

A Critical Review of Asset Quality Trends in India's Public Sector Banking

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ABSTRACT

Asset quality plays a pivotal role in determining the financial strength, stability, and sustainability of banks. It reflects the efficiency of a bank's credit risk management, loan recovery strategies, and overall portfolio health. Poor asset quality, characterized by high levels of NPAs, directly impacts profitability, liquidity, and investor confidence, while strong asset quality ensures financial stability and growth opportunities. This study provides a critical review of asset quality trends in India's public sector banking, focusing on three major banks: Bank of Baroda, Bank of India, and State Bank of India. The research analyses key asset quality measures, including Gross NPA, Capital Adequacy Ratio (CAR), and Current Account-Savings Account (CASA) ratio, over the past five years (2019-20 to 2023-24). The findings indicate that while there is no significant difference in CAR across the selected banks, there exists a significant difference in CASA and Gross NPA ratios, highlighting varying levels of financial strength and risk management effectiveness among the banks. State Bank of India has demonstrated superior asset quality, followed by Bank of Baroda, whereas Bank of India, despite notable improvement, still struggles with higher NPA levels. The study underscores the importance of proactive risk mitigation, deposit mobilization strategies, and capital adequacy planning to ensure sustained financial stability in the public banking sector.

Keywords : Asset Quality, Public Sector Banks, Non-Performing Assets, Capital Adequacy Ratio, CASA Ratio, Bank of Baroda, Bank of India, State Bank of India, Financial Stability, Risk Management

1. INTRODUCTION

Asset quality is a critical indicator of a bank's financial health and stability. It refers to the quality of a bank's loans and other assets, reflecting the likelihood of repayment and the level of risk associated with them. The core function of a bank is lending, and the ability to recover loans significantly influences its profitability and overall stability. Poor asset quality can lead to high levels of NPAs, which can weaken a bank's balance sheet, erode investor confidence, and even pose systemic risks to the banking sector. A key component of asset quality is the classification of loans into performing and non-performing categories. Performing assets generate regular income for the bank, while NPAs are those where the borrower has failed to make interest or principal repayments for a specified period, typically 90 days. The proportion of NPAs to total loans is an essential measure of asset quality, as higher NPAs indicate a greater risk of credit losses. When banks experience a rise in bad loans, they must set aside provisions, reducing their profitability and capital adequacy.

Asset quality is influenced by multiple factors, including economic conditions, regulatory policies, risk management practices, and the financial health of borrowers. During periods of economic downturn or recession, businesses and individuals may struggle to meet their loan obligations, leading to an increase in NPAs. Additionally, poor credit assessment, weak internal controls, and aggressive lending without proper due diligence can lead to a deterioration in asset quality. Banks with robust risk assessment models, stringent credit evaluation processes, and strong recovery mechanisms tend to maintain better asset quality over time. Regulatory bodies such as the RBI, the Federal Reserve in the U.S., and the European Central Bank (ECB) closely monitor the asset quality of banks to ensure financial stability. Regulations mandate banks to classify assets appropriately, maintain adequate provisioning, and adopt effective risk management practices. Measures such as asset reconstruction, debt restructuring, and early warning systems are often implemented to improve asset quality. In India, initiatives like the Insolvency and Bankruptcy Code (IBC) and corporate debt restructuring mechanisms have played a crucial role in managing stressed assets and improving banks' financial health.

Improving asset quality requires a multifaceted approach, including prudent lending practices, rigorous monitoring of borrower performance, and swift action on loan defaults. Banks must continuously evaluate the creditworthiness of their borrowers and take proactive steps to prevent loans from turning into NPAs. Strengthening governance frameworks, adopting technological advancements in credit analysis, and diversifying loan portfolios can further enhance asset quality. Ultimately, maintaining high asset quality ensures the long-term sustainability of a bank and bolsters confidence among investors, depositors, and regulators.

2. NEED OF THE STUDY

The asset quality of public sector banks (PSBs) in India has been a subject of growing concern over the past decade. Given their significant role in the country's financial system, any deterioration in their asset quality can have widespread economic implications. This study is necessary to critically assess the trends in asset quality within India's PSBs, identify the underlying causes of rising NPAs, and evaluate the effectiveness of various policy interventions undertaken to address the issue.

One of the primary reasons for conducting this study is the high levels of NPAs in public sector banks, which have posed a persistent challenge to the banking system. Unlike private banks, PSBs account for a larger share of lending to sectors such as infrastructure, agriculture, and small businesses, which are more vulnerable to economic fluctuations. The study is crucial for understanding whether the measures taken, such as the recapitalization of banks, implementation of the Insolvency and Bankruptcy Code (IBC), and stricter provisioning norms, have effectively improved asset quality.

Furthermore, the study is necessary to explore how external factors such as economic downturns, policy changes, and global financial crises impact the asset quality of PSBs. For instance, the COVID-19 pandemic led to loan moratoriums and restructuring, affecting banks' ability to assess the true extent of stressed assets. By analysing asset quality trends before, during, and after such crises, the study can provide insights into the resilience of public sector banks and their preparedness for future economic shocks.

Another significant need for this study is to compare the asset quality of PSBs with that of private sector banks and international banking standards. Public sector banks in India often face challenges such as political interference in lending decisions, weaker risk management frameworks, and inefficiencies in loan recovery. Understanding these challenges in contrast to private banks and global best practices will help in formulating strategies for improving the overall financial health of PSBs.

Additionally, this study will aid policymakers, regulators, and banking institutions in identifying gaps in the current regulatory framework and risk management approaches. With the Indian government and the RBI taking continuous steps to strengthen the banking sector, a detailed review of asset quality trends will help in refining existing policies and implementing more targeted reforms. The findings of this study will be valuable for banking professionals, researchers, and policymakers who aim to ensure a more robust and resilient public sector banking system in India.

3. LITERATURE REVIEW

Ray and Mahapatra (2019) conducted an empirical study focusing on the asset quality and performance of Indian microfinance institutions. Their research highlighted a significant relationship between asset quality and the overall financial performance of these institutions. They found that institutions with higher levels of NPAs experienced reduced profitability and operational efficiency. The study emphasized the necessity for robust risk management practices to maintain asset quality, suggesting that proactive measures in credit appraisal and monitoring are essential to mitigate the adverse effects of NPAs on financial performance.

Ashwath and Sachindra (2025) evaluated the financial performance of Indian public sector banks, focusing on capital adequacy and asset quality from 2019 to 2024. Their analysis revealed a clear trajectory of improvement in both areas, with banks bolstering their capital buffers and enhancing their capacity to absorb financial shocks. Key metrics such as the Debt-to-Equity Ratio (DER) and Leverage Ratio (LR) showed positive trends, indicating strengthened financial resilience. The study concluded that these improvements were

pivotal in enhancing the banks' overall financial soundness and their ability to manage asset quality effectively.

Kumar and Singh (2020) analysed the financial performance of public sector banks in India, identifying key factors affecting their performance and the interrelationship between bank-specific and macroeconomic variables. Their findings indicated that asset quality, measured through NPAs, was a critical determinant of profitability and operational efficiency. Banks with lower NPAs demonstrated better financial health and competitiveness. The study recommended that banks should focus on improving asset quality through stringent credit risk assessment and effective recovery mechanisms to enhance their financial performance.

Sharma and Goyal (2021) conducted a comprehensive analysis of the financial performance of selected Indian commercial banks from 2012/13 to 2016/17. Their study revealed that private sector banks consistently outperformed public sector banks in terms of asset quality and profitability. The research highlighted that private banks maintained lower levels of NPAs, which contributed to their superior financial metrics. The authors suggested that public sector banks could benefit from adopting the efficient credit management practices prevalent in private sector banks to improve their asset quality and overall performance.

Patel and Mehta (2022) examined the financial performance of Indian banks post the COVID-19 pandemic, utilizing the CAMEL analysis framework. Their study focused on various parameters, including asset quality, to assess the impact of the pandemic on banking operations. The findings indicated a deterioration in asset quality, with a noticeable increase in NPAs during the pandemic period. The study concluded that banks need to strengthen their credit risk management frameworks and adopt more resilient operational strategies to mitigate the adverse effects of such unprecedented events on asset quality and financial performance.

Gupta and Banerjee (2025) conducted an appraisal of the financial performance of commercial banks in India, emphasizing the role of asset quality. Their study revealed that banks with stringent asset quality controls and proactive NPA management strategies were better positioned to achieve financial stability and growth. The authors concluded that continuous improvement in asset quality is essential for banks to navigate financial challenges and maintain competitiveness in the evolving banking landscape.

4. RESEARCH OBJECTIVES

1. To analyse the asset quality measures of selected public sector banks of India
2. To compare asset quality measures of selected public sector banks of India.

5. DATA ANALYSIS

5.1 Capital Adequacy Ratio (%)

BANK	2023-24	2022-23	2021-22	2020-21	2019-20
Bank of Baroda	16.31	16.24	15.84	14.99	13.30
Bank of India	16.96	16.28	17.04	14.93	13.10
State Bank of India	14.28	14.68	13.85	13.74	13.13

The capital adequacy ratio (CAR) of Bank of Baroda has shown a steady improvement over the past five years. In 2019-20, the CAR stood at 13.30%, which then increased consistently to reach 16.31% in 2023-24. The rise in CAR suggests that the bank has strengthened its capital base over time, enhancing its ability to absorb potential losses and meet regulatory requirements. The increase from 14.99% in 2020-21 to 15.84% in 2021-22 indicates a significant improvement, followed by further stability in subsequent years. This trend reflects the bank's prudent risk management, effective capital allocation strategies, and possibly an improvement in asset quality. The marginal increase from 16.24% in 2022-23 to 16.31% in 2023-24 suggests that the bank has maintained a stable capital position, ensuring financial resilience.

Bank of India's CAR has exhibited fluctuations over the period but has remained within a healthy range. In 2019-20, the CAR was 13.10%, which improved significantly to 14.93% in 2020-21. The ratio further increased to 17.04% in 2021-22, marking a peak in the

observed period. However, in 2022-23, the ratio slightly declined to 16.28%, before rising again to 16.96% in 2023-24. The decline in 2022-23 may indicate an increase in risk-weighted assets or a dip in capital reserves, but the subsequent recovery suggests that the bank took corrective measures to strengthen its capital base. The overall upward trend signifies improved financial stability and a strong capital adequacy framework, indicating the bank's preparedness to handle economic uncertainties and potential loan defaults.

SBI's CAR has remained relatively stable over the years, though with minor fluctuations. In 2019-20, the ratio was 13.13%, which slightly improved to 13.74% in 2020-21. The CAR further increased to 13.85% in 2021-22, indicating that the bank was working towards enhancing its capital base. However, in 2022-23, the CAR reached 14.68% before slightly declining to 14.28% in 2023-24. The fluctuations in CAR indicate that while SBI has maintained a healthy capital adequacy level, it has also faced challenges in sustaining its capital growth. The marginal decline in the most recent year may suggest increased lending activity or higher risk-weighted assets, but the overall stability implies a well-balanced approach to capital management and regulatory compliance.

Comparative Analysis

When comparing the three banks, Bank of India has demonstrated the highest CAR in recent years, peaking at 17.04% in 2021-22 and maintaining a strong position at 16.96% in 2023-24. This suggests that the bank has been more aggressive in strengthening its capital base compared to its peers. Bank of Baroda follows closely with a consistent upward trend, reaching 16.31% in 2023-24, which reflects effective capital management and risk mitigation strategies. SBI, on the other hand, has maintained a relatively stable CAR but has the lowest ratio among the three banks. While SBI's CAR is above the regulatory requirements, the bank may need to focus on improving its capital position to remain competitive with its peers. Overall, all three banks have shown a positive trend in capital adequacy, ensuring compliance with regulatory norms and demonstrating financial stability. Bank of India and Bank of Baroda appear to have a stronger capital position, while SBI, despite its slight fluctuations, remains within a safe range. These trends indicate

that the Indian banking sector, particularly public sector banks, is making continuous efforts to enhance capital strength and sustain long-term financial stability.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	8.40892	2	4.20446	2.695524	0.107928	3.885294
Within Groups	18.71752	12	1.559793			
Total	27.12644	14				

The p-value associated with the F-test is 0.107928, which is greater than the standard significance level of 0.05. A p-value higher than 0.05 indicates that there is a high probability that the observed differences could have occurred by random chance. Therefore, we fail to reject the null hypothesis. In conclusion, based on the results of the ANOVA test, it can be interpreted that there is no statistically significant difference in the Capital Adequacy Ratio (%) among the selected public sector banks in India.

5.2 CASA (%)

BANK	2023-24	2022-23	2021-22	2020-21	2019-20
Bank of Baroda	38.76	39.47	41.45	40.15	35.28
Bank of India	37.17	38.41	40.08	36.68	36.51
State Bank of India	39.89	42.66	44.51	45.39	44.22

The Current Account and Savings Account (CASA) ratio of Bank of Baroda has shown fluctuations over the past five years. In 2019-20, the CASA ratio was 35.28%, indicating a moderate level of low-cost deposits. The bank experienced a significant increase in 2020-21, reaching 40.15%, followed by further growth to 41.45% in 2021-22. This rise suggests that the bank was successful in attracting more low-cost deposits, which would have improved its net interest margin. However, the CASA ratio declined in the subsequent years, falling to 39.47% in 2022-23 and further to 38.76% in 2023-24. The recent downward trend suggests that customers might be shifting their deposits towards higher-yielding fixed deposits due to rising interest rates or better investment opportunities

elsewhere. Despite the decline, Bank of Baroda has maintained a relatively stable CASA ratio, indicating consistent efforts in deposit mobilization.

Bank of India's CASA ratio has also shown a fluctuating trend over the years. In 2019-20, the ratio was 36.51%, which remained almost stable in 2020-21 at 36.68%. The bank then saw a significant improvement in 2021-22, reaching 40.08%, reflecting better deposit mobilization strategies and a stronger focus on increasing savings and current account deposits. However, similar to Bank of Baroda, Bank of India witnessed a decline in the following years, with the CASA ratio falling to 38.41% in 2022-23 and further to 37.17% in 2023-24. The decline suggests increased competition for deposits, possible shifts towards term deposits due to changing interest rate scenarios, or an inability to sustain low-cost deposits at previous levels. Although the bank has made efforts to strengthen its CASA base, the recent downward trend may impact its cost of funds and overall profitability.

SBI has consistently maintained the highest CASA ratio among the three banks, reflecting its strong retail banking presence and deep customer penetration. In 2019-20, SBI had a CASA ratio of 44.22%, which increased to 45.39% in 2020-21 and reached a peak of 44.51% in 2021-22. However, the bank experienced a steady decline thereafter, with the CASA ratio falling to 42.66% in 2022-23 and further to 39.89% in 2023-24. The decline over the last two years suggests that while SBI continues to have a strong deposit base, competitive deposit rates on fixed deposits or alternative investment options may be drawing customers away from low-cost CASA deposits. The drop in CASA ratio could increase the cost of funds for SBI, which may impact its profitability in the long run.

Comparative Analysis

Among the three banks, SBI has consistently maintained the highest CASA ratio, peaking at 45.39% in 2020-21. However, in recent years, SBI has witnessed a sharper decline compared to Bank of Baroda and Bank of India, suggesting that despite its strong brand and retail presence, it has been unable to sustain its high CASA levels. Bank of Baroda and Bank of India have shown similar trends, with their CASA ratios improving until 2021-22 and then declining in the following years. One possible reason for the decline in CASA

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ratios across all three banks could be the rising interest rates, prompting depositors to shift towards fixed deposits for better returns. The banks may need to focus on innovative deposit schemes, better interest offerings on savings accounts, and digital banking initiatives to retain and grow their CASA base. Overall, while SBI still leads in terms of CASA ratio, its decline in recent years has brought it closer to Bank of Baroda and Bank of India. The banks must focus on increasing low-cost deposits to maintain profitability and ensure stable growth in a competitive banking environment.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	85.19824	2	42.59912	10.42576	0.002376	3.885294
Within Groups	49.0314	12	4.08595			
Total	134.2296	14				

The p-value for this test is 0.002376, which is far below the conventional significance level of 0.05. A p-value this small provides strong evidence against the null hypothesis, meaning the likelihood of observing such a difference by chance is very low. In conclusion, the results of the ANOVA test indicate that there is a statistically significant difference in CASA (%) between the selected public sector banks in India.

5.3 Gross NPA (%)

BANK	2023-24	2022-23	2021-22	2020-21	2019-20
Bank of Baroda	2.92	3.79	7.00	9.00	9.00
Bank of India	4.98	7.31	10.00	14.00	15.00
State Bank of India	2.24	2.78	3.97	5.00	6.00

Bank of Baroda has significantly improved its asset quality over the past five years, as reflected in its declining Gross NPA ratio. In 2019-20 and 2020-21, the bank had a high Gross NPA of 9.00%, indicating a substantial amount of stressed assets in its portfolio. However, a notable improvement was observed in the following years, with the Gross NPA declining to 7.00% in 2021-22, 3.79% in 2022-23, and further to 2.92% in 2023-24. This sharp decline suggests that the bank has made consistent efforts in strengthening its loan

recovery mechanisms, restructuring loans, and improving risk management practices. The improvement in asset quality also indicates that the bank has benefitted from economic recovery, corporate deleveraging, and better credit underwriting policies. The reduction in Gross NPA enhances profitability and financial stability, positioning the bank as a stronger player in the public sector banking segment.

Bank of India has exhibited a remarkable turnaround in its asset quality, although its Gross NPA levels remain higher than its peers. In 2019-20, the bank had an alarming Gross NPA of 15.00%, highlighting severe asset quality issues. The ratio remained high at 14.00% in 2020-21 but showed gradual improvement in subsequent years, declining to 10.00% in 2021-22, 7.31% in 2022-23, and 4.98% in 2023-24. This consistent decline suggests that the bank has focused heavily on recovering bad loans, strengthening risk management frameworks, and improving credit appraisal processes. Despite the progress, Bank of India still has a relatively higher NPA percentage compared to Bank of Baroda and SBI, which indicates that while the bank has managed to reduce stress in its portfolio, it may still have some legacy issues that need further resolution. The significant reduction in Gross NPA is a positive indicator of the bank's improving financial health and operational efficiency.

SBI has demonstrated the most stable and consistently improving asset quality among the three banks. In 2019-20, the Gross NPA stood at 6.00%, which gradually declined to 5.00% in 2020-21, 3.97% in 2021-22, 2.78% in 2022-23, and further to 2.24% in 2023-24. This steady decline reflects SBI's strong credit risk management, effective recovery strategies, and a well-diversified loan portfolio. The bank's ability to maintain one of the lowest Gross NPA levels among public sector banks indicates its superior asset quality and strong financial position. The consistent reduction in NPA levels also suggests that SBI has been proactive in addressing stressed assets through timely resolution mechanisms, loan restructuring, and efficient monitoring of its credit portfolio.

Comparative Analysis

When comparing the three banks, SBI has maintained the lowest Gross NPA levels throughout the period, reflecting strong asset quality and a well-managed loan book. Bank

of Baroda has also shown significant improvement, reducing its Gross NPA from 9.00% in 2019-20 to 2.92% in 2023-24, highlighting successful risk management and recovery efforts. Bank of India, despite showing a major reduction from 15.00% in 2019-20 to 4.98% in 2023-24, still has the highest NPA among the three banks, suggesting that it may need further strategic interventions to strengthen its asset quality. The overall declining trend in Gross NPA across all three banks indicates that India's public sector banks have been successful in improving their asset quality through better credit appraisal systems, efficient loan recovery mechanisms, and a favourable economic environment. However, to sustain this improvement, the banks need to continue focusing on risk mitigation, strict credit monitoring, and proactive measures to prevent future loan defaults.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	100.0283	2	50.01416	5.197346	0.023671	3.885294
Within Groups	115.4762	12	9.62302			
Total	215.5046	14				

The p-value is 0.023671, which is less than 0.05, further confirming that the differences are statistically significant and unlikely to have occurred by chance. A p-value below 0.05 implies strong evidence against the null hypothesis. Therefore, based on this ANOVA result, it can be concluded that there is a statistically significant difference in Gross NPA (%) among the selected public sector banks of India.

6. CONCLUSION

The analysis of Capital Adequacy Ratio (CAR), CASA Ratio, and Gross NPA across the three selected public sector banks: Bank of Baroda, Bank of India, and State Bank of India, provides valuable insights into their financial health, operational efficiency, and asset quality management. Firstly, the findings indicate that there is no significant difference in Capital Adequacy Ratio (CAR) among the three banks over the past five years. All three banks have maintained CAR levels well above the regulatory requirements, reflecting their strong capital base and ability to absorb financial shocks. While minor fluctuations exist,

the overall trend suggests that these banks are adequately capitalized to support their lending activities and manage credit risks effectively.

Secondly, the CASA Ratio analysis shows a significant difference among the selected banks, with State Bank of India consistently maintaining the highest CASA ratio, followed by Bank of Baroda and Bank of India. SBI's superior CASA performance highlights its strong customer deposit base, which provides a stable and low-cost source of funds. Bank of Baroda has also demonstrated consistent growth in its CASA ratio, while Bank of India has shown comparatively lower levels, indicating challenges in attracting and retaining low-cost deposits. This divergence in CASA levels suggests that SBI and Bank of Baroda have a competitive advantage in terms of cost-effective funding, whereas Bank of India may need to enhance its deposit mobilization strategies.

The most striking observation comes from the Gross NPA analysis, where there is a significant difference among the banks. SBI has maintained the lowest Gross NPA levels, demonstrating robust credit risk management and loan recovery strategies. Bank of Baroda has shown remarkable improvement in reducing its NPA levels over the years, highlighting its efforts in strengthening asset quality. On the other hand, Bank of India, despite a significant reduction in its Gross NPA ratio, still has the highest NPA percentage, indicating lingering asset quality concerns. This difference suggests that while public sector banks have collectively improved their asset quality, the degree of improvement varies significantly across institutions.

Overall, while the capital adequacy position of all three banks remains strong and comparable, there are notable differences in CASA and Gross NPA ratios. SBI leads in both CASA and asset quality, followed by Bank of Baroda, while Bank of India lags in both aspects. These findings emphasize the need for continued efforts in strengthening deposit mobilization and risk management strategies, especially for banks with higher NPA levels. Public sector banks must focus on maintaining a balance between capital strength, low-cost deposit growth, and asset quality improvement to ensure long-term financial stability and competitiveness.

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