Management of Non-Performing Assets with special reference to restructuring of advances by Public Sector Banks

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Abstract

Non-Performing Assets (NPA) is the burning issue in the banking sector, which is caused by non-repayment of loans over a period of 90 days. The increased level of NPA drains the liquidity, profitability and operational efficiency of the banks. Restructuring of such advances helps the banks to reduce their NPA level to a great extent. Restructuring of a loan means changing its terms and conditions to mitigate the difficulties encountered by the borrower due to genuine reasons such as general economic recession or temporary cash crunch. Hence, the present study seeks to address the trends in the restructuring of advances of Public sector banks, by comparing restructured assets ratio of Public Sector Banks (PSBs) and Private Sector Banks (PVSBs)to study their asset quality.The data has been collected from the website of the Reserve Bank of India (RBI) and the websites of different banks in India. Statistical tools like percentages, graphs, mean, standard deviation, covariance, and ANOVA were utilizedfor data analysis. The study found that the Restructured Standard Asset ratio of PSBs had increased by 4.1 percent during the years 2008-2016, whereas the ratio of PVSBs had increased by just 1.1. The stressed asset ratio of PSBs had increased by 11.4 percent during 2008-2016, whereas the ratio of PVSBs had increased by just 1.4 percent maximum. The Impaired Asset Ratio of PSBs had increased by 11.7 percent during 2008-2016, whereas the ratio of PVSBs had increased by just 1.0 percent.

Keywords: restructuring; stressed assets; impaired assets; PSBs; PVSBs

1. Introduction

Accepting deposits and lending money are considered as the crucial functions of banks. However, in these major functions, banks are facing dangerous risks such as default risk and credit risk. Sometimes the customer may delay the repayment of money to the bank, and such non-repayment leads to the formation of Non-Performing Asset (NPA) in the banks. NPA affect the operational efficiency of the banks and thereby cause an adverse impact on the profitability, liquidity, and solvency of banks (Michael, Vasanthi, & Selvaraju, 2006).The NPA are of two types, viz., Gross NPA and Net NPA. Gross NPA is the total of all loan assets that are classified as NPAs as per RBI guidelines as on balance sheet date. It reflects the standard of loans created by banks. With the birth of prudential norms, Gross NPA of banks rose significantly during the initial years of the 1990s. Gross NPA of All Scheduled Commercial Banks (ASCBs) was at 19.1 percent in 1994. After that NPA ratios of banks fell during the period of structural reforms, with average NPA ratio of ASCBs identified at 12.8 percent during 1997-2001 (Reserve Bank of India, 2012a)

Chakrabarty (2013) stated that the reduction of Non-Performing Asset (NPA) levels during this period could be due to several factors such as:

- ✓ The improved framework of credit risk management in banks to fulfill the stringent regulatory norms.
- ✓ Falling interest rates and rising treasury income leading to writing off the NPA.
- ✓ A booming economy and better growth rate of advances.
- ✓ Abundant flow of funds in markets.
- ✓ Scope for the restructuring of loans

Table 1 Gross NPA of PSBs

Year	Gross NPA (Amount In Rs. billion)	Incremental Gross NPA	Growth rate (in percent)	Gross NPA as percentage of Gross Advances	Gross NPA as a percentage of Total Assets
2002	565	18.0	3.3	11.1	4.9
2003	541	-24	-4.2	9.4	4.2
2004	515	-26	-4.7	7.8	3.5
2005	484	-31	-6.1	5.5	2.7
2006	414	-70	-14.5	3.6	2.1
2007	390	-24	-5.8	2.7	1.6
2008	405	15	3.8	2.2	1.3
2009	450	45	11.1	2.0	1.2
2010	599	150	33.3	2.2	1.3
2011	746	147	24.5	2.2	1.4
2012	1125	379	50.8	2.9	1.9
2013	1645	520	46.2	3.6	2.4
2014	2273	628	38.2	4.4	2.9
2015	2785	512	22.5	5.0	3.2
2016	5400	2615	93.9	9.3	-
2017	6847	1447	26.8	11.7	-
Average	**1574**	**3934**	**19.9**	**5.4**	**2.5**

Source: Reserve Bank of India (2012a)

From Table 1, Increased NPA of the bank reflects its efficiency in credit risk management. Lower the level of accretion to NPA; the better will be the asset quality of banks. Incremental gross NPA of PSBs had grown sizably ,i.e., from 18 billion Indian Rupees (INR) in 2002 to 1447 billion INR in 2017; noticed a rise of 80 times. Trends in incremental NPA mostly resemble the trends in Gross NPA. The share of Gross Non-Performing Assets (GNPA) in the total credit of banks is the primary indicator' of Asset Quality. It had registered an increase of 0.6 percent during the study period, i.e., from 11.1 percent in 2002 to 11.7 in 2017, but the ratio had increased swiftly since 2013.

Restructuring of banks advances is considered as one of the ways to manage the NPA burden of banks. Restructuring of a loan means changing its terms and conditions to mitigate the difficulties encountered by the borrower due to genuine reasons such as general economic recession or temporary cash crunch. Debt restructuring is a process that allows a borrower who is facing cash flow problems and financial distress, to reduce and renegotiate its delinquent debts in order to improve or restore liquidity and rehabilitate so that it can continue its operations or restore liquidity and rehabilitate so it will continue its operations. According to the RBI's guidelines on restructuring a restructured account is one where the bank grants reliefs and concessions to the borrower to tide over financial difficulties arising out of economic or legal reasons; such concession could not be made available in other cases. These concessions may include, among others, alteration of the repayment period, changes in the amount of repayment/amount of installments, modification in the rate of interest and relaxations in terms of securities (Reserve Bank of India, 2012b).

Restructuring of accounts cannot be pre-occupied unless money viability of unit is established that relies upon sure viability benchmarks like come back on capital utilized, Debt service coverage ratio, Internal rate of come back, price of funds and also the quantity of provision needed in place of the diminution in truthful worth of the restructured advance. Any restructuring done without looking into cash flows of the borrower and assessing the viability of the project or activity financed by the banks would be treated as an attempt at evergreening a weak credit facility. The heavy NPAs generated by the banks emphasized the need for restructuring of advances as per the guidelines issued by Reserve Bank of India. Upon restructuring, standard assets will immediately be classified as substandard assets, and substandard and doubtful assets will slip into further lower classification (Lokare, 2014).

1.1 Statement of the Problem

The level of NPA of Public Sector Banks is increasing day by day. Consequences of NPA are diverse, such as reduction in interest income, increased provisions, strained profitability, inability to meet rising cost, stresses on Net Interest Margin (NIM) bringing down competitiveness, gradual depletion of capital and obstacles in capital augmentation (Batra, 2003). Hence banks realize that restructuring of its bad loans is the best solution to manage their NPA levels.

The RBI revises its prudential guidelines on restructuring of advances by banks periodically based on the international best practices and the guidelines issued by the Basel Committee on Banking Supervision. In August 2008, the RBI modified the guidelines in order to manage the downtrend in the economy caused by the Global Financial crisis of 2007. In August 2008 the Central Bank allowed banks for restructuring the standard, substandard and doubtful assets of viable borrowers. Such guidelines specified that if the accounts classified as standard assets belong to the borrowers engaged in vital business activities, its classification, as a standard asset may be retained on restructuring subject to prescribed conditions. Restructured accounts have attracted attention in recent times due to the surge in the quantum of such accounts. Concerns are expressed that the rising volume of forborne assets may strain the asset quality of banks.

In this background the researcher has analyzed the trends in different aspects of restructuring of loans with the main objectives of (a) To study the trend in the restructured assets of the bank, (b) To compare the restructured ratio of PSBs and PVSBs and (c) to analyze the asset quality ratios of PSBs and PVSBs.

1.2 Hypotheses

The hypotheses of the study were framed based on the speech of Chakrabarty (2013), Deputy Governor, Reserve Bank of India (RBI). He made a speech on Two decades of Credit management in Indian Banks: Looking back and moving ahead. Based on this speech, the study formulated the following hypotheses.

H1: There is no significant difference between restructured standard asset ratio of Public Sector Banks and Private Sector Banks.

H2: There is no significant difference between the stressed asset ratio of public sector banks and private sector banks.

H3: There is no significant difference between impaired asset ratio of public sector banks and private sector banks.

2. Review of Literature

NPA is an emerging challenge in India. The Non-performing asset distribution in the Indian banking system follows the 80-20 rule; 20% percent of borrowers are responsible for 80% value of the impaired assets and vice versa (Khasnobis, 2005). Non-Performing Loans (NPLs) of Indian banks behave through the cycle. It is found that a one-percentage-point increase in loan growth is associated with an increase in NPLs over total advances (NPL ratio) of 4.3 percent in the long run with the response being higher throughout expansionary phases.

Furthermore, NPL ratios of banks are found to be sensitive to the interest rate environment and the overall growth of the economy. Notwithstanding variations in management and governance structures, there's a procyclical risk-taking response to credit growth within the case of each public personal and personal} banks with private banks being more reactive to changes in interest rate and business cycle conditions (Pallavi and Leonardo, 2016). Sometimes the bank's management may have remained careless in close credit monitoring, and NPA's slippage would have assumed a regular accumulation on quarter to quarter, half year to half year and year on year position. It is true that loses in credit monitoring system and weak, fragile risk management system very quickly intensify the process of slippages from standard assets to NPAs and then it takes more time to reach loss assets status when a credit portfolio is not monitored periodically on a regular basis. The system of identifying potential NPAs in standard assets and considering upfront action to recover the critical amount due would precisely help bank arrest slippages to NPA's from standard assets and such accounts can continue to remain tobe classified as standard assets till next assets classification (Sudhakar, 1998). Therefore, the management of the bank must pay special attention towards the NPA management and take appropriate steps to arrest the creation of new NPAs, besides making recoveries in the existing NPAs. Timely action is essential to ensure the growth of the Bank (Selvarajan and Vadivalagan, 2013).

3. Methodology

The present study is based on secondary data collected from the website of Reserve Bank of India and from the websites of different banks for a period of 9 years from 2008 to 2016 for parameters such as Restructured Standard Asset Ratio, Stressed Assets Ratio and Impaired Assets Ratio. The study period is confined to post global financial crisis period of 2008 – 2016. The growth of Restructured Standard Assets and trend in Stressed Assets to Equity Ratio is analyzed for a period of 6 years only (2008 to 2013) as the absolute figures of Restructured Standard Assets, and Stressed Assets could not be obtained due to changes in the reporting pattern of the RBI in its publications. Statistical tools like percentages, graphs, mean, standard deviation, and ANOVA are utilizedfor the data analysis. To ascertain the extent of statistical significance of linkage between PSBs and PVSBs in terms of asset quality ratios, one-way ANOVA was performed.

4. Data analysis and Interpretation

The collected data is analyzed under the following subheadings
4.1 Restructured Standard Assets of PSBs
4.2 Restructured Standard Asset Ratios of PSBs vs. Private Sector Banks
4.3Stressed Assets Ratio
4.4Impaired Assets Ratio
4.5 Asset Quality Ratios –ANOVA for PSBs and PVSBs

4.1 Restructured Standard Assets (RSA) of PSBs

Restructured Standard Assets are stress prone accounts with a high probability of turning into NPA. In the absence of restructuring, the GNPA of PSBs would have been still more. However, the exact volume of NPA depends upon the proportion of RSA turning as NPA.RSA of PSBs had jumped by 15 times during the period of study. The average amount of RSA is 139028.5 Crore (in Indian Rupees). The growth rate of RSA had risen by 4.62 percent during the period of study with an average growth rate of 35.68 percent. In the initial years of the 2000s, the growth rates of RSA were not stable. However, a significant uptick in growth rate is noticed in 2008- 2009 because of the introduction of a one-time dispensation facility provided to the borrowers by the RBI to manage the impact of the crisis. The growth in the Restructured Standard Assets of banks remained high from 2008 to 2013 except the year 2011. The relevant data is exhibited in Table 2. Computed from Basic Statistical Returns of Banks in India, Reserve Bank of India

Table 2 Restructured Standard Assets

Year	Restructured Standard Assets (Amount in Crore (Indian Rupees))	Growth Rate	Gross NPAs (Amount in Crore (Indian Rupees))
2008	19739	25.74	40452
2009	62351	68.34	44957
2010	126224	50.60	59926
2011	129810	2.76	74600
2012	203637	36.25	112489
2013	292410	30.36	164462
Average	**139028.5**	**35.68**	**82814.33**

Source: Researchers' own calculation

4.2 Restructured Standard Asset (RSA) Ratio of PSBs vs. Private Sector Banks

RSA ratio expresses the relationship between restructured standard assets and Gross NPA (Chakrabarty, 2013). As the granular data for Private Sector Banks are available only from 2008, the RSA ratios are worked out for the period 2008-2016 for PSBs and PVSBs and given in Table 3 and Chart 1.

Table 3 Restructured Standard Assets Ratios of PSBs and PVSBs

Year	*PSBs*	*PVSBs*
2008	0.8	0.7
2009	3.1	1.2
2010	3.8	2.0
2011	1.9	0.6
2012	3.5	1.0
2013	6.1	1.7
2014	6.2	2.2
2015	7.1	2.3
2016	4.9	1.8
Mean	**4.2**	**1.5**
S.D	**2.1**	**0.6**
C.V	**51.0**	**42.8**

Source: Researchers' own calculation

The RSA ratio of PSBs had increased by 4.1 percent during 2008-2016 whereas the ratio of PVSBs had increased by just 1.1 percent. The maximum RSA ratio of PSBs was 7.1 percent in 2015. In the same year, Private Banks too had registered their maximum RSA of 2.3 percent. The average RSA of PSBs and PVSBs are identified as 4.2 and 1.5 respectively. The co-variance of PSBs of 51 percent is higher than that of NSBs at 42.8 percent. So it can be concluded that the PVSBs are more stable in terms of RSA ratios.

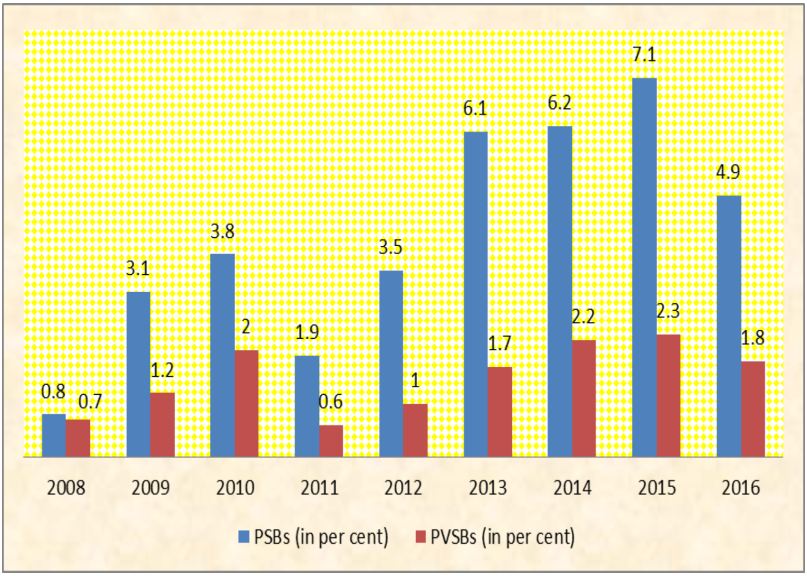

Chart 1 Restructured Standard Assets Ratios of PSBs and PVSBs

4.3 Stressed Assets Ratio

The stressed assets ratio depicts the relationship between gross NPA plus restructured standard assets and total advances (Chakrabarty, 2013). As the granular data for Private Sector Banks are available only from 2008, the stressed assets ratios are worked out for the period 2008-2016 for PSBs and PVSBs which are given in Table 4 and Chart 2.

Table 4 Stressed Asset Ratios of PSBs and PVSBs

Year	***PSBs***	***PVSBs***
2008	2.8	3.2
2009	5.1	4.1
2010	6.0	4.7
2011	4.1	3.1
2012	6.7	3.1
2013	9.7	3.5
2014	11.0	4.0
2015	12.1	4.4
2016	14.2	4.6
Mean	**7.0**	**3.0**
S.D	**3.9**	**1.0**
C.V	**56.4**	**29.1**

Source: Researchers' own calculation

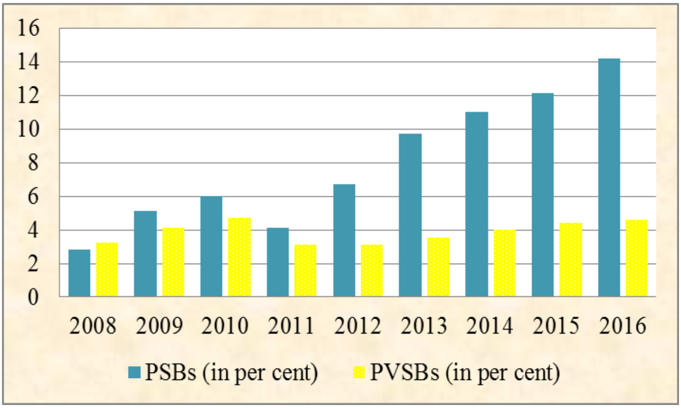

Chart 2 Stressed Asset Ratio of PSBs and PVSBs

The stressed asset ratio of PSBs had increased by 11.4 percent during 2008-2016 whereas the ratio of PVSBs had increased by just 1.4 percent maximum. Stressed assets ratio of PSBs was 14.2 percent in 2016. Private Banks had registered their maximum stressed asset ratio of 4.7 percent of in 2010.The average stressed asset ratio of PSBs and PVSBs are identified as 7.0 and 3.0 respectively. The covariance of

PSBs of 56.4 percent is higher than that of PVSBs at 29.1 percent. So it can be concluded that the PVSBs are more stable in terms of stressed assets ratio.

4.3.1 Stressed Assets as a Percentage of Equity

Stressed assets expressed as a percentage of equity of Public Sector Banks had registered an average increase of 72.58 percent during 2008-2013, whereas for all banks the relevant figure has increased by 49.13 percent. The year wise data are portrayed in Table 5 and Chart 3.

Table 5 Stressed Assets as a Percentage of Equity

Year	*All banks*	*PSBs*
2008	26.4	34.4
2009	39.4	51.5
2010	52.1	77.2
2011	46.3	70.4
2012	59.2	90.2
2013	71.4	111.8
Average	**49.13**	**72.58**

Source: Researchers' own calculations

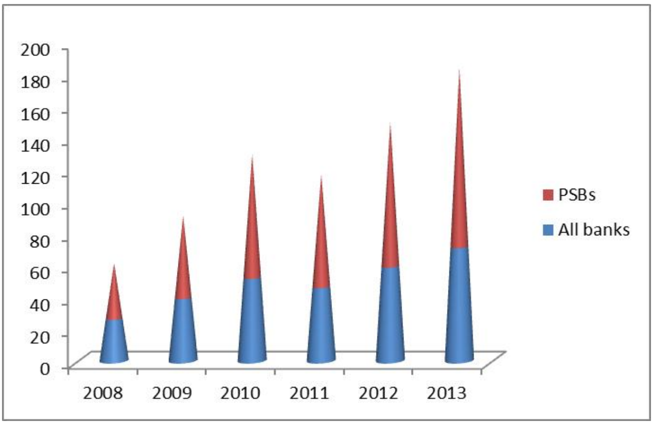

Chart 3 Stressed Assets as a percentage of equity

4.4 Impaired Assets Ratio of PSBs Vs. PVSBs

Impaired asset ratio shows the relationship between GNPA plus restructured accounts plus cumulative write off to total advances (Arpita, 2014). Table 6 compares the impaired asset ratio of PSBs and PVSBs during 2008 and 2016.

Table 6 Impaired Asset Ratios

Year	*PSBs*	*PVSBs*
2008	6.7	6.5
2009	8.0	4.8
2010	10.0	10.0
2011	8.7	7.2
2012	11.0	6.4
2013	13.4	7.0
2014	13.6	7.3
2015	15.6	7.5
2016	18.4	7.5
Mean	**11.6**	**6.6**
S.D	**4.0**	**2.4**
C.V	**33.1**	**35.8**

Source: Researchers' own calculation

The Impaired Asset Ratio of PSBs had increased by 11.7 percent during 2008-2016 whereas the ratio of PVSBs had increased by just 1.0 percent. The maximum impaired asset ratio of PSBs was 18.4 percent in 2016. In 2010 PVSBs had the maximum impaired asset ratio of 10.0 percent. The average impaired asset ratio of PSBs and PVSBs are identified as 11.6 and 6.6 respectively. The covariance of impaired assets ratio of PSBs is 33 percent as against 35.8 percent in case of PVSBs. So, it can be inferred that PSBs are more stable in terms of impaired asset ratio.

4.5 Asset Quality Ratios –ANOVA for PSBs and PVSBs

To ascertain the extent of statistical significance of linkage between PSBs and PVSBs regarding asset quality ratios, one way ANOVA was performed by formulating the following hypotheses. The result of the ANOVA test is summarised in Table 7.

Table 7 ANOVA for PSBs and PVSBs

Parameters		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig*	*Hypotheses*
Restructured Standard Asset Ratio	Between Groups	31.744	1	31.744	13.187	0.002	Rejected
	Within Groups	38.512	9	2.406			
	Total	70.256	10				
Stressed Assets Ratio	Between Groups	73.215	1	73.215	9.034	0.008	Rejected
	Within Groups	129.645	9	8.103			
	Total	202.860	10				
Impaired Assets Ratio	Between Groups	123.55	1	123.55	10.952	0.044	Rejected
	Within Groups	164.429	9	10.277			
	Total	287.979	10				

Table 7 is interpreted as follows:

H1: There is a significant difference between the restructured standard asset ratio of PSBs and PVBs as the p-value 0.002 is less than 0.05. Thus, the hypothesis is rejected.

H2: There is a significant difference between the stressed asset ratio of PSBs and PVBs as the p-value 0.008 is less than 0.05. Thus, the hypothesis is rejected.

H3: There is a significant difference between the impaired asset ratio of PSBs and PVBs as the p-value 0.004 is less than 0.05. Thus, the hypothesis is rejected.

5. Discussion on findings

The study found that RSA of PSBs had jumped by 15 times during the period of study. The RSA ratio of PSBs had increased by 4.1 percent during 2008-2016 whereas the ratio of PVSBs had increased by just 1.1 percent. The stressed asset ratio of PSBs had increased by 11.4 percent during 2008-2016 whereas the ratio of PVSBs had increased by just 1.4 percent maximum. Stressed assets expressed as a percentage of equity of PSBs had registered an average increase of 72.58 percent during 2008-2013, whereas for all banks the relevant figure has increased by 49.13 percent. Hypotheses testing clearly indicated that there is a significant difference between Public Sector Banks and Private Sector Banks with respect to Restructured Standard Assets ratio, Stressed Asset ratio, and Impaired assets ratio. This indicates that the asset quality of Private Sector Banks is better than of Public Sector Banks, but the difference with respect to some indicators is not much significant.

6. Recommendations to manage Non-Performing Assets (NPAs)

This study came out with the following recommendations:

- **i.** All accounts classified as Non-Performing Assets should be reviewed by the banks periodically.
- **ii.** Restructured accounts should be monitored carefully. Banks have to examine the viability of these accounts on a case-to-case basis, and viable accounts can be considered for additional funding. When viability could not be ensured in the loan account, such cases could be laid under the scanner with immediate measures for recovery or resolution.
- **iii.** If a loan account is to be restructured such decision should be finalized within the stipulated period.
- **iv.** For recovering the funds from unviable accounts, banks can resort to legal remedies within a time frame to prevent the loss due to depletion of the value of the assets.
- **v.** The other options suggested in such cases are a reconstitution of management, the takeover of units and operating the unit through an agent before the sale of the unit.
- **vi.** While restructuring the loans banks have to exhibit a lot of compassion as such segments with their huge employment potential are considered to be very crucial in a country like India.

7. Conclusion

Non-Performing Assets (NPA) is a significant threat faced by banks in India. The higher level of NPA drains the profitability, liquidity and operational efficiency of the banks. In order to tackle this problem, banks opt to restructure their advances. Restructuring brings about reduction in the NPA level of banks. The study found that over the years there is an increase in the restructured assets of Public sector banks. All the ratios such as restructured assets ratio, impaired asset ratio are also showing the same trend. Hence, the study suggested that the bank should take careful supervision on restructuring their advances. They have to examine the viability of these accounts on a case-to-case basis, and viable accounts can be considered for additional funding. When viability could not be ensured in the loan account, such cases can be screened and immediate measures could be taken for recovery.

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