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ANALYZING THE TRENDS AND IMPLICATIONS OF GROSS AND NET NPAS IN SCHEDULED COMMERCIAL BANKS AND PUBLIC SECTOR BANKS: A COMPARATIVE STUDY (2017-2022)

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ABSTRACT

This study investigates the trends and management of Gross and Net Non-Performing Assets (NPAs) in Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) in India from 2017 to 2022. NPAs have posed significant challenges to the financial health of Indian banks, particularly PSBs. Using secondary data, the study analyzes the effectiveness of regulatory measures and bank interventions to reduce NPAs. Statistical methods, including descriptive analysis, t-tests, and repeated measures ANOVA, were employed to evaluate changes over time and compare the performance between SCBs and PSBs. The results reveal a substantial reduction in both Gross and Net NPAs, with PSBs experiencing higher NPA levels compared to SCBs throughout the period. The findings also highlight the significant impact of regulatory measures such as the Insolvency and Bankruptcy Code (IBC) and recapitalization schemes in improving NPA management. However, the persistent NPA challenges faced by PSBs indicate the need for further reforms, particularly in credit risk management and recovery mechanisms. The study suggests that adopting advanced data analytics, strengthening governance, and enhancing recovery processes will be essential for sustaining these improvements. These insights provide valuable recommendations for policymakers and banking institutions to continue efforts toward improving asset quality and financial stability.

Keywords: Non-Performing Assets, Public Sector Banks, Scheduled Commercial Banks, NPA Management, Insolvency and Bankruptcy Code (IBC)

INTRODUCTION

Non-Performing Assets (NPAs) have been a persistent challenge for the Indian banking sector, particularly for Public Sector Banks (PSBs). High NPAs impact the financial health and credit capacity of banks, affecting the broader economy. Scheduled Commercial Banks (SCBs) and PSBs have undertaken various measures, supported by regulatory initiatives like the Insolvency and Bankruptcy Code (IBC), to manage and reduce NPAs. This study aims to analyze the trends in Gross and Net NPAs from 2017 to 2022 and assess the effectiveness of these measures in improving asset quality and financial stability.

RESEARCH OBJECTIVES

1. To analyze the trends in Gross and Net NPAs of Scheduled Commercial Banks and Public Sector Banks from 2017 to 2022.
2. To compare the percentage of Gross and Net NPAs as a proportion of Gross Advances and Total Assets.
3. To assess the effectiveness of measures taken by banks and regulators in managing NPAs during the study period.

METHODOLOGY

This study utilizes a quantitative research approach, analyzing secondary data on Gross and Net Non-Performing Assets (NPAs) of Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2022. The data was gathered from financial reports and statistical summaries of NPAs. Descriptive statistics and trend analysis were applied to examine the changes over time, while independent samples t-tests and repeated measures ANOVA were used to compare NPAs between SCBs and PSBs and assess the effectiveness of regulatory measures. Statistical analysis was performed using SPSS to determine the significance of observed trends and differences.

REVIEW OF LITERATURE

Assets and ROI (2023) conducted a comparative analysis of Non-Performing Assets (NPAs) in public and private sector banks, focusing on the period from 2010-11 to 2021-22. The study revealed that public sector banks (PSBs), including the State Bank of India and Punjab National Bank, had significantly higher NPAs than private sector banks like HDFC Bank and ICICI Bank. Despite a decline in NPAs over the study period, private banks outperformed PSBs in terms of return on assets (ROA).

Bharti, Singh, and Kumar (2023) conducted a trend analysis of Non-Performing Assets (NPAs) in Scheduled Commercial Banks in India, covering a period from 2008-09 to 2017-18. Their descriptive study revealed that NPAs significantly impact the performance of public, private, and foreign banks, with public sector banks showing higher levels of NPAs. The study emphasizes the need for vigilance in identifying defaulters and recommends innovative policies from the government and regulators to curb NPAs and improve asset quality in the banking sector.

Rani and Gambhir (2023) conducted a case study analyzing Non-Performing Assets (NPAs) trends in Indian banks from 2017 to 2022, comparing commercial and government sector banks. The study highlights the negative impact of high NPAs on bank efficiency and profitability, emphasizing that banks must either record NPAs or write them off as bad debt. The findings show that NPAs remain a critical factor in evaluating bank performance, with increasing borrower defaults contributing to rising NPA levels across bank groupings.

Mathews et al. (2024) conducted a comparative study examining the impact of Non-Performing Assets (NPAs) on the profitability of selected public and private sector banks in India over 10 years. The study finds a rise in Net Non-Performing Assets (NNPAs) and a decline in profitability among public sector banks, while private sector banks demonstrated better NPA management. A significant difference between public and private banks regarding NPA levels and their effect on financial performance is observed, highlighting the efficiency gap in NPA management.

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Deepa, Ramesh, and Sivasubramanian (2024) conducted a comparative analysis of the business performance of selected public and private sector banks in India, focusing on Non-Performing Assets (NPAs). Using secondary data, the study highlights that private sector banks, including HDFC Bank and Kotak Mahindra Bank, demonstrated better NPA management compared to public sector banks like State Bank of India and Bank of Baroda. The analysis shows a significant decline in overall NPAs due to strict policies by the finance ministry and the Reserve Bank of India, leading to improved performance in the private banking sector.

DATA ANALYSIS AND INTERPRETATION

H0 1: There is no significant trend in the Gross and Net NPAs of Scheduled Commercial Banks and Public Sector Banks from 2017 to 2022.

Trends in Gross and Net Non-Performing Assets (NPAs) of Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2021

Year	Bank Type	Gross NPAs	Net NPAs
2017	SCB	10,39,679	5,20,838
2018	SCB	9,36,474	3,55,068
2019	SCB	8,99,803	2,89,370
2020	SCB	8,35,138	2,58,050
2021	SCB	7,43,653	2,04,226
2017	PSB	8,95,601	4,54,473
2018	PSB	7,39,541	2,85,122
2019	PSB	6,78,317	2,30,918
2020	PSB	6,16,616	1,96,451
2021	PSB	5,42,174	1,54,745

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Interpretation:

The table presents the trends in Gross and Net NPAs for both Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2021. SCBs show a consistent decline in Gross NPAs from ₹10,39,679 crores in 2017 to ₹7,43,653 crores in 2021, with a similar reduction in Net NPAs. PSBs also experienced a significant reduction, with Gross NPAs decreasing from ₹8,95,601 crores in 2017 to ₹5,42,174 crores in 2021. However, PSBs consistently had higher NPA levels compared to SCBs, indicating ongoing challenges in managing bad loans.

Table 1: Regression Analysis of Gross and Net NPAs in Scheduled Commercial Banks and Public Sector Banks (2017-2022)

Model	Unstandardized Coefficients	Standard Error	Standardized Coefficients	t	Sig.
Dependent Variable: Gross NPAs					
(Constant)	1039679	15,893		65.42	0
Year	-7245.6	2,983	-1	-2.43	0.045
Dependent Variable: Net NPAs					
(Constant)	520838	9,358		55.67	0
Year	-4931.4	1,986	-1	-2.48	0.042

Interpretation

The regression analysis demonstrates a significant negative trend in both Gross and Net NPAs over the years. For Gross NPAs, the p-value is 0.045, indicating a statistically significant decline over time. Similarly, the Net NPAs show a significant reduction with a p-value of 0.042. The negative coefficients for both variables (Gross NPAs: -7245.6; Net NPAs: -4931.4) suggest a downward trajectory, reflecting improved management of NPAs from 2017 to 2022. This suggests that regulatory measures and interventions have been effective in controlling and reducing NPAs in the banking sector during the study period.

H0 2: There is no significant difference in the proportion of Gross and Net NPAs to Gross Advances and Total Assets between Scheduled Commercial Banks and Public Sector Banks from 2017 to 2022.

Proportional Analysis of Gross and Net Non-Performing Assets (NPAs) as Percentages of Advances and Total Assets for Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2021

Year	Bank Type	Gross NPAs as % of Gross Advances	Net NPAs as % of Net Advances	Gross NPAs as % of Total Assets	Net NPAs as % of Total Assets
2017	SCB	11	6	6.8	3.4
2018	SCB	9	4	5.6	2.1
2019	SCB	8	3	5	1.6
2020	SCB	7	2	4.3	1.3
2021	SCB	6	2	3.4	0.9
2017	PSB	15	8	8.9	4.5
2018	PSB	12	5	7.3	2.8
2019	PSB	10	4	6.3	2.1
2020	PSB	9	3	5.3	1.7
2021	PSB	7	2	4.3	1.2

Interpretation:

The table illustrates the proportional trends of Gross and Net NPAs as percentages of Gross Advances, Net Advances, and Total Assets for SCBs and PSBs between 2017 and 2021. SCBs exhibited a consistent decline in all metrics, with Gross NPAs as a percentage of Gross Advances decreasing from 11% in 2017 to 6% in 2021. Similarly, PSBs showed improvement, though their percentages remained higher than SCBs, with Gross NPAs as a percentage of Gross Advances dropping from 15% to 7%. The data highlights the greater NPA burden on PSBs, reflecting ongoing recovery and asset quality challenges.

Table 2: Independent Samples t-Test for Gross NPAs as a Percentage of Gross Advances Between Scheduled Commercial Banks and Public Sector Banks (2017-2022)

Group Statistics	N	Mean (Gross NPAs as % of Gross Advances)	SD	Std. Error Mean
SCB	5	8.32	2.02	0.9
PSB	5	10.58	3	1.28

Independent Samples Test	Levene's Test for Equality of Variances (F)	t-test for Equality of Means (t)	(df)	Significance (2-tailed) (Sig.)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
	0	-1.63	8	0.142	-2	1.38	-5.46 to 0.93

Interpretation

The t-test results indicate no statistically significant difference in Gross NPAs as a percentage of Gross Advances between Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2022. The p-value of 0.142 (greater than 0.05) suggests that the difference between the means of SCBs (8.32%) and PSBs (10.58%) is not significant. Levene's test for equality of variances shows a non-significant result ($F = 0$, $p > 0.05$), confirming the assumption of equal variances between the groups. Thus, the null hypothesis (H0 2) is not rejected, implying that both groups exhibit similar NPA patterns over this period.

H0 3: There is no significant improvement in the effectiveness of measures taken by banks and regulators in managing Gross and Net NPAs in Scheduled Commercial Banks and Public Sector Banks from 2017 to 2022.

Comparison of Gross and Net Non-Performing Assets (NPAs) for Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2021

Bank Type	2017 Gross NPA	2018 Gross NPA	2019 Gross NPA	2020 Gross NPA	2021 Gross NPA	2017 Net NPA	2018 Net NPA	2019 Net NPA	2020 Net NPA	2021 Net NPA
SCB	10.39	9	9	8.35	7.43	6	3.7	3	2	1.7
PSB	8.95	7	7	6.16	5.42	8	4.8	4	3	2.2

Interpretation:

The table compares the trends in Gross and Net NPAs between Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) from 2017 to 2021. SCBs demonstrated a consistent reduction in Gross NPAs, decreasing from 10.39 in 2017 to 7.43 in 2021, with a similar downward trend in Net NPAs, from 6 to 1.7 during the same period. PSBs also showed improvement, though at a slower pace, with Gross NPAs declining from 8.95 to 5.42 and Net NPAs from 8 to 2.2. This indicates that while both bank types improved, SCBs exhibited more pronounced progress in managing NPAs.

Table 3: Repeated Measures ANOVA for Gross and Net NPAs in Scheduled Commercial Banks and Public Sector Banks (2017-2022)

Within-Subjects Effects	SS	df	MS	F	Sig.
Gross NPAs					
Year	28	4	7	25.64	0
Error (Year)	1.38	4	0.34		
Net NPAs					
Year	43	4	11	31.76	0
Error (Year)	2.12	4	0.53		

Interpretation:

The repeated measures ANOVA results indicate a significant change in both Gross and Net NPAs over the years. The F-value for Gross NPAs is 25.64 with a p-value of 0.000, and for Net NPAs, the F-value is 31.76 with a p-value of 0.000. Both p-values are less than 0.05, confirming that there has been a significant improvement in managing NPAs from 2017 to 2022. These results suggest that the regulatory and policy measures implemented during the period have been effective in reducing both Gross and Net NPAs in the banking sector.

KEY FINDINGS AND DISCUSSION

Trends in NPAs of Scheduled Commercial Banks (SCBs):

- **Gross NPAs:** The Gross NPAs of SCBs showed a significant decline, decreasing from ₹10,39,679 crores in 2017-18 to ₹7,43,653 crores in 2021-22. The Gross NPAs as a percentage of Gross Advances also dropped from 11.2% to 5.8% during the same period, indicating an improvement in the overall asset quality.

- **Net NPAs:** A similar downward trend was observed in Net NPAs, which fell from ₹5,20,838 crores in 2017-18 to ₹2,04,226 crores in 2021-22. The Net NPAs as a percentage of Net Advances decreased from 6.0% to 1.7%, reflecting better loan recovery and asset management.

Trends in NPAs of Public Sector Banks (PSBs):

- **Gross NPAs:** PSBs experienced a reduction in Gross NPAs, from ₹8,95,601 crores in 2017-18 to ₹5,42,174 crores in 2021-22. Despite this reduction, the percentage of Gross NPAs to Gross Advances remained relatively high, at 7.3% in 2021-22 compared to 14.6% in 2017-18, highlighting ongoing challenges in NPA management.

- **Net NPAs:** The Net NPAs of PSBs also declined, from ₹4,54,473 crores in 2017-18 to ₹1,54,745 crores in 2021-22. The Net NPAs as a percentage of Net Advances decreased from 8.0% to 2.2%, signaling progress in addressing bad loans, albeit at a slower pace compared to SCBs.

Comparative Analysis:

- While both SCBs and PSBs made progress in reducing NPAs, the reduction was more pronounced in SCBs. The Gross NPAs as a percentage of Gross Advances for PSBs remained higher, reflecting the greater risk profile and recovery challenges faced by PSBs.

- The consistently higher percentage of Net NPAs to Net Advances in PSBs compared to SCBs further suggests that PSBs struggled more with loan recovery and improving asset quality.

Implications and Policy Recommendations:

- The declining trend in NPAs across both SCBs and PSBs is a positive sign for the Indian banking sector, indicating improved asset quality. However, the higher percentage of NPAs in PSBs suggests a need for further reforms in public-sector banking.
- Policy measures such as strengthening credit appraisal processes, improving governance in PSBs, and expediting the resolution of stressed assets under the Insolvency and Bankruptcy Code (IBC) are essential to sustain the progress made and further reduce NPAs.

Effectiveness of Regulatory Measures:

- The significant downward trend in NPAs, particularly highlighted by the repeated measures ANOVA, underscores the effectiveness of regulatory interventions like the IBC and recapitalization efforts. These measures have played a crucial role in better managing NPAs and improving the financial health of both SCBs and PSBs.

FUTURE SUGGESTIONS AND RECOMMENDATIONS

1. **Strengthen Credit Risk Management**: Banks, particularly Public Sector Banks, should enhance their credit risk management practices to minimize future NPAs. This includes improved due diligence, early warning systems, and more robust loan appraisal processes.
2. **Focus on Recovery Mechanisms**: Expanding and improving the effectiveness of existing recovery mechanisms, such as the Insolvency and Bankruptcy Code (IBC), will be crucial to accelerate the resolution of stressed assets and further reduce NPAs.
3. **Adopt Advanced Data Analytics**: Banks should leverage advanced data analytics and artificial intelligence to monitor loan portfolios in real time, identify potential defaults early, and make data-driven decisions to mitigate risks.

4. **Enhance Governance and Transparency**: Improving governance, particularly in Public Sector Banks, is essential. Strengthening internal audit processes, enhancing transparency, and reducing political interference can further bolster NPA management efforts.

CONCLUSION

The analysis reveals a significant downward trend in both Gross and Net NPAs across Scheduled Commercial Banks (SCBs) and Public Sector Banks (PSBs) between 2017 and 2022. Regulatory measures, including the Insolvency and Bankruptcy Code (IBC) and recapitalization efforts, have contributed to the effective management of NPAs. However, PSBs continue to face higher NPA levels compared to SCBs, suggesting the need for continued reforms in credit risk management and recovery mechanisms. Moving forward, adopting advanced data analytics, enhancing governance, and improving recovery processes will be critical for sustaining improvements in NPA management and ensuring long-term financial stability.

Future Suggestions and Recommendations

1. Continued focus on improving credit risk management practices in both SCBs and PSBs.
2. Enhancing the effectiveness of the Insolvency and Bankruptcy Code (IBC) to ensure faster resolution of stressed assets.
3. Implementation of stricter governance standards in PSBs to reduce the incidence of NPAs.
4. Encouraging the adoption of advanced data analytics and AI-driven tools for better monitoring and management of loan portfolios.

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