# Trends and Patterns of NPAs in Public and Private Sector Commercial Banks in India: A Decadal Analysis (2013–2023)

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## 6 Abstract

7 This study presents a comparative analysis of non-performing assets (NPAs) in Indian public and private sector banks from 2013 to 2023, examining trends, policy impacts, and 8 9 sectoral resilience. Using RBI data, the study evaluates how asset quality evolved through economic shocks, regulatory reforms, and the COVID-19 pandemic. Findings reveal that 10 private banks consistently maintained lower NPA ratios (peaking at 5.5% gross NPA vs. 11 public banks' 14.6%), attributed to superior risk management, diversified portfolios, and agile 12 13 governance. Public sector banks, despite significant post-2018 recovery due to the Insolvency and Bankruptcy Code (IBC) and recapitalisation, still lag in asset quality (5.0% gross NPA in 14 2022–23 vs. private banks' 2.3%). The study highlights structural inefficiencies in public 15 banks and underscores the role of governance, technology, and policy interventions in 16 shaping NPA outcomes. Key lessons include the need for institutional reforms in public banks 17 and adaptive risk frameworks to sustain financial stability. 18

<u>Keywords:Non-performing assets (NPAs)</u>, Public sector banks, Private sector banks,
 <u>Asset quality, Banking reforms</u>

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## 22 Introduction

The Indian banking sector has witnessed significant turbulence and transformation over 23 the past decade, with non-performing assets (NPAs) emerging as a critical indicator of 24 financial health and systemic stability. This study undertakes a comprehensive comparative 25 26 analysis of NPA trends in public and private sector banks from 2013 to 2023, a period marked by economic reforms, regulatory interventions, and unprecedented macroeconomic 27 shocks. The NPA crisis that peaked around 2017-18 exposed fundamental vulnerabilities in 28 India's banking architecture, while the subsequent recovery demonstrated the sector's 29 resilience and responsiveness to policy measures. Against this backdrop, the stark 30 performance differential between public and private sector banks presents a compelling case 31 for examining the institutional, operational, and strategic factors that drive asset quality 32 outcomes. The research encompasses the full lifecycle of India's NPA crisis - from the early 33 stress signals in 2013-14, through the worst years of 2016-18, to the post-reform recovery 34 phase, and finally the COVID-19 stress test. 35

This study holds relevance for policymakers, banking professionals, and financial analysts seeking to understand the long-term dynamics of asset quality in Indian banking. The findings offer actionable insights for strengthening public sector banks while identifying best practices from private banks that could inform broader banking sector reforms. As India positions itself as a global economic force, the lessons from this NPA analysis assume even greater significance for the future stability and growth of the country's financial system. This 42 study aims to analyse the trends, patterns, and contributing factors of NPAs in Public and 43 Private Sector Banks from 2013 to 2023, using data exclusively from authentic and official 44 sources such as the Reserve Bank of India (RBI), the Ministry of Finance, and scheduled 45 banks' annual reports.

## 46 Literature Review

47 Non-Performing Assets (NPAs) have long been a major concern in India's banking sector, especially for public sector banks. Numerous studies have examined the trends, causes, and 48 consequences of NPAs over the past decade. Sahoo and Majhi (2018) identified a persistent 49 rise in Gross NPAs, particularly in public sector banks, and highlighted a shift in asset quality 50 composition toward sub-standard and doubtful categories. Their regression analysis 51 52 confirmed a negative impact of Net NPAs on key profitability indicators like Return on Assets (ROA) and Return on Equity (ROE). Similarly, Wadhwa and Ramaswamy (2020) 53 found a statistically significant inverse relationship between NPAs and profitability from 54 2014 to 2019, emphasizing the vulnerability of public sector banks compared to private ones. 55

Further reinforcing this trend, Singh and Mishra (2023) pointed to structural and policy-56 driven reasons such as wilful defaults and political lending pressures as causes of higher NPA 57 levels in public sector banks. They advocated for stronger preventive mechanisms like CIBIL 58 reports and Prompt Corrective Action (PCA) measures. In contrast, Saraswat and Saifi (2024) 59 offered a recent comparative view (2020–2024), confirming that while both bank categories 60 experienced NPA pressure, public sector banks consistently recorded higher Gross and Net 61 NPA ratios. Their study stressed the urgency for regulatory reforms and stronger credit 62 appraisal mechanisms in public institutions. 63

On the operational side, Venkatesh and Kumari (2016) emphasized the challenges faced by banks in the MSME sector. The authors noted that public banks suffered disproportionately from poor risk assessment practices, further aggravating their NPA burdens. Chakraborty (2017) corroborated this, showing that rising NPAs across major public and private banks significantly dampened profitability, urging for tighter credit monitoring and recovery enforcement.

From a policy and legal strategy standpoint, Puntambekar and Meher (2016) evaluated curative approaches such as the SARFAESI Act, Lok Adalats, and Debt Recovery Tribunals, concluding that SARFAESI proved most effective in public sector banks. Ahmed (2017) presented a comparative study between 2008 and 2015, asserting that public banks had higher NPA growth rates and struggled more with asset recovery than private banks. Goyal and Kaur (2011), in an earlier study, showed relatively better asset quality in private and foreign banks, attributing it to RBI's vigilant norms and better internal controls.

77 Technological and regulatory innovations have been instrumental in reversing the rising 78 NPA trend post-2016. Banik et al. (2023) noted a substantial decline in NPA ratios, particularly in public banks, even during the COVID-19 period. This decline was attributed to 79 improved recovery frameworks like SARFAESI and institutional reforms such as the 80 Insolvency and Bankruptcy Code (IBC). Mor et al. (2022) highlighted that Artificial 81 Intelligence (AI) and Machine Learning (ML) tools are now being employed by commercial 82 banks for default prediction, thereby improving early detection and risk profiling. Fintech 83 innovations, as observed by Bi and Bao (2024), enhanced fraud detection, customer 84 evaluation, and credit scoring in both public and private sector banks. 85

The RBI (2023, 2024) confirmed these improvements, reporting the Gross NPA ratio to be at a 13-year low of around 2.5%. Nonetheless, Reuters (2025) reported a paradoxical trend: while the NPA ratio declined, the absolute value of NPAs increased, indicating the need for more nuanced asset quality assessment. The persistent challenges of governance, cyber vulnerabilities in AI systems, and the need for institutional checks were also raised by Tandon et al. (2017).

In summary, the literature from 2013 to 2023 illustrates clear divergences between public
and private sector banks in terms of NPA levels, governance effectiveness, and recovery
efficiencies. While public sector banks have historically lagged behind, policy interventions,
AI-driven risk systems, and regulatory reforms have helped stabilize asset quality, though
challenges remain.

## 97 **Objectives**

- To analyse the decadal trend of gross and net NPAs in Public and Private Sector Banks (2013–2023) and identify peak periods of NPA growth/decline.
- To compare the NPA ratios between Public and Private Sector Banks and assess
   sectoral efficiency in managing asset quality.
- 3. To evaluate the impact of macroeconomic events (e.g., COVID-19, banking reforms)
  on NPA levels in both sectors by examining pre- and post-event data (e.g., 2019–
  2021).
- 4. To assess the recovery progress by quantifying the reduction in NPAs (if any) over the decade and linking it to policy measures like the Insolvency and Bankruptcy Code (IBC).

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## 108 Methodology

The study adopts a quantitative research design to examine the decadal trends and patterns of non-performing assets (NPAs) in India's public and private sector banks. The analysis spans the period from 2013 to 2023, utilising a structured approach that incorporates data collection, variable selection, analytical techniques, and interpretation frameworks. The methodology is designed to provide a comprehensive yet accessible evaluation of NPA dynamics using reliable banking sector data.

## 115 Data Collection and Sources

The research is based entirely on secondary data extracted from the Reserve Bank of 116 India's (RBI) official Database on Indian Economy. The dataset includes critical banking 117 indicators such as gross and net NPAs (in absolute values and as percentages of 118 advances/assets), total advances, and total assets for both public and private sector banks. The 119 year-wise breakdown covers the fiscal years from 2013–14 to 2022–23, ensuring a complete 120 decadal perspective. By relying on RBI-published data, the study maintains high reliability 121 and eliminates sampling requirements, as it encompasses all scheduled commercial banks in 122 India. 123

### 124 Variables and Measurement

125 The analysis focuses on three categories of variables to systematically evaluate NPA 126 trends. The dependent variables consist of gross and net NPA ratios, expressed as percentages of gross and net advances, respectively. These serve as primary indicators of asset quality deterioration. The independent variables include bank category (public versus private) and the period (2013–2023), which allow for sectoral and temporal comparisons. Additionally, control variables such as total advances and total assets are incorporated to provide context and enable ratio-based analysis. This structured variable selection ensures a multidimensional examination of NPA patterns.

## 133 Analytical Framework

The study employs a combination of descriptive and inferential statistical tools to process 134 and interpret the data. Trend analysis forms the cornerstone, with line graphs visually 135 tracking the movement of NPA ratios over time, highlighting peaks, troughs, and cyclical 136 137 patterns. The compound annual growth rate (CAGR) is calculated to quantify the annualized change in NPA levels across the decade. Ratio analysis offers deeper insights by examining 138 NPA-to-advances and NPA-to-total assets ratios, providing perspectives on both credit risk 139 and overall bank stability. The methodology also includes event analysis, where NPA trends 140 141 before and after major policy interventions (such as the Insolvency and Bankruptcy Code of 2016) or economic shocks (like the COVID-19 pandemic) are compared using percentage 142 change calculations. 143

## 144 Interpretation and Contextualization

The analytical findings are interpreted within broader economic and policy contexts. Observed trends are linked to significant events such as demonetisation, banking reforms, and economic downturns. Sectoral performance differences are examined through the lenses of governance structures and risk management practices. The study draws policy implications from the data patterns, particularly focusing on the effectiveness of recent banking sector reforms and areas requiring further intervention.

## 151 Scope and Limitations

The data limitations include reliance solely on RBI-reported metrics, excluding qualitative factors like bank management efficiency. A time lag exists as the most recent data (2022–23) may not fully capture post-pandemic recovery trends. Additionally, the analysis cannot isolate the impact of external macroeconomic factors such as global recessions on NPA levels. These limitations are offset by the study's rigorous quantitative approach and exclusive use of authoritative data.

# 158 **Data Analysis and Interpretation**

Year (end- March)	Advances		Non-Performing Assets (NPAs)						
	Gross	Net	Gross			Net			
			Amount	As Percentage of Gross Advances	As Percentage of Total Assets	Amount	As Percentage of Net Advances	As Percentage of Total Assets	
1	2	3	4	5	6	7	8	9	
2022-23	86,10,115	82,83,763	4,28,197	5.0	3.1	1,02,532	1.2	0.7	
2021-22	74,33,006	70,43,940	5,42,174	7.3	4.3	1,54,745	2.2	1.2	

Table 1. NPA data on Public Sector Banks in India(₹ Crores)

2020-21	67,70,363	63,47,417	6,16,616	9.1	5.3	1,96,451	3.1	1.7
2019-20	66,15,112	61,58,112	6,78,317	10.3	6.3	2,30,918	3.7	2.1
2018-19	63,82,461	58,92,667	7,39,541	11.6	7.3	2,85,122	4.8	2.8
2017-18	61,41,698	56,97,350	8,95,601	14.6	8.9	4,54,473	8.0	4.5
2016-17	58,74,849	55,57,232	6,84,732	11.7	7.0	3,83,089	6.9	3.9
2015-16	58,23,907	55,93,577	5,39,956	9.3	5.9	3,20,376	5.7	3.5
2014-15	56,15,793	54,76,250	2,78,468	5.0	3.2	1,59,951	2.9	1.8
2013-14	52,15,920	51,01,137	2,27,264	4.4	2.9	1,30,394	2.6	1.6

Source: RBI- Database on Indian Economy (https://data.rbi.org.in/)

### 159 Evaluation of NPA Trends in Indian Public Sector Banks (2013-2023)

Between 2013 and 2018, Indian Public Sector Banks (PSBs) experienced a severe 160 deterioration in asset quality, marking one of the most challenging phases in India's banking 161 history. Gross NPAs rose alarmingly from 4.4% of gross advances in 2013-14 to a peak of 162 14.6% in 2017–18, translating to an absolute increase from ₹2.27 lakh crore to ₹8.95 lakh 163 crore. This period exposed deep-rooted issues in corporate lending, particularly to sectors like 164 infrastructure, power, steel, and telecom. The situation worsened significantly after the 165 Reserve Bank of India's Asset Quality Review (AQR) in 2015-16, which forced banks to 166 recognise previously hidden bad loans and clean up their balance sheets. The review revealed 167 poor underwriting standards, delayed recognition of defaults, and a culture of evergreening 168 169 loans within the public banking system.

The turnaround began post-2018, driven by a multi-pronged policy approach. The 170 Insolvency and Bankruptcy Code (IBC), implemented in 2016, emerged as a game-changer, 171 offering a credible legal mechanism for time-bound recovery and asset resolution. 172 Additionally, the government undertook a massive recapitalisation programme, infusing over 173 ₹2.6 lakh crore into PSBs between 2017 and 2020, strengthening their capital base to absorb 174 losses. Regulatory measures like the Prompt Corrective Action (PCA) framework restricted 175 weak banks from risky lending and encouraged focus on asset quality. These efforts resulted 176 positively, and by 2022–23, gross NPAs had fallen to 5.0% (₹4.28 lakh crore), and net NPAs 177 178 dropped significantly to 1.2%, indicating improved provisioning, recovery, and credit discipline. 179

While this improvement is notable—especially considering the disruptions caused by the 180 COVID-19 pandemic—challenges still persist. The decline in NPAs is partly supported by 181 regulatory forbearance, including loan moratoriums and restructuring schemes, which may 182 have delayed recognition of new stress. Moreover, restructured COVID-era loans, pressure in 183 agricultural lending, and regional disparities in asset quality could contribute to fresh 184 slippages if not closely monitored. Even at 5%, the current gross NPA level still represents 185 over ₹4 lakh crore of blocked credit that could otherwise support economic growth. Moving 186 forward, PSBs must enhance their risk assessment capabilities using data analytics and AI-187 powered early warning systems, strengthen credit appraisal processes, and continue 188 governance reforms to maintain financial stability and support India's expanding credit needs. 189 The lessons of the past decade must serve as a guidepost for ensuring long-term resilience 190 and responsible lending. 191

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	Advances		Non-Performing Assets (NPAs)						
Year	Gross	Net	Gross			Net			
(end- March)			Amount	As Percentage of Gross Advances	As Percentage of Total Assets	Amount	As Percentage of Net Advances	As Percentage of Total Assets	
1	2	3	4	5	6	7	8	9	
2022-23	54,62,976	53,66,675	1,25,214	2.3	1.5	29,507	0.5	0.3	
2021-22	47,00,912	45,53,541	1,80,769	3.8	2.5	43,738	1.0	0.6	
2020-21	40,97,040	39,29,572	1,97,508	4.8	3.1	55,377	1.4	0.9	
2019-20	37,76,231	36,25,154	2,09,568	5.5	3.6	55,683	1.5	1.0	
2018-19	34,42,347	33,27,328	1,83,604	5.3	3.5	67,309	2.0	1.3	
2017-18	27,25,891	26,62,753	1,29,335	4.7	3.0	64,380	2.4	1.5	
2016-17	22,66,721	22,19,475	93,209	4.1	2.6	47,780	2.2	1.3	
2015-16	19,72,608	19,39,339	56,186	2.8	1.8	26,677	1.4	0.8	
2014-15	16,07,329	15,84,312	34,106	2.1	1.3	14,128	0.9	0.5	
2013-14	13,60,253	13,42,935	24,542	1.8	1.1	8,862	0.7	0.4	

Table 2. NPA data on Private Sector Banks in India(₹ Crores)

Source: RBI- Database on Indian Economy. (https://data.rbi.org.in/)

## 193 Evaluation of NPA Trends in Indian Private Sector Banks (2013-2023)

Over the decade from 2013-14 to 2022-23, Indian Private Sector Banks (PvSBs) have 194 exhibited a significantly more stable and disciplined approach in managing non-performing 195 assets (NPAs) compared to their public sector counterparts. Starting from a gross NPA ratio 196 of just 1.8% in 2013–14, private banks saw a gradual rise in stress levels, reaching a peak of 197 5.5% in 2019–20. In absolute terms, gross NPAs grew from ₹24,542 crore in 2013–14 to 198 ₹2,09,568 crore in 2019–20—an eightfold increase. However, it is important to note that 199 during the same period, their total advances expanded more than threefold—from ₹13.6 lakh 200 201 crore to ₹37.7 lakh crore—suggesting that the growth in NPAs was proportionally lower than credit expansion. The increase in stress during this period was linked to rising exposure in the 202 corporate and NBFC sectors, and the ripple effects of broader economic slowdowns. Unlike 203 204 public banks, however, private sector institutions were quicker to recognize and address emerging asset quality issues through better provisioning and recovery mechanisms. 205

The impact of the COVID-19 pandemic tested the resilience of private banks further. 206 While public sector banks continued to report declining NPAs during the pandemic due to 207 ongoing clean-up and policy support, private banks saw a brief uptick in gross NPAs in 208 209 2019–20, likely due to early recognition of stress in their portfolios. However, their recovery was both swift and effective—gross NPAs dropped to 2.3% and net NPAs to 0.5% by 2022-210 23, with the net NPA to total assets ratio declining to an impressive 0.3%. This performance 211 is remarkable, particularly considering the continued expansion in lending and the 212 uncertainties posed by the pandemic. The ability of private banks to maintain low net NPAs 213 indicates high levels of provisioning and superior credit risk assessment systems. Their 214 success is also tied to a more diversified loan book, with a stronger emphasis on secured 215 216 retail lending, which typically carries lower default risk.

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## Comparative Analysis of NPA Performance: Public vs Private Sector Banks in India (2013-2023)

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#### Table 3. Quick Comparison between Public and Private Sector

Aspect	Public Sector Banks	Private Sector Banks	
Peak NPA Crisis	2016–2018	2018–2020	
Highest Gross NPA (%)	14.6% (2017-18)	5.5% (2019-20)	
Recent NPA Level (2022-23)	Gross: 5.0%, Net: 1.2%	Gross: 2.3%, Net: 0.5%	
Recovery	Steady and visible since 2018	Faster and more consistent	
Credit Management	Historically weaker but improving	Relatively stronger and proactive	

Private sector banks have consistently outperformed their public sector counterparts in 221 asset quality management throughout the study period. The numbers speak unequivocally -222 while public sector banks saw their gross NPAs balloon to an alarming 14.6% at the peak of 223 the crisis (2017-18), private banks' worst performance capped at a relatively modest 5.5% 224 (2019-20). This staggering 9 percentage point difference at their respective peaks represents 225 not just a performance gap, but fundamentally different approaches to risk management. 226

The consistent outperformance of private sector banks can be attributed to several 227 structural advantages. These include better corporate governance practices, professional 228 229 management, operational autonomy, and early adoption of digital tools for credit monitoring, loan origination, and recovery. Their more agile decision-making structures allowed them to 230 adapt quickly to emerging risks and implement remedial actions effectively. That said, private 231 232 banks are not entirely immune to systemic vulnerabilities. The 2016–2020 period saw gross NPAs crossing ₹2 lakh crore, highlighting the risks associated with scale and rapid growth. 233 Going forward, private banks must remain cautious of emerging challenges, such as rising 234 235 interest rates, integration issues following mergers, and stress in fast-growing segments like unsecured retail lending. Nevertheless, their ability to expand credit by over 300% in ten 236 years while keeping NPAs within manageable levels sets a strong benchmark for the Indian 237 banking system and offers valuable lessons in credit discipline, risk governance, and 238 technology-led banking transformation. 239

#### Trend Analysis and Interpretation of NPAs in Indian Banks (2013–2023) 240



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Between 2013 and 2023, the Non-Performing Assets (NPAs) of Indian public and private 243 sector banks exhibited distinct patterns. Public Sector Banks (PSBs) witnessed a dramatic rise 244 in NPAs during the mid-2010s, peaking in 2017-18 when gross NPAs reached 14.6% of gross 245

advances and net NPAs touched 8.0%. This period marked the height of the asset quality
crisis in public banking, largely driven by underreported NPAs being unearthed through the
RBI's Asset Quality Review (AQR) that began in 2015. However, since 2018, PSBs have
shown a consistent and noteworthy decline in NPAs, indicating a gradual recovery in asset
quality. By 2022-23, gross NPAs had reduced to 5.0% and net NPAs to 1.2%, demonstrating
the impact of measures such as the Insolvency and Bankruptcy Code (IBC), recapitalization
schemes, and enhanced recovery efforts.

Private Sector Banks (PvSBs), in contrast, maintained relatively stable asset quality throughout the decade. Gross NPAs in private banks remained below 5.5% at all times, peaking at 5.5% in 2019-20, which coincided with broader economic stress and sectoral slowdowns. However, they recovered quickly, and by 2022-23, gross NPAs were down to 2.3% and net NPAs to just 0.5%. This reflects the sector's robust credit appraisal systems, quicker recognition and resolution of stressed assets, and tighter internal risk controls.

A comparative look at the two sectors highlights key differences in their credit management approaches. Public banks struggled more with legacy issues, weak governance, and political interference, leading to a slower response to emerging stress. Yet, the reforms introduced in the second half of the decade significantly helped them contain and reduce their NPA levels. Private banks, on the other hand, benefited from greater operational autonomy and faster decision-making, allowing them to contain NPAs more efficiently.

While both sectors faced their respective challenges, the overall trajectory indicates a positive trend in asset quality improvement across Indian banking. Public sector banks, though still bearing a higher NPA burden, have made visible strides in reducing bad loans, suggesting that structural reforms and accountability mechanisms are yielding results. Private banks continue to set benchmarks in credit discipline and recovery efficiency. This contrast underscores the importance of prudent credit management, early warning systems, and strong institutional frameworks in ensuring long-term financial health of the banking system.

## 272 CAGR Calculations and Analysis

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### Table 4: CAGR of Gross NPAs (2013–14 to 2022–23)

Bank Type	Starting Value (2013-14)	Ending Value (2022–23)	CAGR (%)
Public Sector	₹2.27 lakh cr	₹4.28 lakh cr	6.5%
Private Sector	₹24,542 cr	₹1,25,214 cr	19.4%

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Table 5: CAGR of Net NPAs (2013–14 to 2022–23)							
Bank Type	Starting Value (2013–14)	Ending Value (2022–23)	CAGR (%)				
Public Sector	₹1,30,394 cr	₹1,02,532 cr	-2.4%				
Private Sector	₹8,862 cr	₹29,507 cr	14.2%				

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Table 6: Sub-Period CAGR (Pre- vs. Post-IBC Implementation)

Metric	Public Sector (2013–18)	Public Sector (2018–23)	Private Sector (2013–18)	Private Sector (2018–23)
Gross NPA CAGR	31.6% (Crisis)	10.2% (Recovery)	30.8%	-7.3%
Net NPA CAGR	23.9%	-19.1%	40.1%	-15.4%

The CAGR analysis reveals how India's public and private sector banks have navigated the NPA challenge over the past decade. At first glance, the numbers present what appears to be a paradox - private banks show alarmingly high CAGRs in NPA growth, while public sector banks demonstrate more moderate increases. But when we peel back the layers, we uncover fundamentally different narratives for each banking segment.

For public sector banks, the 6.5% CAGR in gross NPAs between 2013-2023 tells only 287 part of the story. While this growth rate seems concerning in isolation, it actually represents a 288 remarkable turnaround when viewed in context. The pre-2018 period saw an unsustainable 289 31.6% CAGR as the sector grappled with the twin blows of the RBI's asset quality review 290 and legacy bad loans. What's truly impressive is the -10.2% CAGR in gross NPAs post-2018, 291 292 showcasing how the IBC framework and recapitalisation program helped reverse the tide. The negative CAGR in net NPAs (-2.4% over the decade) further confirms that public banks 293 have become more proactive in provisioning against bad loans. 294

Private banks present a different but equally insightful picture. Their 19.4% gross NPA 295 CAGR might initially raise eyebrows, but this needs to be understood in the context of their 296 explosive business growth. With advances growing nearly 300% over the same period, this 297 298 NPA expansion actually represents strong portfolio management. The stability of their gross 299 NPA ratio (remaining in the 2-5% band throughout the decade) suggests their higher absolute NPA growth comes from scaling operations rather than deteriorating asset quality. Their 300 secret weapon appears to be a combination of tech-driven risk management and a retail-heavy 301 loan book that is inherently less volatile than the corporate-focused portfolios of public 302 303 banks.

The COVID-19 stress test provided fascinating insights into their relative resilience. 304 While private banks initially showed greater vulnerability (with NPAs peaking in 2019-20), 305 their recovery was swifter, ending the period with industry-leading 0.5% net NPAs. Public 306 banks, though slower to react, demonstrated deeper transformation - their post-IBC NPA 307 reduction was more structural than cyclical. Looking ahead, the data suggests private banks' 308 challenge will be maintaining discipline during aggressive growth phases, while public banks 309 must institutionalise their recent risk management gains. For policymakers, the lesson is clear 310 311 - while system-wide reforms like IBC benefit all banks, the private sector's consistent outperformance points to deeper governance advantages that public sector institutions would 312 do well to emulate. 313

What's particularly revealing is how the two sectors navigated the post-2018 recovery phase. Public sector banks, while showing impressive improvement from their crisis levels, still closed 2022-23 with 5% gross NPAs - more than double private banks' 2.3%. The net NPA comparison is even more striking at 1.2% versus 0.5%. These differentials persist despite both sectors operating in the same macroeconomic environment and regulatory framework, suggesting the differences are institutional rather than circumstantial.

### 320 **Result and Discussion**

## 321 Impact of Macroeconomic Events on NPA Levels (2019–2021)

322 1. Pre-COVID Scenario (2018–19 to 2019–20): In the period immediately preceding the COVID-19 pandemic, both public and private sector banks were dealing with the aftermath of the 323 earlier NPA crisis. For Public Sector Banks (PSBs), gross NPAs had already started declining 324 from a peak of 14.6% in 2017–18 to 11.6% in 2018–19, and further to 10.3% in 2019–20, 325 indicating the initial success of recovery mechanisms such as the Insolvency and Bankruptcy 326 Code (IBC) and prompt corrective action (PCA) measures. Similarly, Net NPAs dropped 327 from 8.0% in 2017-18 to 4.8% in 2018-19 and 3.7% in 2019-20.Private Sector Banks 328 (PvSBs) had a more stable profile. Gross NPAs rose moderately from 4.7% in 2017-18 to 329 330 5.5% in 2019–20, reflecting some sectoral stress in real estate, NBFC-linked lending, and MSMEs. However, their net NPAs remained under control at 1.5%, indicating relatively 331 stronger provisioning and risk management. 332

2. COVID-19 Period (2020-21): The COVID-19 pandemic, which began in early 2020, led to a 333 sudden and severe economic disruption, prompting the RBI and Government of India to 334 introduce several forbearance measures, including loan moratoriums, credit guarantees, 335 emergency credit lines, and restructuring schemes (e.g., Resolution Framework 1.0). These 336 measures cushioned the immediate impact on the banking sector's NPA levels. Interestingly, 337 instead of a sharp increase, Gross NPAs for PSBs rose only moderately from 10.3% to 9.1% 338 in 2020-21, and net NPAs from 3.7% to 3.1%. This was not because bad loans disappeared 339 but because stressed assets were either restructured, under moratorium, or yet to be 340 recognized due to regulatory leeway. For Private Banks, Gross NPAs increased from 5.5% to 341 4.8% during the same period, a mild improvement possibly due to stronger capital buffers, 342 quicker provisioning, and aggressive recovery efforts. Net NPAs, however, rose slightly from 343 1.5% to 1.4%, indicating a relatively well-contained risk. 344

345 3. Post-COVID Normalization (2021–22 onwards): As the economy gradually recovered in 2021–22, banks started recognizing hidden stress. For PSBs, Gross NPAs were at 7.3% in 2021–22, showing continued improvement. Net NPAs dropped to 2.2%, thanks to recoveries under IBC, write-offs, and restructuring. For Private Banks, Gross NPAs stood at 3.8%, and net NPAs at 1.0%, highlighting their better ability to bounce back post-pandemic.

## 350 Conclusion

Over the decade from 2013–14 to 2022–23, the Indian banking sector, particularly public 351 sector banks (PSBs), underwent a significant transformation in terms of asset quality. The 352 gross NPAs of PSBs, which had soared to a peak of ₹8.95 lakh crore in 2017–18, equivalent 353 to 14.6% of their gross advances, have since come down sharply to ₹4.28 lakh crore, or 5.0% 354 of gross advances, by 2022-23. This marks an impressive 52.2% reduction in the total 355 volume of bad loans in a span of five years, signalling a robust turnaround in the health of 356 public sector banks. Overall, the data and trends clearly show that policy measures like the 357 IBC, AQR, recapitalization, and PCA, combined with internal prudential practices and digital 358 credit monitoring, have collectively enabled a sharp improvement in the asset quality of 359 Indian banks. The last decade thus marks a transition from a phase of acute stress to one of 360 cautious recovery and resilience, especially for public sector banks that were once at the 361 centre of India's NPA crisis. 362

In short, the Indian banking sector has demonstrated a commendable recovery in terms of NPA reduction and asset quality enhancement. The journey from crisis to recovery underscores the importance of sound regulatory oversight, timely policy intervention, and robust legal mechanisms. Going forward, sustaining this improvement will require continued vigilance, improved governance, better credit risk management, and digital innovations in lending and monitoring. The lessons learned from the NPA crisis serve as a strong foundation for building a more stable, transparent, and resilient banking system in India.

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