



# A COMPARATIVE STUDY OF NPAS- A CASE STUDY OF SELECTED LISTED PRIVATE AND PUBLIC BANKS IN INDIA

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## INTRODUCTION

A robust and efficient banking framework is fundamental to a nation's economic well-being. The banking industry acts as the backbone of commercial activity, reflecting the overall health of the economy through its financial operations. When the economy struggles with limited capital for developmental needs, banks help bridge this gap by gathering and directing funds where they are most needed. The progress of the financial sector is closely interwoven with the nation's economic advancements. Banks cultivate a culture of saving among citizens by providing secure and appealing deposit options. They also enhance the efficient use of financial resources by offering credit to key areas of the economy. Unlike other forms of business, the core of banking lies in managing funds entrusted by the public, making it a trust-driven sector that operates primarily with other people's money.

### Statement of the problem

Non-Performing Assets (NPAs) have emerged as a critical challenge for the Indian banking sector, significantly impacting the profitability, liquidity, and overall financial stability of banks. Despite several regulatory reforms and initiatives by the Reserve Bank of India (RBI), the issue of rising NPAs continues to persist—especially among public sector banks, while private sector banks seem to have relatively better asset quality.

### Need for the study

The growing volume of Non-Performing Assets (NPAs) in the Indian banking sector has become a major concern for regulators, investors, and the economy as a whole. NPAs not only erode the profitability and financial strength of banks but also hamper credit flow to productive sectors, thereby affecting economic growth. While both public and private sector banks face the issue of NPAs, there is a noticeable difference in their levels, trends, and recovery efficiency.

## Hypothesis Statements

### 1. Null Hypothesis (H<sub>0</sub>)

There is no significant difference in the level of Non-Performing Assets (NPAs) between selected public sector banks and private sector banks in India.

### 2. Alternative Hypothesis (H<sub>1</sub>)

There is a significant difference in the level of Non-Performing Assets (NPAs) between selected public sector banks and private sector banks in India.

## REVIEW OF LITERATURE

**01)** HARISH KUMAR and ANCHAL BANSAL [2022] The study titled "*A Comparative Study of Non-Performing Assets (NPAs) of Selected Public and Private Sector Banks in India*" analyzes the performance of Indian banks with a focus on NPAs, a critical indicator of banking health. It compares NPAs across eight banks from 2015–2019, revealing that public sector banks have significantly higher average NPAs (11.77%) than private sector banks (2.23%). Sector-wise, non-priority sectors report higher NPAs than priority sectors in both categories. Bank of India has the highest NPAs among public banks, while YES Bank and HDFC Bank record the lowest among private banks in priority and non-priority sectors, respectively. The study concludes that improved credit appraisal and monitoring can reduce NPAs, enhancing financial stability.

**02)** Prof. Manoj Kumar Agarwal and Ms. Preeti [2022] The study titled "*Non-Performing Assets in Indian Banking Sector: An Analytical and Comparative Study of Selected Public and Private Sector Banks*" by Prof. Manoj Kumar Agarwal and Ms. Preeti examines the persistent rise of NPAs in Indian banks and their adverse impact on profitability and financial stability. By analyzing data from 2001–2021 for SBI, PNB, ICICI, and Axis Bank, it reveals that public sector banks, especially PNB, have consistently higher NPA ratios than private banks. While all banks struggled with NPAs, private banks managed better asset quality and profitability. The study underscores the urgent need for improved credit assessment, recovery mechanisms, and strict regulatory measures to curb rising NPAs and safeguard the health of the Indian banking system.

**03) SECTOR-WISE COMPARATIVE ANALYSIS OF NON-PERFORMING ASSETS OF SELECTED PRIVATE SECTOR AND PUBLIC SECTOR BANKS OF INDIA [2020]** 1 Mr. AbidHusain G Kadiwala, 2 Dr. Rasikbhai I Prajapati 1 Research Scholar, 2 Assistant Professor 1 Sankalchand Patel University, Visnagar, Gujarat, India. The study titled "*Sector-Wise Comparative Analysis of Non-Performing Assets of Selected*



*Private Sector and Public Sector Banks of India*" examines NPAs across five major public and private sector banks in India from 2015 to 2019. It reveals that private sector banks consistently recorded average NPAs below 5%, whereas public sector banks generally exceeded this threshold, indicating better asset quality and debt recovery efficiency in the private sector. Industry loans, especially in public sector banks, had the highest NPAs across both priority and non-priority categories, while personal loans had the least. ANOVA tests confirm significant differences in NPAs among banks within both sectors but show no combined impact of bank type and sector-wise advances on total NPAs.

**04) Current Scenario of NPAs on the Profitability of Banks a Comparative Study Public Banks in India**, P. Sindhu, M. Sivakumar[2022]The study titled "*Current Scenario of NPAs on the Profitability of Banks – A Comparative Study of Public Banks in India*" evaluates the impact of non-performing assets (NPAs) on the financial performance of selected public sector banks using the CAMEL model, focusing specifically on asset quality. Analyzing seven top public sector banks based on market capitalization from 2012 to 2021, the study reveals that Bank of Baroda ranked highest in composite asset quality, while IDBI Bank performed the worst. Punjab National Bank showed the best ratios for Net NPAs to Net Advances and to Total Assets, whereas State Bank of India had the most significant percentage change in NPAs. The findings highlight a pressing need for improved regulatory norms and strategic management to reduce NPAs and enhance bank profitability and overall financial stability.

**05) Poonam Sharma, Dr. Neha Mathur[2020]**The study presents a comparative analysis of public and private sector banks in India, focusing on financial performance, non-performing assets (NPAs), and employee morale post-merger, particularly in the case of State Bank of India (SBI). Using methodologies like the CAMEL model, t-test, and chi-square test, it concludes that private sector banks outperform public banks in profitability and asset quality, with significantly lower NPAs and higher capital adequacy ratios. The study also reveals that mergers in public sector banks have negatively impacted employee morale due to increased workloads and organizational changes, and highlights that poor financial literacy and borrower income levels are key contributors to rising NPAs.

**06) Shikha Agarwal and Dr.Sushil Kumar [2019]**The paper titled "**Comparative Analysis of Asset Structure of Selected Public Sector Banks and Private Sector Banks**" by Shikha Agarwal and Dr. Sushil Kumar examines the trends in asset composition among major public and private sector banks in India from 2008–09 to 2017–18. It analyzes various asset components such as cash in hand, balances with RBI, money at call and short notice, balances with banks outside India, investments, advances, fixed assets, and other assets. The study finds that private sector banks generally maintain higher liquidity, while public sector banks have more investment in fixed assets. It concludes that although both sectors show unique patterns in asset allocation, public sector banks like SBI and BoB, and private banks like

HDFC and ICICI, show relatively better asset management. The study emphasizes the need for balanced asset structuring to ensure profitability, liquidity, and risk management

**07) GIRNARA MONA RAMESHBHAI[2020]**Non-performing assets (NPAs) are loans or advances that cease to generate income for banks when interest or principal payments remain overdue for more than 90 days, posing a significant challenge to the Indian banking sector. Both public and private sector banks face NPA issues, but public sector banks generally report higher NPA ratios due to factors such as risk management practices, lending policies, and regulatory environment. High NPAs adversely affect banks' profitability, liquidity, and solvency, prompting regulatory bodies like the Reserve Bank of India to emphasize stricter credit appraisal, provisioning, and recovery mechanisms to strengthen asset quality and overall financial health

**08) Prof Dr.preeti Sharma and Atulbansal[2024]**Non-performing assets (NPAs) are loans or advances where payments of interest or principal have remained overdue for more than 90 days, signaling credit risk and financial stress for banks. The rise in NPAs directly erodes banks' profitability, as these assets cease to generate income and require provisioning, ultimately affecting the broader economy by reducing available credit, increasing interest rates, and undermining depositor and shareholder confidence. While Indian public sector banks have historically shown higher NPA ratios compared to private banks, the gap was not statistically significant between 2010 and 2015, and both sectors face ongoing challenges in asset quality management and recovery

**09) Prof P. Sheela, M. Suguna and Varanasi Karthik[2019]**The study "**Non-Performing Assets of Selected Indian Public and Private Sector Banks: A Comparative Analysis**" examines the trends and management of NPAs in five major public and five private sector banks in India from 2010 to 2018, revealing that while public sector banks generally performed better in terms of overall banking operations, private sector banks were more effective at managing and controlling NPAs. The research highlights a significant rise in NPAs across both sectors, with public sector banks experiencing sharper increases, thereby impacting their profitability and sustainability. Despite various regulatory efforts and reforms, the problem of NPAs persists, underscoring the need for more stringent credit appraisal, continuous monitoring, and innovative recovery strategies. The findings suggest that while public sector banks excel in performance metrics, private sector banks demonstrate superior risk management and asset quality, emphasizing the importance of robust NPA management for the stability and growth of the Indian banking sector.

**10) Agarwal aditya and Ramesh babu[2021]** Agarwal and Ramesh Chandra Babu's comparative study analyzes Non-Performing Assets (NPAs) in six Indian public-sector banks over five years using quantitative, secondary financial data to investigate how NPAs relate to key financial indicators like net



profit, total assets, loans and advances, and return on assets. Their findings confirm that rising NPAs significantly hurt bank profitability and operational efficiency, highlighting the need for improved asset management and recovery strategies; the study

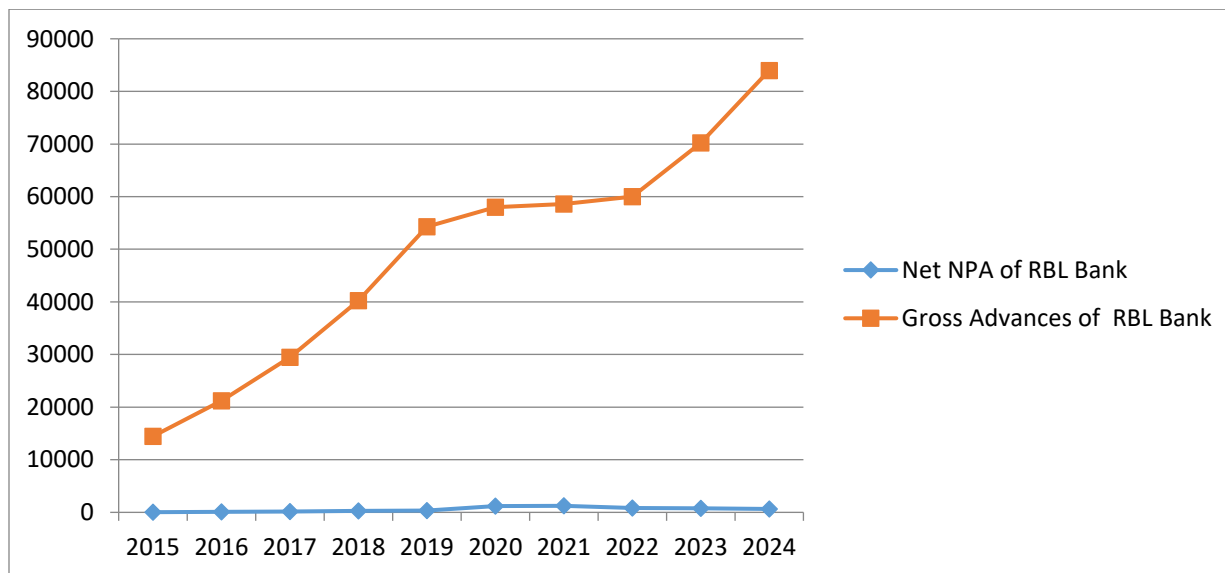
also suggests methods for reducing NPAs and underscores the importance of robust credit monitoring and provisioning in public-sector banks to safeguard financial stability

### ANALYSIS & INTERPRETATION

#### Net NPA and Gross Advances analysis of Banks:

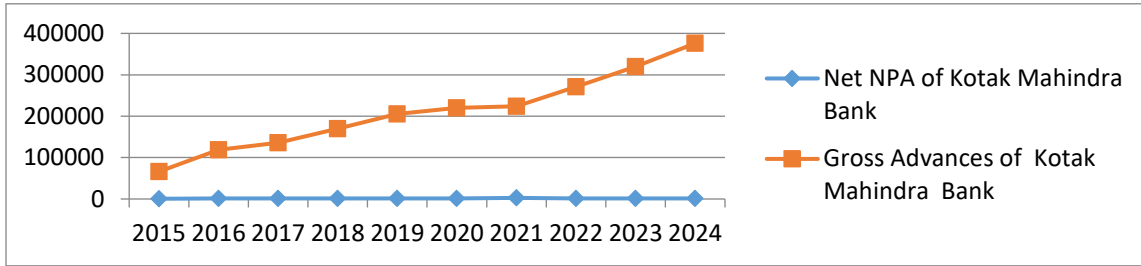
**Net NPA and Gross Advances of RBL Bank (in crores)**

Year	Net NPA of RBL Bank	Gross Advances of RBL Bank
2015	38.59	14,449.83
2016	124.44	21,229.08
2017	189.94	29,449.04
2018	312.56	40,267.84
2019	372.74	54,308.24
2020	1,189.37	58,019.05
2021	1,241.35	58,622.51
2022	806.56	60,021.81
2023	772.54	70,209.35
2024	619.3	83,986.91



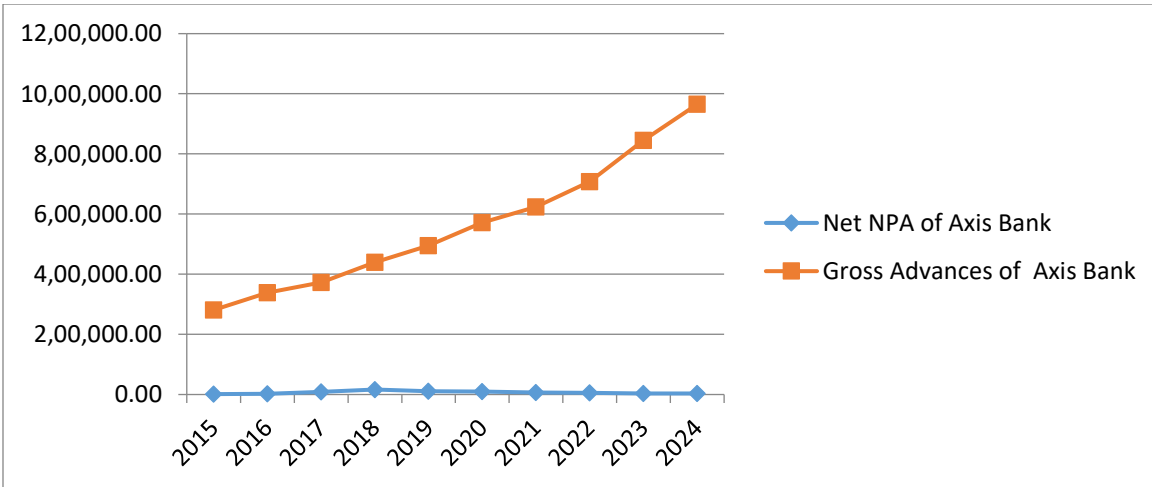
**Net NPA and Gross Advances of Kotak Mahindra Bank (in crores)**

Year	Net NPA of Kotak Mahindra Bank	Gross Advances of Kotak Mahindra Bank
2015	609.08	66,160.71
2016	1,261.96	118,665.30
2017	1,718.07	136,082.13
2018	1,665.05	169,717.92
2019	1,554.37	205,694.81
2020	1,557.89	219,748.19
2021	2,705.17	223,688.62
2022	1,736.71	271,253.60
2023	1,193.30	319,861.21
2024	1,207.57	376,075.27



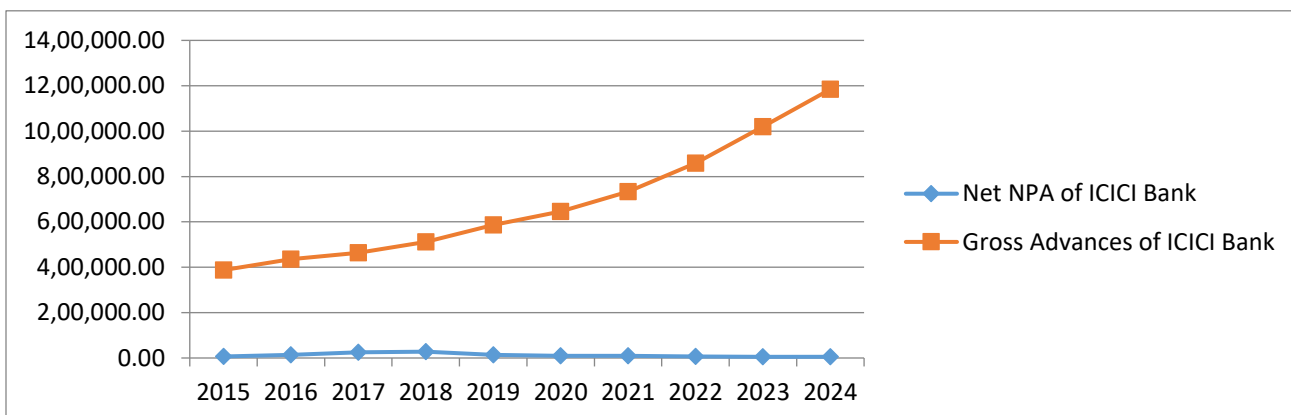
**Net NPA and Gross Advances of AXIS Bank: (in crores)**

Year	Net NPA of Axis Bank	Gross Advances of Axis Bank
2015	1,316.70	281,083.03
2016	2,522.14	338,773.72
2017	8,626.55	373,069.35
2018	16,591.71	439,650.30
2019	11,275.60	494,797.97
2020	9,360.41	571,424.16
2021	6,993.52	623,720.19
2022	5,512.16	707,695.95
2023	3,558.92	845,302.84
2024	3,247.47	965,068.38



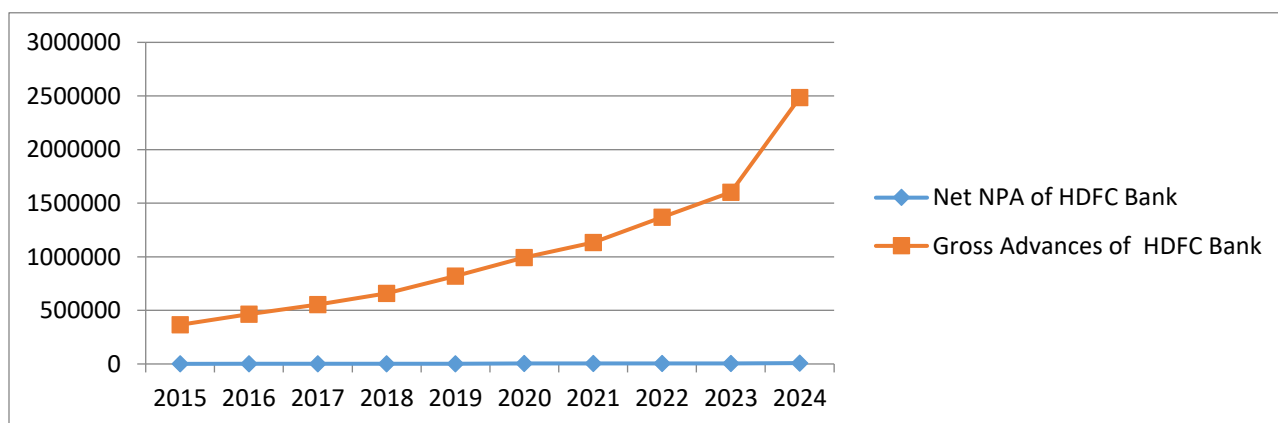
**Net NPA and Gross Advances of ICICI Bank: (in crores)**

Year	Net NPA of ICICI Bank	Gross Advances of ICICI Bank
2015	6,255.53	387,522.07
2016	13,296.75	435,263.94
2017	25,451.03	464,232.08
2018	27,886.27	512,395.29
2019	13,577.43	586,646.58
2020	10,113.86	645,289.97
2021	9,180.20	733,729.09
2022	6,960.89	859,020.44
2023	5,155.07	1,019,638.31
2024	5,377.79	1,184,406.39



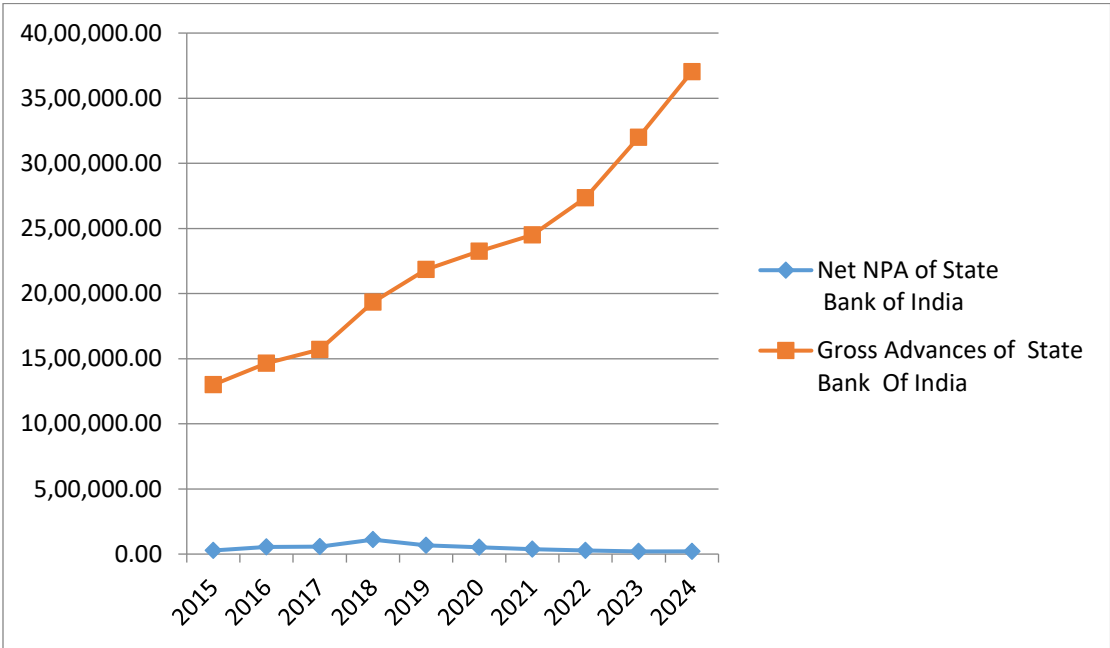
**Net NPA and Gross Advances of HDFC Bank: (in crores)**

Year	Net NPA of HDFC Bank	Gross Advances of HDFC Bank
2015	896.28	365,495.03
2016	1,320.37	464,593.96
2017	1,843.99	554,568.20
2018	2,601.02	658,333.09
2019	3,214.52	819,401.22
2020	3,542.36	993,702.88
2021	4,554.82	1,132,836.63
2022	4,407.68	1,368,820.95
2023	4,368.43	1,600,861.52
2024	8,091.74	2,484,861.52



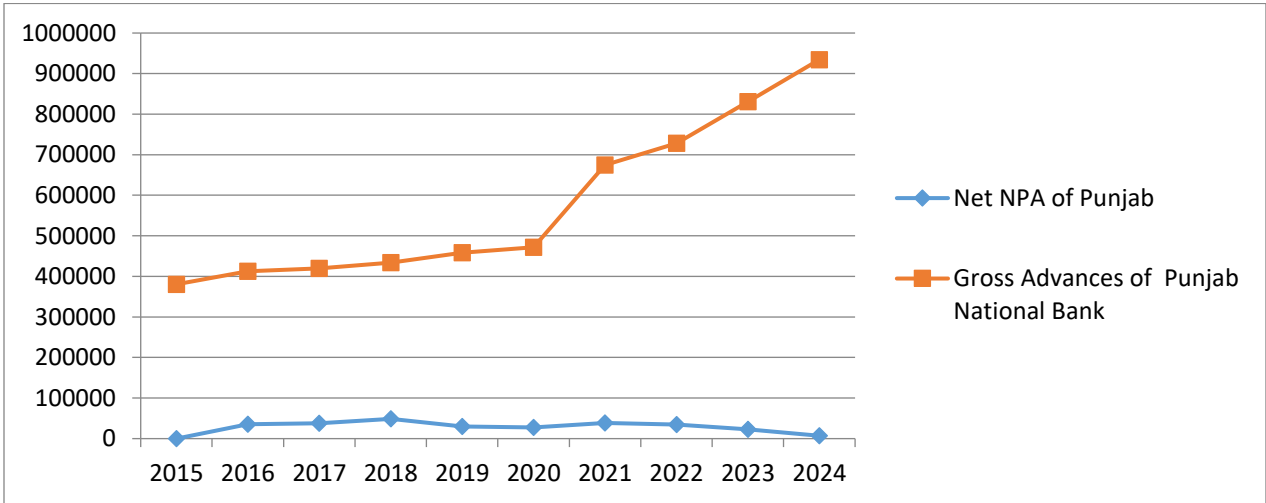
**Net NPA and Gross Advances of State Bank of India: (in crores)**

Year	Net NPA of State Bank of India	Gross Advances of State Bank Of India
2015	27,590.58	1300026.39
2016	55,807.02	1463700.42
2017	58,277.38	1571078.38
2018	110,854.70	1934880.19
2019	65,894.74	2185876.92
2020	51,871.30	2325289.56
2021	36,809.72	2449497.79
2022	27,965.71	2733966.59
2023	21,466.64	3199269.3
2024	21,051.08	3703970.85



**Net NPA and Gross Advances of Punjab national Bank: (in crores)**

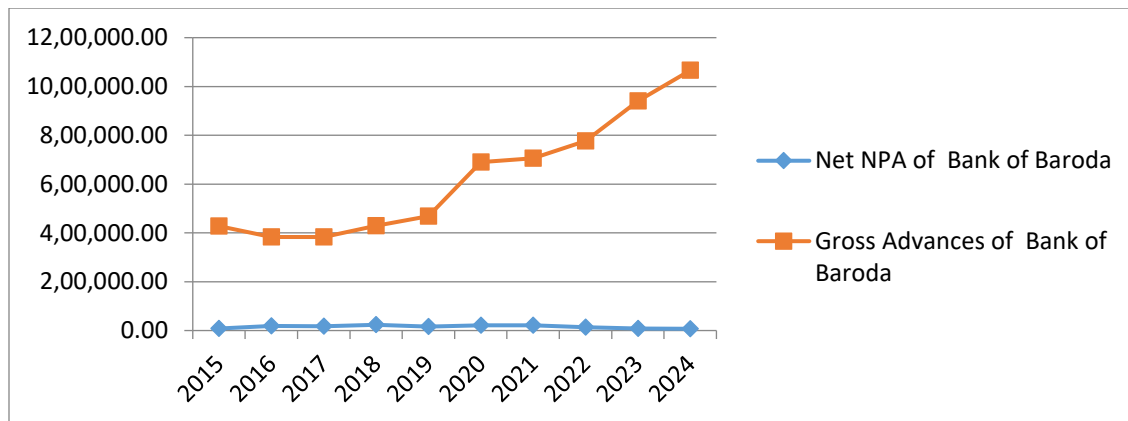
Year	Net NPA of Punjab national Bank	Gross Advances of Punjab National Bank
2015	15,396.50	380,534.40
2016	35,422.57	412,325.80
2017	37,702.11	419,493.15
2018	48,684.29	433,734.72
2019	30,037.66	458,249.20
2020	27,218.89	471,827.72
2021	38,575.70	674,230.08
2022	34,908.73	728,185.68
2023	22,585.04	830,833.98
2024	6,798.77	934,430.59





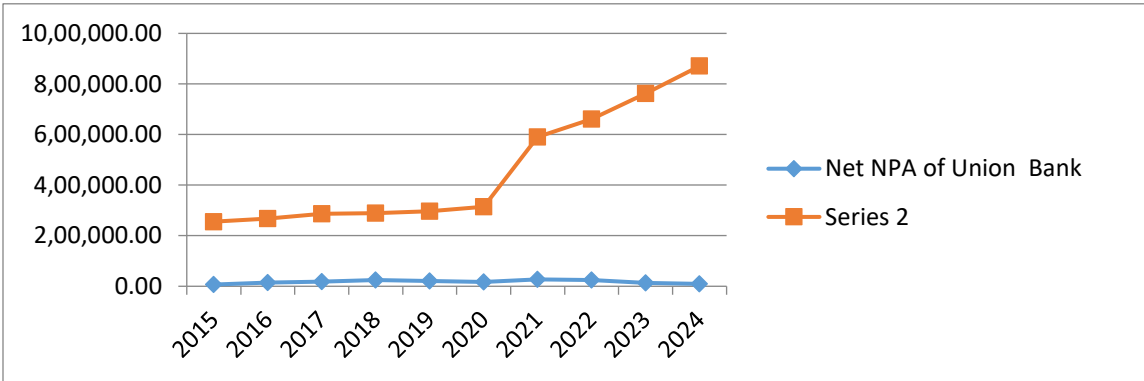
**Net NPA and Gross Advances of Bank of Baroda: (in crores)**

Year	Net NPA of Bank of Baroda	Gross Advances of Bank of Baroda
2015	8,069.49	428,065.14
2016	19,406.46	383,770.18
2017	18,080.18	383,259.22
2018	23,482.65	429,431.83
2019	15,609.50	468,818.74
2020	21,576.59	690,120.73
2021	21,799.88	706,300.51
2022	13,364.65	777,155.18
2023	8,384.32	940,998.27
2024	7,213.34	1,065,781.72



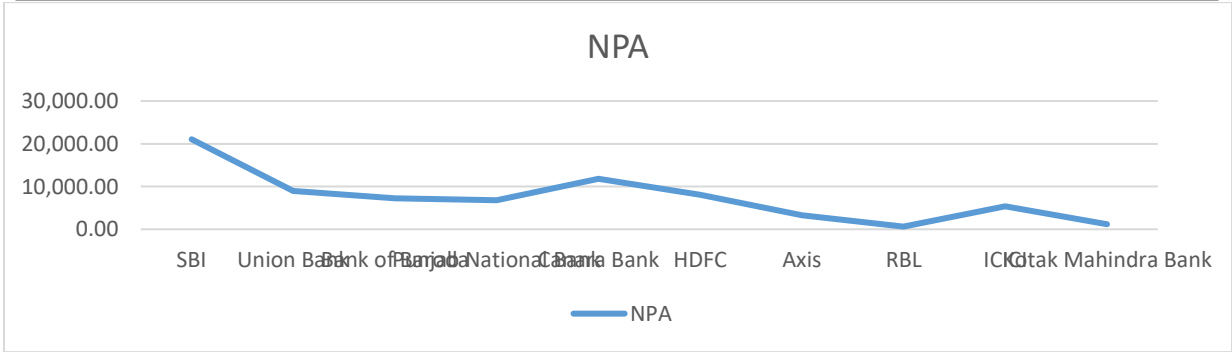
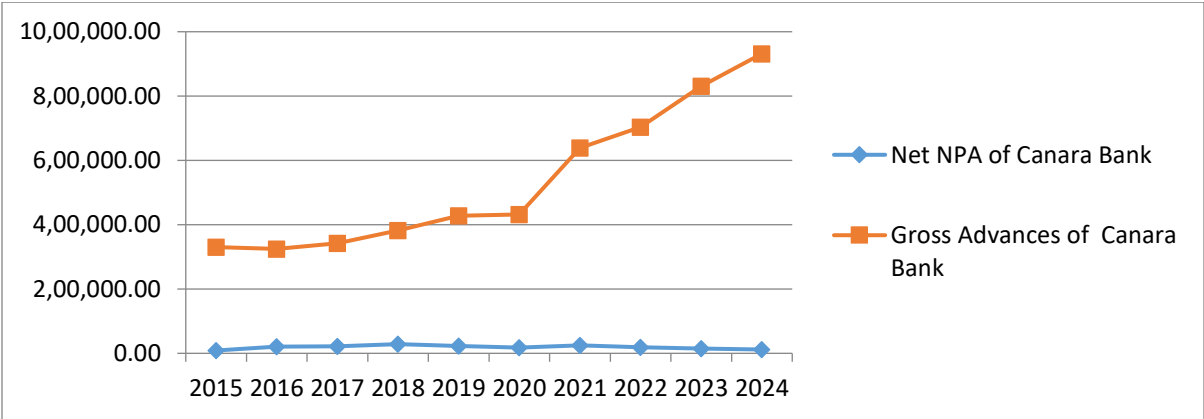
**Net NPA and Gross Advances of Union Bank: (in crores)**

Year	Net NPA of Union Bank	Gross Advances of Union Bank
2015	6,918.97	255,654.57
2016	14,025.94	267,354.00
2017	18,832.10	286,466.58
2018	24,326.31	288,760.58
2019	20,332.42	296,932.15
2020	17,303.14	315,049.41
2021	27,280.52	590,982.88
2022	24,303.30	661,004.66
2023	12,927.44	761,845.46
2024	8,989.92	870,776.09



**Net NPA and Gross Advances of Canara Bank: (in crores)**

Year	Net NPA of Canara Bank	Gross Advances of Canara Bank
2015	8,740.09	330,035.51
2016	20,832.91	324,714.82
2017	21,648.98	342,008.76
2018	28,542.40	381,702.99
2019	22,955.11	427,727.27
2020	18,250.95	432,175.20
2021	24,442.07	639,048.99
2022	18,668.02	703,601.82
2023	14,349.33	830,672.55
2024	11,822.83	931,612.83





**Ratio Analysis**

**1) Provision Coverage ratio**

Provision Coverage Ratio (PCR) is a key financial metric used in banking and finance to measure the extent to which a bank has provided for (set aside funds for) its non-performing assets (NPAs) or bad loans.

**Formula**

Provision Coverage Ratio (PCR) = (Total Provisions/Gross NPAS) ×100

**2) Return on Equity**

Return on Equity (ROE) is a key financial ratio that measures a company's or bank's ability to generate net profit from its

shareholders' equity. It shows how efficiently the management is using the shareholders' funds to create profits.

**Formula**

ROE=(EquityNet Profit (or Net Income)/ Average Shareholders' )×100

**3) Return on Asset**

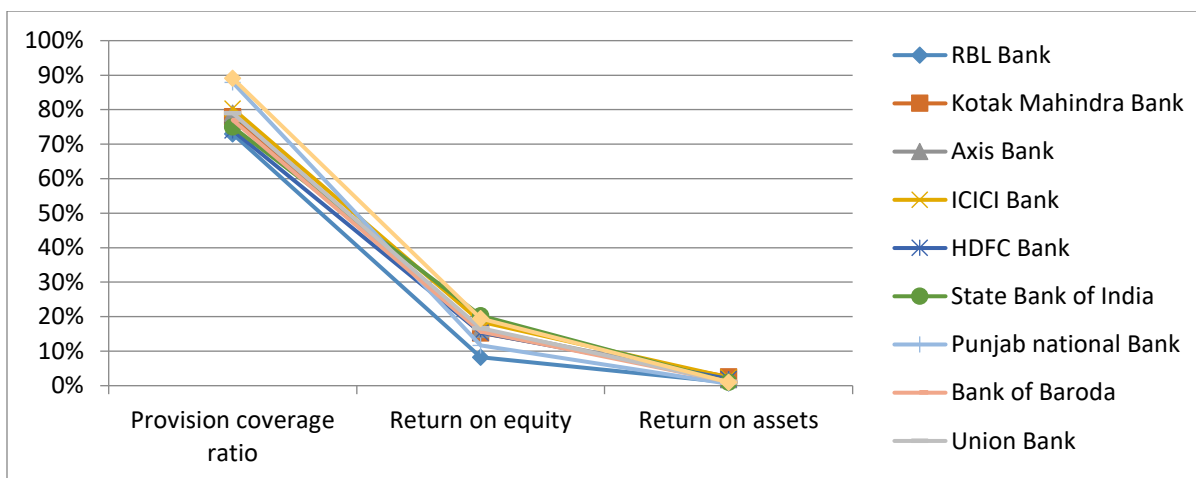
Return on Assets (ROA) is a profitability ratio that indicates how efficiently a bank or company uses its total assets to generate net profit. It shows how much profit is earned for every rupee of assets.

**Formula**

ROA=( Profit (or Net Income)/ Average Total Assets Net )×100

**Ratio Analysis of Public and Private Sectors Banks**

SI.NO	NAME OF THE BANKS	RATIO'S of FY-24		
		Provision coverage ratio	Return on equity	Return on assets
1	RBL Bank	73%	8.25%	0.96%
2	Kotak Mahindra Bank	78.00%	15.34%	2.61%
3	Axis Bank	79%	16.32%	1.78%
4	ICICI Bank	80.30%	18.50%	2.40%
5	HDFC Bank	74%	15.40%	1.96%
6	State Bank of India	75.02%	20.32%	1.04%
7	Punjab national Bank	87.90%	11.70%	0.54%
8	Bank of Baroda	77%	15.70%	1.17%
9	Union Bank	79%	16.70%	1.03%
10	Canara Bank	89.10%	19.50%	1.01%



**FINDINGS**

This chapter presents the key findings derived from the comparative analysis of Non-Performing Assets (NPAs) of selected listed public and private sector banks in India, covering the financial years 2015 to 2024. The analysis was based on Net NPA trends and key financial ratios like Provision Coverage

Ratio (PCR), Return on Equity (ROE), and Return on Assets (ROA).



## Key Findings

### 1. NPA Levels

Public sector banks such as State Bank of India, Punjab National Bank, and Canara Bank experienced significantly higher Net NPAs compared to private sector banks like ICICI Bank and Kotak Mahindra Bank during the peak stress years (2016–2018).

### 2. Post-2018 Improvement

Both public and private sector banks showed considerable improvement in asset quality after 2019, indicating the effectiveness of regulatory reforms such as the IBC and stricter NPA recognition norms.

### 3. Pandemic Impact

Most banks, especially RBL Bank and HDFC Bank, experienced stress in their loan books during 2020–2021, reflecting the impact of COVID-19. However, recovery trends post-2021 are evident.

### 4. Turnaround Cases

Banks like Axis Bank and ICICI Bank successfully reduced their Net NPA levels significantly after 2018, reflecting improved risk management practices and focused recovery efforts.

### 5. Provision Coverage Ratio (PCR)

Canara Bank and Punjab National Bank reported the highest PCRs among the sample (89.10% and 87.90% respectively in FY2024), indicating robust provisioning against NPAs. Among private banks, ICICI Bank led with a PCR of 80.30%.

### 6. Profitability Ratios (ROE & ROA)

ICICI Bank recorded the highest ROE (18.50%) and one of the highest ROAs (2.40%) in FY2024, highlighting strong profitability. In contrast, Punjab National Bank had the lowest ROA (0.54%), despite a high PCR.

### 7. Public vs Private Bank Trends

- Private banks generally exhibited lower and more stable Net NPAs across the study period.
- Public banks demonstrated more volatile NPA levels but showed sharper improvements in recent years.
- Private banks consistently outperformed public banks in profitability metrics (ROE and ROA).

### 8. Technological and Strategic Edge

Private sector banks appear to benefit from better credit appraisal, stricter risk controls, and technology-driven monitoring systems.

## CONCLUSION

The comparative study of Non-Performing Assets (NPAs) across selected listed public and private sector banks in India over the period 2015 to 2024 reveals significant differences in asset quality, risk management practices, and financial performance between the two banking segments.

The analysis confirms that public sector banks faced higher NPA stress, particularly during 2016–2018, owing to their larger exposure to infrastructure and corporate loans, combined with

historical under-recognition of stressed assets. However, with the introduction of regulatory reforms like the Insolvency and Bankruptcy Code (IBC) and stricter NPA recognition norms by the RBI, there have been a notable improvement in asset quality, especially after FY2019.

Private sector banks, on the other hand, demonstrated better control over asset quality, with consistently lower Net NPA levels, driven by robust internal controls, technology-driven credit appraisal systems, and more agile decision-making frameworks. The pandemic years (2020–2021) caused temporary disruptions, but recovery post-COVID has been stronger in banks with diversified loan portfolios and proactive provisioning strategies.

In terms of provisioning, both sectors have shown marked improvement, with public banks like Canara Bank and PNB reporting high PCRs, indicating readiness to absorb future credit losses. However, private sector banks, especially ICICI Bank, outperformed in profitability metrics such as Return on Equity (ROE) and Return on Assets (ROA), suggesting better capital efficiency and income generation from their asset base.

The study further indicates that the technological edge and strategic innovations adopted by private banks have helped them maintain lower NPAs and higher profitability, while public banks are gradually catching up through government support, policy reforms, and digital initiatives.

In conclusion, while public sector banks have made commendable progress in reducing their NPAs and strengthening their balance sheets in recent years, private sector banks remain ahead in terms of consistent asset quality and profitability. Going forward, a continued focus on credit discipline, early warning systems, digital credit monitoring, and prompt resolution mechanisms will be critical for sustaining asset quality across the banking industry.

## SUGGESTIONS / RECOMMENDATIONS

Based on the comparative analysis of Non-Performing Assets (NPAs) in selected public and private sector banks for the period 2015–2024, the following recommendations are suggested to enhance asset quality, improve risk management, and strengthen the overall health of the Indian banking system:

- Strengthen Credit Appraisal Mechanisms:** Banks, especially in the public sector, should adopt **data-driven credit appraisal tools**, industry benchmarking, and advanced risk rating models to ensure better loan underwriting and minimize future slippages.
- Enhance Early Warning Systems (EWS):** Development and implementation of **robust EWS** can help detect early signs of borrower stress. Banks should utilize AI/ML models and real-time monitoring tools to flag potential NPAs before they materialize.
- Focus on Sectoral Risk Diversification:** Excessive exposure to high-risk sectors (e.g., infrastructure, MSMEs) should be avoided. Diversifying the loan portfolio



across low-risk segments and geographies will reduce concentration risk.

4. **Encourage Use of Technology for Monitoring:**  
Banks must **invest in real-time NPA tracking systems**, integrated core banking analytics, and borrower behavior monitoring tools to improve responsiveness to risk events.
5. **Improve Recovery Mechanisms:**  
Banks should adopt faster and more efficient resolution channels through IBC, Lok Adalats, and Debt Recovery Tribunals. In addition, creating **dedicated asset reconstruction or stressed asset management teams** can accelerate recovery.
6. **Increase Provision Coverage Ratios (PCR):**  
While some banks have reached high PCR levels, others **must increase provisioning buffers** to mitigate the impact of future delinquencies, especially in volatile economic periods.
7. **Promote Collaboration Between Public and Private Banks:**  
Public sector banks can learn from the best practices in risk management, customer onboarding, and credit appraisal used by private banks. Cross-sector workshops and knowledge-sharing forums can promote this exchange.

## BIBLIOGRAPHY

1. <https://www.moneycontrol.com/>
2. <https://scholar.google.com/>
3. <https://www.google.co.in/>
4. <https://www.equitymaster.com/>
5. <https://www.onlinesbi.sbi/>
6. <https://www.pnbindia.in/>
7. <https://www.bankofbaroda.in/>
8. <https://www.unionbankofindia.co.in/>
9. <https://canarabank.com/>
10. <https://www.rblbank.com/>
11. <https://www.kotak.com/en/home.html>
12. <https://www.axisbank.com/>
13. <https://www.hdfcbank.com/>
14. <https://www.icicibank.com/>