

## ASSESSING THE RISK MANAGEMENT IN PRIVATE SECTOR, PUBLIC SECTOR AND FOREIGN BANKS

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### ABSTRACT

The primary objectives of the study were; to assess the trend of NPAs position in the Indian Public sector, Private sector and Foreign Banks. To predict the status of Capital adequacy ratio of Basel III of Indian Public sector, Private sector and Foreign Banks. The present study is based on data gathered from secondary sources which are cited in the paper. Major guidelines issued by RBI from time to time were studied in depth. The findings show the trend of NPAs in public, private sector and foreign banks in the last ten years reveals that the level of NPAs in relation to the total assets has declined. The extent of the NPA is comparatively higher in public sector banks compared to the private sector and foreign banks. The study also focuses on the risk management of public and private sector banks after the implementation of Basel III with the help of capital adequacy ratio.

**KEYWORDS:** Risk Management, Basel III, Capital Adequacy Ratio, NPAs.

### INTRODUCTION

The Indian economy's liberalization in the early 1990s has resulted in the conception of various private sector banks and foreign banks. This has sparked a boom in the country's banking sector in the past two decades. The revenue of Indian banks grew four-fold from US\$ 11.8 billion to US\$ 46.9 billion, whereas the profit after tax rose nearly nine-fold from US\$ 1.4 billion to US\$ 12 billion over 2001-10 (IBEF, 2013). This rapid growth has led to the Indian economy becoming sensitive to the movements of the global economy.

On August 3, 2011 RBI set up a High Level Steering Committee (HLSC) to suggest measures for making the supervisory processes for commercial banks more effective and useful to the supervised entities as well. The terms of reference for the Committee included a mandate for reviewing the extant approach, methodology, processes/tools for on-site and off-site supervision, supervisory rating and stress testing frameworks and recommending measures for a gradual progression to a risk based supervision framework.

### Risk Structure & NPA

Risk is a possibility of loss or injury perils and the degree of uncertainty in return. Banks in the process of financial intermediation are faced with one or more of the following risk categories; credit risk, market risk and operational risk

A strong banking sector is important for flourishing economy. The failure of the banking sector may have an adverse impact on other sectors. Non-Performing Asset (NPA) is one of the major concerns for banks in India. NPAs reflect the performance of banks. A high level of NPAs suggests a high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset. The NPA growth involves the necessity of provisions, which reduces the overall profits and shareholders' value. Assets which generate periodical income are called as performing assets. Assets, which do not generate periodical income, are called as non-performing assets. NPAs are further classified into sub-standard, doubtful and loss assets based on the criteria stipulated by RBI.

An asset, including a leased asset becomes nonperforming when it ceases to generate income for the bank for a specified period of time.

The banking sector's asset quality woes further worsened in the last one year, with gross non-performing asset (GNPA) ratio inching to 4.45 per cent as of March 15 this year, as compared to 4.1 per cent in March 2014, according to the latest data released by the Reserve Bank of India (RBI). Stressed assets ratio, which is GNPA plus restructured standard advances for the system, stood at 10.9 per cent, as at the end of March, 2015 as compared to 10 per cent in March, 2014 and 10.7 per cent in September 2014. (Business Standard, May 2015)

The NPAs is considered as an important parameter to judge the performance and financial health of banks. The level of NPAs is one of the drivers of financial stability and growth of the banking sector. The Financial companies and institutions are nowadays facing a major problem of managing the Non-Performing Assets (NPAs) as these assets are proving to become a major setback for the growth of the economy. NPAs in simple words may be defined as the borrower does not pay principal and interest for a period of 180 days.

However, it is taken into consideration now that default status would be given to a borrower if dues are not paid for 90 days.

In banking business, evaluation of capital position a bank must consider both the static and dynamic costs. The static costs and perhaps the dynamic costs, depend in part on the penalties regulators impose for inadequate capital ratio. The levels and changes in capital position variety of non-regulatory costs have associated. During the seventies there were no regulations that specified minimum capital ratios. Regulators dissatisfied with many banks capital ratio, at the beginning of the eighties. In 1981 U.S. regulators specified minimum capital to asset ratios for all banks. As a result, in 1983, banks were required to raise their capital-to asset ratios to some pre-specified minimum. Subsequently, other countries followed.

The Basel Committee on Banking Supervision (BIS) was formed in response to the messy liquidation of a Frankfurt bank in New York. Under the auspices of the Bank for International Settlement (BIS) Basel I refer to a round of deliberations by central banks from around the world. During 1988 BIS published a set of minimal capital requirements for banks. This is also known as the 1988 Basel Accord. In 1992 this was enforced by law in (G-10) countries. Basel norms are discussed in brief below.

### **Basel I Norms**

India began implementing the Basel I in April 1992. The standards are almost entirely addressed to credit risk, the main risk incurred by banks. The document consists of two main sections, which covers; the definition of capital and the structure of risk weights.

Based on the Basel norms, the RBI also issued similar capital adequacy norms for the Indian banks. According to these guidelines, the banks will have to identify their Tier- I and Tier-II capital and assign risk weights to the assets. Having done this they would have to assess the Capital to Risk Weighted Assets Ratio (CRAR). Banks in India have been making efforts to reduce their NPAs post Basel I implementation and thereafter.

Tier-I Capital consists of; Paid-up capital, statutory reserves, disclosed free reserves and capital reserves representing surplus arising out of sale proceeds of assets, Equity investments in subsidiaries, intangible assets and losses in the current period and those brought forward from previous periods will be deducted from Tier I capital.

Tier-II Capital consists of; undisclosed reserves and cumulative perpetual preferred shares, revaluation reserves and general provisions and loss reserves

### **Basel II Norms**

Basel II is the second of the Basel Accords recommended for banking laws and regulations issued by the BCBS and BIS. The focus of Basel II is on risk determination and quantification of credit, market and operational risks faced by banks. With this objective, on June 26, 2004, The Basel Committee on Banking Supervision released “International Convergence of Capital Measurement and Capital Standards: A Revised Framework”, which is commonly known as the Basel II Accord was introduced. Basel I initially had Credit Risk and afterwards included- Market Risk. In Basel II, apart from Credit & Market Risk; Operational Risk was considered in Capital Adequacy Ratio calculation. Basel II norms consist of three pillars. The first pillar, minimum capital requirements, develops and expands on the standardized 1988 rules. The risk weighting system describes and replaces the earlier system by using external credit ratings. The second pillar is the supervisory review of capital adequacy, which seeks to ensure that the bank’s position is consistent with its overall risk profile and strategy, and as such encourages early supervisory intervention. Supervisors want the ability to require banks, which show a greater degree of risk to hold a minimum capital in excess of 8.00 per cent. The third pillar, market discipline, encourages high disclosure standards and enhances the role of market participants in encouraging banks to hold adequate capital.

### **2.1.3 Basel III Norms**

Basel III, supplements the existing International Convergence of Capital Measurement Document (Basel II), which came into in 2008. One of the main outcomes of Basel III is the significant rise in the banking industry’s capital requirement. As is widely known, Basel III is a response by regulators to perceived weaknesses in the existing Basel II framework. Whilst Basel III has a wide remit - including extensions, new requirements for securitisations and trading. Basel III also introduces stricter regulatory deductions (e.g. for minority interests) for calculating Tier 1 capital and tighter requirements for capital instruments, which are not common equity to form part of Tier 1 capital. In addition to strengthening Tier 1 capital, two capital buffers will be added - a capital conservation buffers equal to 2.5 per cent of RWA and a countercyclical buffer of an additional 0 per cent to 2.5 per cent of RWA. Both buffers must be raised through common equity. In addition to increased risk-based capital requirements, Basel III introduces for the first time a leverage ratio. The intention is to constrain the build up of leverage in the banking sector with a simple metric. The current proposal by the Basel Committee is to test a leverage ratio set at 3 per cent of Tier 1 capital as part of the Pillar 2 supervisory review with a view to migrating this to a Pillar 1 requirement by 1 January 2018. It is also proposed to introduce two standards for the liquidity of bank assets. The first standard is the Liquidity Coverage Ratio (LCR) to ensure that banks have sufficient

liquidity to deal with severe market shocks. The second standard is the Net, Stable Funding Ratio (NSFR) which is intended to promote more medium and long-term funding of banks' activities.

### **Literature Review**

There are numerous empirical studies conducted on NPAs and Basel Accord in India as well as abroad. Present review deals with the empirical studies conducted in Indian context on Non-performing Assets and Basel Accord of Public and Private Sector banks. The following are the various studies in this field.

#### **Non Performing Asset**

The concept of Non Performing Assets was introduced following introduction of Income Recognition and Asset Classification (IRAC norms), in the year 1993. In view of the importance of the matter in terms of the concept which was new, introduction in Indian banking industry for the first time, its impact on profitability and image of the banks, need to take urgent steps to switch over to international norms particularly to move to Basel III norms.

P.N Joshi (2003) in his article "Non-Performing Assets - Causes, Extent and Remedies" has observed conceptual irregularities in the guidelines issued by the Central Bank. Banks should be advised to disclose the total provisions held (outstanding) against the NPAs and not only provision made for the current year's profit and loss account. This will give confidence to the shareholders about the magnitude of provisions held against problem accounts. It is also necessary for the banks to give disaggregated data of NPAs such as 'sub-standard', 'doubtful' and 'loss assets', which will throw more light on the quality of assets.

Dr. N. M. Bachhawat (2001) "Management of Non-Performing Assets in Commercial Bank" has stated that the prudential norm of 90 days for classifying the A/Cs as NPA is very much strict looking for the Indian conditions, where whole of the economy is still based on Agriculture and Agri is based on Monsoon, and which is uncertain and erratic, instead of this Bank's should recruit technical/ field officers for vigorous follow up and supervision of such accounts

K. H. Vora (2007) in his study entitled "Management of Non-Performing Assets and Asset Reconstruction Company" observed the impact of NPAs. The effect of NPA on the bank is as under- There is loss of interest income. The current profit is reduced, as banks have to make provision for NPA. The capital adequacy ratio is also affected as it is directly related to the quality of assets. It also affects the liquidity position of bank as also recycling of funds due to asset liability mismatch. Banks at times have to borrow at high cost to fulfill their commitment/ obligations, which increases the cost of funds. The high level of non- performing assets also affects the image of the bank in the public. The credit rating of the bank also affected due to high NPA and consequently business prospects in the country & abroad. The NPA has an effect on the moral of the staff and may shy away from doing credit business due to fear of NPA. The bank cannot remain competitive in the market due to various adverse effects on the balance sheet and profit.

Ayyappan and Ramachandran (2011) conducted a study of 22 public sector and 15 private sector banks to predict the determinants of the credit risk in the Indian Commercial banking sector by using an econometric model. The outcome of the study is the nonperforming assets had a strong and statistically significant positive influence on the current non-performing assets. They opined that the problem of the NPA is not only affecting the banks, but also the whole economy.

### Capital Adequacy

Ochei (2013) investigated the impact of bank capital adequacy ratios, management and performance in the Nigerian commercial bank (1986 - 2006). The objectives of this paper are: to determine to what extent bank capital adequacy ratios impact on bank performance and also to investigate the extent to which operation expenses has impacted on the return on capital. The study captured their performance indicators and employed cross sectional and time series of bank data obtained from Central Bank of Nigeria (CBN) and Annual Report and Financial statements of the sampled banks. The formulated models were estimated using ordinary least square regression method. The overall capital adequacy ratios of the study shows that Shareholders Fund/Total Assets (SHF/TA) which measures capital adequacy of banks (risk of default) have negative impact on ROA. The efficiency of management measured by operating expenses indice is negatively related to return on capital. The implication of this study, among others, is that the adequate shareholders fund can serve as a veritable stimulant in strengthening the performance of Nigerian commercial banks and also heighten the confidence of customers especially in this era of global economic meltdown that has taken its toll in the Nigerian financial system.

Brill et al (2006) has investigated the macroeconomic impact of changes in capital adequacy requirements as developed in Basel capital accords in Brazil and Mexico. The simulations show that an increase in capital adequacy ratios either domestic or international has adverse impacts on Brazilian and Mexican GDPs. A moderate credit crunch occurs in both cases and in both countries as is accompanied by a rise in lending rates.

Zuk-Butkiviene et al (2014) have carried out a study of the analysis of capital adequacy and liquidity prudential requirements, their evaluation and possibilities for improvement in banks operating in Lithuania. The analysis consists of the assessment of assets and liabilities of banks ensuring the prudential standards depending on the type of risk. The research revealed that the most important in banks' capital adequacy and liquidity risk management is quality control and the harmonization of bank assets and liabilities. Besides, it is offered to review the calculation of requirements and procedures, to impose additional limits to ensure the basic standards and an efficient banking security.

Cao and Chollete (2014) present a framework for modelling optimum capital adequacy in a dynamic banking context. The results deliver three interesting findings. First, the simulated dynamic model in the leverage ratio can be either procyclical and countercyclical. This result appears to contradict previous opinions, and arises because, in addition to holding equity, banks can also use a liquidity buffer to cushion adverse shocks. Second, a striking result is that the regulatory capital adequacy ratio is lower than the non-regulatory solution. This outcome arises because banks require less equity to further constrain their risk-taking behavior, since loan riskiness and lean supply are both restricted. Finally, analysis suggests that the capital adequacy ratio should be countercyclical.

### Basel Laws and Risk Management

Drehmann's (2013), the study reveals that financial crises are usually preceded by private sector credit booms. This insight can be used to construct early warning indicators for crises. The analysis draws on the new BIS database covering banking and total credit to the private non-financial sector. The sample comprises 39 emerging markets and advanced economies, starting at the earliest in 1970 and capturing 33 crises. This study finds that both the bank and the total credit-to-GDP gaps provide powerful early warning indicators for systemic banking crises.

As such, both types of indicator can help to identify vulnerabilities or guide the deployment of macroprudential tools such as countercyclical capital buffers.

But, as suggested in the Basel III guidelines, gaps based on all sources of credit are likely to provide a more accurate indication of impending systemic crises. All the sources of credit have not been considered in this study. This makes the result less reliable.

As per Sengupta (2011), one of the new proposed guideline is to make the deductions deductible only if they exceed 15% of core capital at an aggregate level or 10% at an individual level. This is likely to have a major impact on Indian banks because, according to existing RBI guidelines, all deductibles are deducted. Moreover, Indian banks do not have re-securitization exposures and small trading books. The new guidelines require 100% deduction from core capital, which is stricter than the existing RBI guidelines that require 50% deduction from Tier I capital and 50% from the Tier II capital, except in cases of intangible assets and deferred tax assets wherein 100% deduction is done from Tier I capital. Similarly, the new guidelines have a stricter definition of significant interest. These public sector banks, which account for more than 70% of the assets in the banking sector and are a major source of funding for the productive sectors, are likely to face some constraints due to the implementation of the Basel III norms. These banks are also unable to freely raise capital from the market as the government has a policy of maintaining at least a 51 % stake in these banks. A rise in risk weighted assets as well as disqualification of some non common Tier I and Tier II capital instruments would increase the capital requirement. With annualized growth rate of 20% in risk weighted assets, additional capital of about Rs. 6000 billion would have to be raised by 31st March 2009 (ICRA 2009).

Capital requirement is considered as the main factor affecting the risk management practices in this article. However, even well capitalized banks fell during the financial crisis.

Herman (2011), studied what is the net contribution of the Basel Accords to the governance of global finance? The methodology used in this dissertation for assessing the costs and benefits of the Basel Process is the comparison of intended consequences and unintended consequences. Intended consequences are in the public interest and regarded as benefits. The unintended consequences are the side effects of those regulations which, it is assumed, no regulator would have deliberately selected or favored. The conclusion of this dissertation is that, while the Accords have contributed to the stability of the international banking system, they have also given market participants the incentive to evade regulations and create financial risks in the "shadow banking system." The Basel Accords, in short, indirectly contributed to the Panic of 2008 and the Global Financial Crisis. Therefore, the costs of the Basel Process have outweighed its benefits. The analysis is based on cost and benefit assumed by the author. These might not be relevant in Indian context.

According to the report by PWC (2010), Basel III establishes tougher capital standards through more restrictive capital definitions, higher risk-weighted assets (RWA), additional capital buffers, and higher requirements for minimum capital ratios. The reforms will fundamentally impact profitability and require transformation of the business models of many banks.

The effects of only Capital and Liquidity requirements are studied. The impacts presented are just opinion, and might differ for Indian scenarios.

### Risk Management in Public and Private Sector

According to Abhiman Das (2002), capital, risk and productivity change are intertwined, with each reinforcing and to a degree, complementing the other. His study implies that, inadequately capitalized banks have lower productivity and are more subject to a higher degree of regulatory pressure than adequately capitalized ones. Finally, the results lend some credence to the belief that lowering government ownership tends to improve productivity.

However, the researcher has considered only credit risk and leverage as the variables. There is a scope for other variables like market risk, risk hierarchy etc to impact the research.

Arunkumar and Koteswar (2006), in their study to evaluate the credit risk management practices in public sector banks vis-à-vis private sector banks, based on primary data, revealed some interesting aspects about the credit risk management practices of commercial banks in India viz; More popular credit evaluation techniques like Altman's Z score model, J.P. Morgan credit matrix, Zeta analysis do not find a place in the credit evaluation tool kit of the commercial banks in India. Employees are not given enough training to enhance their conceptual understanding of credit risk and improving their skills in handling it. The leverage provided by information technology for efficient credit risk administration is not satisfactorily harnessed by commercial banks in India, particularly in public sector banks. The availability of comprehensive data for credit evaluation is far from satisfactory in commercial banks in India. The overall CRM performance of commercial banks in India as against the standard set out under the New Basel Capital Accord is not satisfactory. To CRM performance Index of 49 percent in public sector banks and 47 percent of private sector banks respectively, the performance of public sector banks is at par with the performance of private sector banks. Based on these findings, it can be concluded that; Credit risk management practices of commercial banks in India do not meet the standards set out under the New Basel Capital Accord and there exists no marked difference between public sector banks and private sector banks, as regards their credit risk management performance. In this study, the researcher has mainly focused on credit risk. There is a **possibility that some banks** are better at managing market risk, which is the main cause of crises like subprime crisis.

### Objectives of the Study

The primary objectives of the study are; to assess the trend of NPAs position in the Indian Public sector, Private sector and Foreign Banks. To predict the status of Capital adequacy ratio of Basel III of Indian Public sector, Private sector and Foreign Banks.

### METHODS

The present study is purely based on data gathered from secondary sources. The required secondary data constitutes the main source of information, suitable for the purpose of the present study. The sources of secondary data were annual publications of Reserve Bank of India, RBI Bulletins, Indian Banks Association Bulletins, Mumbai, National Institute of Bank Management (NIMB), Pune, the journal of Indian Institute of Banking & Finance, Annual Reports of various banks, daily newspapers such as Financial Experts, Business Line, and Business Standards were also used for the purpose of the study and also various referred articles, books and journals and data available on internet and other sources has also been used. Major guidelines issued by RBI from time to time were studied in depth.

The methodology used to analyze the NPAs of banks is percentages of Total Advances. The NPAs position in public,

private sector and foreign banks has been taken in the following categories; Gross NPAs; and Net NPAs. The data has been collected from the RBI website for the period of ten years from 2005-06 to 2014-15

## RESULTS AND DISCUSSIONS

### NPA Position in India

NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults, that affect the profitability and net-worth of banks and also erodes the value of the asset. The NPA growth involves the necessity of provisions, which reduces the overall profits and shareholders' value. The issue of Non-Performing Assets has been discussed at length for financial system all over the world. The problem of NPAs is not only affecting the banks but also the whole economy. In fact, high level of NPAs in Indian banks is nothing, but a reflection of the state of health of the industry and trade.

Table No. 1 exhibits the trend of gross non-performing assets (GNPAs) as a percentage to total assets in public, private and foreign sector banks in India during last ten years (2005-2015)

**Table 1: Trend of GNPAs to Total Advances Ratio**

Year	Public Sector Banks	Private Sector Banks	Foreign Banks
2005-06	3.64	2.60	2.12
2006-07	2.66	2.40	1.92
2007-08	2.23	2.70	1.92
2008-09	2.00	3.20	4.37
2009-10	2.20	2.74	4.36
2010-11	2.24	2.25	2.61
2011-12	3.30	2.10	2.76
2012-13	4.10	2.00	2.9
2013-14	4.36	1.78	3.86
2014-15	4.96	2.10	3.2

Source: RBI Report on trend and Progress of Banking in India 2005-2015

It is clear from the table that the percentage of gross NPAs of public sector banks has increased from 3.64 per cent to 4.96 per cent from 2005-06 to 2014-15. The gross NPAs in private sector banks has decreased from 2.60 per cent to 2.10 per cent from 2005-06 to 2014-15. The gross NPAs in foreign banks has increased from 2.12 percent to 3.20 percent from 2005-06 to 2014-15.

Table No. 2 exhibits the trend of Net non-performing assets (Net NPAs) as a percentage to total assets in public, private and foreign sector banks in India during last nine years (2005-2014).



**Table 2: Trend of Net NPAs to Total Advances Ratio**

Year	Public Sector Banks	Private Sector Banks	Foreign Banks
2005-06	1.22	1.09	0.80
2006-07	1.01	0.97	0.70
2007-08	1.00	1.20	0.80
2008-09	0.90	1.50	1.80
2009-10	1.10	1.01	1.80
2010-11	1.20	0.67	0.60
2011-12	1.70	0.50	0.60
2012-13	2.00	0.50	1.00
2013-14	2.53	0.62	0.34

Source: RBI Report on trend and Progress of Banking in India 2005-2015. The data for 2015 was not available

The percentage of Net NPAs of public sector has increased from 1.22 per cent to 2.53 percent from 2005-06 to 2013-14. The percentage of Net NPAs of private sector has decreased from 1.09 per cent to 0.62 percent from 2005-06 to 2013-14. The net NPAs of foreign banks have also reduced from 0.80 percent to 0.34 percent from 2005-06 to 2013-14.

The analysis points out that public sector banks have been facing issues in reducing the NPAs. The rise in NPAs in 2014-15 has been attributed to the effects of global recession coupled with internal factors such as slowdown in the domestic economy. This has adversely affected the corporate performance leading to a negative impact on credit quality. (Business Line, May 2015). The private sector banks are performing better than foreign banks in managing their NPA position. Hence, it can be concluded that private banks are better than public sector and foreign banks in managing their NPAs.

## 4.2 Trends in Capital Adequacy Ratio Values in India

It is noted that most of the earlier studies focus on Basel III norms for Indian banks and explain the conceptual framework. Little attention is paid to analysis of Capital Adequacy Ratio (CAR) that can help in (i) identifying why there is a change in CAR between and among banks from one year to the next and (ii) ascertaining how the banks will be affected if the CAR is maintained at lower than the regulatory level. This can be inferred from the recent crises faced by US banks – many were forced to close down. In the year 2008, 25 banks became bankrupt including the big ones like Lehmann Brothers. This study tries to identify the status of CAR of the commercial banks in India, examine the trends and ascertain the impact of Basel III norms on CAR. It also analyzes the implementation of CAR by banks in India. The situation is displayed through graphs and also discussed. The study pertains to public, private and foreign commercial banks operating in India. The data used for the study are secondary, drawn from published work and the RBI's progress reports on banks and the guidelines.

### 4.2.1 Capital Adequacy Standards in India

Capital adequacy is deemed to control risk appetite of the bank by aligning the incentives of bank owners with depositors and other creditors. In this background, we examined the CAR of Public, Private Sector and Foreign Banks. Public Sector banks including SBI and subsidiaries, Nationalized Banks and Private Sector banks including old private sector banks and new private sector banks.

Considering that the Regulatory Capital requirement is ultimately calculated as an additive of Tier 1 capital and Tier 2 capital i.e. Tier 1% + Tier 2% should be  $\geq 8\%$  of the total RWA; we can consider that the RWA calculated is 100 units and therefore the Tier 1 and Tier 2 percentages represent the actual capital required.

Based on this, we can understand that Tier 1 capital is  $\geq 75\%$  of the Total capital required. i.e. Tier 1 = 6%

In the case of RBI guidelines the Tier 1% + Tier 2%  $\geq 9\%$  and Tier 1 capital is  $\geq 77\%$  of the total capital required. i.e. Tier 1 = 7%

Since Basel III Capital adequacy was implemented in April 2013 (RBI, 2013), the data is analyzed for two years viz; 2013-14 and 2014-15.

It was observed that Indian banks (Public and Private Sector) which are calculating their RWA based on the Standardized approaches; no significant change is visible in Basel 2 v/s Basel 3 regulatory capital requirement either in Tier 1 or Tier 2.

72% of Indian Banks have met the requirement of Additional Tier 1 Capital and 28% have been unable to do so in the year 2014. Table 3 below exhibits the banks which did not meet the Tier I Capital requirement in the year 2014.

**Table 3: Banks That did not Meet Tier I Capital Requirement in 2014**

Data 2013 – 2014		Actuals			Percentage Contribution		
Sector	Bank Name	Tier-I	Tier-II	Total	Tier-I	Tier-II	Total
Public Sector Banks	Punjab National Bank	8.87	2.65	11.52	76.99	23	100
Public Sector Banks	Vijaya Bank	8.12	2.44	10.56	76.89	23.11	100
Foreign Banks	American Express Banking Corp.	12.67	3.89	16.56	76.51	23.49	100
Public Sector Banks	Syndicate Bank	8.68	2.73	11.41	76.07	23.93	100
Public Sector Banks	State Bank Of Patiala	7.88	2.5	10.38	75.92	24.08	100
Public Sector Banks	Bank Of Baroda	9.28	3	12.28	75.57	24.43	100
Public Sector Banks	Allahabad Bank	7.51	2.45	9.96	75.4	24.6	100
Public Sector Banks	Andhra Bank	8.09	2.69	10.78	75.05	24.95	100
Public Sector Banks	Central Bank Of India	7.37	2.5	9.87	74.67	25.33	100
Private Sector Banks	Hdfc Bank	11.77	4.3	16.07	73.24	26.76	100
Public Sector Banks	Bank Of India	7.24	2.73	9.97	72.62	27.38	100
Public Sector Banks	Canara Bank	7.68	2.95	10.63	72.25	27.75	100
Private Sector Banks	ICICI Bank	12.78	4.92	17.7	72.2	27.8	100
Private Sector Banks	Lakshmi Vilas Bank	7.87	3.03	10.9	72.2	27.8	100
Public Sector Banks	Corporation Bank	8.14	3.51	11.65	69.87	30.13	100
Public Sector Banks	Union Bank Of India	7.54	3.26	10.8	69.81	30.19	100
Public Sector Banks	Indian Overseas Bank	7.47	3.31	10.78	69.29	30.71	100
Public Sector Banks	Punjab And Sind Bank	7.62	3.42	11.04	69.02	30.98	100
Public Sector Banks	Bank Of Maharashtra	7.44	3.35	10.79	68.95	31.05	100
Public Sector Banks	UCO Bank	8.71	3.97	12.68	68.69	31.31	100

**Table 3: Condt.,**

Private Sector Banks	Yes Bank Ltd.	9.8	4.6	14.4	68.06	31.94	100
Public Sector Banks	Dena Bank	7.43	3.71	11.14	66.7	33.3	100
Public Sector Banks	IDBI Bank Limited	7.79	3.89	11.68	66.7	33.3	100
Public Sector Banks	United Bank Of India	6.54	3.27	9.81	66.67	33.33	100
Foreign Banks	Societe Generale	19.84	10.42	30.26	65.57	34.43	100

Source: Modified RBI data

It is clear from the table that 19 Public Sector banks (70%), 4 Private Sector banks (20%) and 2 Foreign bank (4%) have not been able to meet the Tier I Capital requirement.

73% of Indian Banks have met the requirement of Additional Tier 1 Capital and 27% have been unable to do so in the year 2015.

Table 4 below exhibits the banks which did not meet the Tier I Capital requirement in the year 2015.

**Table 4: Banks that did not Meet Tier I Capital Requirement in 2015**

Data 2014 – 2015		Actuals			Percentage Contribution		
Sector	Bank Name	Tier-I	Tier-II	Total	Tier-I	Tier-II	Total
Public Sector Banks	Oriental Bank Of Commerce	8.73	2.68	11.4	76.5	23.49	100
Public Sector Banks	Punjab National Bank	9.3	2.91	12.2	76.2	23.83	100
Public Sector Banks	Bank Of India	8.17	2.56	10.7	76.1	23.86	100
Public Sector Banks	Canara Bank	8.02	2.54	10.6	76	24.05	100
Public Sector Banks	Punjab and Sind Bank	8.48	2.76	11.2	75.4	24.56	100
Public Sector Banks	Andhra Bank	7.99	2.64	10.6	75.2	24.84	100
Private Sector Banks	ICICI Bank	12.8	4.24	17	75.1	24.91	100
Public Sector Banks	Syndicate Bank	7.84	2.7	10.5	74.4	25.62	100
Public Sector Banks	Uco Bank	9.05	3.12	12.2	74.4	25.64	100
Public Sector Banks	Central Bank Of India	8.05	2.85	10.9	73.9	26.15	100
Public Sector Banks	Allahabad Bank	7.71	2.74	10.5	73.8	26.22	100
Private Sector Banks	Yes Bank Ltd.	11.5	4.1	15.6	73.7	26.28	100
Public Sector Banks	Union Bank Of India	7.5	2.72	10.2	73.4	26.61	100
Public Sector Banks	Bank Of Maharashtra	8.76	3.18	11.9	73.4	26.63	100
Public Sector Banks	State Bank Of Mysore	8.36	3.06	11.4	73.2	26.8	100
Public Sector Banks	Corporation Bank	8.05	3.04	11.1	72.6	27.41	100
Public Sector Banks	Indian Overseas Bank	7.3	2.81	10.1	72.2	27.79	100
Public Sector Banks	Vijaya Bank	8.24	3.19	11.4	72.1	27.91	100
Public Sector Banks	State Bank Of Patiala	8.66	3.4	12.1	71.8	28.19	100
Public Sector Banks	United Bank Of India	7.52	3.05	10.6	71.1	28.86	100
Foreign Banks	Societe Generale	17.8	7.36	25.1	70.7	29.29	100
Public Sector Banks	Dena Bank	7.67	3.26	10.9	70.2	29.83	100
Public Sector Banks	IDBI Bank Limited	8.18	3.58	11.8	69.6	30.44	100
Foreign Banks	DBS Bank Ltd.	10.8	6.22	17	63.4	36.57	100

Source: Modified RBI data

It is clear from the table that 20 Public Sector banks (74%), 2 Private Sector banks (10%) and 2 Foreign bank

(4%) have not been able to meet the Tier 1 Capital Requirement of  $\geq 77\%$  as per RBI requirement.

It can be concluded that Private Sector banks seem quick to react to meet the additional Tier 1 capital requirement. In 2014, there were 4 private sector banks versus 2 banks in 2015 which did not meet Tier I capital requirement. Public Sector banks have shown no reaction to not meeting the additional Tier 1 capital requirement. As most public sector banks have not met the requirement in both the years.

## CONCLUSIONS

From above analysis it can be concluded that, Private sector banks are better than foreign banks and public sector banks in managing their NPA as well as maintaining the quality of capital.

Public sector banks are finding it difficult to control the NPA and meeting the Tier I capital requirement.

There can be further research on this, by observing the quality of Tier I capital. As per the Basel norms and RBI guidelines; common equity should be 4.5% of total regulatory capital requirement.

The NPA is the root cause of the global financial crisis that we observed recently. The problem of NPA has received considerable attention after the liberalization of the financial sector in India. The NPAs have always been a big worry for the banks in India. The extent of NPA is comparatively higher in public sectors banks. Various steps have been taken by government to reduce the NPAs in both Public and Private Sector Banks in India. This has led to decline in the level of NPAs of the Indian banking sector. The NPAs level of our banks is still high as compared to the international standards. It is highly impossible to have zero percentage NPAs. One cannot ignore the fact that a part of the reduction in NPAs is due to the writing off bad loans by the banks. The Indian banks should take care to ensure that, they give loans to creditworthy customers as prevention is always better than cure.

## REFERENCES

1. Acharyya, M (2012), Why the current practice of operational risk management in insurance is fundamentally flawed – evidence from the field, Research Paper
2. Dr. C. Mahadeva Murthy and Prof. S.N. Pathi, “Risk Management in Banking: A Study with Reference to State Bank of India (SBI) and Associates”, International Journal of Management (IJM), Volume 4, Issue 4, 2013, pp. 119 - 130, ISSN Print: 0976-6502, ISSN Online: 0976-6510.
3. Gupta and Meera Mehta, “Indian banks and Basel - II: An Econometric Analysis”, Indian Journal of Finance, June 2011, pp.11-19.
4. Jackson (1999), Working Paper, Capital requirements and bank behavior: The impact of the Basel accord
5. Kajal Chaudhary and Monika Sharma “Performance of Indian Public Sector Banks and Private Sector Banks: A Comparative Study” International Journal of Innovation, Management and Technology, Vol. 2, No. 3, June 2011 pp 249
6. Krishn A. Goyal., (2010). Risk Management in Indian Banks: Some Emerging Issues, Int. Eco. J. Res., Vol. 1, Issue 1, pp. 101-109.

7. Murthy and Pathy (2013), An assessment of Risk Management in banking sector: a study with special reference to public and private sector banks in India, International Journal of Advanced Research in Management, Volume 4, Issue 3, pp 18-33
8. R.Shenbagavalli, S.Senthilkumar and Dr.T.Ramachandran, "A Strategy to Manage the NPAs of Public Sector Banks", International Journal of Management (IJM), Volume 4, Issue 3, 2013, pp. 1 - 7, ISSN Print: 0976-6502, ISSN Online: 0976-6510.
9. Rekha, Arunkumar., (2005). Risk Management in Commercial Banks – A Case Study of Public and Private Sector Banks, Ninth Capital Market Conference, Indian Institute of Capital Market, Mumbai.
10. Report on Trend and Progress of Banking in India from 2005 – 2015
11. Ritika Gauba "The Indian Banking Industry : Evolution, Transformation & The Road Ahead" Pacific Business Review International, Vol 5 Issue 1 July 2012 pg 87, 90-91
12. Yogieta S. Mehra., (2011), Presented paper titled "Operational Risk Management in Indian Banks: Impact of Ownership and Size on Range of Practices for Implementation of Advanced Measurement" at the "The Thirteenth Annual Conference on Money and Finance in the Indian Economy".

