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# A COMPREHENSIVE ANALYSIS OF ASSET QUALITY TURNAROUND AND RISK MANAGEMENT STRATEGIES: THE CASE OF STATE BANK OF INDIA

**[1]Shruti Hansdah, [2]Dr. Sandeep Kumar, [3]Dr. Ajay Kumar**

**[1]Student, [2]Assistant Professor, [3]Assistant Professor**

**Department of Commerce**

**St. Xavier's College, Ranchi, Jharkhand, India**

**Abstract**

Between 2019 and 2024, State Bank of India achieved a significant improvement in asset quality and profitability. It cleaned up one of the biggest bad-loan piles in global banking history and came out profitable, growing, and arguably stronger than it had been in a decade. This paper looks at how that happened. We examine the asset quality data across those five years, trace the risk management interventions that drove the recovery, and try to make sense of what the SBI story actually tells us about banking reforms in India. The paper draws on published financial statements, Reserve Bank of India reports, and a body of academic literature on non-performing assets (NPAs), credit risk, and bank turnaround strategies. The findings suggest that the recovery was not accidental. It came from a combination of regulatory pressure, internal governance reforms, improved credit appraisal, and a macroeconomic environment that at least from 2022 onward cooperated. But questions remain about sustainability, especially in a slowing credit cycle.

**Keywords:** Non-performing assets, asset quality, SBI, credit risk management, bank turnaround, India banking sector, NPA resolution, Insolvency and Bankruptcy Code

## 1. Introduction

In March 2018, the State Bank of India's gross NPA ratio touched 10.91%. That means roughly one in every 9 rupees that the bank had lent out was not coming back or at least not on schedule. For a bank that held deposits of ordinary Indian households, that was not just a balance sheet problem. It was a crisis of confidence. By March 2024, the number had fallen to around 2.24%. The turnaround is dramatic by any measures. And yet it has not received the kind of sustained analytical attention it deserves. Most coverages have been either triumphalist (bank is fixed, move on) or dismissive (these numbers are just accounting tricks). Neither does justice to what actually happened.

This paper tried to do something more careful. We want to trace the trajectory of SBI's asset quality from 2019 to 2024. Understand the mechanism that drove recovery and place this story within the existing academic literature on banking distressed and recovery. We are not trying to write a press release for SBI. There are enough of those. We want to understand the real dynamic including the part that are still fragile.

### 1.1 Why SBI and this time period?

SBI is not a typical bank. It is, by most measures, the backbone of Indian public sector banking. It accounts for roughly a quarter of all bank loans in the country. when SBI struggles, the system struggles. When SBI recovers it tells us something important about the system's capacity to self-correct. The period 2019 to 2024 is particularly interesting because it spans multiple shocks. The NBFC crisis of 2019, the Covid-19 pandemic, the post-pandemic credit boom and the global interest rate shock of 2022-23. Watching how SBI's asset quality evolved through all of that gives us a richer picture than a simple before and after comparison.

## 2. Literature Review

There is a lot written on NPAs in Indian banking. Not all of it is useful. What follows is an attempt to pull together the work that actually speak to the question this paper is asking.

The starting point for most NPA literature is the question of why banks accumulate bad loans in the first place. **Berger and DeYoung (1997)[1]** offered one of the early influential answers. They examined the relationship between bank efficiency and loan quality in the United States and found that the poorly managed banks tend to accumulate more NPAs over time - what they called the "bad management" hypothesis. Basically, if your processes are sloppy, your loan book will show it. This finding has since been replicated in various forms across different banking systems, including India.

**Ranjan and Dhal (2003)[2]** brought the conversation specifically to India. Working with Reserve Bank of India data, they found that NPA levels in Indian commercial banks were shaped by a mix of bank-specific factors such as size, capital adequacy, credit growth, and macroeconomic conditions. Faster credit growth today tends to mean higher NPAs tomorrow. It is a sobering finding, and one that became very relevant during the credit boom of 2004-2008 that preceded India's NPA crisis.

**Mohan (2012)[3]** traced the origins of India's NPA problem to the infrastructure lending surges of the mid-2000s. Banks especially public sector banks, were under pressure to fund power, roads and telecom projects, often without adequate project appraisal. When those projects ran into delays, cost overruns and regulatory hurdles the loans went bad. Mohan's analysis is careful not to blame just the banks the regulatory and policy environment played a significant role too.

**Siraj and Pillai (2012)[4]** took a more granular look at public sector banks specifically. They found that the public sector bank in India consistently outperformed private banks in term of NPA ratio, and not in the good direction. The authors point to structural factors: political interference in lending, weak credit appraisal system and inadequate recovery mechanisms. These findings directly set the context for understanding why SBI, the largest public sector bank, ended up in such a difficult position.

One of the most important interventions in Indian banking in recent years was the Asset Quality Review (AQR) that the RBI launched in 2015. **Chakrabarty (2013)[5]** writing before the AQR, had already flagged that tendency of Indian banks to evergreen loans, rolling over bad loans to avoid recognising losses. He argued that this practices was making the problem invisible while making it worse. The AQR essentially forced recognition of what was already there.

**Acharya and Subramanian (2016)[6]** examined the same phenomenon an academic angle. They study the extent to which bank forbearance, essentially tolerating bad loans rather than resolving them, distorted credit allocation in India. Their finding was stark: banks that were sitting on unrecognized bad loan were

still lending to bad borrower, effectively misallocating capital. This piece helps explain why NPA recognition, painful as it was, was also necessary for the eventual recovery.

It is difficult to talk about Indian banking reform without discussing the Insolvency and Bankruptcy Code (IBC), enacted in 2016. **Sengupta and Vardhan (2017)**[7] argued that the IBC represented a fundamental shift in the power balance between creditor and defaulting borrowers in India. For the first time, banks had a credible threat to take over and liquidate assets of defaulters. The authors were cautiously optimistic but noted that implementation would be the real test.

**Baird and Morrison (2005)**[8] writing in a different context (US corporate bankruptcy), provide a useful theoretical lens for understanding what a creditor-friendly insolvency regime actually does. They argue that effective bankruptcy law does not just resolve individual cases, it changes ex-ante lending behaviour by making collateral more credible and borrower commitments more enforceable. Apply that logic to India, and the IBC's impact on SBI's recovery becomes more comprehensible.

On the credit risk side, **Louzis et al. (2012)**[9] conducted a study of Greek banks and found that both macro-level factors (GDP growth, unemployment, interest rates) and bank specific factor (management quality, operational efficiency) significantly explain NPA levels. The Greek case is instructive for India because both involved post-boom banking system stress after period of rapid credit expansion.

**Dhar and Bakshi (2015)**[10] looked more narrowly at Indian Public sector banks and the determination of their NPA ratios. They found that bank size, credit-deposit ratio, and priority sector lending requirements all contributed to elevated NPA level. Importantly, they found that larger banks like SBI had somewhat better NPA management than smaller public sector counterparts, a finding that speaks to the scale economics in risk management.

**Caprio and Levine (2002)**[11] wrote an early and influential piece on the role of corporate governance in Banking. Their core argument: banks are unusually opaque institution, which makes governance especially important and especially difficult. Weak governance is not just an internal management problem; it creates systemic risk. Their framework helps explain why governance reforms at SBI, board restructuring, changes in lending authority, credit committee reforms, were not cosmetic.

**Kumar and Singh (2019)**[12] studied NPA management strategies across Indian public sector banks and found that those which adopted more proactive early warning systems and stricter loan monitoring showed better asset quality outcomes. Their paper specifically highlighted how SBI's LLMS (Loan Lifecycle Management System) and early warning signals played a role in the early stages of recovery through they noted this system were unevenly implemented.

**Berger and Bouwman (2013)**[13] studies the role of capital in bank performance during crises. They found that well capitalized banks survived crises better and also performed better during normal times. Their point to something directly relevant to SBI's story: the government recapitalisation (approximately 9,000 crore rupees in SBI's case as part of the broader PSB recap Programme) was not just a rescue, it was a precondition for recovery.

**Rajput et al. (2012)**[14] studied the provisioning practices of Indian public sector banks and found that these banks were systematically under provisioned for bad loans before the AQR. This forced provisioning once recognition kicked in squeezed profits dramatically but ultimately strengthened balance sheets. SBI's experience mirrors this pattern almost exactly.

**Puri et al. (2011)**[15] studied German savings banks and their recovery from a crisis episode. They found that even banks that were not directly responsible for crisis-causing activities suffered contagion effects. Recovery, they showed, depended heavily on macroeconomic stabilisation, not just internal bank fixes. This is a useful corrective to the tendency to attribute SBI's recovery entirely to management decisions. India's macroeconomic recovery post-2021, and the credit cycle upturn, clearly helped.

**Bhattacharyya and Patel (2022)**[16] working specifically on Indian public sector bank recovery, argued that NPA reduction between 2019 and 2022 was driven more by write-offs and recoveries through IBC than by genuine improvement in credit underwriting. It is a challenging argument that the paper takes seriously. Write-offs reduce reported NPAs without improving the underlying loan portfolio. Whether the improvement is real or cosmetic matters enormously for any assessment of sustainability.

### 3. Research Gap

The existing literature on NPA management in Indian banking is rich in certain directions and surprisingly thin in others. Here's where the gaps actually sit.

Most studies on Indian bank NPAs, Ranjan and Dhal (2003), Siraj and Pillai (2012), Dhar and Bakshi (2015) are either sector-wide analyses or focus on the pre-2016 period before the IBC came into force. They document the problem well. They're far less helpful in explaining what a specific institution did to climb out of it. There's a missing middle: the mechanism-level story of recovery at the firm level.

Second, the NPA profitability relationship hasn't been rigorously tested for SBI across this specific period. Most papers treating GNPA/NNPA and profitability indicators (ROA, ROE) together are either using cross-bank samples or pre-2019 data. Limited studies have examined SBI's post crises performance using data from2019 to 2024. And formally tested whether the NPA decline actually drove the profitability recovery, or whether the two just happened to move in the same direction for unrelated reasons. That distinction matters.

Third, the role of digital monitoring tools in NPA management at Indian public sector banks is under researched. Kumar and Singh (2019) mention SBI's early warning system in passing, but don't study it in any depth. There's almost no academic literature that treats SBI's LLMS and digital credit monitoring as standalone explanatory variables in the recovery story.

Fourth, the IBC's contribution to individual bank-level asset quality improvement is studied mostly at the system level. Sengupta and Vardhan (2017) and Bhattacharyya and Patel (2022) make aggregate observations. But a bank-specific analysis of how IBC resolutions, Essar Steel, Bhushan Steel, Alok Industries and others directly affected SBI's balance sheet is absent.

Lastly, and perhaps most importantly: no study has tried to identify the precise turning point in SBI's recovery. When did the trajectory actually inflect? Was it the AQR of 2015–16? The IBC's operationalisation in 2017? The post-COVID economic rebound of 2021–22? The answer isn't obvious, and relatively few studies have attempted to identify the turning point in SBI's recovery.

This paper tries to address all five of these gaps. It won't close them fully, that's what a full thesis is for, but it makes a start.

### 4. Research Question

I. How did the asset quality of SBI evolve during 2019-2024 and the turning point in its recovery?
II. What is the relationship between Asset Quality and profitability indicators (ROA and ROE) during study period?
III. How did credit risk management practices (including digital monitoring tools and IBC framework) contribute to the improvement in asset quality?

### 5. Research Objective

I. To analyse the trend and pattern of asset quality of state bank of India during 2019-2024 and determine the turning point in its recovery.
II. To examine the relationship between Asset Quality and profitability of State bank of India during 2019-2024.

III. To analyse and interpret the contribution of credit risk management practices (including digital monitoring tool and IBC framework) in explaining the observed improvement in asset quality.

## 6. Hypotheses

**H0:** There is no significant relationship between SBI's Gross Non-Performing Asset (GNPA) and Net Non-Performing Asset (NNPA) and its profitability indicators (ROA and ROE).

**H1:** There is significant inverse relationship between SBI's Gross Non-Performing Asset (GNPA) and Net Non-Performing Asset (NNPA) and its profitability indicators (ROA and ROE).

## 7. Research Methodology

### 7.1 Research Design

This paper is qualitative-quantitative case study of one institution over a defined time period. Case studies get a bad reputation in economics, usually for not being generalisable. Fair enough. But when a single institution is large enough to matter at a systemic level as SBI is, the single case approach is defensible. What we lose in breadth we gain in depth.

### 7.2 Sources of Data

The paper relies on secondary data and includes the following:

- SBI Annual Reports (2019–2024)
- Reserve Bank of India Annual Reports and Statistical Tables on Banking
- CARE Ratings and ICRA credit assessments
- National Company Law Tribunal (NCLT) data on IBC resolutions and
- Secondary literature as reviewed above. All financial data cited is drawn from publicly available sources.

### 7.3 Variables used in the Study

We track the following indicators across the study period:

- Gross NPA ratio (Gross NPAs as a percentage of gross advances)
- Net NPA ratio (Net NPAs as a percentage of net advances)
- Provision Coverage Ratio (PCR)
- Slippage ratio (fresh additions to NPAs)
- Return on Assets (ROA) and Return on Equity (ROE)
- Capital Adequacy Ratio (CRAR)

### 7.4 Statistical Tools

To test the hypotheses formally, the paper uses Pearson's correlation coefficient to assess the direction and strength of the relationship between GNPA/NNPA and ROA/ROE. Where the data distribution allows, we supplement this with simple regression analysis to check whether NPA ratios have statistically significant predictive power over profitability. Given the small sample size (six annual observations, 2019–2024), we treat these results as indicative rather than conclusive, the point of hypothesis testing here is to add structure to the analysis, not to claim econometric rigour.

## 8. Data Analysis and Hypothesis Testing

### 8.1 SBI Key Asset Quality and Profitability Data (2019–2024)

The table below brings together the core indicators tracked in this paper. All figures are sourced from SBI Annual Reports and RBI publications.

**Table 1: SBI asset Quality and profitability Indicators (2019-2024)**

| Financial year | GNPA (%) | NNPA (%) | PRC (%) | Slippage Ratio (%) | ROA (%) | ROE (%) | CRAR (%) |
|---|---|---|---|---|---|---|---|
| **2018-19** | 7.53 | 3.01 | 78.73 | 2.83 | 0.02 | 0.37 | 12.72 |
| **2019-20** | 6.15 | 2.23 | 83.62 | 2.14 | 0.09 | 2.13 | 13.06 |
| **2020-21** | 4.98 | 1.50 | 87.75 | 1.78 | 0.48 | 9.91 | 13.74 |
| **2021-22** | 3.97 | 1.02 | 90.20 | 1.24 | 0.67 | 13.92 | 13.83 |
| **2022-23** | 2.78 | 0.67 | 91.91 | 0.67 | 1.00 | 19.34 | 14.68 |
| **2023-24** | 2.24 | 0.57 | 91.93 | 0.55 | 1.04 | 21.00 | 14.28 |

**Source:** SBI annual reports and RBI statistical tables on Banking

### 8.2 Trend Analysis: What the Numbers Actually Show

If we look at the above table 8.1, 2019 and 2024 side by side. GNPA went from 7.53% to 2.24%. NNPA went from 3.0% to 0.57%. ROA moved from barely-there 0.02% to a healthy 1.04%. ROE went from a near-embarrassing 0.37% to 21.00%. These aren't marginal movements. They're a transformation. But let's not get carried away by the endpoints. What's interesting is the shape of the journey.

The steepest improvement in GNPA came between 2019 and 2021, a drop of 2.55 percentage points in just two years. This was primarily recognition-driven: the AQR had already cleaned out the worst of the bad loans, and SBI was actively using write-offs to clear fully provisioned accounts. Profitability, meanwhile, was still suppressed. ROA was 0.02% in 2019, climbing to only 1.04% by 2021. The balance sheet was healing; the P&L was still catching up.

The inflection points for profitability came around 2022. That's when ROA crossed 0.67% and ROE started approaching double digits. This is roughly when IBC resolutions in large corporate cases began delivering actual cash recoveries, and when the economy had recovered enough to reduce fresh slippages meaningfully.

By 2023–24, ROE had reached 21%, a number SBI hadn't seen in over a decade. And the GNPA ratio, at 2.24%, was approaching the levels of well-managed private sector banks.

### 8.3 Correlation Between NPA Ratios and Profitability

The directional relationship is visually obvious from the data, as NPA ratios fell, profitability rose. But let's be a bit more precise about this.

Running Pearson's correlation between GNPA and ROA across the six-year period gives a coefficient of approximately −0.984, indicating an almost perfect inverse relationship. GNPA and ROE show a correlation of approximately −0.988. The same pattern holds for NNPA: its correlation with ROA is approximately −0.966, and with ROE approximately −0.972.

These correlations are strong enough to support H1, that there is a significant relationship between SBI's GNPA/NNPA and its profitability indicators. We reject H0.

A word of caution, though. With only six data points, no correlation coefficient, however high, can carry the weight of a definitive causal claim. What we can say is that the relationship is consistent, directionally clear, and economically intuitive. Fewer bad loans mean lower provisioning requirements, which directly feeds into net profit. That's not a coincidence; it's the mechanism.

**Table 2: Pearson's Correlation Coefficients, NPA ratio and Provitability Indicators (2019-2024)**

| Variable pair | Pearson's Coefficient | direction | Interpretation |
|---|---|---|---|
| GNPA vs ROA | -0.984 | Inverse | Strong negative correlation |
| GNPA vs ROE | -0.988 | Inverse | Strong negative correlation |
| NNPA vs ROA | -0.966 | Inverse | Strong negative correlation |
| NNPA vs ROE | -0.972 | Inverse | Strong negative correlation |

**Source:** Computed by researcher using Microsoft Excel from SBI Annual Report.

### 8.4 The Starting Point: 2019

March 2019 was still a difficult moment for SBI. Gross NPAs stood at approximately 7.53% of gross advances, down from the 2018 peak but still historically high. Slippages had begun to slow, but the provision coverage ratio was under pressure. The bank was profitable but only barely, with ROA around 0.02%.

Two forces were at work. On one side, fresh recognition of bad loans was beginning to taper as the AQR process had largely played out. On the other, the resolution of recognised NPAs through NCLT was moving slowly. IBC cases were taking longer than originally hoped. The pipeline was full; the exit was narrow.

### 8.5 COVID-19, Shock and the Regulatory Moratorium (2020–2021)

March 2020 brought COVID-19 and, with it, the RBI's six-month loan moratorium. This was a genuine policy dilemma. On one hand, the moratorium prevented a wave of technical defaults from borrowers who were simply unable to transact during lockdown. On the other hand, it froze the NPA recognition process. Loans that might have been classified as NPAs were not, because the moratorium suspended that obligation.

Reported NPA ratios actually stayed relatively flat through 2020-21, which tells you more about the accounting rules than about the underlying credit quality. SBI's gross NPA ratio in March 2021 stood at approximately 4.98%. But slippages were suppressed by the moratorium, and there was real uncertainty about what would emerge once the forbearance ended.

### 8.6 The Recovery Takes Hold (2022–2024)

What happened next was, to many observers, a pleasant surprise. As the moratorium lifted and the economy recovered, the feared wave of post-COVID NPAs didn't fully materialise. Several things came together: genuine economic recovery, SBI's proactive restructuring of stressed accounts, IBC resolutions finally gaining momentum, and a bank that had, through years of painful provisioning, genuinely built a stronger credit assessment culture.

By March 2023, SBI's gross NPA ratio had fallen to 2.78%. By March 2024, approximately 2.24%. Net NPA ratio was around 0.57%. Provision Coverage Ratio exceeded 91%. Return on Assets had recovered to 1.04%. These aren't marginal improvements. This is a transformed balance sheet.

### 8.7 Key Risk Management Interventions

**Credit Appraisal Reforms**: SBI restructured its sanctioning process for large corporate loans, requiring independent credit assessment and stricter collateral requirements. The centralised processing model was expanded to reduce branch-level discretion in lending.

**Early Warning System (EWS)**: The bank invested in data analytics tools to flag early signs of borrower stress, cash flow irregularities, account conduct changes, sector-level distress signals. This allowed intervention before accounts slipped into NPA status.

**Resolution through IBC:** SBI was among the most active creditors using NCLT to press for resolution in large corporate cases, including the Essar Steel, Bhushan Steel, and Alok Industries cases, which collectively recovered thousands of crores.

**Write-Off Strategy:** SBI was aggressive in writing off fully provided accounts, which reduced reported NPAs. This isn't the same as recovery and Bhattacharyya and Patel (2022) are right to flag it, but it was also necessary housekeeping that many public sector banks delayed too long.

**Sectoral Rebalancing**: SBI consciously reduced its exposure to stressed sectors (power, steel, infrastructure) and grew its retail and SME book, which had lower NPA rates. Portfolio rebalancing reduced systemic risk concentration.

### 9. Objective Wise Achievement

**Objective I:** To analyse the trend and pattern of asset quality of SBI and identify its turning point. this objective has been fully achieved in the study. The trend analysis which is conducted in the previous section shows an unambiguous improvement. The GNPA ratio decline from 7.53% to 2.24% by FY 2024. That is a reduction of 5.29 percentage point. Also, a fall in NNPA can also be seen from 3.01% to 0.57%. The Provision Coverage Ratio improved from 78.73% to 91.93%, indicating a progressively stronger provisioning buffer against remaining bad loans. Though, the improvement was not uniform, it occurred in three distinct phases. First from 2019 to 2021, which was primarily by write-off driven ratio improvement. Second phase from 2021 to 2022, this measures fresh NPA additions as a percentage of the standard assets. this fell sharply to 1.24%, showing a genuine improvement in credit quality. And the third phase, from 2022 to 2024, saw profitability normalisation alongside continued NPA reduction.

**Objective II:** The objective was achieved through correlation and regression analysis. The results consistently indicate a strong inverse relationship between asset quality indicators and profitability measures.

The relationship between two variables has shown the strong relationship between assets' quality and profit-making ability. The GNPA was found to have significant inverse relationship with ROA and ROE. In other words, GNPA negatively affected ROA and ROE - the higher the GNPA was, the lower ROA and ROE became. Also, NNPA had some effect on ROA and ROE.

The outcomes of regression analysis proved these assumptions. GNPA alone accounted for approximately 96.9% of the changes in ROA and 97.6% of ROE changes. GNPA is a decisive factor in relation to ROA and ROE. Also, the reduction of GNPA by 1% would result in 0.213% increase in ROA and about 4.21% increase in ROE. The joint influence of GNPA and another variable, Provisioning Requirements, on ROA and ROE brought almost similar results. Namely, GNPA and PRC jointly account for 97.1% of changes in ROA and 97.7% of ROE changes. However, GNPA and PRC together do not provide additional value.

It makes sense in the real world, too: when a bank has more bad loans, it has to set aside more money to cover them. That extra expense directly eats into net profits, which naturally drags down both ROA and ROE.

**Objective III:** To analyse and interpret the contribution of credit risk management practices in explaining the observed improvement in asset quality. This objective is largely achieved through the recovery channel data and the institutional analysis presented in Chapter Four.

The IBC did the heaviest lifting on the recovery side. Between 2019 and 2024, SBI recovered approximately Rs. 79,773 crores through NCLT proceedings. The Essar Steel case alone returned around 92% of what was owed. Bhushan Steel returned about 65%. Before the IBC came into force, getting even 25 to 30 paise back on a rupee from a large defaulter was considered a good outcome. That changed. The Early Warning System is harder to measure directly. But the slippage ratio tells the story. It fell from 2.83% in 2019 to 0.55% in 2024. Write-offs can't explain that. Denominator growth can't explain that either. The only way slippage falls is if the bank is giving out better loans and catching stress earlier. That's exactly what the EWS is built to do.

To be fair the macroeconomic recovery from 2021 helped every bank, including SBI. This study can't split that contribution out precisely. But the data is consistent with the view that SBI's internal reforms made the recovery faster and deeper than it would have been otherwise.

## 10. Discussion and Findings

### 10.1 How Much Was Management; How Much Was Macro?

This is the hardest question in the paper. And it’s worth being honest: we can’t fully disentangle internal management improvements from the macroeconomic tailwinds that SBI benefited from after 2021. A recovering economy means fewer defaults, more recoveries, and better credit quality on new loans. SBI would have improved its NPA ratios in this environment even with mediocre management.

But the scale of the improvement and the speed suggest more than just macro. The increase in provision coverage, the reduction in slippage ratios, the improvement in early-stage loan monitoring these reflect genuine operational changes. The bank that existed in 2024 processed credit risk differently than the bank that existed in 2017.

### 10.2 The Write-Off Caveat

It bears repeating: a significant portion of the NPA reduction came from technical write-offs rather than actual cash recovery. When a bank writes off a loan, the NPA ratio improves, but the money is still gone. SBI’s total cumulative write-offs between 2019 and 2024 ran into lakhs of crores. Recovery from written-off accounts while improving was still a fraction of written-off amounts.

This isn’t unique to SBI. It’s a sector-wide pattern. But it means the headline NPA numbers should be interpreted with some caution. A bank with a 2.24 % gross NPA ratio and a huge stock of written-off (unrecovered) loans isn’t in quite the same position as a bank that achieved the same ratio through genuine repayment.

### 10.3 Governance: The Underappreciated Variable

Academic literature particularly Caprio and Levine (2002) and Kumar and Singh (2019) emphasises the role of governance in bank health. In SBI’s case, this played out through several mechanisms: changes in large loan sanction committees, introduction of independent risk committees at the board level, and stronger accountability frameworks for credit officers. These aren’t dramatic changes. They don’t make headlines. But they matter.

### 10.4 What Does This Mean for Other Public Sector Banks?

SBI’s turnaround has been more successful than most of its public sector peers. This raises an uncomfortable question: is the SBI story a template or an exception? The bank benefited from scale

advantages in implementing technology-driven risk management that smaller PSBs can't easily replicate. It also had more political insulation being so large that even political pressure on its lending had limits.

The answer, probably, is that SBI is a partial template. Some elements the EWS, the centralised credit processing, the portfolio rebalancing are replicable. Others are scale-dependent.

## 11. Policy Implications and Future scope

### 11.1 For Banking Policy

First: the IBC works, but only if courts have capacity. IBC cases that drag beyond 400 days lose much of their deterrent value. Continued investment in NCLT infrastructure matters.

Second: technology-driven risk monitoring isn't optional anymore. Banks that can't flag borrower stress early will keep accumulating bad loans. Regulatory incentives or mandates for adoption of credit monitoring technology across the PSB sector would be worth exploring.

Third: the provisioning framework needs to remain strict. There's always political pressure, during downturns, to relax provisioning norms and let banks appear healthier than they are. India has been through that movie. Regulatory independence in maintaining provisioning standards is worth protecting.

### 11.2 For Future Research

This paper is explicitly positioned as a precursor to thesis research. The natural extensions include: a deeper quantitative analysis of SBI's credit scoring changes pre- and post-2019; a comparative study of NPA management across Indian public sector banks; an analysis of IBC resolution values relative to outstanding loan amounts; and a study of retail credit quality in the post-COVID expansion to assess whether the seeds of the next NPA cycle are already planted.

## 12. Conclusion

SBI's recovery between 2019 and 2024 is one of the more interesting stories in recent Indian economic history. It involved regulatory compulsion, painful write-offs, genuine operational reform, institutional restructuring, and let's be honest a dose of macroeconomic luck. None of those things alone would have been sufficient. Together, they produced a transformation that even sceptics are finding it difficult to dismiss.

The data is clear on the directional relationship: as GNPA and NNPA ratios declined, ROA and ROE climbed steadily. The strong inverse correlation between these variables across 2019–2024 supports the existence of a meaningful relationship between SBI's asset quality and profitability Quantifying that relationship with precision would require a longer dataset, but the story these six years tell is unambiguous.

But the story isn't over. Gross NPA ratios at 2.24% look healthy until you factor in written-off accounts, restructured loans, and the early-stage stress that is beginning to show in some sectors. The next credit cycle will be the real test of whether SBI has genuinely changed its risk culture or merely cleaned up the last cycle's mess.

And that, perhaps, is the most important research question left on the table.

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