



A Critical Review of Non-Performing Assets of Public Sector Banks in India

Kavya Pradeep

Research Scholar, SN College, Kollam, Email: kavyapradeep20@gmail.com

Dr.Vinod C

Assistant Professor & Research Guide, SN College, Kollam, Email id: dr.vinod1chandran@gmail.com

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ABSTRACT

The banking sector is the backbone of the Indian economy, is currently facing a critical challenge in the form of escalating non-performing assets. The growing non-performing asset is a huge crisis affecting the growth and development of the Indian economy. Non-performing assets are the strongest indicator of a country's banking sector viability. The purpose of this study is to investigate the contribution of selected public sector banks to NPAs in the banking sector by examining their rate of growth pattern during the period 2016-2025. The Public Sector banks have been selected based on their high NPA level, including Indian Overseas Bank, Central Bank of India, UCO Bank, Punjab National Bank, and Bank of India. The research is based on secondary data gathered from the Reserve Bank of India Website for the period 2016-2025. The mean, standard deviation, and correlation are the statistical tools in this study. The findings of the study reveal that the private sector bank's growth rate of NPAs is low compared to that of public sector banks. The public sector banks failed to tackle the problem of bad loans due to the high growth rate of NPAs in their balance sheet.

Introduction

Banks play a vital role in promoting economic growth, advancing financial inclusion, and contributing to infrastructural development(Hendry Ruban, 2024). The Prime income-generating source



for banks is interest from loans, the riskiest element affecting banks' asset quality (Alwi et al., 2021). Asset quality is a major factor affecting the overall health of the Indian banking sector. Maintaining asset quality is essential for banks to achieve profitability and stability (Ezra John KakoziKimosop,2017). The deterioration of asset quality is a key threat affecting the financial stability of the bank, leading to Non-performing assets (NPAs) (Kadanda & Raj, 2018). Banks face the severe problem of bad loans, which affect their profitability and solvency and thus challenge their survival and growth. Non-performing assets are a catalyst for measuring the health of the banking system(Mohanty & Acharya, 2019). A high level of NPAs jeopardizes capital adequacy and market perception of the banks which in turn affects the confidence of the investors and depositors(Hendry Ruban, 2024).

Non-performing assets have been a reason for global crisis and banks to become a failure in their performance (Barr, 2017). A non-performing asset commonly known as a bad loan is a loan or advance for which the principal or interest payment remained overdue for 90 days or more. The problem of Non-performing assets affects the banking system and the whole economy (Mohanty & Acharya, 2019). When an asset fails to generate expected income, it is known as a non-performing asset and it has some risk involved other than normal risk.(“Master Circular - Prudential Norms on Income Recognition, Asset Classification and Provisioning Pertaining to Advances,” 2022).The generation of NPAs in the banks is not a favorable condition for the banking industry as it negatively affects the return on assets. A large part of the profit is kept as provision for the bad loans thus it reduces the profitability of the banks which would otherwise be used for productive purposes. Thus this issue is a piece of tragic news for the banking industry and it is taken as a serious problem in the banking sector(Agarwala & Agarwala, 2019).

Several initiatives have been implemented in the banking sector since 1991 to strengthen and expand the banking sector (Sharma et al., 2020)The RBI had introduced various legal machinery such as SARFAESI(Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest), Debt Recovery Tribunals(DRTs), Prompt Corrective Action(PCA), Insolvency and Bankruptcy Code (IBC)for controlling NPAs(Agarwala & Agarwala, 2019). The fiscal year 2017-2018, witnessed an improvement in the recovery of non-performing assets with the implementation of the Insolvency and Bankruptcy Code 2016, and the SARFAESI Act 2002. The percentage of recovery of NPAs through IBC was 49.6 percent and 24.8 percent through SARFAESI. Meanwhile, the recovery through the Debt Recovery Tribunal (5.4%) and Lok Adalat (4%)was declining indicating the effectiveness of IBC in the resolution of non-performing assets(“Report on Trend and Progress of Banking in India,” 2018).



The NPAs are a major threat to the public sector banks affecting their financial soundness and operational performance. The rising level of NPAs affects the bank's profitability and liquidity and erodes the public trust in the banking industry (Raju & Ramesh, 2024). The present study aims to identify which banks have contributed to the rise in NPAs and to examine the growth rate of NPAs in the banks from 2012 to 2021. The study highlights the impact of NPAs on the stability and profitability of the banks and the need for an effective credit appraisal process and better loan recovery practices to control non-performing assets. By assessing the NPAs of the banks the study recommends improving non-performing asset management through a proper credit appraisal process.

Review of Literature

This section provides an in-depth review of the literature on non-performing assets and how it affects the banking industry. The review covers the determinants of NPA, the impact of NPA, and the legal regulatory framework for controlling NPA. Literature classification has been carried out based on the focus research area such as Determinants of NPA, Impact of NPA, and Regulatory framework for managing NPAs.

Determinants of NPA

The non-performing assets have been an area of frequent research and past studies have examined various factors of NPA. Mishra et al.(2021) studied that the CPI inflation, GDP growth rate, repo rate, and the volume of gross loans and advances are the macroeconomic factors that significantly influence NPAs. The researcher aims to identify the economic and political conditions that affect NPAs. The study reveals that adverse economic and political conditions negatively influence NPAs (Rizvi et al., 2019). The macro-economic variables such as the Index of Industrial Production (IIP), and Consumer Price Index (CPI) have a negative impact on NPA. The bank-specific variables such as gross loans and advances, provisions, and contingencies are positively correlated with NPAs. Income on Investment has a negative impact on the NPAs of Indian banks(Mishra et al., 2021). Beck et al.(2015) studied the macroeconomic factors affecting NPAs using econometric analysis and found that real GDP growth is the key driver among various factors affecting non-performing loans. Louzis et al.(2012) studied both macroeconomic variables and bank-specific factors that affect NPAs. The macroeconomic variables significantly influence non-performing loans, especially in the case of business and consumer loans. The bank-specific factors such as poor management practices, low capital adequacy, and credit risk practices negatively affect the non-performing loans. Mani et al.(2023) studied that macroeconomic factors are not the main reason for non-performing assets but can cause a surge in the level of NPAs. Messai(2013) finds



that microeconomic factors and macroeconomic factors have a negative influence on non-performing assets.

Impact of NPA

Gaur (2021) measures the NPA's impact on the bank's profitability among bank-specific variables and industry-specific variables. The result of the study revealed that there exists a high negative correlation between NPAs and banks' profitability. Kadioglu et al.(2017) states that there is a negative influence of NPAs on a bank's Return on Equity (ROE) and Return on Assets (ROA). Psaila et al.(2019) states that the solvency ratio has a significant influence on the NPAs and ROA. Almaqtari et al.(2018) examined the bank-specific factors and macroeconomic factors influencing ROE and ROA. The bank-specific factors have a positive impact on ROA and ROE, while the macroeconomic factors have a negative influence on profitability. The profitability and operating cost are negatively associated with asset quality and there is a direct correlation between NPA and bank size (Swami et al., 2022).Chawla & Rani(2019) examined that the rise in non-performing assets has a negative influence on asset quality and profitability. Dong et al. (2020) investigated the main drivers of profitability among commercial banks. The net income ratio and net interest margin have a direct correlation with the profitability of the bank while the Non-performing loan rate has a negative relationship with the profitability of the bank. Karunakar & Saravanan (2008) emphasises that the NPAs adversely affect the profitability and operational performance of the banks which restricts their lending and investment opportunities. Ramesh, (2019) using the random effect model finds that credit deposit ratio, loan maturity, and return on assets has a negative impact on NPAs. Asiama & Amoah (2019) studies the impact of Monetary policy rates on NPAs and finds that monetary policy rate has a significant influence on NPAs.

Regulatory framework for NPA management

Many legal mechanisms have been developed by the government and RBI for controlling non-performing assets. The RBI introduced Prompt Corrective Action (PCA) in 1991 for banking supervision enabling banking regulators for early intervention and corrective action for managing distressed financial institutions. The study examines the role of PCA in reducing default risk and credit risk. The PCA significantly affects default risk and does not significantly affect credit risk (ap Gwilym et al., 2013). Jiang et al.(2018) studied the impact of PCA and the Troubled Asset Relief Program (TARP) on non-performing loans. The study reveals that both PCA and TARP have a positive impact on non-performing loans. Narasimham Committee II recommended the introduction of the SARFAESI Act 2002 for the recovery of NPAs without court intervention. The SARFAESI Act is more effective in the recovery of



NPAs compared to the traditional court settlement method (Shaardha & Jain, 2016), (Panigrahi et al., 2017), (Alamelumangai & Sudha, 2019). The Insolvency and Bankruptcy law was introduced in 2016 to resolve NPAs. The IBC has a positive impact on NPAs by enabling faster recovery and maintaining credit discipline (Ahmed, 2021). IBC code has shown significant improvement in the recovery rates. The recovery rate under IBC had reached 41.3% compared to 12.4% before its introduction. The IBC code had shifted power from borrower-driven to creditor-driven and enhanced the recovery process (Singh. R.U, 2019).

A review of the literature reveals the various aspects of NPAs in Indian banking including factors affecting NPAs, impact of NPAs, legal measures for controlling NPAs, and overall banking performance. However, a lack of studies have been conducted regarding the relation of NPAs in public sector banks and private sector banks and the rate of growth of NPAs in the context of public sector banks. This gap has been identified and addressed in this study

Objectives

- To identify the relation between the Gross advances and GNPA's of public sector and private sector banks.
- To analyze the rate of growth of NPAs among public sector banks.

Research Methodology

A period of ten years has been taken to measure the impact of NPA on the Indian banking sector. The years selected for analysis are 2016 to 2025. This study covers public sector banks and 5 public sector banks have been selected based on the high NPA ratio, which includes Indian Overseas Bank, Central Bank of India, UCO, Punjab National Bank, and Bank of India, for analyzing GNPA and Net NPAs. This study is mainly based on secondary data. The major secondary source from which data has been drawn is the Trends and Progress Report from the Reserve Bank of India (RBI). The data relating to the NPA of public sector and Private sector banks has been obtained from the RBI website. Various statistical techniques such as mean, Standard deviation, and correlation were used in this study.

Result and Discussion

The study provides a comprehensive analysis of the trends in non-performing assets. The non-performing assets of the public sector bank are showing an upward trend. The study results show that the NPAs of public-sector banks are more compared to the Private sector banks. The study shows that private-sector



banks are more effective in managing non-performing assets. The Central Bank has the highest non-performing assets for the selected period.

Table 1, Gross Advances and Gross NPA of Public Sector Banks in India

| Year (end in March) | GNPA | Gross Advance | Gross NPAs to Gross Advances Ratio (%) |
|---------------------|-----------|---------------|--|
| 2015-2016 | 539956.35 | 5593576.78 | 9.6 |
| 2016-2017 | 684732.28 | 5557231.63 | 12.3 |
| 2017-2018 | 895601.26 | 5697349.71 | 14.6 |
| 2018-2019 | 739541.00 | 5892667.34 | 12.5 |
| 2019-2020 | 678316.98 | 6158111.98 | 11.0 |
| 2020-2021 | 616615.70 | 6347416.56 | 9.7 |
| 2021-2022 | 542173.82 | 7043940.22 | 7.7 |
| 2022-2023 | 428197.00 | 8283763.09 | 5.1 |
| 2023-2024 | 339541.30 | 9506329.04 | 3.5 |
| 2024-2025 | 283650.43 | 10750234.48 | 2.6 |

Source: Statistical Tables Relating to Banks in India, RBI Mumbai of relevant years

Table 1, shows the performance of the public sector banks based on GNPA's and gross advances. During the period 2024-2025, Public Sector Banks had the lowest level of GNPA's to their total advances (2.6%) which indicates that a relatively small portion of their loans were classified as bad loans because of their effective asset quality management and the year 2017-2018 had the highest level of GNPA's among public sector banks reaching 14.6% indicating that a large portion of their loans turned into bad loans.

Table 2, Gross Advances and Gross NPA of Private Sector Banks in India

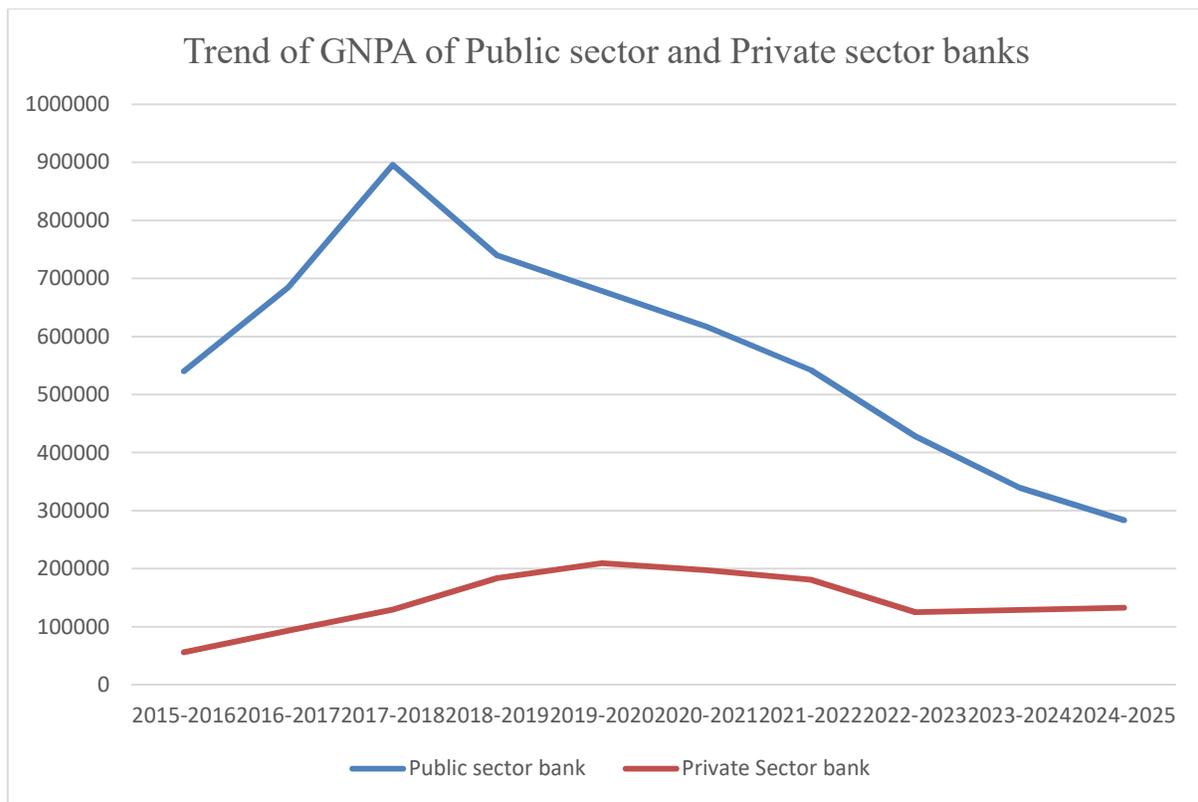
| Year (end in March) | GNPA | Gross Advance | Gross NPAs to Gross Advances Ratio (%) |
|---------------------|-----------|---------------|--|
| 2015-2016 | 56185.69 | 1939339.43 | 2.8 |
| 2016-2017 | 93209.22 | 2219475.07 | 4.1 |
| 2017-2018 | 129335.24 | 2662753.07 | 4.8 |
| 2018-2019 | 183603.66 | 3327328.07 | 5.5 |
| 2019-2020 | 209568.15 | 3625154.47 | 5.7 |
| 2020-2021 | 197507.51 | 3929571.61 | 5.0 |

| | | | |
|-----------|-----------|------------|-----|
| 2021-2022 | 180769.18 | 4553540.87 | 3.9 |
| 2022-2023 | 125214.23 | 5366672.59 | 2.3 |
| 2023-2024 | 129163.50 | 6861388.21 | 1.8 |
| 2024-2025 | 132674.00 | 7476925.17 | 1.7 |

Source: Statistical Tables Relating to Banks in India, RBI Mumbai of relevant years

Table 2 reveals that the GNPA's and gross advances ratio were lowest (1.7%) during 2024-2025 which indicates sound asset quality management and strong financial performance of Private sector banks. In the year 2019-2020, the GNPA's reached its maximum (5.7%) which means that private sector banks have faced challenges in managing their asset quality.

Figure 1, Trend of GNPA of public sector and private sector banks



Source: Statistical Tables Relating to Banks in India, RBI Mumbai of relevant years

Figure 1 reveals the trends of GNPA's among Public sector banks and Private sector banks. The GNPA's of public sector banks showed an increasing trend up to 2017-2018, after that, a diminishing trend was observed in the succeeding years. In the case of Private sector banks, the trend is a straight line, indicating that their loan recovery status is better than that of public sector banks.

**Table 3, Correlation Analysis of Public Sector Bank and Private Sector Bank**

| | Public sector bank GNPA | Private sector bank GNPA |
|-----------------------------|-------------------------------|-----------------------------|
| Public sector bank GNPA | Pearson Correlation 1 | .787** |
| | Sig. (2-tailed) | .007 |
| | N | 10 |
| Private sector bank GNPA | Pearson Correlation .787** | 1 |
| | Sig. (2-tailed) | .007 |
| | N | 10 |

Source: Statistical Tables Relating to Banks in India, RBI Mumbai of relevant years

Table 3 shows the Pearson correlation coefficient of public sector banks and private sector banks in terms of GNPA is 0.787. The positive correlation coefficient (0.787) suggests that there exists a significant correlation between the GNPA of public sector and private sector banks. The significance value ($p=0.007$) is less than 0.01, showing that there is a strong and significant relationship between GNPA of Public sector and Private sector banks.

Table 4, Comparative Analysis of Gross NPAs/Gross Advances of Selected Public Sector Banks

| Year | Indian Overseas Bank | Central Bank of India | UCO Bank | Punjab National Bank | Bank of India |
|-----------|----------------------|-----------------------|----------|----------------------|---------------|
| 2015-2016 | 17.00 | 12.00 | 15.00 | 13.00 | 13.00 |
| 2016-2017 | 22.00 | 18.00 | 17.00 | 13.00 | 13.00 |
| 2017-2018 | 25.00 | 21.00 | 25.00 | 18.00 | 17.00 |
| 2018-2019 | 22.00 | 19.00 | 17.00 | 16.00 | 16.00 |
| 2019-2020 | 15.00 | 19.00 | 17.00 | 14.00 | 15.00 |
| 2020-2021 | 12.00 | 17.00 | 10.00 | 14.00 | 14.00 |
| 2021-2022 | 10.00 | 15.00 | 8.00 | 12.00 | 10.00 |
| 2022-2023 | 7.44 | 8.44 | 4.78 | 8.74 | 7.31 |
| 2023-2024 | 3.10 | 4.50 | 3.46 | 5.73 | 4.98 |
| 2024-2025 | 2.14 | 3.18 | 2.69 | 3.95 | 3.27 |

Source: Annual Report of banks

The GNPA to Gross Advances ratio has shown an increasing trend in selected public sector banks from 2015-2018, and was at its peak during 2017-2018, mainly for Indian Overseas Bank and UCO Bank. From 2018-2019 onwards, a decreasing trend is visible among all the banks. The GNPA to Gross advances ratio of Indian Overseas banks is declining from 17 percent to 2.14 percent in 2024-2025. The Central Bank of India also had a decreasing trend from 12 percent to 3.18 percent. The UCO Bank had a significant decrease from 15 percent to 2.69 percent. The Punjab National Bank had a decreasing trend of 13 percent to 3.95 percent while the Bank of India had an decreasing trend of 13 percent to 3.27 percent.

Table 5, Comparative Analysis of Net NPAs/Net Advances of Selected Banks

| <i>Year</i> | <i>Indian Overseas Bank</i> | <i>Central Bank of India</i> | <i>UCO Bank</i> | <i>Punjab National Bank</i> | <i>Bank of India</i> |
|-------------|-----------------------------|------------------------------|-----------------|-----------------------------|----------------------|
| 2015-2016 | 11.89 | 7.36 | 9.09 | 8.61 | 7.79 |
| 2016-2017 | 13.99 | 10.20 | 8.94 | 7.81 | 6.90 |
| 2017-2018 | 15.33 | 11.10 | 13.10 | 11.24 | 8.28 |
| 2018-2019 | 10.81 | 7.73 | 8.94 | 6.56 | 5.61 |
| 2019-2020 | 5.44 | 7.63 | 5.45 | 5.78 | 3.88 |
| 2020-2021 | 3.58 | 5.77 | 3.94 | 5.73 | 3.00 |
| 2021-2022 | 2.65 | 3.97 | 2.70 | 4.80 | 2.00 |
| 2022-2023 | 1.83 | 1.77 | 1.29 | 2.72 | 1.66 |
| 2023-2024 | 0.57 | 1.23 | 0.89 | 0.73 | 1.22 |
| 2024-2025 | 0.37 | 0.55 | 0.50 | 0.40 | 0.82 |

Source: Annual Report of banks

The Net NPA to Net Advances ratio has shown a decreasing trend among the selected public sector banks. The GNPA to Gross Advances ratio of Indian Overseas Bank has decreased from 11.89 percent to 0.37 percent. The GNPA to Gross Advances ratio of the Central Bank of India has decreased from 7.36 percent to 0.55 percent. The GNPA to Gross Advances ratio of UCO Bank has decreased from 9.09percent to 0.50 percent. The GNPA to Gross Advances ratio of Punjab National Bank had a significant decrease from 8.61 percent to 0.40 percent. The GNPA to Gross Advances ratio of the Bank of India has increased from 7.79 percent to 0.82 percent.

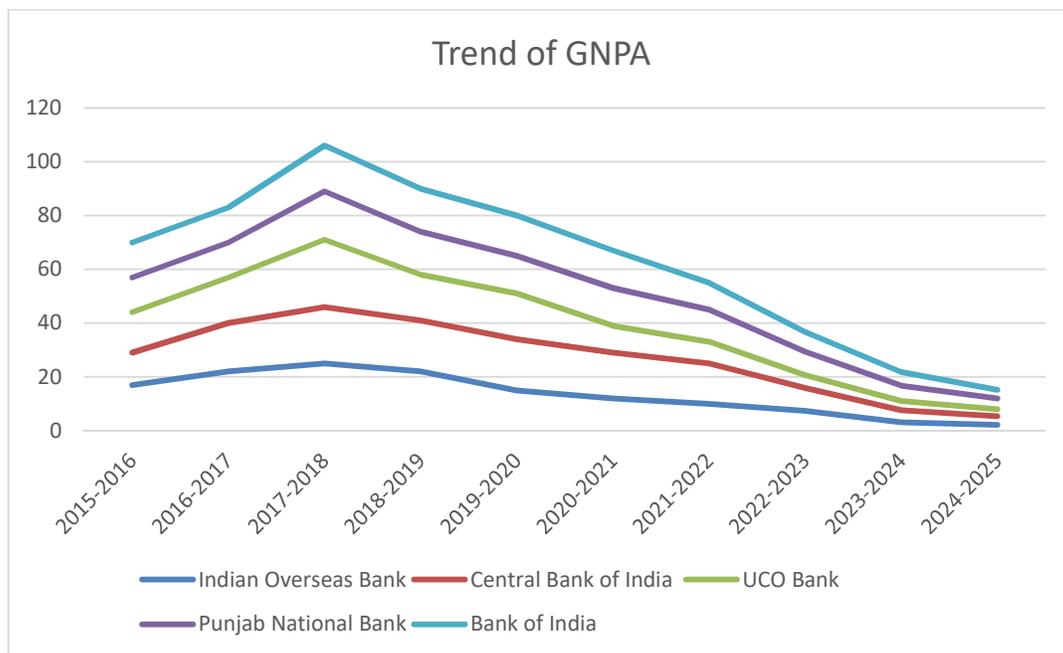
Table 6, Descriptive Statistics of NPAs on Selected Public Sector Banks

| Bank | N | Mean | Std. Deviation |
|---------------------|----|-------|----------------|
| INDIAN OVERSEASBANK | 10 | 13.57 | 8.02 |
| CENTRALBANKOFINDIA | 10 | 13.71 | 6.38 |
| UCO | 10 | 11.99 | 7.34 |
| PUNJABNATIONALBANK | 10 | 11.84 | 4.43 |
| BANKOFINDIA | 10 | 11.36 | 4.75 |
| Valid N (listwise) | 10 | | |

Source: Annual report of banks

The mean and standard deviation of the selected public sector banks reveal that the Central Bank of India has the highest average GNPA ratio, followed by Indian Overseas Bank . This indicates that these banks faced a high burden of NPAs. Indian Overseas Bank showed high variability, indicating high fluctuation in asset quality. The Punjab National Bank and the Bank of India have the lowest average and standard deviation among the selected banks, indicating sound asset management.

Figure 2, The trend of GNPA among selected public sector banks



Source: Statistical Tables Relating to Banks in India, RBI, Mumbai of relevant years



Figure 2 shows the trend of gross non-performing assets among public sector banks. The GNPA was showing an increasing trend till 2017-2018 for the selected banks, indicating deterioration in asset quality. After 2018, the GNP level was showing a declining trend for most of the banks, indicating a proper credit recovery mechanism and better asset quality management

Conclusion

The ratio of gross non-performing assets to gross advances of public sector banks has shown an increasing trend and was at a peak during 2017-2018, and then it started to decline suddenly. It indicates that public sector banks managed their NPAs more efficiently in terms of their banking operations, credit management, and lending procedures. The sharp decline in NPAs in 2024-2025 had a positive impact on the profitability of the banks and a low-risk burden for the banks. In the case of private sector banks, the percentage of GNPA to gross advances has shown an increasing trend and was at its peak during 2017-2018. It indicates that the performance of the bank was not efficient, and the loan recovery was low during that period. After 2018, there was a decreasing trend in NPAs, indicating an efficient credit system.

The public sector banks have an increasing trend in terms of GNPA's when compared to private sector banks. It depicts that the banking operations, credit appraisal, and loan lending processes of the private sector banks were handled more efficiently. Therefore, public sector banks should be careful while distributing loans and ensuring timely recovery of loans. Otherwise, the accumulation of NPAs among public sector banks may lead the banks to become non-performing banks. Therefore, banks should take corrective actions to convert non-performing assets into performing assets and enhance the credibility of the banks.

Suggestions

The public sector banks should improve their non-performing management in the process of credit appraisal and loan recovery mechanisms. They should focus on the timely distribution of loans and their recovery to prevent the accumulation of NPAs. The banks should take proactive action in managing NPAs and safeguarding their financial health (Bhaskaran et al., 2016)

Limitations

The limitation of the study is that the researcher has not taken into account the perspective of private-sector banks. The scope of the study is limited to a period of 10 years (2016-2025) only. Finally, the



study mainly focused on five public sector banks such as Indian Overseas Bank, Central Bank of India, UCO, Punjab National Bank, and Bank of India. These considerations emphasize the need for future research to address these limitations.

References

- Agarwala, V., & Agarwala, N. (2019). A critical review of non-performing assets in the Indian banking industry. *Rajagiri Management Journal*, 13(2), 12–23. <https://doi.org/10.1108/ramj-08-2019-0010>
- Ahmed, F. (2021). Assessing the Effectiveness of Insolvency and Bankruptcy Code. *International Journal of Research in Engineering, IT and Social Sciences*, 11(01), 1–13. https://indusedu.org/pdfs/IJREISS/IJREISS_3750_79235.pdf
- Alamelumangai, R., & Sudha, B. (2019). Recovery Of Npas Through Debt Recovery Channels In Indian Banks - An Analysis. *Restaurant Business*, 15(8), 245–254. <https://doi.org/10.26643/rb.v11i8.7683>
- Almaqtari, F. A., Al-Homaidi, E. A., Tabash, M. I., & Farhan, N. H. (2018). The determinants of profitability of Indian commercial banks: A panel data approach. *International Journal of Finance and Economics*, 24(1), 168–185. <https://doi.org/10.1002/ijfe.1655>
- Alwi, H. H., Parmitasari, N. A., & Pamungkas, I. D. (2021). The Role of Non-Performing Asset, Capital, Adequacy and Insolvency Risk on Bank Performance: A Case Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(3), 319–329. <https://doi.org/10.13106/jafeb.2021.vol8.no3.0319>
- ap Gwilym, R., Kanas, A., & Molyneux, P. (2013). U.S. prompt corrective action and bank risk. *Journal of International Financial Markets, Institutions and Money*, 26, 239–257. <https://doi.org/10.1016/j.intfin.2013.06.002>
- Asiama, R. K., & Amoah, A. (2019). Non-performing loans and monetary policy dynamics in Ghana. *African Journal of Economic and Management Studies*, 10(2), 169–184. <https://doi.org/10.1108/AJEMS-04-2018-0103>
- Barr, R. S. (2017). Forecasting Bank Failure: A Non-Parametric Frontier Estimation Approach. *Federal Reserve Bank of Dallas*, 417–429.
- Beck, R., Jakubik, P., & PiloIU, A. (2015). Key Determinants of Non-performing Loans: New Evidence from a Global Sample. *Open Economies Review*, 26(3), 525–550.



<https://doi.org/10.1007/s11079-015-9358-8>

- Bhaskaran, R., Bhalla, L., Sarin, V., Kaur, S., & Rahman, A. (2016). Non-performing assets of public and private sector banks in India – a comparative study Abhishek Kumar Jha and Pooja Verma. *Int. J. Services and Operations Management*, 25(2), 155–172.
- Chawla, S., & Rani, S. (2019). Conundrum of Non-performing Assets Over Two Decades: An Analysis of Punjab National Bank. *Management and Labour Studies*, 44(3), 263–284. <https://doi.org/10.1177/0258042X19848238>
- Ezra John KakoziKimosop, J. (2017). Analysis Of Factors Influencing Bank Asset Quality In Tanzania. *International Journal of Economics, Business and Management Research*, 1(3), 201–213.
- Hendry Ruban, D. S. V. M. (2024). Impact Of Non-Performing Assets (NPAS) On Profitability Of Public Sector Banks In India. *Finance India*, 30(5), 9929–9936. <https://doi.org/10.53555/kuey.v30i5.4682>
- Jiang, C. X., Kanas, A., & Molyneux, P. (2018). Public policy and financial stability: The impact of PCA and TARP on US bank non-performing loans. *International Journal of Finance & Economics*, 23(4), 376–392. <https://doi.org/https://doi.org/10.1002/ijfe.1622>
- Kadanda, D., & Raj, K. (2018). Non-performing assets (NPAs) and its determinants: a study of Indian public sector banks. *Journal of Social and Economic Development*, 20(2), 193–212. <https://doi.org/10.1007/s40847-018-0068-0>
- Kadioglu, E., Telceken, N., & Ocal, N. (2017). Effect of the Asset Quality on the Bank Profitability. *International Journal of Economics and Finance*, 9(7), 60–68. <https://doi.org/10.5539/ijef.v9n7p60>
- Karunakar, M., & Saravanan, S. (2008). Are Non-Performing Assets Gloomy or Greedy from Indian Perspective? *Research Journal of Social Sciences*, 3, 4–12.
- Louzis, D. P., Vouldis, A. T., & Metaxas, V. L. (2012). Macroeconomic and bank-specific determinants of non-performing loans in Greece: A comparative study of mortgage, business and consumer loan portfolios. *Journal Of Banking & Finance*, 36(4), 1012–1027. <https://doi.org/file:///C:/Users/91755/Downloads/j.bankfin.2011.10.012.pdf>
- Mani, N., Mishra, A. K., & Pandikasala, J. (2023). How Serious is India’s Nonperforming Assets Crisis? A Structural Satellite Version of the Financial-Macroeconometric Model. *Asia-Pacific Financial Markets*, 30(4), 761–794. <https://doi.org/10.1007/s10690-023-09397-9>
- Master Circular - Prudential norms on Income Recognition, Asset Classification and Provisioning



- pertaining to Advances. (2022). In *Reserve Bank of India, Mumbai*. www.rbi.org.in
- Messai, A. S. (2013). Micro and Macro Determinants of Non-performing Loans. *International Journal of Economics and Financial Issues*, 3(4), 852–860.
 - Mishra, A. K., Jain, S., & Abid, M. (2021). Non-performing assets and its determinants in the Indian banking system: An empirical analysis using dynamic panel data models. *International Journal of Finance & Economics*, 26(4), 5948–5962. <https://doi.org/10.1002/ijfe.2102>
 - Mishra, A. K., Jain, S., Abid, M., & Manogna, R. L. (2021). Macro-economic determinants of non-performing assets in the Indian banking system: A panel data analysis. *International Journal of Finance and Economics*, 26(3), 3819–3834. <https://doi.org/10.1002/ijfe.1989>
 - Mohanty, D., & Acharya, D. (2019). An Empirical Study of The Comparative Trend of Stressed Assets in Public and Private Sector Commercial Banks. *Srusti Management Review*, 12(2), 38–47.
 - Panigrahi, A., Kalyan Chaudhury, S., & Mahendra, A. (2017). The Impact of Sarfaesi Act 2002 in Reducing Non-Performing Assets of Indian Scheduled Commercial Banks. *Asia Pacific Journal of Research*, 1(2), 119–126. www.apjor.com
 - Psaila, A., Spiteri, J., & Grima, S. (2019). The impact of non-performing loans on the profitability of listed Euro-Mediterranean commercial banks. *International Journal of Economics and Business Administration*, 7(4), 166–196. <https://doi.org/10.35808/ijeba/338>
 - Raju, G., & Ramesh, G. (2024). A Study on Management of Non-Performing Assets in Context of Public Banks Sectors. *International Journal of Scientific Research in Engineering and Management*, 08(02), 1–13. <https://doi.org/10.55041/ijrem28664>
 - Ramesh, K. (2019). Bad Loans of Public Sector Banks in India: A Panel Data Study. *International Management Institute*, 5(1), 22–30. <https://doi.org/10.1177/2394901519825911>
 - Report on Trend and Progress of Banking in India. (2018). In *Reserve Bank of India, Mumbai*.
 - Rizvi, N. U., Kashiramka, S., Singh, S., & Sushil. (2019). A hierarchical model of the determinants of non-performing assets in banks: an ISM and MICMAC approach. *Applied Economics*, 51(35), 3834–3854. <https://doi.org/10.1080/00036846.2019.1584377>
 - Shaardha, C., & Jain, A. (2016). The impact of SARFAESI Act 2002 in recovering the non performance assets in public sector banks: A study on recovery in SBI, CBI, CB, BOB and PNB (2008 to 2014). *International Journal of Applied Engineering Research*, 11(7), 5218–5224.
 - Sharma, K., Ratnoo, H. S., & Kumar, S. (2020). Non-performing assets of Indian Banks since the 2008 global financial crisis: A comparison by ownership and lending-priority for the period 1998 to 2018. *Academy of Accounting and Financial Studies Journal*, 24(4), 1–15.



- Singh.R.U. (2019). Insolvency and Bankruptcy Code: The Emerging Landscape for Resolution of Stressed Assets in Indian Banking. *International Journal of Research in Social Sciences*, 9(11), 137–147.
- Swami, O. S., Nethaji, B., & Sharma, J. P. (2022). Determining Risk Factors that Diminish Asset Quality of Indian Commercial Banks. *Global Business Review*, 23(2), 372–384. <https://doi.org/10.1177/0972150919861470>