CHAPTER VII

Findings, Conclusions and Suggestions

The phenomenal growth of Indian banking for two decades after the nationalisation of major Indian Banks in 1969 was mostly in a protective environment. Over the years, strategic changes have come over in the Indian banking scenario. There has been a major shift from social welfare banking to profit-oriented banking as the banking sector moved from the period of nationalisation to the banking in the era of globalisation and liberalisation.

Banks being very significant financial institutions, operating within the economy and controlling it, have increasingly played a significant role in conditioning the economic factors such as assets and liabilities, which are strategically managed and manipulated for profit and social welfare. Financial sector reforms, which have brought about rapid changes in the structure of financial market, exposed banks to various risks such as Interest Rate Risk, Liquidity Risk, Credit Risk etc. The deregulation of interest rate, liquidity problems, high level of NPA and minimum Capital Adequacy Requirement necessitate a sound Asset Liability Management in banks for managing various risks. The various changes in priorities and strategies that have been imposed on banks due to the transition in the economy have required an evaluation and analysis as beneficial to the banking sector. The changing perspectives in Asset Liability Management have been analysed from this strategic and practical angles in this study to assess how these
various risks have affected the banking operation in the Post-Reform Period and to know to what extent the ALM tools implemented by the RBI enable the banks to manage these various risks. Hence this analytical study of the banking sector in India has been conducted with the following objectives.

**General Objective**

The study aims at analysing and evaluating the changing perspectives in Asset Liability Management of the banks in the Post-Reform Period.

**Specific Objectives**

1. To trace the historical factors that paved the way for the Banking Sector Reforms.

2. To evaluate the operational efficiency of the banks with regard to the management of assets and liabilities in the Post-Reform Period.

3. To assess the change in the policy shift of the banks from social-oriented banking to a profit-oriented banking.

4. To identify the impact of deregulation of interest rate in the Spread and Burden of the banks and to evaluate the Interest Rate Risk Management of the banks.

5. To examine whether the banks in India are facing liquidity crisis and to evaluate the Liquidity Risk Management of the banks.

6. To determine the Credit Risk faced by the banks in order to identify the real reason behind the high level of NPA and to assess the Credit Risk Management of the banks.
7. To verify the effectiveness of the present ALM strategies in the light of the above analysis and to propose practical suggestions to evolve a comprehensive ALM strategy addressing future challenges.

Methodology and Survey Design

For analysing the banking scenario in the light of the above objectives, a sample of 6 banks was selected from the universe of 49 commercial banks. The selected banks were State Bank of Travancore (SBT), Indian Overseas Bank (IOB) and Union Bank of India (UBI) in the 27 Public Sector Banks' category and The Federal Bank, The South Indian Bank and The Dhanalakshmi Bank in the 22 Private Sector Banks' category. The banks were selected on the basis of their Total Fund and NPA level as on 2001-02.

An in-depth study has been made to assess the changing perspectives in the management of assets and liabilities of the banks in the Post-Reform phase of modern banking. The study has been conducted by using primary data and secondary data. A primary survey was conducted among 60 branch managers of the selected banks with the help of a Structured Questionnaire in order to collect data related to ALM strategies at the branch level. Two-stage Random Sampling Design was used in selecting the respondents. Structured Interviews and discussions on the basis of an Interview Schedule were held with the top officials in the head offices of the selected banks in order to collect data related to the extent of implementation of ALM at
the head office level. The secondary data were collected from Annual Reports of the banks, ALM Reports, various publications of RBI, NIBM, IBA and also from the Internet.

The statistical tools used for analysis were Rates and Proportions, One way and Two way ANOVA, Z test, Tukey HSD test, Karl Pearson's Coefficient of Correlation, Regression, and Summary Statistics and Weighted Averages.

An extensive and perceptive analysis of the data collected has led to the following findings.

**Efficiency of Banks in the Mobilisation of Resources**

Due to the peculiar nature of banking services, Owned Fund of the banks forms a relatively small proportion of the liabilities. As Owned Funds do not have any explicit cost, a high share of Owned Fund minimises the cost of funds and strengthens the resource base and solvency of the banks.

1. The selected banks could increase their Owned Fund (which is the Tier I Capital) and could attain the Capital Adequacy Ratio (CAR) beyond the limits prescribed by the RBI from time to time. The correlation between Owned Fund and CAR reveals that in the Post-Reform Period banks could strengthen their resource base on account of Capital Adequacy norms and this validates the hypothesis H1.
2. But the proportion of share capital in the Owned Fund has decreased and the proportion of Reserves and Surplus has shown an increase in the Post-Reform Period.

3. The high proportion of Reserves and Surplus in the Owned Fund is due to the ploughing back of profit to reach and sustain the Capital Adequacy Ratio. Out of the four ways suggested by the RBI to reach minimum Capital Adequacy, (i.e., Fresh Equity Issue, Ploughing back of Profit, Debt offering and Revaluation of Assets) the Ploughing back of Profit is adopted by the banks as the main source (vide Table IV (21)).

4. The AAG of Own Fund of the selected banks showed a growth rate of 35.36 per cent, 24.82 per cent, 30.94 per cent, 46.82 per cent, 38.43 per cent and 50.85 per cent for SBT, IOB, UBI, FB SIB and DLB respectively. The AAG of Owned Fund is higher than the AAG of Total Fund in all the selected banks.

5. Banks are highly leveraged organisations relying mostly on Borrowed Fund which consists of deposits of various types, Borrowing from other banks and the RBI and also Other Liabilities. In the Post-Reform Period, Borrowed Fund to Total Fund Ratio of the selected banks has been showing a declining trend.

6. The Proportion of Deposit to Total Fund reveals that banks could not increase the percentage of deposits in Total Fund in the Post-Reform Period, but even during the diminishing interest rate
scenario, banks have been able to mobilize a substantial quantum of deposit.

7. The Deposit Mix of the selected banks reveals the fact that Private Sector banks have more high-cost funds as compared to Public Sector Banks. The proportion of Fixed Deposit to Total Deposit is higher in Private Sector Banks. The AAG of Fixed deposits in SBT, IOB and UBI is 18.41 per cent, 15.21 per cent and 18.36 per cent respectively whereas in FB, SIB and DLB the same is 22.63 per cent, 25.91 per cent and 31.08 per cent respectively. The proportion of Savings Deposit and Current Deposit is higher in Public Sector Banks (vide Table IV (6)) as compared to that of the Private Sector Banks.

8. Any deficiency in deposit for deployment of funds is to be compensated by borrowings. Banks have reduced their dependence on outside borrowings in the Post-Reform Era except in the year 1994-95 and 1995-96 in which year the deposits of the banks had diminished to the lowest level. Due to the reduction of SLR and CRR requirements by the RBI, banks are not facing any shortage in deployable funds.

9. Other Funds which include Bills Payable, Inter-Office Adjustments, Interest Accrued and Others including Provision is high in SBT as compared to the other selected banks. Mobilisation of resources through deposits is low in SBT over the
years and the bank has been adjusting the resources from Other Funds which are Float Funds (Interest Free Funds).

10. With the recent decision of the RBI to impose 100 per cent provisioning requirement for debit entries in the Inter Office Adjustments which are more than three years old and are lying unreconciled, banks are bound to take effort to reduce other Funds, lest profitability of the banks should be affected in future.

**Efficiency in Deployment of Resources**

Banks have been deploying the funds mobilised through Advances and investments.

1. Deploying more funds in Investment is considered a safer method by the banks as it prevents creation of new NPA and at the same time earns a satisfactory return. In the Post-Reform Period all the banks have deployed huge funds in Investments. IOB, which is reluctant to deploy more funds for Advances, has shown more interest in investing in securities.

2. As a result of reduction of SLR and CRR prescribed by the RBI from 38.5 per cent and 15 per cent respectively in the year 1991-92 to 25 per cent and 5.5 per cent by the year 2001-02, banks were in a position to increase their lending activities as the deployable funds of the banks have increased. But except in FB, CD Ratio of all other banks in most of the years is below 60 per cent. Compared to the Public Sector Banks, Private Sector Banks have deployed more funds in Advances during the period of
study. In IOB, the ratios show a declining trend and in SBT also the lending activities are not impressive during the same period (vide. Table IV (14)). The low CD ratio reveals the restricted lending activities of the banks in the Post-Reform Period.

3. A major part of the Advance Mix of the banks comprises Cash Credit, Overdraft and Demand Loans. As compared to Private Sector Banks, this is high in Public Sector Banks. Term loans show a decline in SBT and IOB whereas in all other banks it is increasing.

4. On an average, more than 75 per cent of the loans disbursed by the banks are secured by tangible assets.

5. The proportion of Priority Sector Advances to Total Advance which was high in SBT and IOB in the beginning of the Reform phase has declined by the end of the period of study. In all other banks the Priority Sector Lending has been increasing over the years.

**Overall Efficiency of the Banks in the Post-Reform Era**

The Overall Efficiency of the banks depends on the combined effect of the proper utilisation of funds and the reduction of expenses to the minimum. To analyse the efficiency, the components of Income and Expenses have been analysed by computing various ratios. The profitability of the banks in the Pre-Reform and Post-Reform Phases were also analysed and in order to find out the operational efficiency, a taxonomic evaluation has been done. Regression analysis has been
used to find out the most important factors affecting profitability. In order to compare the profitability performance during the Pre-Reform Period and Post-Reform Period, ANOVA and Tukey HSD test were done.

**Expenses of the Banks**

1. In the Post-Reform phase banks have been able to reduce the total expenses consistently during the period of study. In the years 1992-93 and 1993-94, IOB has suffered loss as the Total Expenses were more than the Total Income of the bank during the same period.

2. Total Expenses of the banks comprise Interest Expenses and Non Interest Expenses. Even though the interest rate is diminishing in the Post-Reform Period, the proportion of Interest Expenses of the selected banks to the Total Expense is showing an increasing trend up to the year 1998-99. In IOB the Interest Expense to Total Expense is exceptionally low in the years 1992-93 and 1993-94 in which years the bank has suffered loss.

3. The Non-Interest Expense of the selected banks has showed a decline up to the year 1998-99. In the last three years of the period of study, the Non-Interest Expense of the banks has showed an increasing trend.

4. The Non-Interest Expense comprises Operating Expenses of the banks, Provision and Contingencies. The fluctuation in the Non-Interest Expenses arises due to the fluctuation in any of the component of this expense.
5. In the Post-Reform Period banks could reduce their operating expenses especially the Establishment Expenses. The Private Sector Banks have been able to reduce the Operating Expenses considerably over the years as compared to the Public Sector Banks.

6. By analysing the Provision and Contingencies, it can be concluded that IOB has suffered losses in the years 1992-93 and 1993-94 which are only due to the higher Provision and Contingencies created by the bank for NPA. In all other banks, the Provision and Contingencies created by the bank have shown an increase in the last three years of the period of study.

7. Even though the Interest Expense of the banks has increased in the Post-Reform Period, banks could reduce their Operating Expenses during the same period. But the high level of Provision and Contingencies created by the bank according to the RBI norms in most of the years, in the light of high NPA, have been pushing the Total Expenses of the banks.

**Income of the Banks**

1. The overall efficiency of the banks is closely related to the income earned by these institutions. The Total Income of banks comprises Interest Income and Non-Interest Income. In the Post-Reform Period the Interest Income earned by the banks has shown a decline and in IOB the Interest Income to Total Income Ratio is very low in the years 1992-93 and 1993-94, the years in
which the bank has suffered loss. Only UBI has maintained the Interest Income at a higher level in the deregulated environment.

2. All the banks could raise their Non-Interest Income in the Post-Reform Period.

3. The Average Annual Growth rate of Interest Income is less and Non Interest Income is high as compared to the Average Annual Growth Rate of Total Income for all the selected banks.

   Thus the Post-Reform Period witnessed an increase in Interest Expense up to the year 1998-99 and a decline in Interest Income over the years thereby reducing the Net Interest Income (Spread) of the banks. But the banks have been able to reduce the Proportion of Total Expenses to Total Income by reducing the Non-Interest Expense (Operating Expenses) and by increasing the Non-Interest Income. The efficiency of the banks in reducing the expenses is reflected in the Net Profit earned by the banks in the Post-Reform Period.

**Profitability Performance of the Banks in the Post-Reform Phase**

1. The Proportion of Net Profit / Loss to Total Fund of the selected banks in the Pre-Reform Period and Post-Reform Period reveal that after the initial shock of the Reform, the banks could earn a higher rate of return in the Post-Reform Period as compared to the Pre-Reform Period. In the initial phase of the Reform, IOB had suffered loss in the years 1992-93 and 1993-94 due to the higher Provision created by the bank during the same period (*vide* Table IV (20)).
2. The ANOVA test and Tukey HSD test reveal that in the Post-Reform Period, irrespective of sector, banks have become more profit-oriented than in the Pre-Reform Period. This substantiates the hypothesis H2 that the banks have shifted their policy to a more profit-oriented banking in the Post-Reform Period.

3. There is no significant difference in the profitability among individual banks within the sectors in the Pre-Reform and Post-Reform Period, and the pattern of variation of the individual banks in the Pre-Reform and Post-Reform is the same.

4. The Public Sector Banks are more profitable than the Private Sector Banks in the Pre-Reform Period while in the Post-Reform Period the Private Sector Banks are more profitable than the Public Sector Banks.

5. While analysing the Profitability Performance of the banks from the productivity point of view by making a taxonomic evaluation, it is revealed that FB and SIB have high performance indices followed by SBT, IOB and DLB. Profitability Performance of UBI on the basis of productivity is low as compared to that of the other banks i.e., the Profit earned by UBI is by investing a huge amount as compared to other banks.

6. Even though Net profit to Total Fund Ratio is showing an increasing trend, it has fluctuations in some years during the period of study. Regression Analysis has been done in this regard to find out the factors significantly affecting the
profitability of the banks. Interest Income, Non-Interest Income, Interest Expense, Non-Interest Expense and Non-Performing Assets have been selected as Independent variables. Regression Analysis reveals that all the variables are affecting the Profitability of the banks in the Post-Reform Period. So Management of Interest Rate Risk and Credit Risk is very essential for the banks in the present scenario.

**Interest Rate Risk Management**

1. By analysing the Spread and Burden Ratios the conclusion that can be derived is that though the selected banks have been able to reduce the Burden (*vide* Table V (4)), the banks have not succeeded in increasing the Spread (*vide* Table V (3)). According to the hypothesis H3, even though the Spread is diminishing as a result of diminishing interest rate, banks could sustain their profit by reducing the Burden. The correlation of Profit with Spread and Burden reveals this and this establishes hypothesis H3. The Profitability of the banks is showing a fluctuating trend, though increasing in the Post-Reform Phase. Thus the management of Interest Rate Risk becomes very relevant to the banks in the Post-Reform Period.

2. The RBI has implemented ALM tools since the year 1999 and made it compulsory for every bank to manage the Interest Rate Risk. The Interest Rate Sensitivity statements of the banks during March 2000 and March 2001 reveal that the banks have
shown a negative gap in most of the time buckets. To know the immediate effect of Interest Rate Risk, gap up to 3 years time buckets is relevant. In the declining Interest Rate era, a negative gap where Risk Sensitive Liabilities (RSL) are more than Risk Sensitive Assets (RSA) is beneficial for the banks. This negative gap has helped the banks to sustain the Net Interest Income (NII) and improve the profitability in the last three years of the period of study (vide. Table IV (24)).

3. For evaluating the management of risk by the banks, 60 bank managers were interviewed. Ten branch managers were selected from each of the banks under study. 75 per cent of the managers interviewed hold the view that the deregulation of Interest Rate has adversely affected the business of the banks.

4. Only 51.6 per cent of the branches selected are able to earn Net Interest Income every year and in the case of Non-Net Interest Expense, this is only 25 per cent.

5. An enquiry into the factors affecting earnings of banks based on Net Interest Income has been made. According to the managers the most important internal factor influencing the profitability of the banks is the quality of Assets. The Advances becoming NPA are adversely affecting the earning capacity of banks. Pricing of Products or Fixing Interest Rate also has influenced the profitability of banks.
6. The most important external factors that are affecting profitability of the banks are competition, business climate and Interest Rate Risk. Liquidity Risk and the behaviour of Monetary and Supervisory Authority (i.e., RBI Norms) also have affected the profitability of banks to a certain extent.

**Liquidity Risk Management**

1. The reduction in SLR and CRR prescribed by RBI from 38.5 per cent and 15 per cent respectively in 1991-92 to 25 per cent and 5.5 per cent respectively by the year 2001-02 has resulted in plenty of funds with the banks for deployment in Advances and Investments.

2. SBT, IOB and UBI have reduced the cash and balance with RBI from 31.81 per cent, 12.73 per cent and 25.40 per cent in 1991-92 to 11.88 per cent, 11.84 per cent and 11.34 per cent respectively by the year 2001-02.

3. In FB, SIB and DIB the percentage of cash and balance with RBI has been reduced from 40.93 per cent, 34.59 per cent and 35.35 per cent in 1991-92 to 10.37 per cent, 9.71 per cent and 12.14 per cent respectively by the year 2001-02.

4. All the selected banks except IOB have deployed a substantial portion of their resources in Loans and Advances. IOB has not shown much interest in expanding their lending activities further and has even curtailed their lending.
5. All the banks have increased their deployment in Investment in the Post-Reform Phase. SBT, IOB and FB have deployed more funds in Investments as compared to other banks by the end of 2001-02.

6. Excess of Liquid Funds or Deficiency of Liquid Funds is not favourable for the banks as excess and deficit liquidity crisis will adversely affect the profitability of banks. In order to avoid the liquidity crisis, the RBI has prescribed prudential norms that the negative mismatch in 1-14 days and 15-28 days time bucket should not exceed 20 per cent of the total outflow. As a part of ALM strategy, Liquidity is tracked through maturity or cash flow mismatches in the banks.

7. The Liquidity Gap Statement (Table V (18)) reveals that the selected banks are not facing any liquidity crunch by the end of the period of study as the negative mismatch in most of the time buckets is below 20 per cent.

8. But banks are facing Embedded Option Risk (i.e., Premature closure of Deposits and Prepayment of Loans) which are affecting the liquidity of the banks. 67 per cent of bank managers prefer persuasion as the best method to avoid the Embedded Option Risk rather than implementing penal interest and commitment charge for Embedded Option.
9. Only 28 per cent of the bank managers take into consideration matching of deposits and advances while deploying funds in order to reduce Liquidity Risk.

10. 75 per cent of the bank managers consider that deploying more funds in Advances than in Investment will bring better results for the banks. 25 per cent of the bank managers prefer deploying more funds in Investment as a safer method to reduce Credit Risk.

**Foreign Exchange Risk**

It is found that the Foreign Currency mismatch is low in SBT, IOB and SIB whereas the mismatch is high in FB, UBI and DLB at present.

**Implementation of ALM – Need for Computerisation and Awareness**

The successful implementation of ALM technique for managing Interest Rate Risk and Liquidity Risk necessitates availability of immediate and accurate data by the Head Offices. Similarly the branch managers and other banking personnel must be aware of the ALM techniques. The major findings are:

1. At all India level the computerised branches in the Public Sector banks’ category are 14 per cent and in the old Private Sector Banks’ category are 31 per cent (*vide* Table III (1)).

2. The survey conducted reveals that only 60 per cent of the selected branches are fully computerised.
3. The survey reveals that 92 per cent of the branch managers have the awareness of ALM techniques but only 38 per cent of the officers are aware of this. Similarly only 60 per cent of the branch managers have had training in ALM techniques so far.

4. The discussion with the top officials of the ALM department of the selected banks reveals that the simple Maturity Gap method (Traditional Gap Method) is being followed by the banks in India. Banks are not equipped with the implementation of other sophisticated techniques.

Credit Risk Management

1. In the year 1995-96, the Net NPA to Net Advance ratio was high in the Public Sector Banks as compared to the Private Sector Banks. In SBT, IOB and UBI the ratios were 7.38 per cent, 8.57 per cent and 5.94 per cent respectively. In FB, SIB and DLB the proportion of Net NPA to Net Advance was 3.94 per cent, 4.94 per cent and 1.82 per cent respectively.

2. By the end of the period of study, the proportion of Net NPA to Net Advance has reached a level of 5.72 per cent, 6.32 per cent, 6.26 per cent, 8.59 per cent, 6.60 per cent, 11.94 per cent for SBT, IOB, UBI, FB, SIB and DLB respectively.

3. Co-efficient of correlation between NPA and Advances reveals that NPA has not increased with the increase in Advances. Thus the H4 hypothesis that the NPA of the banks increases with the increase in Advances is rejected.
4. But NPA is negatively correlated to profit and in IOB the correlation is very significant. The banks could earn only low profit in the years in which the level of NPA was high as provision is to be created for new NPA as per the RBI norms (vide. Table VI (2)).

5. 97 per cent of the bank managers have made an evaluation of the reasons for NPA.

6. 62 per cent of the managers admitted that lack of proper risk assessment while granting loans is the major reason behind the increase in NPA.

7. 32 per cent of the managers found Priority Sector Lending as the major reason for NPA.

8. According to the majority of the managers (77 per cent), NPA has created a negative psychological impact on lending activities.

9. **NPA – Reasons attributable to managerial defects.**

   Wrong selection of borrowers and slackness in supervision and follow-up action by the managers are found as the major reasons for the increase in NPA.

10. **NPA – Reasons attributable to defaulters**

    Mismanagement and diversion of funds by the borrowers, lack of experience, improper planning and outside borrowings at high rate contribute to the borrowers becoming defaulters.
11. A sector-wise classification of NPA reveals that in the total NPA, Non Priority Sector NPA is more than the Priority Sector NPA (*vide.* Table VI (6)).

12. But the percentage of default is high in Priority Sector Advance than in Non Priority Sector Advance (*vide.* Table VI (7)).

13. Movement of NPA shows that banks have succeeded in reducing the existing NPA, but they have not succeeded in controlling new NPA.

14. 70 per cent of the managers were of the view that the main defaulters of the banks are medium and large borrowers and not small borrowers.

15. The Wilful Defaulters among the medium and large borrowers are behind the increase in NPA.

16. To prevent the new NPA, RBI has been circulating among banks the list of Suit Filed Accounts of Rs. 1 crore and above and another list of Suit Filed Accounts of Wilful Defaulters of Rs. 25 crores and above.

**Recovery of Over Dues**

1. For the purpose of reducing NPA all banks have started Special Recovery Cells in their Head Offices. But at the same time it was found that only 38 per cent of the branches of the selected banks have special officers for the recovery of overdues.

2. Monitoring Performing Assets from being converted into Non-Performing is not practised in most of the banks.
3. For the recovery of NPA, persuasion and Out of Court Settlement is found most effective rather than opting for the legal procedure as the existing law and political patronage to big defaulters act as the major stumbling blocks in the recovery of Over Dues.

4. The existing Debt Recovery Tribunals (DRTs) are considered effective machinery by 55 per cent of the managers, while 45 per cent are not satisfied with it.

**Suggestions given by Bank Managers for Recovery of Over Dues**

1. Appointing Private Agencies to collect the Over Dues is considered a good method by 55 per cent of the managers.

2. 80 per cent of the managers interviewed hold the view that developing a secondary market for impaired loans is an effective method to reduce Over Dues.

**Suggestions given by Bank Managers for Prevention of New NPA**

Bank managers consider the following as effective method to prevent new NPA.

a. Caution and Care at the sanctioning stage

b. Effective monitoring and follow-up action

c. Devising proper information system

d. Improving co-ordination between Commercial Bank and Financial Institutions.
Quantification of Credit Risk

1. The quantification of Credit Risk through ENPA level reveals that SIB is in a better position followed by SBT as higher ENPA means lower Credit Risk exposure.

2. The Capital Adequacy Ratio of the selected banks shows that banks are in a safer position regarding its present Credit Risk exposure. All the selected banks could attain the minimum CAR prescribed by the RBI from time to time and the CAR of the selected banks are higher than the minimum prescribed limit.

3. The correlation between CAR and Advances reveals that banks are not restricting their lending activities in order to maintain minimum CAR. Thus the H5 hypothesis that the prescribed minimum Capital Adequacy Ratio has reduced the deployment of funds in Advances is also rejected.

4. But the CAR restricts the deployment of more funds in risky assets as the banks have to increase the Tier I or Tier II capital on the basis of risk-weighted assets to maintain the Capital Adequacy norms. The deployment of huge funds in Investments reveals this.

Main Conclusions

1. In the Post-Reform Period mobilisation of resources through Owned Fund have increased and banks could overcome the deficit in capital and strengthen the resource base of the banks. The banks could also attain the Capital Adequacy norms fixed by
the RBI from time to time through the increase in Owned Fund (Tier I Capital).

2. Even in the diminishing interest rate scenario banks could mobilise a substantial portion of deposits for deployment and could reduce the borrowings from other banks and from the RBI.

3. With the consistent reduction in SLR and CRR the deployable funds of the banks have increased in the Post-Reform Phase, but the CD Ratio below 60 per cent shows the reluctance of the banks to deploy funds for Advances liberally.

4. Banks which are reluctant to expand lending activities have deployed more funds in Investments in the Post-Reform Period.

5. Even though the Interest Expense has increased and Interest Income has decreased, by reducing the Non-Interest Expense and by increasing the Non-Interest Income banks could reduce the proportion of Total Expense to Total Income in the Post-Reform Period.

6. The profitability performance of all the banks irrespective of sector has increased in the Post-Reform Period as compared to the Pre-Reform Period. The banks have shifted their policy from social-oriented banking to profit-oriented banking in the Post-Reform Period.

7. Banks have been able to reduce the Burden but have not succeeded in increasing the Spread as a result of deregulated interest rate in the Post-Reform Period. Thus with a reduction in
Burden, the decline in the Spread is compensated and banks could improve the profitability in the Post-Reform Phase.

8. The slight improvement in the Spread (NII) of the banks after 1998-99 points out the effectiveness of Interest Rate Risk Management through the implementation of Maturity Gap.

9. The Risk Sensitive Liabilities (RSL) are more than the Risk Sensitive Assets (RSA) in the banks and a negative Gap exists in most of the time buckets, which is beneficial in the declining interest rate scenario.

10. Below 52 per cent of the branches selected could earn Net Interest Income every year and only 25 per cent of the bank branches could earn Non-Net Interest Income.

11. Deregulation of interest rate affected the business of 75 per cent branches.

12. Pricing of products (fixing interest rate) influenced the profitability of banks along with the quality of assets.

13. In the Post-Reform Period banks are not facing any shortage of liquidity as per the Liquidity Gap statement. But banks are facing the Embedded Option Risk which will affect the liquidity of the banks. Flushed with funds as a result of reduction in SLR and CRR, banks are forced to deploy the huge funds without proper risk assessment which have resulted in NPA.
14. NPA of the banks has not showed an increase along with the deployment of more funds in Advances. It is found that NPA is not related to the rate of deployment in loans and Advances.

15. Lack of risk assessment while granting loans and slackness in supervision and follow-up action of bank managers lead to NPA. Mismanagement, diversion of funds and outside borrowings by the borrowers also lead to new NPA.

16. Out of the total NPA, Non Priority Sector NPA is more than the Priority Sector NPA. But the per cent of default is high in Priority Sector lending as compared to Non Priority Sector lending.

17. Persuasion and Out of Court Settlements are found most effective rather than opting for immediate legal proceedings.

18. Existing law acts as a major stumbling block in the recovery of Over Dues in time.

19. Capital Adequacy Ratio (CAR) acts as a good method to reduce Credit Risk as it prevents deploying funds in risky advances. The banks have developed a tendency to invest huge amount in safe investments like Government and Approved Securities and this may reduce deployment of funds in Advances having a risk weight of 100 per cent, but those are the advances which really bring about economic development. The investment in Government Securities does not help the economic development especially when they are bought from Secondary Market.
20. The Maturity Gap Analysis with a monthly statement is the strategy followed by the banks in India for the ALM procedure today. Though traditional, and not a technologically sophisticated tool, the Maturity Gap method can produce the desired results, provided there is the availability of immediate accurate information.

21. Both the Public Sector Banks and Private Sector Banks are at various levels of computerisation and this adversely affects the collection and consolidation of data related to the implementation of ALM tools. This has resulted in achieving only apparently satisfactory results from the implementation of ALM strategies as yet.

Suggestions

1. In order to attain Capital Adequacy Norms, banks are increasing the Tier I Capital mainly by increasing the Reserves and Surplus. Creating Tier I Capital by huge ploughing back of profit will discourage the investors. Along with the creation of Reserves and Surplus, banks should make fresh Equity Issue to increase the Owned Fund.

2. The major component under Other Fund is Inter-Office Adjustment and banks have to take effort for early reconciliation of entries. With the decision of RBI to provide 100 per cent provisioning for debit entries of more than 3 years and yet unreconciled, banks should take effort to reduce them.
3. The CD Ratio of the banks is below the prescribed limit set by the RBI. Banks should increase their lending activities to credible borrowers which will bring about economic development. Banks have to concentrate more on purpose-oriented lending than strictly on security-oriented lending. For this purpose banks can help the borrowers to find out viable projects.

4. To encourage profitable lending to corporate clients, the banks should provide professional and technical services to the corporate clients. In order to serve this purpose better, banks may launch urban branches specialising in Industrial Finance and rural branches specialising in SSI technical and financial assistance. This will ensure safer lending to borrowers substantially reducing NPA in future as there is the possibility for an effective assessment of the prospects from a technical angle.

5. Deploying more funds in Investments is considered as a safer method by the banks. But efforts should be made to improve the yield on Investments. Low yield and longer maturity Investments should be converted into high yield ones. Thus the net interest income can be increased. Banks should deploy funds in Fresh Investments, as purchasing Investments from Secondary Market will not favour economic development.

6. From the interview conducted at the head office level, it was revealed that only the upper level executive cadres of the banks have clear ideas of ALM strategies. All bank employees,
especially at the branch level, should be initiated and reoriented into the purpose and practice of ALM at the customer level transactions.

7. For the effective implementation of ALM, availability of adequate and accurate information with expediency is necessary. Intensive computerisation for fast-track monitoring of data is an urgent need as the existing system in many Indian banks does not generate information in the manner required for ALM. Collecting accurate data in a timely manner from the widely dispersed branches is the biggest challenge before the banks. So efforts should be made to computerise all the branches and link them with the Head Offices.

8. Increasing NPA has been often attributed to reckless lending and lack of monitoring on the part of the branch managers. This highlights the lack of rapport between the bank and the borrowers. A grass-root-level banking rapport between the lending bank and the borrowers should be made an essential lending strategy, and this will lessen the NPA risk. Branch managers should be more vigilant while deploying Advances. Banks should give thrust to increase their lending to different industries after doing detailed field studies on industrial advances.

9. All the banks have succeeded in reducing NPA by actual recovery of Over Dues and also by creating provision. But they have not
succeeded in controlling new NPA. Banks should appoint special officers in every branch for monitoring Performing Assets and for the recovery of Over Dues. These officers should also concentrate on the credibility of the new borrowers to prevent new NPA.

10. As the existing law is still unfavourable to the bank management and legal procedures are time-consuming as regards the settling of the claims, banks should concentrate more on Out of Court Settlements.

11. Developing a secondary market for impaired loans can be considered as suggested by the majority of the managers interviewed.

12. In the declining Interest Rate Scenario and severe competition, deliberate defaulting should be legally tackled as an economic offence. Banks should be made a privileged mortgagee and creditor and such instances should be given a speedier and privileged treatment in favour of the bank in the event of deliberate and fraudulent default. Otherwise it is most likely that banks will completely change their strategy from social banking to purely profit oriented banking in the coming future by concentrating more on non-interest income and off-balance sheet items to the detriment of a welfare society.

**Scope for Further Research**

Asset Liability Management in banking is a continuous process that is linked with an evolving strategy at one end and the issues of
practical banking on the other. Hence it requires a continuous assessment and evaluation with regard to the effectiveness of the strategies and their implementation. This significant aspect of ALM makes the continuous evaluation and research in this area very vital and necessary for the functioning of the banking sector in addressing the challenges of today as well as tomorrow.