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IMPACT OF REFORMS ON THE SOUNDNESS OF INDIAN BANKING

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ABSTRACT

After the set back of early nineties when the Government of India had to pledge the gold to acquire foreign currency to meet the severe problem of balance of payment temporarily, the Government planned to liberalize the Indian economy and open its door to the foreigners to speed up the development process as a long-term solution for the ailing economy. The economic liberalization move, which was initiated in 1991 when the new government assumed office, has touched all the spheres of national activity. Perhaps one area where the deregulatory policies had the maximum impact was the banking sector. The seed of the reforms in Indian banking were sown by the Narasimham Committee appointed by the RBI under the chairmanship of M. Narasimham, the former Governor of RBI, to examine the aspects relating to the structure, organization, functions and procedures of the financial system and suggest remedial measures. The Committee submitted its report in November 1991 and thus, began a new chapter in Indian banking. Norms for income recognition, classification and provisioning of assets besides capital adequacy were introduced in Indian banking in a phased manner with other measures. Induced by the forgoing revelations, an attempt is made to analyze the impact of reforms on the soundness of Indian Banking, which is divided into four sections. First section includes a brief review of the earlier studies. Second section covers the objectives, hypotheses and research methodology. Third section is devoted to a brief overview of the reforms initiated after 1991 in the Indian banking sector. In fourth section, an attempt is made to analyze the impact of reforms on the soundness of the Indian banking. To achieve the objectives of the study, the use is made of secondary data collected from the various sources like Report on Trends and Progress of Banking in India, Indian Banking Year Book, Performance Highlights of Public, Private and Foreign Banks in India, various journals such RBI Bulletin, IBA Bulletin, Professional Banker, Chartered Financial Analyst, ICFAI Journal of Bank Management and various websites. To test the statistical significance, ANOVA technique is used. The analysis of NPAs clearly shows that there is a significant difference in the group-wise asset quality of Indian banks. Likewise, there is also a significant difference in the group-wise capital adequacy ratio (CAR) of Indian banks. Nevertheless, reforms have indeed transformed Indian banks into strong, stable, profitable and prosperous entities. Indian banking system can now claim that their level of NPAs have registered a declining trend over a period of time and is of international standards, with prudential provisioning, classification and an adequate capital base. But effective cost management, recovery management, technological intensity of banking, governance and risk management, financial inclusion are the areas, which will have a key bearing on the ability of Indian banks to remain competitive and enhance soundness. In this paradigm, improvement in policy framework, regulatory regime, market-perceptions and indeed, popular sentiments relating to governance in banks need to be on the top of the agenda to serve the society's needs and realities while being in harmony with the global perspective.

KEYWORDS
Soundness, Liberalization, Non-Performing Assets (NPAs), Capital Adequacy Ratio (CAR), Financial Inclusion, Market perceptions.

INTRODUCTION

After the set back of early nineties when the Government of India had to pledge the gold to acquire foreign currency to meet the severe problem of balance of payment temporarily, the Government planned to liberalize the Indian economy and open its door to the foreigners to speed up the development process as a long-term solution for the ailing economy. The economic liberalization move, which was initiated in 1991 when the new government assumed office, has touched all the spheres of national activity. Perhaps one area where the deregulatory policies had the maximum impact was the banking sector.

Until 1991, the banking in India was largely traditional. The bankers were prudent and cautious people who seldom took risks and were content with the normal banking activities i.e. accepting of deposits and lending against them. Labeled as "Agents of Social Change", their outlook was rigidly controlled by the policies of the Government, which were centered more on the alleviation of poverty and the upliftment of the downtrodden. The 1969 and 1980's nationalization of banks, bringing private banks under the state control, had the objective of realizing this government dream. Even as late as 1991-92, the profitability was a forbidden word in banking business. The banks were established to fulfill social objectives and their performance was evaluated on their 'task fulfillment' initiatives. Lending to the priority sectors, opening of rural branches, achievements in the implementation of Government sponsored schemes and adherence to the policies and programmes of the Government were the parameters considered for judging the performance of a bank.

Indian banking system has made commendable progress in extending its geographical spread and functional reach. The nationalization of banks helped in increasing the number of branches, volume of deposits and ensured wider dispersal of the advances. Despite impressive quantitative achievements in resource mobilization and in extending the credit reach, some deficiencies have, over the years, crept into the financial system such as decline in the productivity and efficiency of the system, erosion of the profitability of the system, directed lending played a critical role in depressing the profits, the directed investments in the form of SLR and CRR hindered income earning capability and potentials, portfolio quality suffered due to political and administrative interference in credit decision-making, increase in cost structure due to technological backwardness, average ratio of capital funds to RWAs remained low which created problems in international operations and the system remained de-linked from sound international banking practices.

Realizing all these ill effects, the efforts were made to bring reforms in the financial system of the country. The seed of the reforms in India were sown by the Narasimham Committee appointed by the RBI under the chairmanship of M. Narasimham, the former Governor of RBI, to examine the aspects relating to the structure, organization, functions and procedures of the financial system and suggest remedial measures. The Committee submitted its reports in November 1991 and thus, began a new chapter in Indian banking. The financial system reforms were based on twin principles of operational flexibility and functional autonomy so as to enhance the efficiency, productivity and profitability of the financial institutions continuously. It aimed at providing a diversified, efficient and competitive financial system with ultimate objective of improving the efficiency of available resources, increasing the return on investments in promoting an accelerated growth of the real sector of the economy. The specific goals of the reforms were the development of transparent and efficient capital and money markets, promotion of competition through free entry/exit in financial sector, improvement in access of financial savings, improvement of financial health of banks by recapitalizing, restructuring etc. of weaker banks, improvement in the level of managerial competence and quality of human resources, and building up

financial institutions and infrastructure relating to supervision, audit, technology and legal framework.

Induced by the forgoing revelations, an attempt is made to analyze the impact of reforms on the soundness of Indian Banking, which is divided into five sections. First section includes a brief review of the earlier studies. Second section covers the objectives, hypotheses and research methodology. Third section is devoted to a brief overview of the reforms initiated after 1991 in the Indian banking sector. In fourth section, an attempt is made to analyze the impact of reforms on the soundness of the Indian banking. Fifth section presents the conclusions and policy implications of the study.

REVIEW OF LITERATURE

The articles published on different facets of Indian banking reforms are restrictive in nature and have been found wanting in terms of the assessment of the impact of the reforms. A brief review of some of them is as follows:

Reddy and Yuvaraja (2001) viewed that financial sector reforms cover every sector of the economy. The adoption of international capital adequacy and accounting standards, deregulation of interest rates and entry of private and foreign banks underline that the speed of the financial sector reforms and sequencing of the reforms should take into account the realities of the Indian economy.

Patra (2002) suggested that several fundamentals must come together in order to make the Indian banking system stronger, efficient and low cost like strengthening of prudential norms and market discipline; adoption of international benchmarks as appropriate to the Indian situation; management of organizational change and consolidation within the financial system; and human resource development as the catalyst of the transformation.

Rao (2002) concluded that the Indian banking system has transformed itself from banking to the international banking. Regulations are forcing the banks to adopt better operational strategies and upgrade their skills. The system requires a combination of new technologies, well-guarded risk and credit appraisal, treasury management, product diversification, internal control, external regulation as well as skilled human resources to achieve the heights of the international excellence to play its role critically in meeting the global challenges.

Reddy and Reddy (2003) are of the view that the new challenges faced by the banks are forcing to attempt all new things with the same old rigid structure and system. What required is more managerial and administrative freedom to the management with commensurate and result oriented accountabilities. They stressed that the banks should move towards professional banking with requisite freedom to operate freely in the market within the regulatory and prudential framework prescribed by the RBI.

Muniappan (2003) focused on two areas - firstly, challenges faced by the banks and secondly, the management of these challenges. Every aspect of the functioning of the banking industry, be it profitability, NPA management, customer service, risk management, HRD, etc. has to undergo the process of transformation of aligning with the international best practices. He concluded that the future of Indian banking system needs a long term strategy, which would broadly cover areas like structural aspects, business strategies, prudential control systems, integration of markets technology issues, credit delivery mechanism, information sharing, etc.

Aggarwal and Sharma (2005) analyzed the existing banking environment and suggested the strategies to build up a more strong and vibrant banking system. They stated that the evolution of banking sector in India is likely to take the form of emergence of universal or quasi-universal banks and therefore, risk management and development of an appropriate regulatory system will remain the main challenge to be faced by the banking industry in future.

Ghosh and Das (2005) focused on whether, and to what extent, governments should impose capital adequacy requirements on banks, or alternately, whether market forces could also ensure the stability of banking systems. The study contributes to this debate by showing how market forces may motivate banks to select high capital adequacy ratios as a means of lowering their borrowing costs. Empirical tests for the Indian public sector banks during the 1990s demonstrate that better capitalised banks experienced lower borrowing costs.

Arora and Kaur (2006) stated that banking sector in India has given a positive and encouraging response to the financial sector reforms. Entry of new private banks and foreign banks has shaken up public sector banks to competition. Changing financial scenario has opened up opportunities for the banks to expand their global presence through self expansion, strategic alliances, etc. Banks are diverting their focus on retail banking so as to attain access to low cost funds and to expand into relatively untapped potential growth area.

Sinha (2006) considered the three alternative paradigms - values at risk, expected shortfall and expected excess loss, which may be used to determine the regulatory capital. Furthermore, it outlined the Indian banking scenario in respect of capital adequacy for the period 1996-97 to 2002-03. The results also showed that Tier-I capital of Indian commercial banks is positively related to operating efficiency and has negative relationship with NPA ratio. But no definite relationship between the CAR and bank size could be determined from the analysis.

Rakesh (2006) focused on the efficiency and productivity changes in Indian banking. The patterns of efficiency and technological change witnessed in Indian banking can be viewed as consistent with expectations in an industry undergoing rapid change in response to the forces of deregulation. As deregulation gathers momentum, commercial banks would need to devise imaginative ways of augmenting their incomes and more importantly their fee-incomes so as to raise efficiency and productivity levels.

Mandira and Yuko (2007) presented an analytical review of the capital adequacy regime and the present state of capital to risk-weighted asset ratio (CRAR) of the banking sector in India. In the regime of Basel I, Indian banking system is performing reasonably well, with an average CRAR of about 12 per cent, which is higher than the internationally accepted level of 8 per cent as well as India's own minimum regulatory requirement of 9 per cent.

Karunakar, Vasuki and Saravanan (2008) said that the problem of losses and lower profitability of Non-Performing Assets (NPA) and liability mismatch in banks and financial sector depend on how various risks are managed in their business. An attempt is made in the study to examine what is NPA? What are the factors contributing to NPA, the magnitude of NPA, reasons for high NPA and their impact on Indian banking operations? The lasting solution to the problem of NPAs can be achieved only with proper credit assessment and risk management mechanism.

Misra and Dhal (2010) concluded that banks NPAs are influenced by three major sets of factors, i.e., terms of credit, bank specific indicators relating to asset size, credit orientation, financial innovations (non-interest income) and regulatory capital requirement and the business cycle shocks. The study found that the terms of credit variables such as interest rate, maturity and collateral and bank specific variables had significant effect on the banks' non-performing loans in the presence of macro-economic shocks.

Debarsh and Sukanya (2011) emphasized on management of NPAs in the perspective of the public sector banks in India under strict asset classification norms, use of latest technological platform based on Core Banking Solution, recovery procedures and other bank specific indicators in the context of stringent regulatory framework of RBI. Non-performing Asset is an important parameter in the analysis of financial performance of a bank as it results in decreasing margin and higher provisioning requirement for doubtful debts. Various banks from different categories together provide advances to different sectors, which require pre-sanctioning appraisal and post-disbursement control to contain the increasing NPAs in Indian Banking. The reduction in NPAs is necessary to improve profitability of banks and comply with the capital adequacy norms as per the Basel Accord.

Thiagarajan, Ayyappan and Ramachandran (2011) analyzed the role of market discipline on the behaviour of commercial banks with respect to their capital adequacy. The study showed that the Capital Adequacy Ratio (CAR) in the Indian Commercial Banking sector shows that the commercial banks are well capitalized and the ratio is well over the regulatory minimum requirement. The private sector banks show a higher percentage of Tier-I capital over the public sector banks. However the public sector banks show a higher level of Tier-II capital. The study indicates that market forces influence the banks' behaviour to keep their capital adequacy well above the regulatory norms. The NPAs significantly influenced the cost of deposits for both public and private sector banks. The return on equity had a significant positive influence on the cost of deposits for private sector banks. The public sector banks can reduce the cost of deposits by increasing their Tier-I capital.

Given this background, it is interesting to see how the Indian banking sector has done in terms of soundness in the post reforms era. In a quest to seek an answer, the present study is undertaken with specific research objectives as envisaged in the following section.

OBJECTIVES, HYPOTHESES AND RESEARCH METHODOLOGY

OBJECTIVES OF THE STUDY

The main objective of the study is to examine the impact of banking sector reforms on the soundness of Indian banking. In this broader framework, the following are the specific objectives of the study:

1. To have a brief an overview of the reforms initiated after 1991 in Indian banking sector.
2. To analyze the impact of reforms on the asset quality of Indian banks.
3. To examine the impact of reforms on the capital adequacy requirements of Indian banks.

RESEARCH HYPOTHESES

To achieve the above objectives of the study, the following hypotheses are formulated and tested:

1. There is no significant difference in the group-wise/year-wise asset quality of the public, private and foreign banks in India.
2. There is no significant difference in the group-wise/year-wise capital adequacy of the public, private and foreign banks in India.

RESEARCH METHODOLOGY

To achieve the objectives of the study, the use is made of secondary data collected from the various sources like Report on Trends and Progress of Banking in India, Indian Banking Year Book, Performance Highlights of Public, Private and Foreign Banks in India, various journals such RBI Bulletin, IBA Bulletin, Professional Banker, Chartered Financial Analyst, ICFAI Journal of Bank Management and various websites. To test the statistical significance, ANOVA technique is used.

REFORMS INITIATED AFTER 1991

A brief overview of some of the reforms initiated in Indian banking after 1991 is as under:

MERGERS

In regard to the structure of the banking system, the Committee was of the view that the banks be restructured by creating 3-4 large banks (including SBI), which would become international in character, 8-10 national banks with network of branches throughout the country engaged in universal banking, local banks whose operations would be generally confined to a specific region, and rural banks whose operations would be confined to the rural areas and whose business would be predominantly engaged in financing of agriculture and allied activities. No doubt, some mergers took place in private sector but no progress in this respect has been made in case of public sector banks except that a loss-making bank; NEWBK has been merged with PNB in 1993.

PHASING OUT DIRECTED CREDIT

Priority sector should be redefined and the target for this redefined sector should be fixed at 10 per cent of aggregate credits, subject to taking a review after 3 years. 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 a part of priority sector earlier.

TRANSPARENCY

The Committee recommended that the balance sheets of the banks and financial institutions should be made transparent and full disclosures be made in the balance sheets as recommended by the International Accounting Standards Committee. Accordingly, RBI modified the format w.e.f. March 1992 and the banks are preparing their balance sheets as per the modified format. During 1996-97, more significant additions such as break-up of CAR, provisions made for the year, NPA percentage, etc. were introduced. During 1998, the banks have been further directed to disclose seven critical ratios relating to productivity and profitability: Capital Adequacy Ratio-Tier-I and Tier-II, Net NPAs to Net Advances, Interest Income to Working Funds, Non-Interest Income to Working Funds, Operating Profits to Working Funds, Return on Assets, Business per Employee and Profit per Employee. The Accounting Standards AS-17, AS-18, AS-21 and AS-22 were also made applicable to banks, w.e.f. 31.03.2003.

CUSTOMER SERVICE

Banking Ombudsman Scheme 1995 was introduced in June 1995 which was revised by RBI and came into force from 1st January 2006. The extent and scope of the new scheme is wider than the earlier scheme. The new scheme also provides for online submission of complaints. The new scheme additionally provides for the institution of an appellate authority for providing scope for appeal against an award passed by Ombudsman both by the bank as well as the complainant. Banks are advised to frame their KYC policies with the approvals of their Boards by incorporating the following four key elements (i) Customer Acceptance Policy, (ii) Customer Identification Procedures, (iii) Monitoring of Transaction and (iv) Risk Management as required by the Prevention of Money Laundering Act.

TECHNOLOGY

The Committee endorsed the view of the Rangarajan Committee on Computerization that there is urgent need for a far greater use if computerization has to be recognized as an indispensable tool for improvement in customer service, the institution and operation of better control systems, greater efficiency in information technology and the betterment of the work environment for employees.

NEW PRIVATE BANKS

New generation private sector banks, such as HDFC Bank, ICICI Bank, AXIS Bank, Centurion Bank of Punjab Ltd., Development Credit Bank Ltd., IndusInd Bank Ltd., Kotak Mahindra Bank Ltd., Yes Bank Ltd., etc. have been established, which provided an era of bank automation and the culture of remunerative banking business.

DEREGULATION OF INTEREST RATES

Interest rates, both on the deposits and advances were deregulated moving away from the administered structures.

PHASED REDUCTION OF STATUTORY PRE-EMPTIONS

In line with the Government's decision to reduce the fiscal deficit to a level of consistent with macro-economic stability, Cash reserve ratio (CRR) and Statutory Liquidity Ratio (SLR) were reduced in a phased manner.

PRUDENTIAL NORMS

Norms for income recognition, asset classification and provisioning besides capital adequacy were introduced gradually in a phased manner.

LOAN RECOVERY

To create more conducive recovery climate among the borrowers and profitability of banks through better recoveries, the RBI and the Central Government have initiated several institutional measures, which include Debt Recovery Tribunals (DRTs), Lok Adalats, Asset Reconstruction Companies (ARCs), Corporate Debt Restructuring (CDR) Mechanism, Settlement Advisory Committees (SACs) have also been formed at the regional and head office levels of commercial banks. Furthermore, the banks can also issue notices under SARFARESI Act, 2002 for enforcement of security interest without intervention of the courts.

OTHER REFORMS

Further, there are other reforms and regulations in the banking sector like rationalization of branches, linkage of branch licensing policy to performance, dismantling of centralized recruitment system - Banking Services Recruitment Board for Public Sector Banks and implementation of voluntary retirement schemes for PSBs under which about one lakh employees have been retired following staff redundancy on account of large scale automation.

Banking reforms, in India, were imaginatively sequenced: the first priority was given to the prudential norms, supervisory oversight and risk management policies. Later, deregulations of interest rates, reduction in statutory pre-emption were introduced. Subsequently, corporate governance practices were introduced so that the banks hold themselves responsible not only for the stockholders, but for all the stakeholders in a regime of sound audit, accounting and financial reporting standards.

IMPACT OF REFORMS ON SOUNDNESS OF INDIAN BANKING

To study the impact of reforms on the soundness of Indian banking, two parameters are taken i.e. Asset Quality and Capital Adequacy.

ANALYSIS OF ASSET QUALITY

The RBI issued guidelines to banks regarding the classification of advances between performing and non-performing assets. An asset becomes non-performing when it ceases to generate income to the bank for a certain period. NPA is defined as any credit facility (Term Loans, Cash Credits and Overdrafts, Bills Purchased and Discounted and other accounts) in respect of which interest remained past due for a period of four quarters during the year ending 31st March 1993, three quarters during the year ending 31st March, 1994 and two quarters (180 days) during the year ending 31st March 1995. With a view to moving towards international best practices and to ensure greater transparency, one-quarter (90 days) overdue norm for identification of NPAs has been adopted from 31st March, 2004. As a facilitating measure for smooth transition to 90 days norm, the banks have moved over to charging interests at monthly rests since April 2002 in place of the quarterly rests. The policy of income recognition is not to consider interest income from NPAs on accrual basis, but to consider such income as when it is actually received. Interest realized on the NPAs may be taken into account provided the credits in the accounts towards interest are not out of fresh/additional credit facilities sanctioned to the borrower concerned. Interest accrued and credited to income account in a prior accounting period with respect to NPAs should be reversed or provided for in the current accounting period, if the same is not realized.

The banks are required to classify their advances into four broad groups: (a) Standard Assets, (b) Sub-standard Assets, (c) Doubtful Assets and (d) Loss Assets. This classification should be done only after taking into consideration the degree of well defined credit weaknesses and the extent of dependence on the collateral security for realization of dues. Taking into account the time tag between accounts becoming doubtful of recovery, their recognition as such, the realization of security and erosion overtime in the value of security charged to the banks, it has been decided that the banks should make provision against loss assets, doubtful assets, sub-standard assets and standard assets as per the provisions of RBI.

Table-1 shows that ratio of net NPAs to total assets registered a declining trend during the period under study. It declined from 3.0 per cent (1997-98) to 0.7 per cent (2009-10) in SCBs. The decrease is more in public sector banks (PSBs) followed by old public sector banks (Old PSIBs) than new private sector Indian banks (New PSIBs) and foreign banks (FBs). Bank group-wise calculated F-ratio (3.86) is greater than critical ratio (2.52) and likewise, year-wise calculated F-ratio (6.20) is greater than the critical ratio (1.94) at 5 per cent level of significance. *Therefore, the null hypothesis that there is no significant difference in group-wise/year-wise asset quality of the public, private and foreign banks can't be accepted.*

Similar trend is observed in ratio of net NPAs to net advances as exhibited in table-2 where the ratio declined from 7.3 per cent (1997-98) to 1.1 per cent (2009-10). Again, the decrease is more in public sector banks (PSBs) followed by old public sector banks (Old PSIBs) than new private sector Indian banks (New PSIBs) and foreign banks (FBs). Bank group-wise calculated F-ratio (2.72) is greater than critical ratio (2.52) and likewise, year-wise calculated F-ratio (8.34) is greater than the critical ratio (1.94) at 5 per cent level of significance. *Therefore, the null hypothesis that there is no significant difference in group-wise/year-wise asset quality of the public, private and foreign banks can't be accepted.*

The ratio of standard assets to total advances registered a rising trend as presented in table-3 where it increased from 84.3 per cent (1996-97) to 97.6 (2009-10) in SCBs. The increase is more in PSBs than Old PSIBs. This ratio remains almost at the same level in old PSIBs and FBs during the period under study. Bank group-wise calculated F-ratio (3.39) is greater than critical ratio (2.52) and likewise, year-wise calculated F-ratio (6.26) is greater than the critical ratio (1.94) at 5 per cent level of significance. *Therefore, the null hypothesis that there is no significant difference in group-wise/year-wise asset quality of the public, private and foreign banks can't be accepted.*

The ratio of sub-standard assets to total advances registered a declining trend as presented in table-4 where it declined from 4.8 per cent (1996-97) to 1.2 per cent (2009-10) in SCBs. The decrease is more in PSBs than Old and New PSIBs. This ratio remains almost at the same level in FBs during the period under study. Bank group-wise calculated F-ratio (0.45) is less than critical ratio (2.52), *therefore, the null hypothesis that there is no significant difference in group-wise asset quality of the public, private and foreign banks is accepted.* Likewise, year-wise calculated F-ratio (15.56) is greater than the critical ratio (1.94) at 5 per cent level of significance, *therefore, the null hypothesis that there is no significant difference in year-wise asset quality of the public, private and foreign banks can't be accepted.*

The ratio of doubtful assets to total advances registered a declining trend as presented in table-5 where it declined from 9.0 per cent (1996-97) to 0.94 per cent (2009-10) in SCBs. The decrease is more in PSBs than Old PSIBs. This ratio remains at the same level in new PSIBs and FBs during the period under study. Bank group-wise calculated F-ratio (7.59) is greater than critical ratio (2.52) and likewise, year-wise calculated F-ratio (2.83) is greater than the critical ratio (1.94) at 5 per cent level of significance. *Therefore, the null hypothesis i.e. there is no significant difference in group-wise/year-wise asset quality of the public, private and foreign banks can't be accepted.*

Similar trend is observed in ratio of loss assets to total advances as exhibited in table-6 where the ratio declined from 1.9 per cent (1996-97) to 0.24 per cent (2009-10). Again, the decrease is more in PSBs followed by Old PSIBs than New PSIBs) and FBs. Bank group-wise calculated F-ratio (4.94) is greater than critical ratio (2.52) and likewise, year-wise calculated F-ratio (4.46) is greater than the critical ratio (1.94) at 5 per cent level of significance. *Therefore, the null hypothesis that there is no significant difference in group-wise/year-wise asset quality of the public, private and foreign banks can't be accepted.*

The percentage change in net NPAs in various groups of banks is presented in table-7. The net NPAs increased to 159 per cent in 2001-02, then declined to 83 per cent in 2005-06 and registered a rising trend afterwards and reached to 175 per cent in 2009-10 in SCBs. The same trend is observed in PSBs and other groups of banks also. But more than hundred per cent increase in absolute net NPAs during the last five years clearly shows the impact of global crisis in the Indian banking as well. *But as a whole, the improvement in asset quality in relative terms is satisfying and is almost at par with the banks in other countries.*

ANALYSIS OF CAPITAL ADEQUACY

The question of building up adequate level of capital and resources in PSBs did not receive enough attention in the past. The Government ownership of the banks, commanding about 90 percent of the business, was considered adequate for maintaining public confidence. The level of international banking business was also limited and there was little pressure to conform to the international norms. More importantly, with low level of profits, the banks could not plough back adequate resources to shore up their net worth. As far back as 1961, the RBI had advised the banks to aim at a ratio of 6 percent of paid-up capital and reserves to total deposits because banks had been increasing their assets without a corresponding augmentation of their capital base. The ratio had declined from 9 percent in 1950 to 4 percent in 1960 and further to 1.5 percent by 1978 (for PSBs). Since income was recognized on accrual basis rather than on actual recovery of cash and banks were not required to make sufficient provisions for non-performing loans (the system of classifying advances as per health code was itself subjective), the actually deteriorating financial health of banks did not get reflected in banks' balance-sheets. In addition, the recession in the industrial sector increased industrial sickness, which added to the burden on the financial sector. It was only after the introduction of prudential and accounting norms in 1992-93 following the Ghosh Committee recommendations did the losses show up clearly on banks' balance sheets. By 1992-93, 20 nationalized banks (now 19 after the merger of NEWBK with PNB in 1993-94) reported combined losses of Rs.3648.92 crore with equity nearly being wiped out or becoming negative in case of several banks. Against this, the Government accepted the Narasimham Committee recommendations for adoption of the BIS norms on capital adequacy to improve the financial health of the banks and enable them to compete both at home and abroad. The RBI introduced the norms in a phased manner from April 1992, covering all banks (PSBs, PSIBs and FBs) by March 1996.

The Committee on Banking Regulations and Supervisory Practices (Basel Committee or Basel-I) in July 1988 released a framework on international convergence of capital measure and capital standards. The fundamental objectives that underline the Committee's work on capital convergence were: firstly, that the new framework shall serve to strengthen the soundness and stability of the banking system, and secondly, the framework shall be fair and for a high degree of consistency in its application to banks in different countries with a view to ensure equality among the international banks. The Basle Committee has defines capital in two tiers: Tier-I and Tier-II. Tier-I capital, otherwise known as core capital, provides the most permanent and rapidly available support to a bank against unexpected losses, whereas Tier-II capital contains elements that are less permanent in nature or less rapidly available.

In order to strengthen the capital base of Indian banks, RBI introduced in April 1992, a system of assigning risk weights for different kinds of assets and relating capital strength to Risk Weighted Assets (RWA) of commercial banks. Capital Adequacy Ratio is defined as ratio of Capital Funds to Risk Weighted Assets. It was stipulated that all the Indian banks with international presence should the achieve Capital Adequacy Ratio (CAR) of 8 percent by 31st March, 1994 (later extended

to 31st March, 1995), foreign banks by 31st March 1993, other banks to achieve 4 percent by 31st March, 1993 and 8 percent by 31st March, 1996. Although it only addressed credit risk, it reflected the thinking that the amount of the capital required to protect against loses in an asset should vary depending upon the riskiness of the asset. In 1996, market risk was added as an area for which capital was required.

The banking industry has changed in many ways since the implementation of Basel-I in 1988. Two specific changes - the expanded use of securitization and derivatives in secondary markets, and vastly improved risk-management systems had significant implications for Basel-I. It has been criticized to be a "one size fits all" model, lacking in sophisticated measurement and management of risks. The capital regime recommended by Basel-I could not keep pace with either due to the complex nature of the operations of the large banks or the substantial changes in both the concepts and technology of risk management. It has also been criticized as being inflexible due to its focus on primarily credit risk, ignoring market risk and operational risk and treating all types of borrowers under one risk category regardless of credit worthiness.

From 1993-2003, the government for the purpose of recapitalization pumped Rs. 20446.12 crores, which is an indication of the extent of capital erosion faced by the banks in post reforms period. The experience of bank recapitalization in several parts of the world has demonstrated that the exercise of recapitalization does not necessarily prevent banks from getting into trouble again. Recapitalization of weak banks using public money is also a costly and unsustainable option in view of the increasing strains on the government exchequer. The State Bank of India Act 1955 was amended to enhance the scope of the provision for partial private shareholding. The Banking Companies (Acquisition and Transfer of Undertakings) Acts 1970/1980 have also been amended in order to enable the public to subscribe to the capital of nationalized banks to 49 per cent of their total capital. The Governments' decision to reduce its equity stake in PSBs to 33 percent while retaining the public sector characteristics is an enabling provision for the banks to access the capital market in case of need. Therefore, the issues arise how much should be the adequate capital? Having achieved the capital adequacy ratio, will the PSBs, especially the nationalized banks, be able to sustain it? Should all the banks hold the same level of capital or should the weaker banks be asked to hold more? Moreover, in focusing too narrowly on capital alone as a measure of banks' health, there is a danger of overlooking other important aspects of banks' well being. Therefore, capital should be regarded as a part of overall risk management and there is a need to evolve a single measure that will help the banks to judge the right amount of capital to cover all the risks being faced by the banks.

The Basel Committee on Banking Supervision (BCBS) released the New Basel Capital Accord (Basel-II) in July 2003, applicable to all member countries from January 1, 2007 and India is no exception. It aims to ensure effective risk management and security systems in the financial sector with a greater emphasis in banks. The improved capital adequacy framework is more intended towards fostering a strong emphasis on risk management and encouraging ongoing improvements in the risk assessment capabilities of a bank. The framework of Basel II can be viewed from a three-pillar format. The fist pillar is compatible with the credit risk, market risk and operational risk. The minimum regulatory capital (MRC) focused on these three risks. The second pillar gives the bank responsibility to exercise best ways to manage the risk specific to that bank. The third pillar emphasize on market discipline for greater transparency, disclosure and encouraging best international practices.

The primary objective of Basel-II is to introduce greater risk sensitivity into the calculation of the amount of capital that a bank needs to hold. The revised Accord has retained the current definition of capital i.e. Tier-I, Tier-II and Tier-III capital. Tier-I Capital (Core Capital) include Paid up capital, Disclosed free reserves (statutory reserves, share premium, other revenue reserves), Capital reserve (surplus from sale of capital assets) and unallocated surplus (P & L balance carried over). Tier-II Capital include Undisclosed reserves and cumulative perpetual preference shares, Revaluation reserves (at discount of 55 percent), Investment fluctuation reserve, General provisions and loss reserves (up to a maximum of 1.25 percent risk weight assets), Hybrid debt capital instruments and Subordinated debt (maturity of above 5 years, fully paid-up, unsecured, subordinate to claims of other creditors, not redeemable at the initiative of the holder or without the consent of RBI). Tier-I capital should not be less than 50 percent of total capital. Tier-II capital cannot exceed 100 percent of Tier-I capital. Investment by banks in the subordinated debt of other banks should not exceed 10 percent of a bank's capital funds and will carry 100 percent risk weight. Tier-III Capital has the same characteristics of subordinated debt as in Tier-II Capital except for original maturity of at least 2 years and lock in clause i.e. no repayment if bank fails in its minimum capital requirement. Tier-III capital is limited to 250 percent of Tier-I capital. Unused Tier-I capital may be substituted for Tier-III up to the limit of 250 percent.

The Minimum Regulatory Capital (MRC) is set by the Capital Ratio which is defined as "(Total Capital -Tier-I + Tier-II + Tier-III)/(Credit Risk + Market Risk + Operational Risk)". Basel-I provided for only a credit risk charge. A market risk charge was implemented in 1996. The Committee has proposed operational risk capital of 12 per cent of minimum regulatory capital is provided i.e., MRC will be 9 per cent + 12 per cent of 9 per cent i.e. 10.08 per cent. In this ratio, the denominator represents the bank's assets weighted according to the three separate types of risk: *Credit Risk* - the risk of loss to the bank due to failure of borrowers/ counter-parties in meeting their commitments, *Market Risk* - the risk associated with market fluctuations in instruments such as futures, options, foreign exchange, etc. and *Operational Risk* - the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

Table 8 clearly shows that the ratio of capital to risk weighted assets registered a rising trend and increased from 11.5 per cent (1997-98) to 13.6 per cent (2009-10) in commercial banks in India, which is above the internationally accepted standards. But this ratio is higher in new private sector Indian banks (PSIBs) and foreign banks (FBs) than the public sector banks (PSBs) and old private sector Indian banks (Old PSIBs). The ratio increased from 10.3 to 12.1 in nationalized banks, from 11.6 to 12.1 in public sector banks, from 12.3 to 13.8 in old private sector Indian banks, from 13.2 to 17.3 in new private sector Indian banks, from 10.3 to 18.1 in foreign banks during the period of 1997-98 to 2009-10. However in SBI group, this ratio decreased from 14.0 to 12.1 during the same period. Bank group-wise calculated F-ratio (2.91) is greater than critical ratio (2.34) and likewise, year-wise calculated F ratio (2.53) is greater than the critical ratio (1.90) at 5 per cent level of significance. *Therefore, the null hypothesis that there is no significant difference in group-wise/year-wise ratio of capital to risk weighted assets in public, private and foreign banks can't be accepted.*

In view of the financial crisis at the international level, the issues still exists, i.e. Having achieved the capital adequacy ratio, will the PSBs, especially the nationalized banks, be able to sustain in the new regime? Should all the banks hold the same level of capital or should the weaker banks be asked to hold more? These issues clearly show that there is a need of third generation reforms in Indian banking to face the challenges of crisis at the international level.

CONCLUSIONS AND POLICY IMPLICATIONS

Both the parameters, i.e. capital adequacy and asset quality, have shown a significant improvement over the years in all the groups of the banks. The capital adequacy ratio is above the stipulated level and the quality of the assets has also improved over a period of time. Therefore, it can be concluded that banking reforms have indeed transformed Indian banks into strong, stable and prosperous entities. Indian banking system can now claim that their NPA levels are of international standards, with prudential provisioning, classification and an adequate capital base. But effective cost management, recovery management, technological intensity of banking, governance and risk management, financial inclusion are the areas, which will have a key bearing on the ability of Indian banks to remain competitive and enhance soundness. In this paradigm, improvement in policy framework, regulatory regime, market-perceptions, and indeed, popular sentiments relating to governance in banks need to be on the top of the agenda to serve the society's needs and realities while being in harmony with the global perspective.

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TABLES

TABLE 1: RATIO OF NET NPAS TO TOTAL ASSETS

Year	PSBs	Old PSIBs	New PSIBs	FBS	SCBs
1997-98	3.3	2.9	1.1	1.0	3.0
1998-99	3.5	3.6	1.6	1.1	2.9
1999-00	2.5	3.3	1.1	1.0	2.7
2000-01	2.7	3.3	1.2	0.8	2.5
2001-02	2.4	3.2	2.1	0.8	2.3
2002-03	1.3	2.6	2.2	0.8	1.9
2003-04	1.3	1.8	1.1	0.7	1.2
2004-05	1.0	1.4	0.8	0.4	0.9
2005-06	0.7	0.9	0.4	0.4	0.9
2006-07	0.6	0.6	0.5	0.3	0.6
2007-08	0.6	0.4	0.7	0.3	0.6
2008-09	0.6	0.5	0.8	0.7	0.6
2009-10	0.7	0.6	0.5	0.7	0.7

Anova Value (F-ratio): Bank group-wise: 3.86 (significant at 5% level), Year-wise: 6.20 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 2: RATIO OF NET NPAS TO NET ADVANCES

Year	PSBs	Old PSIBs	New PSIBs	FBs	SCBs
1997-98	8.2	6.5	2.6	2.2	7.3
1998-99	8.1	9.0	4.5	2.9	7.6
1999-00	6.8	7.1	2.9	2.4	6.8
2000-01	6.7	7.3	3.1	1.8	6.2
2001-02	5.8	7.1	4.9	1.9	5.5
2002-03	4.5	5.5	4.6	1.8	4.4
2003-04	3.0	3.8	2.4	1.5	2.9
2004-05	2.1	2.7	1.9	0.9	2.0
2005-06	1.3	1.6	0.8	0.8	1.2
2006-07	1.1	1.0	1.0	0.7	1.0
2007-08	1.0	0.7	1.2	0.8	1.0
2008-09	0.9	0.9	1.4	1.8	1.1
2009-10	1.1	0.8	1.1	1.8	1.1

Anova Value (F-ratio): Bank group-wise: 2.72 (significant at 5% level), Year-wise: 8.34 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 3: RATIO OF STANDARD ASSETS TO TOTAL ADVANCES

Years	PSBs	Old PSIBs	New PSIBs	FBs	SCBs
1996-97	82.2	89.3	97.4	95.9	84.3
1997-98	84.0	89.1	96.5	93.6	85.6
1998-99	84.1	86.9	93.8	92.4	85.3
1999-00	86.0	88.8	95.9	93.0	87.2
2000-01	87.6	88.7	94.9	93.1	88.6
2001-02	88.9	89.0	91.2	94.5	89.6
2002-03	90.6	91.1	92.4	94.7	91.2
2003-04	92.2	92.4	95.0	95.2	92.8
2005-06	96.2	95.6	98.3	98.0	96.7
2006-07	97.3	96.9	98.1	98.1	97.5
2007-08	97.8	97.7	97.5	98.1	97.7
2008-09	98.0	97.6	96.9	95.7	97.7
2009-10	97.8	97.7	97.1	95.4	97.6

Anova Value (F-ratio): Bank group-wise: 3.39 (significant at 5% level), Year-wise: 6.26 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 4: RATIO OF SUB-STANDARD ASSETS TO TOTAL ADVANCES

Years	PSBs	Old PSIBs	New PSIBs	FBs	SCBs
1996-97	5.1	5.5	2.1	2.4	4.8
1997-98	5.1	5.5	3.3	3.9	4.9
1998-99	4.9	6.6	5.2	4.0	5.0
1999-00	4.3	4.5	2.5	2.9	4.1
2000-01	3.3	4.1	3.1	1.9	3.3
2001-02	3.1	4.2	3.8	1.7	3.1
2002-03	2.6	2.9	2.9	1.8	2.6
2003-04	2.6	2.0	1.6	1.6	2.3
2004-05	1.3	1.1	1.1	0.9	1.2
2005-06	1.0	0.8	0.7	1.0	1.0
2006-07	1.0	0.8	1.1	1.1	1.0
2007-08	1.0	0.7	1.6	1.2	1.1
2008-09	0.9	1.1	2.0	3.5	1.2
2009-10	1.1	0.9	1.5	2.9	1.2

Anova Value (F-ratio): Bank group-wise: 0.45 (insignificant), Year-wise: 15.56 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai

TABLE 5: RATIO OF DOUBTFUL ASSETS TO TOTAL ADVANCES

Years	PSBs	Old PSIBs	New PSIBs	FBs	SCBs
1996-97	10.7	4.1	0.0	0.9	9.0
1997-98	9.1	4.2	0.1	0.8	7.7
1998-99	9.0	5.0	0.9	1.6	7.8
1999-00	8.0	5.8	1.3	2.1	7.1
2000-01	7.6	6.2	2.0	2.6	6.8
2001-02	6.6	6.1	4.9	2.0	6.0
2002-03	5.6	5.4	3.9	1.7	5.1
2003-04	4.3	4.7	3.1	1.8	4.0
2004-05	3.5	4.1	2.4	1.3	3.3
2005-06	2.2	3.0	0.8	0.7	2.0
2006-07	1.4	1.9	0.7	0.5	1.2
2007-08	1.1	1.2	0.8	0.5	1.0
2008-09	0.9	1.0	0.8	0.6	0.9
2009-10	0.9	1.0	1.0	0.9	0.94

Anova Value (F-ratio): Bank group-wise: 7.59 (significant at 5% level), Year-wise: 2.83 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 6: RATIO OF LOSS ASSETS TO TOTAL ADVANCES

Years	PSBs	Old PSIBs	New PSIBs	FBs	SCBs
1996-97	2.1	1.1	0.8	0.9	1.9
1997-98	1.9	1.3	0.2	1.7	1.8
1998-99	2.0	1.4	0	2.0	1.9
1999-00	1.7	1.0	0.4	1.9	1.6
2000-01	1.5	1.0	0.0	2.3	1.4
2001-02	1.4	0.8	0.0	1.8	1.2
2002-03	1.2	0.6	0.9	1.8	1.2
2003-04	0.9	0.9	0.3	1.5	0.8
2004-05	0.7	0.8	0.3	0.7	0.6
2005-06	0.5	0.6	0.2	0.5	0.4
2006-07	0.3	0.4	0.2	0.3	0.3
2007-08	0.2	0.3	0.2	0.2	0.2
2008-09	0.2	0.3	0.2	0.3	0.2
2009-10	0.2	0.4	0.3	0.5	0.24

Anova Value (F-ratio): Bank group-wise: 4.94 (significant at 5% level), Year-wise: 4.46 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 7: PERCENTAGE CHANGE IN NET NPAS (Rs. in Crore)

Year	PSBs		Old PSIBs		New PSIBs		FBs		SCBs	
1996-97	20285	100	1245	100	161	100	671	100	22362	100
1997-98	21232	105	1572	126	291	181	666	99	23761	106
1998-99	24211	119	2332	187	611	380	866	129	28020	125
1999-00	26187	129	2393	192	638	396	855	127	30073	134
2000-01	27977	138	2771	223	929	577	785	117	32462	145
2001-02	27958	138	3013	242	3663	2275	920	137	35554	159
2002-03	24867	123	2740	220	4142	2573	921	137	32670	146
2003-04	18860	93	2140	172	2717	1688	900	134	24617	110
2004-05	16642	82	1859	149	2292	1424	648	97	21441	96
2005-06	14566	72	1368	110	1796	1114	808	120	18543	83
2006-07	15145	75	891	72	3137	1948	927	138	20101	90
2007-08	17836	88	740	59	4907	3048	1250	186	24734	109
2008-09	21033	104	1165	94	6253	3884	2996	447	31564	141
2009-10	29644	146	1271	102	5234	3251	2975	443	39126	175

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

TABLE 8: BANK GROUP-WISE CAPITAL FUNDS TO RISK-WEIGHTED ASSETS RATIO

Year	SBI Group	Nationalized	PSBs	Old PSIBs	New PSIBs	FBs	Total
1997-98	14.0	10.3	11.6	12.3	13.2	10.3	11.5
1998-99	12.3	10.3	11.3	12.1	11.8	10.8	11.3
1999-00	11.6	10.1	10.7	12.4	13.4	11.9	11.1
2000-01	12.7	10.2	11.2	11.9	11.5	12.6	11.4
2001-02	13.3	10.9	11.8	12.5	12.3	12.9	12.0
2002-03	13.4	12.2	12.6	12.8	11.3	15.2	12.7
2003-04	13.4	13.1	13.2	13.7	10.2	15.0	12.9
2004-05	12.4	13.2	12.9	12.5	12.1	14.0	12.8
2005-06	12.3	12.2	12.2	11.7	12.6	13.0	12.3
2006-07	12.3	12.4	12.4	12.1	12.0	12.4	12.3
2007-08	13.2	12.1	12.5	14.1	14.4	13.1	13.0
2008-09	12.7	12.1	12.3	14.3	15.1	15.1	13.2
2009-10	12.1	12.1	12.1	13.8	17.3	18.1	13.6

Anova Value (F-ratio): Bank group-wise: 2.75 (significant at 5% level), Year-wise: 3.45 (significant at 5% level).

Source: Compiled from Performance Highlights of Various Banks, IBA, Mumbai.

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