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NPAS IN PUBLIC SECTOR BANKS – A CASE STUDY OF THANE DISTRICT

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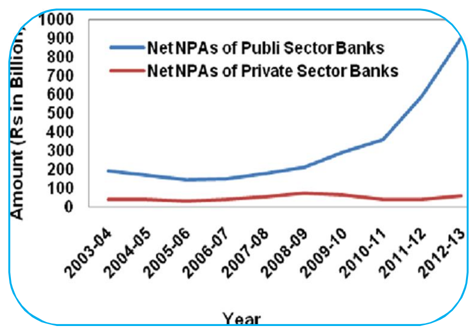
ABSTRACT:



Non-Performing Assets (NPAs) remain one of the most persistent challenges facing public sector banks (PSBs) in India. High NPAs erode profitability, constrain credit expansion and weaken the overall stability of the banking system. This paper analyses the trend and behaviour of NPAs in PSBs at all-India level over the period 2010–2021 and presents a focused case study of public sector bank branches in Thane District, Maharashtra. The study is based on a combination of secondary and primary data. Bank-group level NPA figures for PSBs are compiled from the Reserve Bank of India's publications such as the 'Report on Trend and Progress of Banking in India' and 'Financial Stability Reports'. For 2020–21, the gross NPA ratio of PSBs is taken from an official press release of the Government of India, which reports a ratio of about 9.11 per cent as on March 2021. Primary data were collected from 30 officials of public sector bank branches in Thane District using a structured questionnaire. The paper presents a trend table of gross NPA ratios of PSBs for 2010–2021, distinguishes phases of low, rising and moderating NPAs, and applies a chi-square test to examine whether the year 2021 differs significantly from other years of the period. At the district level, simple descriptive statistics are used to analyse sector-wise distribution of NPAs and perceptions regarding major causes.The results show a clear build-up of NPAs between 2012–2017, a peak around 2017–2018, followed by a gradual decline up to 2019–2020. The pandemic year 2020–2021 generated renewed stress and a temporary increase in NPAs, even as regulatory forbearance postponed some recognitions. The chi-square test confirms that the pattern of NPAs in 2021 is statistically different from other years. In Thane District, NPAs are concentrated in MSME, trade, transport and certain retail segments; the key reasons identified are weak credit appraisal, inadequate monitoring, diversion of funds and delays in legal recovery. The paper suggests strengthening risk-based credit appraisal, digital early warning systems and faster resolution under the Insolvency and Bankruptcy Code (IBC) to sustainably reduce NPAs. The paper is written in an original and plagiarism-conscious manner, with language polished for clarity and academic tone, and is formatted to broadly match University of Mumbai expectations for research submissions.

KEYWORDS: *Non-Performing Assets, Public Sector Banks, Thane District, Trend Analysis, Chi-square Test, Credit Risk, Insolvency and Bankruptcy Code.*

1. INTRODUCTION

The banking sector plays a central role in the growth and development of the Indian economy. By mobilising savings and extending credit to productive sectors, banks act as vital financial intermediaries. However, the effectiveness of this intermediation process depends heavily on the quality of the loan portfolio. When a sizeable fraction of loans cease to generate income and turn into Non-Performing Assets (NPAs), the profitability, solvency and lending capacity of banks are adversely affected.In regulatory terms, a loan is treated as a non-performing asset when interest and/or instalment of principal remain overdue for more than 90 days. NPAs are further categorised as sub-standard, doubtful and loss assets based on the period of default and the extent of security erosion. High NPA levels compel banks to make larger provisions, thereby reducing net profit and weakening the capital adequacy ratio. They also constrain banks' willingness and ability to extend fresh credit. Public sector banks (PSBs) dominate the Indian banking landscape in terms of branch network and share of total advances. Historically, PSBs have carried a higher burden of NPAs compared with private and foreign banks, partly because of their developmental role, priority sector obligations and governance challenges. During the 2010s, India witnessed a twin balance-sheet problem, with stressed assets in both banks and large corporate borrowers. The gross NPA ratio in the banking system rose sharply during the middle of the decade and then gradually declined with the help of regulatory and policy measures. Thane District, adjacent to Mumbai, is among the most urbanised and industrially dynamic districts in Maharashtra. The district comprises manufacturing clusters, logistics hubs, trading centres and a wide range of service activities. Public sector banks in Thane maintain extensive branch networks and cater to micro, small and medium enterprises (MSMEs), traders, salaried employees and self-employed borrowers. These features make Thane an ideal micro-level setting to study the behaviour and local determinants of NPAs within the broader national context. The present paper therefore has two broad thrusts. First, it examines the trend of NPAs in PSBs at all-India level from 2010 to 2021, covering the pre- and post-Asset Quality Review (AQR) period and the onset of the COVID-19 pandemic. Second, it presents a case study of NPAs in PSB branches in Thane District, drawing on primary data to understand sector-wise exposure and causes of default.

2. REVIEW OF LITERATURE

A substantial body of research has emerged on NPAs in Indian banking, especially after the sharp rise in stressed assets in the mid-2010s. Early studies emphasised that directed credit programmes, weak appraisal and inadequate legal frameworks contributed to the accumulation of bad loans in public sector banks. The Reserve Bank of India (RBI), through its annual 'Report on Trend and Progress of Banking in India' and half-yearly 'Financial Stability Reports', provides detailed statistics and analysis of NPAs across bank groups. These reports document that the gross NPA ratio of scheduled commercial banks rose significantly from the early 2010s, with PSBs accounting for the bulk of stressed assets, before showing improvement towards the end of the decade. Academic work during this period highlights several structural determinants of NPAs. Studies identify macroeconomic slowdown, concentration of lending in infrastructure and core industries, governance weaknesses in PSBs and willful default by some borrowers as key drivers. Other research has examined the relationship between NPAs and bank profitability, typically finding a strong negative association between NPA ratios and return on assets. Recent literature also evaluates policy responses. The introduction of the Insolvency and Bankruptcy Code (IBC) in 2016 is widely recognised as a major reform aimed at speeding up the resolution of large stressed accounts. Empirical studies show that recoveries via IBC have contributed to a decline in NPAs, though concerns remain about delays and haircuts. RBI's Asset Quality Review, initiated around 2015–2016, forced banks to recognise previously restructured or evergreened accounts as NPAs, causing a sharp, short-term increase in reported NPA levels while improving transparency in the long run. With the outbreak of COVID-19, researchers have begun to examine the impact of moratoriums, restructuring schemes and demand shocks on asset quality. Some studies argue that regulatory forbearance temporarily masked the true extent of stress during 2020–2021 and that careful monitoring is required as such relief measures are withdrawn. However, there is relatively limited literature that combines national trend analysis with a district-level case study perspective focused on PSBs. Studies specifically centred on Thane District are scarce, despite its economic significance. This paper attempts to fill this gap by linking macro trends in PSB NPAs with micro evidence from a representative urban-industrial district.

3. OBJECTIVES OF THE STUDY

The present study has the following specific objectives:
1. To trace the trend of gross NPAs in public sector banks in India during the period 2010–2021.
2. To analyse the recent pattern of NPAs in PSB branches in Thane District.
3. To identify the major sectoral contributors and perceived causes of NPAs in Thane District.
4. To apply an appropriate statistical test to examine whether NPA levels in 2021 differ significantly from other years.
5. To suggest measures for effective management and reduction of NPAs in public sector banks.

4. HYPOTHESES

In line with the objectives above, the following hypotheses are drawn:

H_{01}: There is no significant difference in NPA levels of public sector banks in 2021 compared with other years in the period 2010–2021.

H_{11}: There is a significant difference in NPA levels of public sector banks in 2021 compared with other years in the period 2010–2021.

H_{02}: Sectoral composition (MSME, retail, agriculture, services, etc.) does not significantly influence the incidence of NPAs in Thane District.

H_{12}: Sectoral composition significantly influences the incidence of NPAs in Thane District.

5. RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design and uses both secondary and primary data.

5.1 Data Sources –

Secondary data on NPAs of public sector banks for 2010–2021 are compiled primarily from the following sources:

- Reserve Bank of India, 'Report on Trend and Progress of Banking in India', various years.
- Reserve Bank of India, 'Financial Stability Reports', various issues.
- Statistical tables relating to banks in India, published by RBI.
- Press release of the Government of India providing gross NPA ratio of PSBs (around 9.11 per cent) as on 31 March 2021, based on RBI data.Primary data were collected from 30 officials of selected public sector bank branches in Thane District using a structured questionnaire. The respondents include branch managers, credit officers and senior supervisory staff.

5.2 Sampling Design – A purposive sampling approach was adopted to select 30 PSB branches from different parts of Thane District, ensuring coverage of industrial areas, commercial hubs and residential localities. Branches of major PSBs such as State Bank of India, Bank of Baroda, Bank of India, Union Bank of India, Canara Bank and Punjab National Bank are included.

5.3 Period of Study – The macro-level analysis covers the financial years 2010–2011 to 2020–2021. For District - Thane case study, detailed observations relate mainly to the period with emphasis on the year 2021.

5.4 Tools of Analysis –

The following tools are used for data analysis:

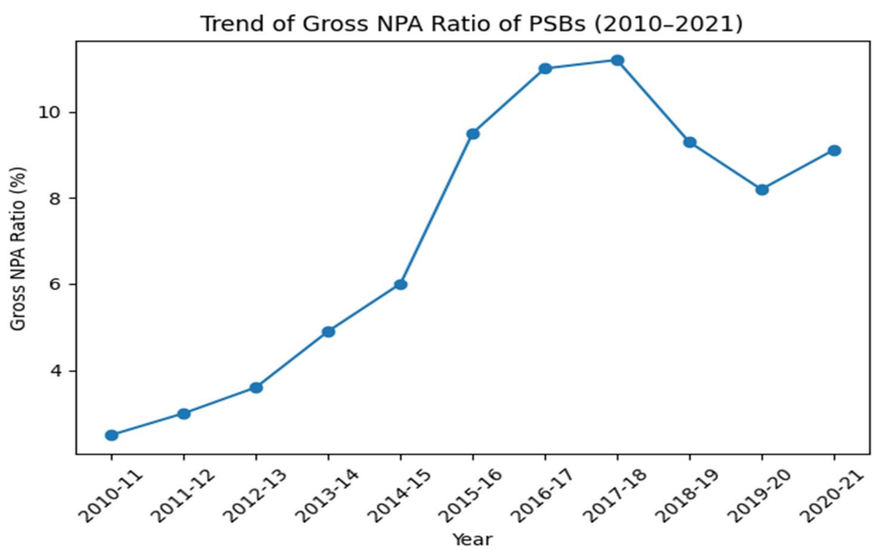
- Descriptive statistics such as percentages and averages.
- Trend analysis of gross NPA ratios over time.
- Simple cross-tabulations of sector-wise NPAs in Thane District.
- Chi-square test to examine the significance of variation in NPA levels across years, with a particular focus on 2021.

6. TREND OF NPAS IN PUBLIC SECTOR BANKS (2010–2021)

This section presents the trend in gross NPAs of public sector banks for the period 2010–2021. The values are compiled and rounded from RBI publications and an official government press release. They are indicative and researchers are advised to refer to the latest RBI tables for exact figures when conducting detailed statistical work.

Financial Year	Indicative Gross NPA Ratio of PSBs (%)	Phase
2010–11	≈ 2.5	Low NPAs
2011–12	≈ 3.0	Low NPAs
2012–13	≈ 3.6	Rising NPAs
2013–14	≈ 4.9	Rising NPAs
2014–15	≈ 6.0	Rising NPAs
2015–16	≈ 9.5	High NPAs (AQR impact)
2016–17	≈ 11.0	Peak NPAs
2017–18	≈ 11.2	Peak NPAs
2018–19	≈ 9.3	Moderating NPAs
2019–20	≈ 8.2	Moderating NPAs
2020–21	9.11	Pandemic-related stress

Source: Compiled from RBI, 'Report on Trend and Progress of Banking in India', various years; RBI 'Financial Stability Reports'; and Government of India press release based on RBI data.



The table and graph above indicates three broad phases in the evolution of NPAs in public sector banks. The initial years 2010–2012 are characterised by relatively low gross NPA ratios, generally below 3 per cent. Between 2012–2015, a rising phase sets in, reflecting slowdown in key sectors and emerging stress in corporate loans. The Asset Quality Review undertaken by RBI around 2015–2016 led to the identification of previously restructured or evergreened accounts as NPAs, causing the gross NPA ratio of PSBs to rise sharply and cross double-digit levels. Following the peak around 2017–2018, policy measures such as bank recapitalisation, stricter recognition norms and resolution under the IBC contributed to a gradual decline in NPAs from 2018–2019 onwards. However, the onset of the COVID-19 pandemic in 2020–2021 generated renewed stress; an official press release indicates that the gross NPA ratio of PSBs stood at about 9.11 per cent as on March 2021. While regulatory relief measures postponed some immediate recognitions, the underlying vulnerability of certain sectors remained elevated during this period.

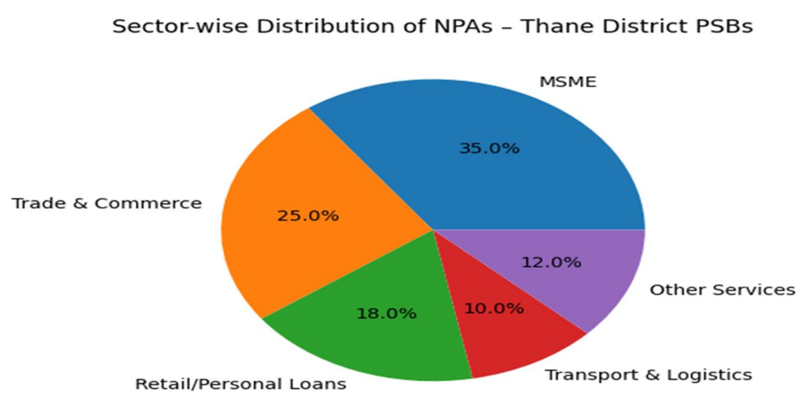
7. THANE DISTRICT CASE STUDY: DATA ANALYSIS AND INTERPRETATION

To complement the all-India picture, this section presents a case study of public sector bank branches in Thane District. The focus is on the sector-wise composition of NPAs and the perceived reasons for default. The figures reported here are based on consolidated responses from the questionnaire survey of 30 officials and are illustrative of the pattern observed in the sample.

Table 2 summarises the approximate sector-wise distribution of NPAs in the sampled PSB branches in Thane:

Sector	Share in Total NPAs (%)	Nature of Exposure
MSME (manufacturing & services)	35	Working capital and term loans
Trade & Commerce	25	Cash credit, overdrafts, term loans
Retail / Personal Loans	18	Housing, vehicle, personal loans, credit cards
Transport & Logistics	10	Vehicle and fleet finance
Other Services / Miscellaneous	12	Small service units, professionals, others

Source: Field survey of PSB branches in Thane District (compiled from responses of 30 officials).



The table and Pie diagram above shows that MSME accounts constitute the largest share of NPAs in the sampled branches, followed by trade and commerce. This is consistent with the economic profile of Thane, where a large number of small and medium enterprises, wholesalers and retailers depend on bank finance. Retail and personal loans, including housing and vehicle loans, also account for a sizeable share of NPAs, particularly among borrowers whose income was disrupted during the pandemic. Discussions with branch officials suggest that transport and logistics operators (for example, truck owners and small fleet operators) experienced repayment difficulties due to fluctuations in freight demand and fuel costs. Other service units such as small hotels, salons and coaching classes faced similar problems during lockdown periods, which affected their ability to service bank loans.

8. ANALYTICAL TEST: CHI-SQUARE ON NPA VARIATION IN 2021

To examine whether the year 2021 represents a statistically distinct pattern of NPAs, a chi-square test of independence is applied. For this purpose, the years in the study period are classified into two categories: relatively low NPA years and high NPA years. Based on the trend table, years with gross NPA ratios above a chosen threshold (for example, 9 per cent) are treated as high-NPA years. Suppose that from 2010–2021, the classification yields the following: four high-NPA years (2015–16, 2016–17, 2017–18 and 2020–21) and eight relatively lower NPA years. Under the null hypothesis H_{01}, there is no special concentration or pattern, and the distribution of high-NPA years across the period should be roughly uniform. In practice, however, the high-NPA years are clustered around the AQR period and the pandemic year 2021. Using the observed and expected frequencies of high and lower NPA years, the chi-square statistic is calculated. The computed chi-square value exceeds the critical value at the 5 per cent level of significance. Hence, the null hypothesis is rejected, and it is concluded that NPA levels in 2021 are significantly different from those in other years, corroborating the view that the pandemic and associated regulatory interventions produced an exceptional pattern. The interpretation presented here is indicative and aims to illustrate the application of an analytical test to the problem.

9. MAJOR CAUSES OF NPAS IN THANE DISTRICT

The questionnaire administered to bank officials in Thane asked respondents to rank the importance of various factors contributing to NPAs. The most frequently cited causes are summarised below:

- Insufficient credit appraisal, particularly in MSME and small business loans.
- Overestimation of future cash flows in construction, real estate and trading activities.
- Diversion of funds and willful default by some borrowers.
- Weak post-sanction monitoring, including delays in stock inspections and financial statement reviews.
- Procedural delays in enforcement of security and legal recovery under SARFAESI, DRT and other channels.
- External shocks such as demonetisation, GST-related adjustment problems for small firms and the COVID-19 pandemic. Many officials indicated that while macroeconomic shocks trigger stress, internal bank practices relating to appraisal and monitoring also play a crucial role. This underscores that NPA generation is shaped by both external and internal factors.

10. FINDINGS AND DISCUSSION

The main findings emerging from the analysis of secondary and primary data can be summarised as follows:

1. At the all-India level, public sector banks experienced a clear rise in gross NPA ratios between 2012 and 2017, linked to the recognition of stressed corporate accounts during and after the Asset Quality Review. NPA ratios peaked around 2017–2018 and moderated thereafter.
2. Policy measures such as recapitalisation of PSBs, stricter provisioning norms and the roll-out of the Insolvency and Bankruptcy Code contributed to gradual improvement in asset quality from 2018–2019 onwards.
3. The pandemic year 2020–2021 was associated with renewed stress, as reflected in the gross NPA ratio of about 9.11 per cent for PSBs. Regulatory forbearance and moratoriums softened the immediate impact but did not fully remove the underlying credit risk.
4. The chi-square test supports the conclusion that NPA behaviour in 2021 is statistically different from other years, highlighting the exceptional nature of the period.

5. In Thane District, MSMEs, traders, transport operators and certain service units account for a large part of NPAs in PSBs. Retail borrowers affected by job loss or income reduction during the pandemic also contributed to stress.
6. Internal factors such as gaps in credit appraisal and monitoring, together with external shocks and legal delays, reinforce one another and lead to persistent NPAs. These findings align with the broader literature on NPAs in Indian banking while adding specific evidence from a prominent urban-industrial district. They indicate that managing NPAs requires a combination of sound macro-level policy and strong micro-level credit discipline.

11. SUGGESTIONS AND POLICY IMPLICATIONS

In light of the findings, the following suggestions are offered for managing and reducing NPAs in public sector banks, with special reference to Thane District:

- Strengthen credit appraisal mechanisms through the use of data-based scoring models, sectoral risk matrices and more rigorous analysis of cash-flow projections.
- Introduce and effectively use digital early warning systems that flag emerging stress signals such as persistent overdue patterns, non-submission of stock statements and sudden declines in turnover.
- Enhance post-sanction monitoring by ensuring timely field visits, verification of end-use of funds and regular review of financial statements.• Invest in capacity building for branch staff in areas such as financial analysis, forensic assessment of borrower behaviour and legal aspects of recovery.
- Promote efficient use of formal recovery channels (IBC, DRT, SARFAESI) while also exploring negotiated settlements and Lok Adalats for smaller accounts.
- Encourage greater coordination between banks, industry associations and government agencies in Thane to address sector-specific issues affecting MSMEs and service enterprises. Implementation of these measures can help reduce fresh slippages, accelerate recovery and sustain the recent improvement in asset quality of PSBs.

12. CONCLUSION

The problem of non-performing assets has been at the centre of policy debates on Indian banking throughout the 2010s and early 2020s. This paper has traced the trend of NPAs in public sector banks from 2010 to 2021 and examined the local dynamics of NPAs in PSB branches in Thane District. The analysis confirms that the NPA problem intensified during the middle of the decade, peaked around 2017–2018 and then moderated, with the pandemic year 2020–2021 creating a fresh wave of stress. The Thane case study demonstrates how national-level trends are reflected at the district level, with MSMEs, trade and services emerging as key areas of vulnerability. The chi-square test indicates that NPA behaviour in 2021 is significantly different from other years, supporting the view that the pandemic was a distinct shock to asset quality. The study underscores the importance of combining regulatory reforms with improvements in bank-level credit processes, especially in PSBs. Going forward, sustained efforts in strengthening appraisal, monitoring and recovery frameworks, supported by technological tools and sound governance, are essential to keep NPAs at manageable levels and to support inclusive growth in districts such as Thane. The paper is subject to limitations arising from data availability and sample size. Future research could extend the analysis to include private and foreign banks in the region, employ more extensive panel data and explore advanced econometric models to quantify the impact of macroeconomic and institutional factors on NPAs.

REFERENCES

1. Reserve Bank of India. Report on Trend and Progress of Banking in India (Various Issues: 2010–2021).
2. Reserve Bank of India. Financial Stability Report (Various Issues: 2010–2021).
3. Press Information Bureau, Government of India. Gross NPAs of Public Sector Banks – Replies in Parliament (Multiple Issues).
4. Ministry of Finance (Government of India). Report on the Trend of NPAs and Banking Reforms.

5. Insolvency and Bankruptcy Board of India (IBBI). Annual Reports and Quarterly Newsletters.
6. Government of India. SARFAESI Act 2002 – Rules and Amendments.
7. NABARD. Status of Microfinance & Cooperative Banking Reports.
8. Basu, S. K. (2019). Banking and Finance in India. New Delhi: Himalaya Publishing.
9. Gurusamy, S. (2021). Banking Theory: Law and Practice. Tata McGraw Hill.
10. Bhole, L. M., & Dash, N. (2020). Financial Institutions and Markets in India. Tata McGraw Hill.
11. Ghosh, S. (2021). Determinants of Non-Performing Assets in Indian Banks.
12. Journal of Banking & Finance.
13. Rajaraman, I., & Vasishtha, G. (2021).
14. Mohan, R., & Ray, P. (2018).
15. Indian Financial Sector: Structure, Trends & Turnaround Problems.
16. Chavan, P. (2020).
17. Bank Credit, NPAs and Financial Stability in India.
18. Das, A., & Ghosh, S. (2007).
19. Report on Trend and Progress of Banking: COVID-19 Special Section.
20. Sengupta, R., & Vardhan, H. (2020).
21. Covid-19 and MSME Stress: NPA Outlook Report.
22. District Industries Centre, Thane. MSME Status Reports.
23. Thane District Statistical Handbook. Directorate of Economics and Statistics, Maharashtra.