A STUDY ON IMPACT OF MACROECONOMIC VARIABLES ON NON-PERFORMING ASSETS OF INIDAN NATIONALIZED AND PRIVATE BANKS

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Abstract

The impact of non-performing assets on the economy at large had been discussed in this paper. The NPAs are influenced by both controllable and non-controllable variables and list of some committees on resolving the issues of NPAs had been mentioned. The statistical tools like correlation analysis, regression analysis and descriptive analysis are implemented through SPSS version 20.0. The macro factors which are primarily considered for this study are unemployment rate, GDP and inflation rate. However both of these factors are external variables for banking sector. But at the same time it is important for practicing managers in banking sector need to consider all those factors during loan approval process. It is also revealed from this study that net profits of banks are highly dependent on NPAs both in private and public banks. Overall the performance of banking sector is dependent on various factors but is one of the primary factor and they need to minimized by stringent credit approval process. Every country economic progress can be measured by the performance of banking sector of the country. In this paper the Net NPAs, Gross NPAs of Nationalized Banks and Private Banks had been compared. The influence of macro environment on banking sector from the perspective of non-performing loans had been analyzed. The results of the study indicate that NPAs in Private Banks are low compared to Nationalized Banks. The policies of the government might have influenced decision making. And there is no significant relationship between nationalized banks Non-performance Assets and Private Banks Non-performance Assets. This paper gives insights about the issues with non-performing loans by banks in India.

Keywords: non-performing assets, net NPAs, gross NPAs, nationalized banks, private banks, non-performing loans, banking.

Introduction

Non-performing assets had become an issue for sustainability of banks in the competitive global banking sector. According to Reserve Bank of India (RBI) Sec (B) banking is a process of lending or investing money which is accepted as deposits from public. Non-performing assets (NPAs) can be described as loans which are not generating any income in the form of interest for a period more than 90 days. It means borrowers are repayment as per the terms and conditions. In simple words defaulters of loans increase NPAs of banks and they can be categorized as (1) standard assets, (2) sub-standard assets, (3) doubtful assets and (4) loss assets.

The economic progress of a nation can be assessed by performance of banking sector. One of the major threats in the present era for banking sector is growth of NPAs because they reduce profitability of banks even though performance is excellent. Non-performing assets (NPAs) is on the indicators to measure the economy status of a nation. The economy gets worsen if NPAs constantly increase due to inefficient banking system. Organizations are using processes like internal or external auditing to know status of non-performing assets but banks need to develop strategies for minimizing instead of implementing traditional processes. The overall profit of banks gets affected with increase of NPAs in banks.

Table 1. Global Non-Performing Loans of Select Countries for 2017

S.No	Country	NPL Ratio (Percent)
1	India	9.98
2	China	1.74
3	United States	1.13
4	Brazil	3.59
5	Japan	1.19
6	Russia	10.00
7	Italy	4.38
8	France	3.08
9	Singapore	1.40
10	Finland	1.67

(Source: Compiled by researcher with data from The World Bank

Non-performing ratio can be calculated by dividing non-performing loans with total outstanding loans of a bank.

Table 2. NPL Ratio of India from 2010 to 2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
Percent	2.39	2.67	3.37	4.03	4.35	5.88	9.19	9.98

(Source: Compiled by researcher with data from The World Bank)

Research Objectives

1. To compare Net NPAs and Gross NPAs between Nationalized Banks and Private Banks.

2. To know the impact of macroeconomic variables like GDP, inflation and unemployment rate on non-performing assets (NPAs).

3. To describe the issues faced by banks due to non-performing assets.

Literature Review

The liberalization had introduced many banking reforms in Indian banking industry. The banking sector had experienced crisis because of issues NPAs during 1980s to 1996. The negative impact of NPAs can be reduced with efficient risk assessment tools (Karunakar, Vasuki, & Saravanan, 2008). Many developing nations have undergone crisis in banking sector across the globe due to non-performing assets. Even though NPAs does not produce any interest but at the same time they consume the profits from overall banking operations. Some of the factors which lead to NPA are product failure, economic downturns, mismanagement of funds and lack of risk management strategy to overcome economic crisis.

The government had also passed the Asset Reconstruction Company (ARC) which is promoted by banks like IDBI, ICICI Banks and State Bank of India (SBI) so that they can assign NPAs to the aforesaid company. ARC will implement loan recovery strategies and at the same time sticky loans can be cleared from the balance sheet of banks. It is also important for banks to implement loan recovery strategies at nascent stage so that NPAs can be reduced. Better credit management system had helped private banks and foreign banks for avoiding or minimizing default risks with loans (Swamy, 2012)

There is also relationship between NPAs and macroeconomic variables like economy slowdowns, recession and low rate of savings. The type of bank whether public or private also influence on effective decision making because public banks are influenced to support priority sectors irrespective of risk assessment outcome. One of the primary objectives of Government of India is to make Indian banks to be competitive internationally. The financial ratios may help in analyzing the performance of organizations but it is not suitable to measure the performance of organizations in banking industry. Indian banks can reduce NPAs by implementing different things like voluntary retirement for banks staff and rationalization of rural branches.

Narula and Singla (2014) had stated that NPAs are infecting banks as virus by analyzing the net profits, gross profits and net NPAs for a period of six years from 2006-07 to 2011-12 of Punjab National Bank. When net gross NPAs and net NPAs increase it will have negative impact on profitability of banks. The management can assign the task of loan recovery for special employees even though it attracts additional costs for the organization. NPAs also lead to opportunity cost for banks because it could have given tremendous profits if investment is made after credit risk assessment. It is important for banks to verify the repayment capability of borrower before sanctioning loans.

Dr. Shyam Sundar & Dr. Narender (2017), had mention that economies can develop more productively and can all the more effortlessly get to be distinctly focused financial members. Makri et al (2014) had explained that macroeconomic variables like gross domestic product, unemployment rate and microeconomic variables like returns on assets, loans to deposit ratio influence NPAs by analyzing performance of banks in Eurozone. The deregulation process in banking sector had increased competition in the banking industry. At the same time information technology had also eased the process of loan approvals compared to traditional process. The time availability for risk assessment also decreased due to competition and it had made banks to lend the money for sustaining. But at the end due to ineffective credit management policies NPAs have increased and it had negatively influence growth of overall banking sector.

Singh (2016) had described about issues with non-performing assets (NPAs) in commercial banks. For Indian commercial banks Verma Committee and Narshimham Committee had given suggestions for avoiding NPAs on the balance sheet. The banks are recovering from the issue of NPAs through various modes like Lok Adalat, DRT and SARFAESI Act. NPAs badly influence return on investment (ROI) and also on profitability of banks. Even the share value of banks gets reduced because of bad image on bank profitability due to NPAs.

It had become important to compare the performance of private and public banks after liberalization in India. Among the various factors NPAs can be considered as an important factor to compare banks based on their ownership type. Both public sector and private sector banks are implementing promotional strategies for effective customer relationship management (Chaudary & Sharma, 2011). For sustaining in the competitive banking industry it is important for banks to provide internet banking facility, limits on cash withdrawals must be removed and home banking model need to be adopted. The risk assessment can be performed by adopting statistical techniques like Markov chain analysis and Value-at-risk analysis.

NPAs helps to know the health condition of banking sector because higher the NPAs the higher the risk for banks. Even though performance of public sector banks is good but NPAs have become burden by shadowing healthy position (Singh, 2013). Due to directed loan systems it has become important for banks to give approximately 40 percent to priority sector. NPAs increase when the banker selects wrong client. It is important for banks to check the progress of the projects where investment has been made. A separate unit is needed in large branches for monitoring standard assets.

When borrowers use funds for other purpose which are different from the actual agreed terms is one of the primary causes for non-performing loans (NPLs). Some causes for NPLs are weak portfolio of loans, integrity of borrowers, constant changes in banking policies and natural calamities (Richard, 2011). NPLs issue can be resolved if bankers frequently contact the borrowers and also by attending business meetings of the client. It is important to create an environment for trust so that borrowers can think about repayment of loans.

NPLs decrease with high growth of real GDP, growth of personal income, housing price index and whereas inflation growth of unemployment rate increase NPLs (Ghosh, 2015). Even global financial crisis in United States had negatively influenced NPLs. Greater cost inefficiency, liquidity risks, greater capitalization and poor credit quality increase NPA of banks. Hence economic factors influence NPLs along with internal environment of banks.

According to Ramu (2009) banks adopt a model while giving loans. The asset quality component also influences the growth of non-performing assets (NPAs). Some of the dimensions for analyzing NPAs are NPL ratio, NPL coverage, distressed assets, NPS to gross assets and past due ratio (Ramu, 2009). The effective implementation of post-disbursement follow up and corrective actions also play an important role for reducing NPAs. The banks can take measures by adopting debt recovery tribunals, enactment of SRFAESI Act and compromise settlement schemes.

Malyadri and Sirisha (2011) had compared the trends of NPAs between public sector and private sector banks for the period 2004-2010. Indian banking sector had undergone transformation due to various financial reforms. The banks were pressurized to trim their NPAs and at the same time to improve their efficiency. Between 2004 and 2010 the asset quality of banks for both private and public sectors had increased from the perspective of weaker sections. The prudential and provisioning norms had consequently trimmed NPAs and enhanced performance of banks.

Samir and Kamra (2013) had explained that asset quality is major indicator of financial health of banks compared to number of branches and volume of deposits. The solvency, liquidity and profitability are negatively influenced by NPAs. The recycling of funds becomes difficult for banks with banks and at the income is lost by NPAs. Some of the internal factors for NPAs are inefficient management, strained labor relations, diversification of funds by borrower and poor credit appraisals. The external factors like recession, price escalation, natural calamities and changes in government policies also increase NPAs.

Bhardwaj and Chaudhary (2018) had explained that asset quality is not an important factor till 1991 but after liberalization it had gained importance. The NPAs have increased in billions of rupees between 2001-02 and 2013-14. Among the three modes of recovery systems SARFAESI Act is more effective compared to Lok Adalats and debt recovery tribunals (DRT). The existing policies need to be reviewed for effective loan recovery by banks in India. The banks should publish information related to defaulters and fraudsters so other banks can use it while making credit risk assessment.

Rao and Patel (2015) had analyzed NPAs of foreign, public and public sector banks for the period from 2009 to 2013 and stated that NPAs of public sector banks will be higher in 2014. NPAs had become largest cause for frustration and it may have negative impact on the economy at large. The gross NPAs and gross advances are same among private, public and foreign banks. NPAs also increase with lack of technical support and inefficient recovery system. Bardhan and Mukherjee (2016) had explained the impact of macroeconomic variables on non-performing assets (NPAs) among Indian banks by using econometric methodology.

Gupta and Sundram (2015) had considered variables like interest income, net profit, deposits and assets for comparing performance between public sector banks and private sector banks. The return on assets ratio of private banks is high compared to public sector banks in India during the period 2009-10 to 2013-14. The private banks are using their core funds much more efficiently compared to public sector banks in India.

Research Methodology

Secondary data procured from journals, magazines, electronic sources and published reports from Reserve Bank of India (RBI) had been used for conducting this study. The statistical techniques like descriptive statistics, correlation and regression have been used for data analysis with SPSS version 20.0 software. The secondary data for a period of eight years had been collected from 2010 to 2017.

Data Analysis

The secondary data related to macroeconomic variables like net NPAs, gross NPAs, gross domestic product (GDP), inflation based on consumer price index (CPI) and unemployment rate for 8 years from 2010 to 2017 had been collected and presented in Table 3. The secondary data had been loaded into Ms-Excel initially for data purification. Later the data from Ms-Excel is loaded into SPSS software.

Table 3. Secondary Data on NPAs and Selected Macroeconomic Variables

YEAR	Nationalized Banks Net NPAs	Private Banks Net NPAs	Nationalized Banks GROSS NPAs	Private Banks GROSS NPAs	Ratio of Net NPAs to Gross NPAs of Nationalized Banks	Ratio of Net NPAs to Gross NPAs of Private Banks	GDP	Inflation based on Consumer Price Index (CPI)	Unemployment Rate
2010	168131	65060	363948	176400	0.46	0.37	10.26	9.47	3.54
2011	212640	44322	442711	182406	0.48	0.24	6.63	6.49	3.52
2012	391546	44012	696245	187678	0.56	0.23	5.45	11.17	3.62
2013	619362	59944	1022272	210705	0.61	0.28	6.38	9.13	3.46
2014	888197	88615	1484572	245424	0.6	0.36	7.41	5.86	3.41
2015	1226734	141283	2049595	341062	0.6	0.41	8.15	6.32	4.49
2016	2514808	266774	4179878	561857	0.6	0.47	7.11	2.23	3.50
2017	2861565	477802	5069217	932092	0.56	0.51	6.61	4.00	3.52

(Source: Compiled by researcher)

The net NPAs and gross NPAs for nationalized banks and private banks had been analyzed by using descriptive statistical techniques like mean, sum and standard deviation. According to descriptive statistics in Table 4 it is observed that mean value of both net NPAs and gross NPAs of nationalized banks is higher for the selected duration of 8 years from 2010 to 2017.

Table 4. Descriptive Statistics

BANKTYPE		N	Minimum	Maximum	Sum	Mean	Std. Deviation
NATIONALIZED BANKS	GROSS NPA	8	363948	5069217	15308438	1913554.75	1778355.936
	NET NPA	8	168131	2861565	8882983	1110372.88	1038787.874
	Valid N (listwise)	8					
	GROSS NPA	8	176400	932092	2837624	354703.00	266868.026

PRIVATE SECTOR BANKS	NET NPA	8	44012	477802	1187812	148476.50	152428.923
	Valid N (listwise)	8					

(Source: Output from SPSS)

Table 5. Correlations

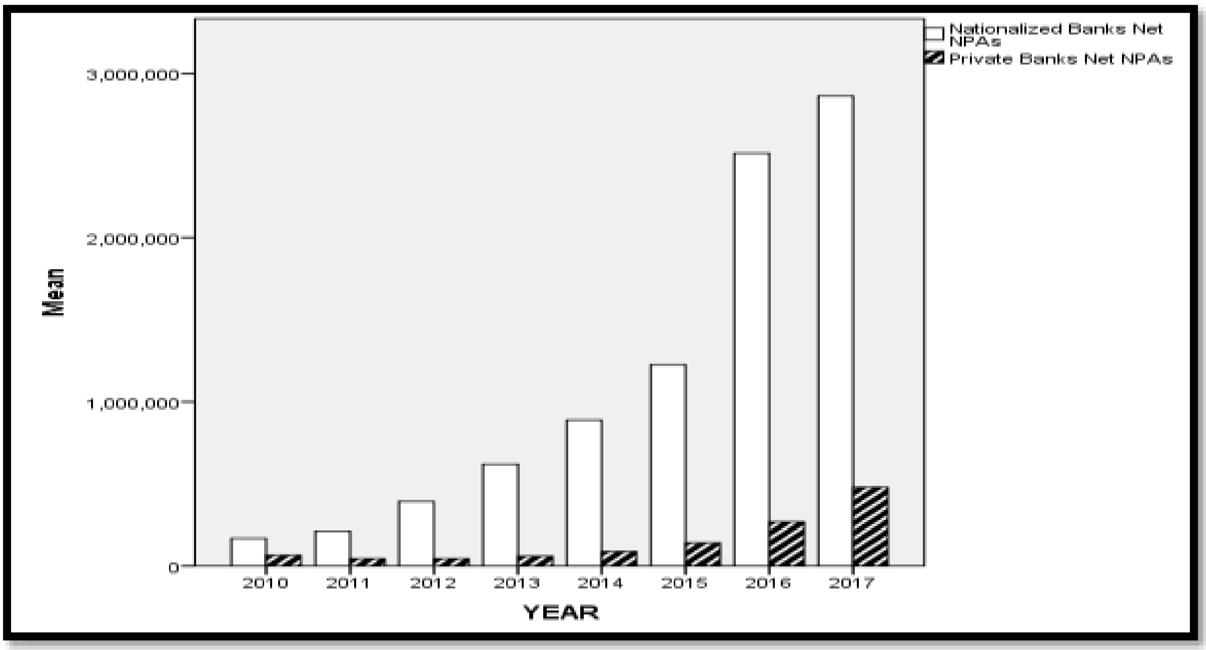
		Ratio of Net NPAs to Gross NPAs of Nationalized Banks	Ratio of Net NPAs to Gross NPAs of Private Banks
Ratio of Net NPAs to Gross NPAs of Nationalized Banks	Pearson Correlation	1	0.261
	Sig. (2-tailed)		0.533
	N	8	8
Ratio of Net NPAs to Gross NPAs of Private Banks	Pearson Correlation	0.261	1
	Sig. (2-tailed)	0.533	
	N	8	8

Source: Output from SPSS

Hypothesis (H1): There is positive association between ratio of Net NPAs to Gross NPAs between nationalized banks and private banks.

H1 is rejected because ‘p’ value is 0.533 in Table 5 which is more than benchmark value of 0.05. Hence there is no correlation between ratio of Net NPAs to Gross NPAs of Nationalized Banks and Private Banks.

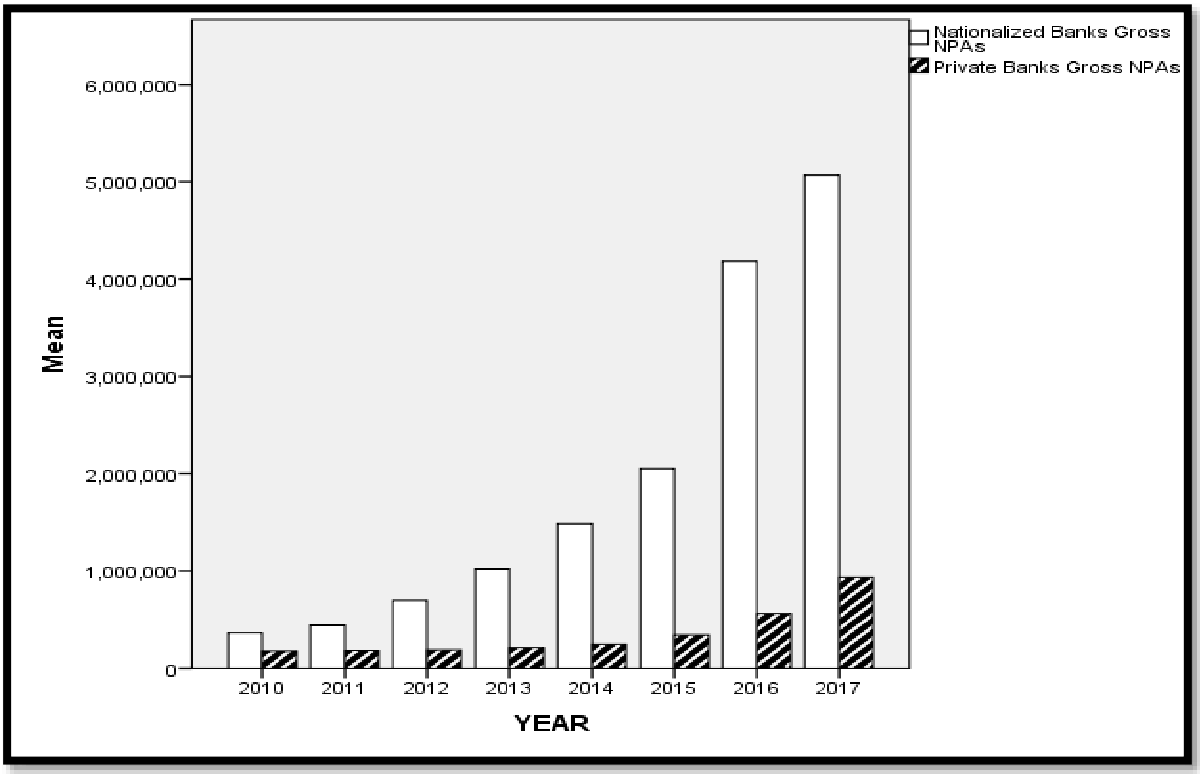
Figure 1. Comparison of Net NPAs between Nationalized Banks and Private Banks



(Source: Output from SPSS)

From Figure 1 it is evident that Net NPAs of Nationalized banks had grown drastically between 2010 and 2017 but growth of Net NPAs of Private Banks is also observed. From Figure 2 it is found that gross NPAs of Nationalized banks are very high compared to Private Banks between 2010 and 2017.

Figure 2. Comparison of Gross NPAs between Nationalized Banks and Private Banks



(Source: Output from SPSS)

Table 6. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3320690.689	3095508.620		1.073	0.344
	GDP	-129446.479	199764.858	-0.181	-0.648	0.552
	Unemployment Rate	189900.138	823141.485	0.064	0.231	0.829
	Inflation Rate based on CPI	**-287052.218**	**95198.812**	**-0.820**	**-3.015**	**0.039**

a. Dependent Variable: Nationalized Banks Net NPAs, Source: Output of SPSS

The impact of selected macro-economic factors on Net NPAs of Nationalized Banks and Private Banks has been tested by using regression analysis. The dependent variable is Net NPAs and independent variables are GDP, inflation and unemployment rate. The results of the regression test had been presented in Table 6 and Table 7 for Nationalized Banks and Private Banks respectively. The inflation has an impact on Net NPAs of Nationalized banks because the ‘p’ value for inflation is 0.039 in Table 6 is less than 0.05.

For Private Banks the Net NPAs is not influenced by macroeconomic variables like gdp, inflation and unemployment rate. The ‘p’ value for all the independent variables in Table 7 is more than 0.05. Hence private banks net NPA is independent from effect of selected macroeconomic variables. However the size of Net NPAs of private banks is much low compared to Nationalized Banks therefore impact of macroeconomic variables is nil.

Table 7. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	473626.196	579670.979		0.817	0.460
	GDP	-10795.809	37408.357	-0.103	-0.289	0.787
	Unemployment Rate	903.719	154143.079	0.002	0.006	0.996
	Inflation Rate based on CPI	-36606.963	17827.115	-.0712	-2.053	0.109

a. Dependent Variable: Private Banks Net NPAs, Source: Output of SPSS

Conclusion

It is understood from this study the NPAs of Nationalized Banks is high compared to Private Banks. The government policies might have influenced decision making like giving mandated loans to priority sector. There is also no significant relationship between NPAs between Nationalized Banks and Private Banks. Recently Government of India is encouraging merging of small banks to become large for sustaining in banking sector at global level. The economy gets stronger with efficient banking sector. It is observed that Private Banks have low NPAs, therefore it is better to encourage private banks with efficient monitoring by Reserve Banks of India.

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