banks is known as the process of adjusting the liabilities to meet the deserved loan demands, liquidity needs and safety requirements. A comprehensive ALM policy framework focuses on bank profitability and long-term viability by targeting a net interest margin ratio subject to some balance sheet constraints.

M. D'souza (1998) in a study related to ALM in banks holds the view that advanced information technology is one of the pre-requisites for effective ALM. Since the assets and liabilities of commercial banks in India are spread over a larger number of branches in rural, semi-urban, urban and metropolitan centres, collecting accurate and timely information poses a great challenge.

S.G. Rajadhyaksha (1998) in a paper related to Risk Management expresses the view that while commercial banks have attempted to use many tools in ensuring operational viability, the only tool which could
expose the vulnerability of the institution in the competitive volatile market conditions and hold in taking timely corrective action is Asset Liability Management.  

Asish Saha and V. Subramanian (1998) in a paper on ALM state that it is becoming vital for banks to adequately control the various inherent risks in order to apply creative management strategies to fulfil their role in a competitive manner. Proper asset liability management can help in assessing the impact of the changing profile of various risks on the bank’s balance sheet and by actively altering the structure of the ALM portfolio, the profit position of the bank can be optimised.

S.R. Shinde (1998) in another paper presented on Debt Securitisation for Effective ALM opines that by providing additional source of funds, which is not reflected in the balance sheet, securitisation helps in better management of liquidity risk. In view of the many advantages of debt securitisation banks must appreciate its importance as one of the effective tools of ALM.

R.H. Patil (1999) in an article on the different trends in risk management points out that for a banking institution the major sources of risk spring from the mismatches of different types of assets and liabilities. In so far as the banks in India are concerned, they face very high risk as they are not yet fully aware of their asset liability mismatches.
Philip Sabu and G. Veerakumaran (1999) in a study related to Asset Liability Management state that the liabilities are created at a cost and the assets are made for a return by the banks and the profitability of banking business depends largely upon the judicious matching of the assets and liabilities. The banks must therefore match the maturities related to credit, liquidity and interest rate fluctuations.  

K.C. Chakrabarty (1999) in an article on Transfer Price Mechanism expresses the view that the four key factors-unit level profitability, proper costing and pricing, risk management and asset liability management- are a must for strengthening the soundness of the banking business in the Post-Narasimham Committee phase of Indian banking. 

P. Kumar (1999) in an article expresses the view that the profitability of banks is under pressure due to the uncertain economic environment, non-prudent banking, ill-effects of directed lending and also due to the competition from non-banking finance companies and capital markets which have developed as strong alternatives to the banking industry. The major challenge before banks would be improving profitability and asset quality. 

Rajesh Suneja (1999) in his editorial column in The Banker holds the view that while the banks have benefited from the reform introduced in recent years, they still need to become stronger for managing risk relating both to assets and liabilities. This will be
possible when there is the desired concern for improving the capital funds of banks, apart from measures to increase the overall efficiency. 47

S.P. Talwar (1999) in an article related to risk management suggests that banking supervisors must be satisfied that banks have in place a comprehensive risk management process to identify measures, monitor and control all other material risks and wherever appropriate, to hold capital against these risks. 48

Varadaraja Iyer (1999) in his article on ALM in banks suggests that the touchstone of future success of any individual bank will depend primarily on its ability to manage risk and not on the volume of its business levels or even its profit percent. 49

K. Sasidharan (2000) in his article on ALM states that the controlled expansion of the balance sheet, creation of quantity assets and improving the Net Interest Spread have to become an ongoing agenda of the banks. It is here that ALM becomes significant as it enables the banks to match short-term assets with short-term liabilities, medium-term assets with medium-term liabilities and long-term assets with long-term liabilities. 50

G.R.K Murthy (2000) in an article on Credit Risk Management holds the view that financial intermediaries like banks are exposed to a variety of risks that are intertwined with each other. The interest rate risk might eventually lead to credit risk, while credit risk itself is
closely associated with forex risk. This risk has assumed the centre stage of risk management. 51

Gurudas Saha (2001) in an article related to the competitive viability of the public sector banks expresses the view that in the banking industry liquidity refers to the availability of funds to repay the demands of the depositors. Liquidity creates trust among the lenders and borrowers. As the maintenance of liquidity is always at the cost of interest earnings, excess liquidity is a drain on profitability. 52

Debajyoti Dasgupta (2001) in an article points out that prudent management policy, good work culture and sound risk management capability would affect performance of public sector banks. 53

Studies with Specific Focus on Credit Risk and NPA.

N. S. Krishnamurthy (1994) in an article on financial disintermediation expresses the view that banks, especially the public sector banks, will always have an edge with regard to those investors for whom security and liquidity are as important as the rate of return, and so long as this is true, marginal shift of funds need not cause undue concern or alarm. 54

K. Ram Mohan (1995) in an article on Credit Risk Management argues that the system of roll-over credit will be replaced by loans of fixed maturity and by the deregulation of interest rates so that this will facilitate the matching of assets with liabilities depending upon their maturity profile. 55
B. Ramachandra Rao (1997) in an article related to NPA of banks strongly argues that it is high time that RBI stopped overplaying the concept of NPA. What is relevant is the concentration of NRA (Non Recoverable Assets), which should matter much in determining the quality of bank credit. Each bank should decide carefully to what extent loan assets are uncovered and cannot be realised due to losses and circumstances beyond the control of the borrowers.\textsuperscript{36}

M. R. Tambe (1997) in an article on the role of commercial banks in the new economic set up states that in order to cope with the new challenges, the commercial banks will have to abandon their traditional work style and adopt new dynamic work culture. The banks must also guard themselves against the situation of excessive risks and competition.\textsuperscript{37}

I.K. Garg (1997) in an article on risk management in the banking management states that banks now encounter a whole array of risks, prominent among them being credit risk, liquidity risk, interest rate risk and currency risk. Credit risk and liquidity risk have traditionally been known and handled, but interest rate risk and currency risk are relatively new for Indian banks.\textsuperscript{38}

Satchidananda Sogala (1997) in an article on developing the computer models for credit risk analysis suggests that the credit scoring model would help banks to process more loans while at the same time decreasing the expected default rate and making it better for loan quality.\textsuperscript{39}
A. K. Bansal (1997) in an article related to the role of margin in credit management expresses the view that one of the principles of quality lending should be greater margin or at least minimum and acceptable margin. Banks are now in a position to insist on more stakes of the borrower in case of quality lending. 60

N. Ramachandran (1997) concludes his article on Non Performing Assets with the remark that the quality of advances can be improved through sharpening the tools and techniques used for appraisals. Banks have to move away from their traditional approach of over dependence on ratios to appraise projects. Rather they should focus attention on their ability to foresee problems, which might crop up with the borrowers. 61

R.R. Sen Sarma (1997) in a study points out that the banking system is facing overhanged liquidity. The reduction in the interest rate without improving credit off-take may not be an effective mechanism for improving the performance of banks. 62

Sujith Sikider (1997) points out in an article on NPA that under the new RBI monitoring system a bank’s performance has become crucially dependent on the recognition of income and non-performing assets. The RBI guideline issued for finalisation of bank accounts for the year ending in March 1996 has pushed up the level of NPA and the subsequent provisioning requirements. 63

V. K. Sudhakar (1998) in a study on policies and perspectives of NPA reduction in banks points out that a banker tries to minimise risks
by taking informal decisions, aided by technical expertise and market information. In the Indian context the risk assessment models are inadequate or underdeveloped and in such a scenario unknown risks can enhance creation of more NPAS.  

P. P. Pathrose (1998) in an article relating to profit planning by banks holds the view that the introduction of straight NPA norms and the standardisation of provisioning requirements along with revised disclosure norms and new accounting standards, have changed the situation altogether and the mounting provisions for NPA is a cause of drain in the profitability of banks.

D. P. Sarda (1998) in an article on the strategies for reducing Non-Performing Assets states that guidelines issued by the Reserve Bank on income recognition, asset classification and provisioning norms have compelled banks in India not only to show the true financial picture in the balance sheet but also to take corrective steps for improving their loan portfolio. With the adoption of these guidelines banks are fully vigilant about the quality of their assets and several steps are being taken by them to reduce NPA.

Bimal Jalan (1999) Governor of RBI in his keynote address to The Economists’ Conference points out that excessive risk aversion can have adverse effects on profitability of the banking system as it will restrict the credit growth in the economy.

M. Gurumoorthv (1999) in an article related to credit marketing states that banks have to build up a good advances portfolio to sustain
and show up trend in profitability. With the increase in lendable resources, banks will be very keen to maintain a balanced asset portfolio, as the effects of asset-liability mismatch should not cause strain on their bottom line. 68

C. Hari Vithal Rao (1999) in an article on lok adalat as an effective forum for reducing NPA, remarks that lok adalats have gained prominence over a period of time as a forum through which the disputes/statements among the parties are settled through an expeditious compromise settlement by adopting principles of justice, equity, fair play and other legal principles. 69

Rajendra Singh (1999) in an article related to NPA states that a critical appraisal of the composition of NPA in many banks would reveal that priority sector advances are not necessarily the major cause of NPA. The percentage share of NPA in some of the poverty eradication programmes may appear to be relatively higher, but quantum-wise its contribution would be small. 70

A. Q. Siddiqi, A. S. Rao and R. M. Thakkar (1999) in a study relating to NPA in commercial banks point out that in the wake of the transparency and disclosure measures initiated by the RBI the higher NPA levels of Indian Banking have came to the attention of public as well as international financial institutions. Reduction of NPA should be treated as a national priority item to make the Indian Banking system more strong, resilient and geared to meet the challenges of globalisation. 71
Rashid Jilani (1999) in an article on NPA points out that though the quantum of NPA level in Public Sector Banks is quite large and may be considered a fundamental weakness in the public sector banks, this cannot be indicative of any systematic risk so as to render the Indian banking system unsound. 72

S. Kalavathi (2000) in an article on credit risk management points out that banking is all about risks and returns and balancing of these risks and returns presents a major challenge. Banks function successfully when the risks taken are reasonable, controlled and within the financial resources and credit competence. All the risks are interrelated, interdependent and overlapping in their causes and effects. 73

Usha Arora (2000) in an article on NPA management in the Indian environment suggests that banks have to achieve the level of international standard in NPA management in the years to come. However in the long run only better credit management in terms of appraising and monitoring of loan assets can solve the problem in this area and this will only enable banks in maintaining the pre-eminent position in the global set up. 74

Munivelu Thiruttani (2000) in an article on the bank balance sheet management points out that the NPA cripples bank’s earnings and the recovery of NPA is the key for stepping up profit and profitability. To improve the bottom line of the bank, what is required
is accelerated recovery for recycling of funds and recovery of unchanged interest and write back of provisions.  

C. V. Krishnamurthi (2000) in an article related to NPA states that the growth of NPA is a euphemism for unrecovered loans and has been phenomenal for the public sector institutions and particularly for banks. In banks the NPA curves vary between a gross of Rs. 39,253 crores in 1992-93 to Rs. 45653 crores in 1997-98.  

Sanjay Kumar (2000) in a study relating to non-performing assets in regional rural banks states that high level NPA reduces the risk taking ability of the bank. It also affects the credit rating of the bank thereby restricting its ability to approach the public for capital subscription, which will ultimately affect the financial health of the banks.  

S. Murali and B. Sadasivan (2001) in an article relating to Indian banking industry state that the skill of credit risk management is an extremely important area for the healthy functioning of any financial institution. With the adoption of international norms of income recognition, and asset classification many public sector banks in India find themselves burdened with huge loads of NPA.  

Deepti Basias and Anand Bansal (2001) in a study relating to banking sector reforms find out that the level of NPA is a contentious issue and a vital parameter in the analysis of the financial health of banking industry. Public sector banks account for a higher level of NPA as they hold a higher share in lending, but contrary to general
perception, the ratio of gross NPA to total advances and total assets has come down. 79

Sujit Sikider and Kalyan Mukherjee (2001) in a study of Basle norms, cost-income measurements, and their impact on commercial banks point out that over the recent years the public sector banks in India have been exposed to severe competition from the private sector banks. The concept of capital, measurement of profit, calculation of NPA, provisioning norms for that, Capital Adequacy Ratio, Weighted Average Assets have emerged as challenging variable for the survival of the banks. 80

Books on ALM

In the book entitled Innovations in Banking Services H.R.Suneja (1994) highlights the principal issues and operational aspects of innovative banking services such as leasing, factoring, merchant banking, mutual funds, venture capital finance etc. The various reform measures relating to banks, as per Narasimham Committee Report and their implementation are discussed in another chapter headed as 'Financial Sector Reform.' 81

M. C. Tannan (1997) in the book Banking law and Practice in India described the prudential norms such as income recognition, asset classification, provisioning for loans and advance in a special chapter. The Narasimham Committee Report on the financial system and progress of financial sector reform are also discussed in another chapter. 82
Shekhar and Shekhar (1998) in their book *Banking Theory and Practice* devote a chapter entitled *The Changing Profile of Indian Banking* to highlight the achievements of the banking system and the challenges ahead in the context of the new rules at the onset of reforms. The summary of the recommendation of the Narasimham Committee Report and Prudential Accounting Standards as applicable to banking companies are included in another chapter titled *Banking Legislation and Reforms.*

In the book entitled *Asset Liability Management* edited by Frank J Fabozzi and Atsuo Konishi (1999) there is a comprehensive anthology of 14 analytical chapters on various aspects of ALM by 25 professionals from different financial institution. The topic-wise categorisation of the chapters involves the profitable side of risk management, a hierarchical approach to building an asset-liability model, a critical overview of the asset-liability management models, the new bank capital guidelines, and a comparison of methods for analysing mortgage backed securities. The book focuses on ALM in the 90s as spreading into various financial institutions though it existed as a concept in the 70s.

S. K. Khurana (2000) in his notable book entitled *Asset Liability Management* presents the basic concepts of ALM as applicable to the banks in general and to the branch level in particular in the first 2 chapters. Out of the 12 chapters in the book, 9 chapters give a detailed description of various risks like liquidity risk, interest rate risk, credit risk, currency risk etc. and an analytical evaluation of the prudential
guidelines issued by RBI related to these risks and capital adequacy norms to be followed by banks. The last chapter contains a hypothetical case study of liquidity and interest rate sensitivity analysis. The most important characteristic of the book is that it evaluates ALM based purely on the RBI guidelines and hence is helpful in understanding the conceptual and practical aspects of ALM in modern banking. 85

T. Ravikumar (2000) in his book entitled Asset Liability Management focuses on the practical aspects of ALM from the point of view of banking in the Post-Reform phase. The study consists of seven chapters, the first being an insightful analysis of the structure of the financial statement of banks with a detailed explanation of various assets and liabilities. The second chapter gives an over-view of the concept of risk management and the approaches adopted for managing risks. The following 4 chapters deal with interest rate risk, exchange risk, liquidity risk and credit risk management. The last chapter deals with the RBI guidelines and the practical problems involved in the constitution and management of ALM committees in banks. The book is noteworthy in that it provides the various mathematical inputs in order to understand certain concepts like interest rate sensitivity, value at risk etc. 86

The review of literature reveals that Asset Liability Management as theory and strategy has become an integral part of modern banking. But the studies in this area do not appear comprehensive and scientific
as has been revealed in the literature reviewed here. Apart from giving some topical insight and perspectives related to the implementation of ALM no perceptive analysis has been made in the area of the changing perspective of ALM implementation in the Post-Reform Phase or a practical assessment of the ALM strategies implemented in the banking sector as directly affecting the performance of banks.

The present study aims at evaluating the changing perspectives in the implementation of Asset Liability strategies in the banking sector during the Post-Reform Phase on the basis of available data. It also focuses on the performance evaluation of the banking sector as related to the implementation of ALM techniques significantly contributing to the systematic and scientific study of this vital area of modern banking.
Notes


Literature Review: Articles


14 R. Narasimham, “Public Sector Banks in a Pressure Cooker,” The Hindu, 29 March.


Literature Review: Books


84 Frank, J. Fabozzi and Atsuo Konishi, Asset Liability Management (Delhi: S. Chand, 1999)

85 S.K. Khurana, Asset Liability Management (Delhi: Skylark, 2000)

86 T. Ravikumar, Asset Liability Management (Delhi: Vision Books, 2000)