Analyzing Non-Performing Assets (NPAS) in Indian Banking: A Study of Trends, Ratio and Impact on Profitability (2017-2018 to 2021-2022)

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Abstract— This investigation delves into the effects of Non-Performing Assets (NPAs) on the financial health of Scheduled Commercial Banks and Public Sector Banks in India, as detailed in various scholarly publications from 2019 and a study by Agrawal hosted on Shodh Ganga in 2010. Spanning the fiscal years from 2017-2018 to 2021-2022, this study meticulously explores the patterns and shifts in the ratios of Gross NPAs to Gross Advances and Net NPAs to Net Advances, shedding light on the differential management of asset quality across distinct banking sectors. The critical nature of a detailed examination to discern the relative performance among banks is underscored, pointing out how NPAs bear upon key financial metrics, operational facets, and the overall income of banks. This research employs a combination of tabular and graphical techniques to elucidate the relationship between NPAs and profitability margins within the banking domain. The insights gleaned are poised to bolster the decision-making process for investors and other key stakeholders in the banking sector.

Keywords: Scheduled Commercial Banks, Public Sector Banks (Singh, 2012), Non-Performing Assets (NPAs), Gross NPA Percentage, Net NPA, Credit Risk Management, Portfolio and Financial Institutions

I. INTRODUCTION

Examining Non-Performing Assets (NPAs) is a critical step in controlling financial risks and preserving economic equilibrium, two things that the banking sector is essential for. This report examines nonperforming assets (NPAs) in India's Public Sector Banks and Scheduled Commercial Banks for the years 2017–18–2021-2022. It emphasizes that the Gross and Net Non-Performing Asset Percentages are crucial indicators for evaluating the caliber of a bank's assets (Academic Journals, 2019).

The Gross NPA Percentage shows a consistent downward trajectory over the specified period, suggesting an enhancement in overall asset quality (Academic Journals, 2019). The Net NPA Percentage also echoes this trend, indicating effective credit risk management and a healthier loan portfolio for both sectors. The substantial reduction in Net NPA Percentage in 2021-22 is particularly noteworthy, underscoring successful efforts in minimizing non-performing assets after considering provisions.

The overall trend analysis encapsulates a narrative of persistent improvement in asset quality for both Scheduled Commercial Banks and Public Sector Banks, with decreasing percentages for both Gross and Net NPAs relative to Gross Advances (Academic Journals, 2019). This indicates prudent risk management practices and a lighter burden of non-performing assets on banks' portfolios.

In conclusion, the results show a favorable trend, with both Scheduled Commercial Banks and Public Sector Banks seeing a decline over the last five years in the ratio of non-performing assets to total loans. This development demonstrates the effectiveness of risk management techniques and is critical to improving the banking organizations' financial stability.

II. OBJECTIVE

To analyze and assess the trends in the ratios of Gross Non-Performing Assets (NPA) to Gross Advances and Net NPA to Net Advances over a specified period (Kumarmohan, 2020), such as multiple fiscal years.

Investigate variations in these ratios across different sectors, such as Scheduled Commercial Banks and Public Sector Banks, to identify potential disparities in asset quality management.

III. METHODOLOGY

The research design employed for this study is descriptive. Secondary data served as the primary source for acquiring the necessary information for this research. The data encompassing the ratios of Gross NPAs and Net NPAs to Gross Advances for both Scheduled Commercial Banks and Public Sector Banks were obtained from existing financial reports (Gupta, 2011), regulatory publications, and reliable databases. Quantitative data analysis techniques were applied to interpret and derive meaningful insights from the collected data. Graphical representations and tabulation tools may be employed to discern patterns, variations, and key observations within the dataset.

IV. REVIEW OF LITERATURE

(Mohanty, 2023) investigates the impact of bank-specific and macroeconomic factors on the prevalence of NPAs in Indian commercial banks (Academic Journals, 2019). The study covers over seventeen years and a wide range of banks, providing a thorough understanding of the variables influencing non-performing assets (Academic Journals, 2019). The complex relationship between economic conditions and bank performance is highlighted by key findings that indicate real interest rates (Kang, 2014) (rbidocs, n.d.), inflation, and bank credit growth have a significant impact on the level of NPAs (Kang, 2014) (rbidocs, n.d.).

(Annapoorna, 2022) highlights the critical role that cooperative banks play in promoting financial inclusion, especially in rural areas. The provision of credit to underprivileged groups, such as small enterprises, farmers, and startups, has been made possible in large part by these institutions. The study underscores how important non-performing assets (NPAs) are as a measure of a bank's health, emphasizing the need for efficient management techniques to raise bank profitability and productivity.

(Shah, 2022) draws attention to microfinance companies and draws comparisons between their NPA management and that of traditional banks. According to the study (Kang, 2014) (rbidocs, n.d.), private and cooperative banks handle NPAs on average more effectively than banks in the public sector (Kang, 2014) (rbidocs, n.d.). Moreover, it implies that public sector banks are more successful in assisting microfinance projects despite their difficulties with non-performing assets (NPAs), presenting a complex picture of NPA management across various banking models.

(K. Manohar, 2022) explores the background and difficulties faced by Urban Cooperative Banks (UCBs) in the globalization era (Singh D. R., n.d.). The research monitors the increase in NPAs in these establishments (Singh D. R., n.d.), specifically in the Chittoor district, in the context of heightened competition from both public and private sector banks (Singh D. R., n.d.). The results show a marked rise in NPAs (Academic Journals, 2019) (rbidocs, n.d.), indicating a risk to the sound financial management and long-term viability of UCBs.

(Majhi, 2022) provides a meta-analysis of the body of research on nonperforming assets in Indian commercial banks. Aspects of NPA management are examined in this systematic review, ranging from identification and determinants to recovery channels and financial sustainability. The study acts as a knowledge base, offering a basis for further investigation and useful approaches to NPA management.

V. DATA ANALYSIS AND INTERPRETATION

Table 1 Ratio of Gross NPA to Gross Advances

Scheduled Commercial Banks			
Year	Gross Advances	Gross NPA (Amount)	Gross NPA %
2017-18	9266210	1039679	11.2
2018-19	10294463	936474	9.1
2019-20	10918918	899803	8.2
2020-21	11399608	835138	7.3
2021-22	12750006	743653	5.8

Table 1 provides information on Gross Advances and Gross Non-Performing Assets (NPA) in terms of both amount and percentage for a financial institution over the five fiscal years from 2017-18 to 2021-22. Here's an interpretation of the data:

Gross Advances (Amount):

The Gross Advances of the financial institution have shown a consistent upward trend over the five years. The values have increased from 9,266,210 in 2017-18 to 12,750,006 in 2021-22.

Gross NPA (Amount):

In essence, loans with low repayment rates are known as gross non-performing assets or NPAs.

Gross non-performing assets (NPAs) have shown a discernible lower trend over time, indicating an improvement in the quality of the loan portfolio.

In the fiscal year 2021–2022, Gross Non-Performing Assets (NPAs) decreased from 1,039,679 to 743,653 in total.

Gross NPA Percentage:

When expressed as a percentage, the Gross NPA Percentage calculates the difference between Gross NPAs and Gross Advances.

over five years, there has been a consistent decline in the Gross Non-Performing Asset Percentage, which is indicative of the institution's improved financial standing.

The proportion of non-performing assets to total loans decreased from 11.2% in the fiscal year 2017–18 to 5.8% in the fiscal year 2021–2022, indicating a downward trend.

Overall Trend:

The current trend indicates an improvement in the financial entity's asset quality. A lower percentage of gross non-performing assets (NPAs) indicates better portfolio management of credit risk.

It seems that the organization has successfully decreased non-performing assets, which is essential for maintaining long-term survival and financial stability.

Key Observations:

The financial institution has experienced growth in its loan portfolio while effectively managing and reducing non-performing assets.

The decrease in Gross NPA Percentage is particularly notable, suggesting prudent risk management practices.

In conclusion, the financial institution has demonstrated positive trends in terms of loan portfolio growth and asset quality improvement, as evidenced by the decreasing levels of Gross NPAs and Gross NPA Percentages over the specified period (Gupta, 2011).

Table 2 Ratio of Net NPA to Net Advances (Academic Journals, 2019)

Scheduled Commercial Banks			
Year	Net Advances	Net NPA (Amount)	Net NPA %
2017-18	8745997	520838	6.0
2018-19	9676183	355068	3.7
2019-20	10301897	289370	2.8
2020-21	10806381	258050	2.4
2021-22	12208009	204226	1.7

Table 2 presents the Net Non-Performing Assets (NPAs) to Net Advances ratio for Scheduled Commercial Banks for the 2017–18 and 2020–21 fiscal years. An examination of the supplied data is given below:

Net Advances (Amount):

Net Advances represent the total outstanding loans after deducting provisions for non-performing assets.

There is a consistent upward trend in Net Advances over the four years, indicating growth in the loan portfolio.

The values have increased from 8,745,997 in 2017-18 to 10,806,381 in 2020-21.

Net NPA (Amount):

Lending that is considered unrecoverable even after deducting allowances is known as net non-performing assets or NPAs.

There seems to be a downward trend in Net NPAs, which implies that the quality of the loan portfolio has improved.

Net NPAs decreased from 520,838 in the 2017–18 fiscal year to 258,050 in the 2020–21 fiscal year.

Net NPA Percentage:

Net NPA Percentage is the ratio of Net NPAs to Net Advances, expressed as a percentage.

over the last four years, the proportion of Net Non-Performing Assets (NPAs) has steadily decreased, which is positive for the financial standing of Scheduled Commercial Banks.

This ratio shows a significant decline in the proportion of non-performing assets relative to total loans, falling from 6.0% in the 2017–18 fiscal year to 2.4% by 2020–21.

Overall Trend:

The current trend suggests that Scheduled Commercial Banks' asset quality has significantly improved. A decrease in the Net NPA Percentage signifies effective management of credit risk and an improvement in the state of the lending portfolio.

The reduction in Net NPAs is indicative of successful efforts to minimize non-performing assets, contributing to the financial stability of the banks (Gupta, 2011).

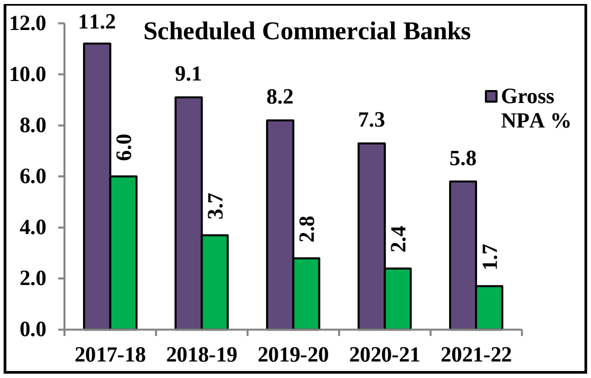
Key Observations:

The banks have witnessed growth in their loan portfolios while effectively managing and reducing net non-performing assets (Gupta, 2011).

The substantial decrease in Net NPA Percentage reflects prudent risk management practices and a more robust financial position.

As a whole, the data indicates positive trends in the growth of the loan portfolio and noteworthy improvements in the asset quality of Scheduled Commercial Banks, as shown by the declining trend of Net NPAs and the Net NPA Percentage throughout the specified period.

Figure 1 Ratio of Gross & Net NPA to Gross



For Scheduled Commercial Banks, Figure 1 shows the trends in Gross Non-Performing Assets (NPAs) and the ratio of Net NPAs to Gross Advances for the fiscal years 2017–18 and 2021–22.

Gross NPA Percentage:

For Scheduled Commercial Banks, Figure 1 shows the trends in Gross Non-Performing Assets (NPAs) and the ratio of Net NPAs to Gross Advances for the fiscal years 2017–18 and 2021–22.

Gross NPA Percentage: From 11.2% in the fiscal year 2017–18 to 5.8% by 2021–22, the Gross NPA Percentage, which calculates the ratio of Gross NPAs to Gross Advances, has seen a notable decrease over the previous five years. This pattern indicates that Scheduled Commercial Banks' asset quality has improved.

Net NPA Percentage:

The Net NPA Percentage, which represents the ratio of Net NPAs to Gross Advances (Chandratreya, 2021), has consistently declined over the past five years, indicating effective credit risk management and a healthier loan portfolio, with a significant reduction in non-performing assets after provisions.

Overall Trend:

The trend indicates improved asset quality in Scheduled Commercial Banks (Chandratreya, 2021), with decreasing percentages of Gross and Net NPAs indicating prudent risk management practices and reduced non-performing asset burden.

Key Observations:

Banks have consistently decreased Gross and Net NPA Percentages in 2021-22, indicating improved credit risk management and a stronger financial position.

The data shows a decrease in non-performing assets in Scheduled Commercial Banks over five years (Academic Journals, 2019), indicating effective risk management practices and contributing to their overall financial health.

Table 3 Ratio of Gross NPA to Gross Advances (Academic Journals, 2029)

Public Sector Banks (PIMT Journal of Research, 2019)			
Year	Gross Advances	Gross NPA (Amount)	Gross NPA %
2017-18	6141698	895601	14.6
2018-19	6382461	739541	11.6
2019-20	6615112	678317	10.3
2020-21	6770363	616616	9.1
2021-22	7433006	542174	7.3

Table 3 provides information on Public Sector Banks' Gross Non-Performing Assets (NPAs) to Gross Advances ratio for the fiscal years 2017–18 through 2021–22, providing a window into their operational effectiveness and financial standing.

Gross Advances (Amount):

Gross Advances are the total amount of loans that Public Sector Banks have made.

over the five years, Gross Advances have increased, indicating a growth in lending activity.

Between 2017–18 and 2021–22, the loan amounts increased from 6,141,698 to 7,433,006 in total.

Gross NPA (Amount):

Gross non-performing assets (NPAs) represent loans that are considered unrecoverable.

Gross NPAs are trending down, which indicates that the quality of the loan portfolio is improving.

Between 2017–18 and 2021–22, the total Gross NPA value decreased from 895,601 to 542,174.

Gross NPA Percentage:

By dividing Gross NPAs by Gross Advances, this statistic determines the Gross NPA percentage.

over five years, a steady decrease in this proportion indicates that Public Sector Banks' financial situation is becoming better.

By 2021–2022, the rate has dropped from 14.6% in 2017–18 to 7.3%, indicating a significant decline in non-performing assets relative to all loans.

Overall Trend:

Data suggests that the asset quality of Public Sector Banks has improved; a decreasing Gross Non-

Performing Asset (NPA) Percentage is a sign of effective credit risk management and a more robust loan portfolio.

A reduction in Gross Non-Performing Assets (NPAs) indicates that efforts to reduce non-performing assets have been effective, strengthening the banks' financial stability.

Key Observations:

Public sector banks have effectively reduced gross non-performing assets in addition to growing their loan portfolios.

As a result of effective risk management practices, the Gross NPA Percentage has significantly decreased, putting Public Sector Banks on stronger financial footing.

Taken together, the trends show a good momentum in loan portfolio growth and a notable improvement in asset quality for Public Sector Banks. This is best shown by the declining numbers for Gross Non-Performing Assets (NPAs) and the Gross NPA Percentage over the period under observation.

Table 4 Ratio of Net NPA to Net Advances (Academic Journals, 2029)

Public Sector Banks (Sahoo, 2020)			
Year	Net Advances	Net NPA (Amount)	Net NPA %
2017-18	5697350	454473	8.0
2018-19	5892667	285122	4.8
2019-20	6158112	230918	3.7
2020-21	6347417	196451	3.1
2021-22	7043940	154745	2.2

Table 4 provides information on the ratio of Net Non-Performing Assets (NPA) (Singh, 2012) to Net Advances for Public Sector Banks over the five fiscal years from 2017-18 to 2021-22. Here's an interpretation of the data:

Net Advances (Amount):

Net Advances represent the total outstanding loans after deducting provisions for non-performing assets for Public Sector Banks.

There is a generally increasing trend in Net Advances over the five years, indicating growth in the net loan portfolio.

The values have increased from 5,697,350 in 2017-18 to 7,043,940 in 2021-22.

Net NPA (Amount):

The entire amount of loans that are expected to be unrecoverable even after accounting for provisions made for possible losses is known as net non-performing assets or NPAs.

A consistent decrease in Net NPAs over an extended period indicates an improvement in the net quality of the loan portfolio.

Net NPAs decreased in value from 454,473 in the 2017–18 fiscal year to 154,745 during the 2021–22 fiscal year.

Net NPA Percentage:

The Net NPA Percentage, expressed as a percentage, calculates the ratio of Net Non-Performing Assets to Net Advances.

Similar to Net NPAs, this ratio has continuously decreased over the last five years, indicating improved credit risk management and the overall health of the net loan portfolio.

After accounting for provisions, the proportion decreased significantly from 8.0% in the 2017–18 fiscal year to 2.2% in the 2021–22 budget year. This indicates a significant decrease in the share of non-performing assets.

Overall Trend:

The trend that is now in place suggests that Public Sector Banks' asset quality has significantly improved. A decline in the Net NPA Percentage is indicative of successfully applied risk management techniques and a better net loan portfolio.

The decline in net non-performing assets (NPAs) highlights successful steps taken to lower non-performing assets, strengthening the banks' financial base.

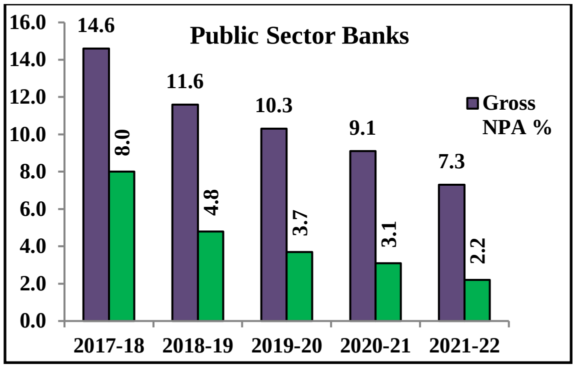
Key Observations:

Public sector banks have successfully reduced and mitigated net non-performing assets while simultaneously seeing an increase in their net loan portfolios.

The notable decline in the Net NPA Percentage indicates sound risk management practices and improved financial status for Public Sector Banks.

In summary, the data indicates a favorable trajectory for the expansion of net loan portfolios and a noteworthy improvement in the net asset quality of Public Sector Banks, as shown by the decreasing numbers of Net NPAs and Net NPA Percentages throughout the studied period.

Figure 2 Ratio of Gross & Net NPA to Gross



The graph shows the developments in public sector banks' gross non-performing assets (NPAs) and the ratio of NPAs to gross advances from 2017–18 to 2021–22.

Gross NPA Percentage:

Gross NPA Percentage: This measure, which compares Gross Advances to Gross NPAs, has decreased significantly over time, from 14.6% in the 2017–18 fiscal year to 7.3% in the 2021–22 fiscal year. This change indicates that Public Sector Banks' asset quality has improved.

Net NPA Percentage:

The Net NPA Percentage, which represents the ratio of Net NPAs to Gross Advances (Chandratreya, 2021), has consistently declined over the past five years, indicating effective credit risk management and a healthier loan portfolio, with a significant decrease from 8.0% in 2017-18 to 2.2% in 2021-22.

Overall Trend:

The trend indicates improved asset quality in Public Sector Banks, with decreasing percentages of Gross and Net NPAs indicating prudent risk management practices and reduced non-performing asset burden.

Key Observations:

Public Sector Banks have seen a consistent decrease in Gross and Net NPA Percentages in 2021-22, indicating improved credit risk management and a robust financial position.

The data shows a decrease in non-performing assets in Public Sector Banks over the five years, indicating effective risk management practices and contributing to their overall financial health.

VI. FINDINGS

The study reveals a consistent downward trend in Gross NPA Percentage across both Scheduled Commercial Banks and Public Sector Banks over the past five years. Both sectors have seen a reduction in Gross NPA percentages, from 11.2% in 2017-18 to 5.8% in 2021-22, and a decrease in Net NPA percentages, from 6.0% in 2017-18 to 1.7% in 2021-22. This indicates an improvement in asset quality and effective credit risk management practices. The overall trend suggests a positive and continuous improvement in asset quality, contributing to the overall financial health of the banking sectors. Both sectors have successfully decreased both Gross and Net NPA percentages, indicating a more robust financial position and improved credit risk management strategies. The improvements observed in the reduction of NPA percentages highlight a positive impact on the financial health and stability of both sectors, suggesting that these institutions have been successful in addressing and mitigating non-performing assets, contributing to a more resilient banking sector.

VII. CONCLUSION

The study reveals a positive transformation in the banking sector over the past five years, with a consistent decline in Gross Non-Performing Assets (NPAs) and Net NPAs. Scheduled Commercial Banks have reduced their Gross NPA percentage from 11.2% to 5.8%, while Public Sector Banks have decreased from 14.6% to 7.3%. Effective credit risk management practices have also been highlighted, with a notable reduction in Net NPA percentages. This indicates a healthier loan portfolio and sustained efforts in mitigating non-performing assets. The overall positive trajectory in both Gross and Net NPA percentages reflects prudent risk management practices, contributing to a more resilient financial position. The lower NPA percentages in 2021-22 serve as a testament to the effectiveness of credit risk management strategies adopted by both banking sectors. The improvements observed in the reduction of NPA percentages indicate a positive impact on the overall financial well-being of Scheduled Commercial Banks and Public Sector Banks, suggesting that these institutions have successfully navigated and addressed the challenges posed by non-performing assets, positioning themselves for sustained financial health and contributing to the resilience of the broader banking sector.

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