Analytical Study of Non-Performing Assets of Public and Private Sector Banks in India

Dr. Kavita S. Vadrale

Assistant Professor, Dept. of Economics, Shivaji University Kolhapur

Akanksha A. Madake

Research Scholar, Dept. of Economics, Shivaji University, Kolhapur

Abstract:

The Indian banking system plays an active role in running the sectors of the economy. In the current situation, banks face difficulty in providing financial support to the sectors due to non-performing assets. Hence, monetisation of non-performing assets is necessary. Therefore, this paper attempts to analyse the trends of non-performing assets of public and private sector banks over time. Secondary data throughout the twenty-three (2001-2023) years was collected from various publications of the RBI. This study considered a few variables, like gross NPA and net NPA of public sector and private sector banks. It was observed that non-performing assets of public sector banks were higher than those of private sector banks over the study period. The study found that a series of non-performing assets follows a stochastic trend pattern rather than a linear one. An independent t-test has been employed to investigate apparent variation in the non-performing assets held by public and private sector banks. Although the NPA has been recovered, they are not yet under control, especially for public banks. Therefore, there is a need for consistency in NPA recovery.

Keywords: *Non-performing assets, Gross NPA, Net NPA, Stochastic trend analysis, Banking*

1. Introduction:

The banking system is the base for running any trade cycle in the economy. According to the pure monetary theory of the trade cycle, the banking system plays the main role in the economic development of a country. The financial system's primary role is to mobilise public savings and allocate them as investments across the various economic sectors. The capital generation process in the economy is referred to as the conversion of financial savings into investment. A high-level committee led by Sri M. Narasimham was established by the Indian govt. During the various stages of the banking system, it is necessary to look into every facet of the financial system's composition, operations, and processes. The Committee submitted its report in November 1991, which includes several suggestions for improving the banking system's operating effectiveness. The term 'non-performing asset' (NPA) has come into prominence as a result of the recommendations. NPAs are loans or advances with outstanding principal or interest payments for over 90 days, typically defined as non-performing assets. There are two types of non-performing assets, gross NPA and net NPA. Gross NPA is the sum of all loan assets that are classified as NPAs as per RBI guidelines on the balance sheet date. Net NPA is defined as deducting the provision from the total gross NPA.

The most significant issue facing public sector banks is a steadily rising amount of non-performing assets. Non-performing assets (NPA) are a significant issue in the Indian banking system, causing economic downturns. Non-performing assets harm the savings credit chains'

leverage and cause banks to lose their reputation in the banking industry. Therefore, this paper examines the trend in non-performing assets of public and private sector banks in India and investigates the differences in their NPAs. The increasing levels of non-performing assets (NPAs) are leading to halt in interest income, thereby diminishing their profitability. Effective management of NPAs is essential for fostering growth in the banking sector, as elevated NPAs can erode investor confidence and adversely affect the banks' financial stability.

2. Review of Literature:

A pertinent literature in the public domain explains the issue of non-performing assets. The concept of non-performing assets came into prominence after reforms in financial institutions were introduced on the recommendations of the report of the Narasimham committee in 1991. Major policy modifications related to non-performing assets have taken place after economic reform. In pre-reform period, health of banking system has been reflected by health code system while after economic reform it was reflected by non-performing assets (Shajahan, 1998; Rajaraman and Vasishtha, 2002). Under cross country comparison, non-performing assets of Indian financial institution were relatively lower than the other growing markets. However, except for a few years, the majority of non-performing assets of financial institutions have been growing for almost all years and showing asset quality reduction. Slippage ratio of foreign banks was comparatively higher than the public and private sector banks over the time period (Shruti J Pandey et al., 2013). According to the IMF report of 2018, Ukraine was the worst country having NPA 54.3% while Canada was the best country having NPA 0.4%. Besides the frequent rise in non-performing assets due to wilful defaulters, political influence and announcing weave off loans, sanctioning loans based on the information given by the third party are frequently experienced by financial institutions. All these aspects together have made frequent rise in non-performing assets of financial institutions (Harani and Subramanyam Mutyala, 2019). The size of the bank does not matter to level non-performing assets.

 Non-performing assets of both public and private sector banks goes on increasing over the study period. Non-performing assets of public sector banks were comparatively higher than private sector banks (Agarwala, 2019; Harani and Subramanyam Mutyala, 2019; Kadiwala and Prajapati, 2020). It was found that non-performing assets of non-priority sector were comparatively higher than the priority sector. Industrial sector has high non-performing assets while public feels it's from the agriculture sector (Harani and Subramanyam Mutyala, 2019; Kadiwala and Prajapati, 2020). Profit per employee, net interest margin, net non-performing assets ratio and non-interest income have significant impacts on the profitability for all bank groups. Higher non-performing assets mainly affected the profitability of banks and declining profitability level of banks results in poor quality of asset and risky for investor wealth (Maiti & Jana, 2017; Agarwala, 2019). But for some banks had found the opposite of it. (Carlton Pereira, 2014) has studied in order to understand the problems associated with non-performing assets and the factors which have effective resolution in such a way that encourage the investment process. Non-performing assets can be recovered from various channels like Lok Adalat, SARFAESI Act, DRAts etc. (Pandey et al., 2013). Banks should adopt some new initiatives for monitoring recoveries, like system-based NPA recognition, monitoring credit plan, etc. Numerous researchers have conducted studies on non-performing assets. However, no study has been considered until 2023, which is crucial and relevant, as it provides valuable insights into the banking field over the period.

3. Methodology:

The primary variable in this study is non-performing assets. The study has used gross NPA and net NPA as variables. The analysis is based on secondary data. Bank group-wise data on public and private sector banks' NPAs have been obtained from various sources such as 'Statistical Tables Relating to Banks of India', 'Report on trend and progress of banking in India', and other publications of the RBI. For trend analysis, a period of twenty-three years is considered for the current study. The years selected for analysis range from 2001 to 2023. Trend analysis has been used to examine the pattern of non-performing assets over the study period. The independent test has been employed to assess the significant difference between the non-performing assets of public and private sector bank groups. For an independent t-test, the null hypothesis states that there is no significant difference between non-performing assets held by public and private sector banks. Graphical representation has been done in SPSS, and the hypothesis has been tested using EViews.

4. Data Analysis and Interpretation:

Graph 1. Gross and Net NPA of Public sector banks
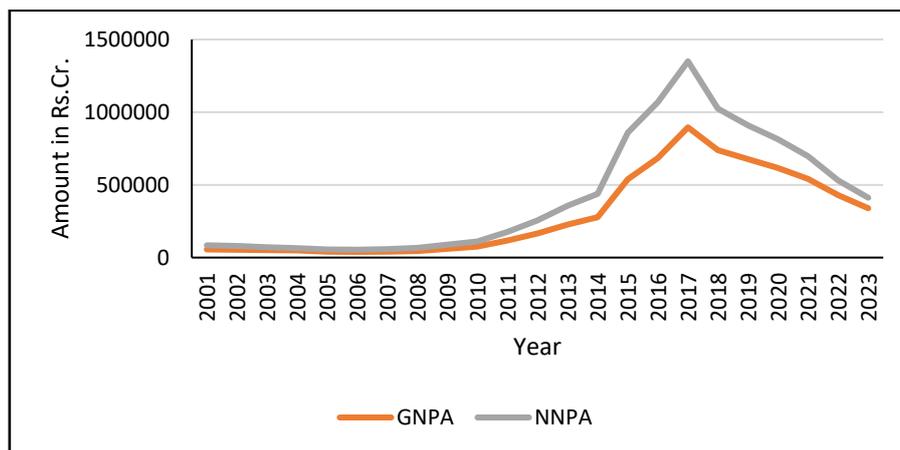
Graph 2. Gross and Net NPA of Private sector banks
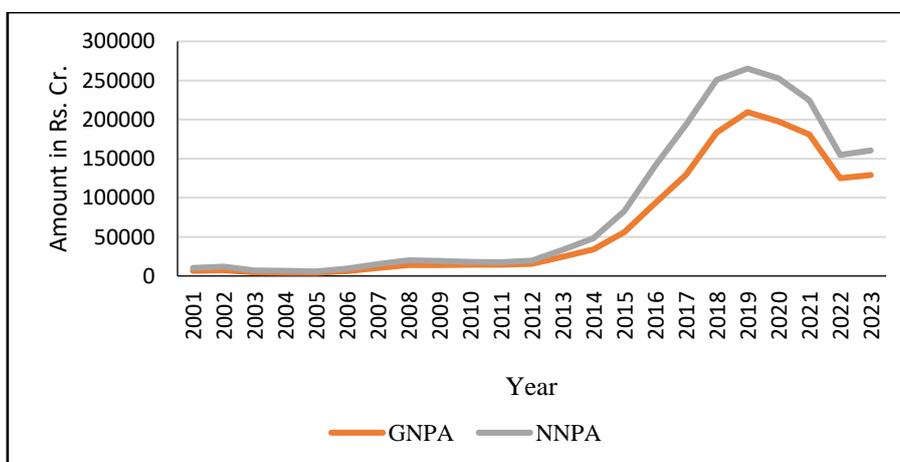
Graphs 1 and 2 depict consolidated trends of gross and net NPA of public sector and private sector banks. The graphs showed that gross NPA and net NPA series evolve more randomly and unpredictably over the study period. It is observed that the trend of NPA of both public and private sector banks increases and later decreases. Certain ups and downs were observed during the time. Random shocks like sudden policy changes, economic downturns, etc., are influenced by trends. In 2017, NPA was very high for public sector banks. In the study of (Das, 2020), the reason for high NPA in public sector banks is due to the problem of capital shortage. After 2018, it appears that NPAs have come down. NPAs of banks were somewhat managed with the help of Lok Adalats. The trend behaviour of the NPA series was not linear. Hence, to detect whether the time series exhibits a stochastic trend, we performed the Augmented Dicky Fuller (ADF) test on the series of NPA. We assume the variables are gross NPA and net NPA. The ADF test was conducted by setting the null hypothesis, which states that the variables are non-stationary. The results of the ADF test are as follows.

Table 1. Unit Root Analysis (Aug. Dickey-Fuller Test)

	Variables	Lag	t-statistics	Probability	1%	5%	10%	D/W
Public Banks	GNPA	at level	-0.82	0.35	-2.68	-1.96	-1.6	2.32
	NNPA	at level	-1.06	0.25	-2.68	-1.96	-1.61	2.17
Private Banks	GNPA	at level	8.87	1	-2.7	-1.96	-1.61	1.66
	NNPA	at level	-0.97	0.28	-2.68	-1.96	-161	1.64

When the test was applied on the level data it was found that p-values of all the variables are greater than the level of significance i.e., 0.05. We are rejecting our null hypothesis that variables are stationary. Hence, it pointed out the presence of a unit root in the present data series, which were found non-stationary. Therefore, our NPA series follows the stochastic trend.

Table2. Summary Statistics of Gross NPA of Public and Private Sector Banks

	Lable	N	Mean	Std. Deviation	Std. Error Mean
Gross_NPA	Public Banks	23	294090.3	282084.6	58818.71
	Private banks	23	64334.86	73284.75	15280.93

Table 3: Independent samples test of Gross NPA

International Journal of Technology, Management and Social Sciences (IJTMSS)
[ISSN: 2583-8482]
Volume 3_Issue 3 [July-Sept 2025]
Website: www.ijtmss.org

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Gross _NPA	Equal variances assumed	42.16	.000	3.78	44	.000	229755.40	60771.27		107278.95	352231.85
	Equal variances not assumed			3.78	24.96	.001	229755.40	60771.27		104583.50	354927.30

The table represents descriptive statistics of gross non-performing assets of public and private sector banks in India. It exhibits group information of public and private banks, including mean, standard deviation, and standard error of the mean. Public sector banks have a higher mean GNPA than private sector banks. Therefore, it implies that private sector banks have better asset quality than public sector banks. As shown by the standard deviation of GNPA, it is higher for public sector banks than private sector banks. The table illustrates F-value 42.16, t-value 3.78 at a significant level of 0.000 for Levene's test for equality of variances, so it can be assumed that both variants are different. Furthermore, p value (Sig. 2- tailed) is less than 0.05. Thus, we reject the null hypothesis. Hence, the independent t-test reveals a significant difference in the gross NPAs of public and private sector banks.

Table 4. Summary Statistics of Net of Public and Private Sector Banks

	Lable	N	Mean	Std. Deviation	Std. Error Mean
Net_NPA	Public Banks	23	124496	130043.6	27115.96
	Private Banks	23	21287.57	23020.13	4800.03

Table 5. Independent samples test of Net NPA

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Net_ NPA	Equal variances assumed	28.23	0	3.748	44	0.001	103208.48	27537.53		47710.24	158706.72
	Equal variances not assumed			3.748	23.38	0.001	103208.48	27537.53		46293.61	160123.35

The table represents descriptive statistics of net non-performing assets of India's public and private sector banks. It exhibits group information of public and private banks, including mean, standard deviation, and standard error of the mean. As shown by the standard deviation of NNPA, it is quite higher for the public sector banks than the private sector banks, indicating that private sector banks have better financial management than the public sector banks. The table illustrates F-value 28.23, t-value 3.748 at a significant level of 0.000 for Levene's test for equality of variances, so it can be assumed that both variants are different. Furthermore, p value (Sig. 2- tailed) 0.001 is less than 0.05. Thus, we accept the alternative hypothesis. Hence, the independent t-test reveals a significant difference in the net NPAs of public and private sector banks.

5. Conclusion:

Non-performing assets are a serious issue for a bank, which directly impacts a bank's profitability. The study reveals the presence of a unit root in the series of non-performing assets. It follows a stochastic trend rather than a linear one, which implies that shock management becomes more important than structural reforms. Hence, there is a need to ensure that banks take a proper strategy to resolve it. It was observed that the extent of Gross and Net NPAs of public sector banks is comparatively higher than that of private sector banks. These findings underscore that public sector banks should implement various strategies to tackle NPA. Banks should enhance the recovery process and should follow stringent measures to resolve it.

References:

- Agarwala, V., & Agarwala, N. (2019). A critical review of non-performing assets in the Indian banking industry. *Rajagiri Management Journal, 13*.
- Harani, B., & Mutyala, S. (2019). A comparative analysis of non-performing assets (npas) of public and private sector banks in india - An Endless Battle. *International journal of scientific & technology research, 8*(12).
- Jain, E., Lamba, J., & Soni, N. (2021). A comparative examination of non-performing asset management of banks in india. *International Journal on Recent Trends in Business and Tourism*.
- Jose, A., & Jnaneswar, K. (2021). Casual Analysis and Interpretation of the Trend of NPA Levels and Profitability: A Study on Top 5 Public Sector and 5 Private Sector Banks in India. *Asian Journal of Economics, Finance and Management*.
- Maiti, A., & Kumar. Jana, S. (2017). Determinants of Profitability of Banks in India: A Panel Data Analysis . *Scholars Journal of Economics, Business and Management* .
- Pandey, S. J., Tilak, V. G., & Deokar, B. (2013). Non-Performing Assets of Indian Banks: Phases and Dimensions. *Economic and Political Weekly, 48*, 91-93.
- Pereira, C. (2014). Investing in NPAs: Will Investors, Bite? *Economic and Political Weekly, 39*, 4602-4604.
- Rajaraman, I., & Vasishtha, G. (2002). Non-Performing Loans of PSU Banks. *Economic and Political Weekly*.
- Shajahan, K. M. (1998). Non-Performing Assets of Banks Have They Really Declined? And on Whose Account? . *Economic and political weekly*.

- Kadiwala, G. A., & Prajapati, I.R. (2020). Sector-wise comparative analysis of Non-performing Assets Of Selected Private Sector And Public Sector Banks Of India. *International Journal of Creative Research Thoughts, 8*(2).
- Das, D. (2020). Non-Performing Assets of Public and Private Sector Banks in India: An. *BS journal ,University of Kolkata, 38.*
- Dadhich, M., Rao, S. S., Sharma, R., & Meena, R. (2021). *3rd International Conference on Advances in Computing, Communication Control and Networking (ICACCCN).*

- Reserve Bank of India (2021). Report on Trend and Progress of Banking in India,RBI