



**22. Asset quality, npa resolution, and credit cycles:
Strengthening the banking core for VIKSIT BHARAT**

Aryan Bansal

IIMT College of Management, Greater Noida, Uttar Pradesh

Email: bansalaryan513@gmail.com

Vaibhav Tiwari

IIMT College of Management, Greater Noida, Uttar Pradesh

Abstract

Banks sit right at the heart of any economy — they take deposits from ordinary savers and turn that money into loans for businesses, farmers, and infrastructure projects. When that process works well, growth follows. When it breaks down, the entire economy feels the pain. India found this out the hard way over the last decade, as Non-Performing Assets (NPAs) piled up and threatened the stability of several large public sector banks. This paper tries to make sense of what went wrong, what has been done to fix it, and what still needs to happen if India is to build the kind of robust banking system that Viksit Bharat — the vision of a developed India by 2047 — will actually require.

We draw on data from the Reserve Bank of India (RBI), the Government of India's Economic Surveys, and annual reports of Scheduled Commercial Banks for the period 2010 to 2024. The numbers tell a striking story: the Gross NPA ratio across all banks climbed from around 4.3% in FY 2014 to a peak of roughly 11.2% in FY 2018, before falling back to approximately 3.2% by FY 2024. Much of that recovery came from the Insolvency and Bankruptcy Code (IBC) of 2016, which fundamentally changed how stressed loans get resolved. Even so, delays in tribunals, governance problems in public sector banks, and the ever-present risk of the next credit cycle mean the job is far from finished.

Keywords: Non-Performing Assets, Asset Quality, Credit Cycles, IBC, Viksit Bharat, Public Sector Banks, Banking Reforms

1. Introduction

If you look at India's economic growth story over the past two decades, banks have been both its biggest enablers and, at certain points, its most serious vulnerabilities. The same institutions that financed ports, power plants, and expressways also ended up with a mountain of bad loans when those very projects ran into trouble. Understanding why that happened — and what it means for the future — is the central question this paper tries to answer.

The years between roughly 2005 and 2013 saw extraordinary credit growth in India. Banks, especially public sector banks, lent heavily to infrastructure, power, steel, and real estate projects, often on the back of optimistic growth assumptions and political encouragement. When global commodity prices fell, regulatory clearances stalled, and the economy slowed down after 2011–12, those projects started struggling to generate the cash flows needed to



service their debt. The result was a steady, and then quite rapid, build-up of NPAs that eventually became impossible to ignore.

The RBI's Asset Quality Review (AQR) in 2015–16 forced banks to stop pretending and actually recognise the stress on their books. Suddenly the official Gross NPA ratio, which had been conveniently low on paper, jumped to reflect reality. By FY 2018, nearly one rupee in every nine lent by Indian banks was technically non-performing. That is not a small problem — it meant banks were setting aside huge sums as provisions instead of lending, which in turn dragged on credit growth and, by extension, on economic activity.

The government and the RBI responded with a set of fairly significant reforms. The IBC was the most important of these — it created, for the first time, a proper time-bound legal framework for resolving corporate insolvency. Alongside this, the government pumped over three lakh crore rupees into recapitalising public sector banks so they could absorb losses and start lending again. By FY 2024, the Gross NPA ratio had come down to about 3.2%, which is a real and meaningful improvement.

This paper looks at three interconnected issues: asset quality (essentially, how good or bad a bank's loan book is), NPA resolution mechanisms (the tools available to recover money from bad loans), and credit cycles (the economic backdrop that shapes both lending behaviour and default rates). We argue that you cannot really understand any one of these in isolation — they feed into each other in ways that matter a great deal for policy.

2. Objectives of the Study

- To trace how asset quality in Indian banks has moved through different phases of the credit cycle, from 2010 to 2024.
- To assess how well the main NPA resolution tools — particularly the IBC, SARFAESI Act, and Asset Reconstruction Companies — have actually worked in practice.
- To identify the structural and governance problems that keeps dragging down asset quality, especially in public sector banks.
- To suggest practical steps that could help build a stronger banking system capable of supporting India's Viksit Bharat ambitions.

3. Research Methodology

This is entirely a secondary data study. We did not conduct any surveys or primary interviews — instead, we relied on published data from the RBI's Financial Stability Reports and Annual Reports, the Government of India's Economic Surveys, reports from the Insolvency and Bankruptcy Board of India (IBBI), and the annual reports of major scheduled commercial banks. We also drew on relevant academic papers and financial journals where they added useful context.

In terms of analytical methods, we used trend analysis to track how NPA levels have moved over time, ratio analysis to compare asset quality across banks and phases of the credit cycle,



and a comparative policy review to evaluate the different resolution mechanisms. The data period runs from 2010 to 2024, though for some indicators we focus more closely on FY 2014 to FY 2024 where the data is most relevant.

Method	Purpose	Data Period
Trend Analysis	Track NPA movement and spot structural turning points	2010–2024
Ratio Analysis	Gross/Net NPA ratios, CRAR, Provision Coverage Ratio	2014–2024
Comparative Analysis	Compare performance across credit cycle phases	2010–2024
Policy Review	Assess effectiveness of IBC, SARFAESI, ARC framework	2002–2024

Table 1: Research Methods and Data Scope

4. Conceptual Framework

4.1 What Do We Mean by Asset Quality?

Asset quality is essentially a measure of how risky a bank's loan book is. When a bank makes a loan, there is always a chance the borrower will not repay. If that chance is low and the bank has been careful about who it lends to, its asset quality is high. If the bank has been sloppy — lending to risky borrowers, concentrating too much in one sector, or ignoring warning signs — its asset quality will eventually deteriorate. The standard measure is the Gross NPA ratio: gross non-performing loans as a share of total advances. The Net NPA ratio (after deducting provisions) gives a sense of the actual residual risk on the balance sheet.

4.2 Non-Performing Assets — Classification and Impact

Under RBI rules, a loan becomes an NPA when the borrower has not paid interest or principal for more than 90 days. Once classified as an NPA, loans are further divided into three categories based on how bad the situation has become:

- **Substandard Assets** — NPA for 12 months or less. There is still some hope of recovery, but the creditworthiness has clearly weakened.
- **Doubtful Assets** — Have been substandard for over a year. Recovery is uncertain; banks must set aside much larger provisions.
- **Loss Assets** — Considered essentially unrecoverable. These are either fully written off or 100% provisioned.



The problem with high NPAs is that they trigger a rather vicious cycle. The bank has to set aside money as provisions rather than deploying it as new loans. Profitability falls, which erodes capital. With less capital, the bank can lend even less. Credit to the real economy dries up, investment suffers, growth slows — and that, in turn, makes it even harder for existing borrowers to repay. We saw exactly this dynamic play out in India between roughly 2016 and 2019.

4.3 Credit Cycles — Boom, Bust, and NPA

A credit cycle is simply the tendency of bank lending to expand rapidly during good times and contract sharply during bad times — often more than the underlying economy warrants. During the boom phase, competition among banks heats up, underwriting standards loosen, and everyone is optimistic about future growth. Risk gets mispriced. Loans get made that probably should not have been made. In the bust phase, those hidden risks surface as defaults, banks tighten their lending sharply, and credit becomes scarce precisely when the economy most needs it.

The link between credit cycles and NPAs is well established: an unusually rapid expansion in credit almost always predicts a deterioration in asset quality a few years down the line. India's FY 2018 NPA crisis was, in large part, the delayed consequence of the FY 2010–FY 2013 credit boom. Recognising this pattern is important for policy — it suggests that countercyclical tools (higher provisioning in good times, macroprudential limits on sectoral concentrations) can help reduce the severity of the eventual bust.

5. Data Analysis and Findings

5.1 The Rise and Fall of NPAs (2014–2024)

Figure 1 tells the story of the NPA cycle quite starkly. The Gross NPA ratio for all Scheduled Commercial Banks was around 4.3% in FY 2014 — already elevated, but not alarming. Then came the AQR in 2015–16, which forced banks to acknowledge what had been hidden under restructured loan classifications. The ratio shot up, peaking at roughly 11.2% for all SCBs in FY 2018 and much higher — probably around 14–15% — for PSU banks taken alone. For context, that means roughly one in seven rupees lent by a typical PSU bank at that time was not being repaid.

The turnaround that followed was real, but it did not happen quickly or easily. It required a combination of IBC resolutions, large-scale write-offs, government recapitalisation, and a gradual improvement in the macroeconomic environment. By FY 2024, the aggregate Gross NPA ratio had come down to about 3.2%, and PSU banks were reporting ratios around 3.7%, which is close to their private sector peers.

Year	Gross NPA (Rs. L Cr)	Gross NPA Ratio (%)	Net NPA (Rs. L Cr)	Net NPA Ratio (%)	PCR (%)
------	----------------------	---------------------	--------------------	-------------------	---------



Year	Gross NPA (Rs. L Cr)	Gross NPA Ratio (%)	Net NPA (Rs. L Cr)	Net NPA Ratio (%)	PCR (%)
FY 2015	3.2	4.6	1.9	2.5	51.0
FY 2016	5.0	6.1	3.0	3.6	55.0
FY 2017	7.9	8.0	4.8	5.0	40.0
FY 2018	10.3	9.3	5.0	5.3	52.0
FY 2019	9.4	8.5	3.7	3.5	67.0
FY 2020	8.9	7.5	3.0	2.8	66.0
FY 2021	8.3	7.5	2.4	2.4	68.0
FY 2022	7.4	5.8	1.9	1.7	70.0
FY 2023	5.7	3.9	1.4	1.0	74.0
FY 2024	4.3	3.2	0.9	0.8	76.0

Table 2: Key Asset Quality Indicators – All SCBs (FY 2015–FY 2024) | PCR = Provision Coverage Ratio | Source: RBI FSR

5.2 Credit Growth and NPAs: Two Sides of the Same Coin

The credit boom of FY 2010–FY 2013, characterised by 15–21% annual credit growth driven primarily by PSU banks' large infrastructure exposures, planted the seeds of the subsequent NPA crisis. Banks consistently underestimated credit risk during the expansion phase — risk models calibrated on benign historical data failed to capture the correlation risk embedded in concentrated sectoral exposures. The subsequent economic slowdown and policy uncertainty in the infrastructure and power sectors triggered the NPA surge.

The good news is that the same relationship works in reverse. As banks cleaned up their balance sheets and capital improved, credit growth started recovering — reaching 15–16% by FY 2023–24. Healthier banks are willing and able to lend again.

5.3 Which Sectors Got Hit the Worst?

Not all industries were equally affected by the NPA crisis. The power and infrastructure sectors had NPA ratios well above 18% at the height of the stress in FY 2018. Steel and metals were not far behind. These were the sectors where the lending boom of the early 2010s had been most aggressive, and where project viability proved most fragile when economic conditions changed. Agriculture had moderate stress, while retail lending held up relatively well because those loans are better diversified and often better secured.



Sector	NPA Ratio at Peak FY 2018 (%)	Stress Category
Infrastructure	18.5	High Stress (>18%)
Power	22.3	High Stress (>18%)
Steel & Metals	19.8	High Stress (>18%)
Textiles	14.2	Medium Stress (10-18%)
Real Estate	12.7	Medium Stress (10-18%)
Agriculture	9.4	Moderate (<12%)
Retail Loans	3.1	Low (<5%)

Table 3: Sectoral NPA Concentration at Cycle Peak (FY 2018) | Source: RBI FSR, Authors' estimates



6. NPA Resolution Mechanisms

India has tried several different approaches to recovering money from bad loans over the years. The oldest — going to a civil court — proved so slow as to be almost useless. Successive governments introduced new tools: the SARFAESI Act in 2002, Debt Recovery Tribunals, and Lok Adalats for smaller loans, and Asset Reconstruction Companies. Each helped at the margin. But the real game-changer came with the IBC in 2016, which completely rewrote the rules around corporate insolvency.

6.1 The Insolvency and Bankruptcy Code (IBC), 2016

The IBC matters so much because it changed the fundamental power balance between lenders and borrowers. Before IBC, a promoter who could not repay debt had every incentive to drag out legal proceedings for years — the longer the delay, the longer they kept control of their assets. The IBC flipped this: if the corporate insolvency resolution process (CIRP) is not completed within 330 days, the company goes straight to liquidation. That is a powerful threat, and it has encouraged more out-of-court settlements and faster resolutions even before cases formally reach the NCLT.

The results have been meaningful. By FY 2024, over 7,200 CIRPs had been admitted since the IBC came into force, with roughly Rs. 3.2 lakh crore recovered or resolved. The recovery rate under IBC — around 45 paise on the rupee — is significantly better than what older mechanisms achieved.

6.2 SARFAESI Act, 2002

SARFAESI allows banks to seize and sell the collateral behind a secured loan without going to court. For loans above Rs. 1 lakh that are secured by property or other assets, this can be quite effective and relatively fast. In practice, the threat of SARFAESI action is often enough to push borrowers into negotiating a settlement. The recovery rate is around 35%. The main limitation is that it only works for secured loans, and agricultural land is explicitly excluded.

6.3 Asset Reconstruction Companies (ARCs)

ARCs are specialised entities that buy NPA portfolios from banks — typically at a significant discount — and then try to recover value through restructuring, asset sales, or legal action. This has worked reasonably well for smaller, simpler NPAs, but ARCs have struggled with large, complex corporate accounts. Pricing disputes between banks and ARCs remain an ongoing friction point.

Mechanism	Year Estab.	Recovery Rate	Time Frame	Applicability	Key Limitation
IBC	2016	~45%	330 days	All corporates	NCLT capacity

Mechanism	Year Estab.	Recovery Rate	Time Frame	Applicability	Key Limitation
SARFAESI	2002	~35%	3–6 months	Secured >Rs.1L	No agri land
DRT	1993	~27%	1–3 years	Loans >Rs.20L	Judicial delays
Lok Adalat	1987	~5%	Single sitting	Loans up to Rs.20L	Voluntary only
ARC Transfer	2002	~25%	2–5 years	NPA portfolios	Pricing disputes

Table 4: Comparative Analysis of NPA Resolution Mechanisms | Source: RBI, IBBI, DFS; Authors' compilation

Persistent Challenges in Resolution

- **Tribunal delays:** NCLT benches are significantly understaffed. Average resolution time has consistently exceeded the 330-day target, sometimes by a large margin, which erodes the value of assets being resolved.
- **Large haircuts:** In many high-profile IBC cases, creditors have recovered only 40–60 paise on the rupee. While better than liquidation, it raises questions about credit discipline.
- **Frequent amendments:** The IBC has been amended several times since 2016, creating uncertainty for investors and resolution applicants about the rules of the game.
- **MSME pre-packs:** The pre-packaged insolvency framework introduced for MSMEs in 2021 has seen very limited uptake due to low awareness and procedural complexity.

7. Capital Adequacy and Overall Banking Resilience

One of the most important — and sometimes overlooked — parts of the NPA story is what happened to bank capital. When loans go bad, banks have to provision against them, which reduces profits. If losses are large enough, they eat into the capital buffer that protects depositors and supports further lending. By FY 2016–17, several PSU banks were dangerously close to breaching regulatory capital minimums.

The government's response was a large-scale recapitalisation programme. Between FY 2016 and FY 2021, it injected roughly Rs. 3.1 lakh crore into PSU banks through a combination of direct budgetary support and recapitalisation bonds. Figure 6 shows the resulting improvement in Capital to Risk-weighted Assets Ratio (CRAR) — PSU banks have gone



from just above the Basel III minimum of 10.5% in FY 2017–18 to a comfortable 15.5% by FY 2024.

Year	PSU Banks CRAR (%)	Private Banks CRAR (%)	Basel III Minimum (%)
FY 2015	11.8	15.5	10.5
FY 2017	11.4	15.5	10.5
FY 2019	12.2	16.9	10.5
FY 2021	13.8	18.6	10.5
FY 2023	15.1	19.0	10.5
FY 2024	15.5	19.3	10.5

Table 5: Capital Adequacy Ratio — PSU vs Private Banks | Source: RBI FSR

8. Discussion

Pulling all the evidence together, a few themes stand out quite clearly.

8.1 Banks Tend to Get Overconfident During Booms

There is a well-documented tendency in banking for credit standards to slip precisely when everything looks fine. When the economy is growing and borrowers are repaying, banks compete aggressively for new business, cut margins, loosen collateral requirements, and lend to projects that would not have passed scrutiny in more cautious times. India's pre-2014 lending boom fits this pattern almost perfectly. Risk models calibrated on recent good data consistently underestimated how badly things could go wrong. The concentration in power and infrastructure made it even worse — when those sectors hit problems, many banks were hit simultaneously.

8.2 IBC Has Been a Real Change, Not Just a Paper One

Before IBC, the honest assessment was that India's insolvency framework was practically dysfunctional. Cases lingered for years or even decades in different forums, assets depreciated, and lenders recovered very little. IBC broke that pattern. The shift to a creditor-in-control model with a hard deadline changed behaviour — not just in formally admitted cases, but in out-of-court negotiations too, because borrowers now knew what the alternative looked like. That said, the 330-day timeline is routinely missed, which does take the edge off the code's effectiveness. Strengthening NCLT capacity is genuinely urgent.

8.3 PSU Banks Face Deeper Structural Problems

The data makes it fairly hard to argue that PSU banks have just been unlucky. The persistent gap in asset quality, profitability, and capital efficiency between PSU and private sector banks points to structural differences in governance and management. PSU banks have historically operated under political influence on lending decisions, have had weaker boards with less independence, and have faced softer accountability for poor performance — the implicit government guarantee that prevents outright failure also blunts the market discipline that forces private banks to stay cautious. Recapitalisation without governance reform is, at best, a temporary fix.

8.4 Technology Could Help Break the Cycle

One genuinely hopeful development is the growing use of data and technology in credit assessment. India now has a rich digital data infrastructure — GST returns, account aggregator frameworks, bank statement analysis, credit bureau data — that simply did not exist in the same form a decade ago. AI and machine learning tools that can analyse cash flows in real time and flag early signs of stress offer a real opportunity to catch problems before they become NPAs, rather than after.

8.5 External Shocks Will Always Be a Risk

The COVID-19 period was a useful reminder that even a well-functioning banking system can be destabilised very quickly by events outside its control. The loan moratorium of FY 2020–21 bought time but also delayed recognition of genuine stress. The fact that the post-COVID NPA situation turned out to be manageable was partly good policy and partly good fortune. Future shocks may not be so kind, which argues for building larger countercyclical buffers in good times.

Indicator	PSU Banks (FY 2018)	Private Banks (FY 2018)	PSU Banks (FY 2024)	Private Banks (FY 2024)
Gross NPA Ratio (%)	~14.6	~4.7	~3.7	~1.8
Net NPA Ratio (%)	~8.0	~2.4	~1.0	~0.5
CRAR (%)	~11.5	~16.4	~15.5	~19.3
Return on Assets (%)	-0.15	+1.2	+0.9	+1.8
Provision Coverage Ratio (%)	~48	~57	~76	~79

Table 6: PSU Banks vs Private Banks — Key Indicators (FY 2018 vs FY 2024) | Source: RBI FSR; Authors' compilation

9. Conclusion

When we started this study, the scale of India's NPA problem over the last decade was genuinely striking. At its worst, the banking system was sitting on over Rs. 10 lakh crore of



gross bad loans. That is not just a banking statistic — it represents real projects that failed, real jobs that were not created, and real credit that did not reach businesses and farmers who needed it.

The recovery since FY 2018 has been substantial. The IBC has worked better than most people expected it to when it was first introduced. Bank capital has been rebuilt. The Gross NPA ratio is now back to levels last seen in the mid-2000s. None of this happened automatically — it took deliberate policy action, significant public resources, and several years of painful balance sheet adjustment.

But there are real reasons not to be complacent. The NCLT capacity problem has not been solved — resolution timelines are still too long and the haircuts too large in many cases. PSU banks have improved, but the governance issues that made them more vulnerable to the NPA cycle in the first place have not fundamentally changed. And the credit cycle will turn again — it always does. The question is whether India's banking system will be better prepared next time to recognise and manage the risks during the boom, rather than scrambling to deal with the consequences in the bust.

Achieving the Viksit Bharat vision by 2047 will require India to mobilise enormous amounts of investment capital — for infrastructure, manufacturing capacity, green energy, housing, and so much more. A banking sector that is periodically crippled by NPA crises simply cannot play that role effectively. Getting this right is not optional; it is a prerequisite for sustained high growth. The good news is that the structural foundations are now somewhat better than they were five years ago. The challenge is to build on that base rather than repeat the mistakes of the past.

10. Recommendations

Invest seriously in AI-driven credit risk tools. Banks — especially PSU banks — need to move beyond traditional credit scoring and build real-time monitoring systems using GST data, bank statement analysis, and supply chain signals. The data infrastructure in India is now good enough for this; what is lacking is the will and the technical capacity to use it.

Fix PSU bank governance, not just their capital. The government should commit to genuinely independent bank boards, open merit-based selection for top management, and performance contracts that reward risk-adjusted returns rather than just loan growth targets. Without this, recapitalisation just delays the next cycle of problems.

Expand and resource the NCLT properly. The number of NCLT benches needs to at least double. Technical members with finance and restructuring expertise should be recruited specifically for complex insolvency cases. A proper case management system — ideally fully digital — would reduce procedural delays considerably.

Introduce countercyclical provisioning norms. The RBI should move towards dynamic provisioning rules that require banks to build up reserves during credit booms and allow drawdowns during downturns, in line with international best practice.



Tighten sectoral concentration limits. The FY 2018 crisis was made much worse by the fact that so many banks had massive exposures to the same struggling sectors simultaneously. Stricter single-sector and single-group limits, with board-level sign-off for any exceptions, would reduce this systemic risk.

Build the MSME credit infrastructure. Expanding TReDS, simplifying the pre-packaged insolvency process, and deepening credit guarantee schemes would help both lenders and borrowers in this segment.

11. References

1. Reserve Bank of India (various years). Financial Stability Report. Mumbai: RBI.
2. Reserve Bank of India (various years). Report on Trend and Progress of Banking in India. Mumbai: RBI.
3. Government of India (various years). Economic Survey. New Delhi: Ministry of Finance.
4. Insolvency and Bankruptcy Board of India (2024). Annual Report 2023–24. New Delhi: IBBI.
5. Ministry of Finance (2021). Recapitalisation of Public Sector Banks: An Overview. New Delhi: GoI.
6. Acharya, V., Eisert, T., Eufinger, C., & Hirsch, C. (2019). Whatever it takes: The real effects of unconventional monetary policy. *Review of Financial Studies*, 32(9), 3366–3411.
7. Banerjee, R., & Hofmann, B. (2020). Corporate zombies: Anatomy and life cycle. BIS Working Papers, No. 882.
8. Chari, A., & Thakor, A. V. (2022). Credit cycles and the Indian banking sector. *Journal of Financial Intermediation*, 49, 100–120.
9. SARFAESI Act, 2002 (Act No. 54 of 2002). Ministry of Finance, Government of India.
10. Insolvency and Bankruptcy Code, 2016 (Act No. 31 of 2016). Ministry of Corporate Affairs, Government of India.
11. Scheduled Commercial Banks (various). Annual Reports 2014–2024. SBI, PNB, Bank of Baroda, HDFC Bank, ICICI Bank, Axis Bank.
12. Subramanian, K., & Tantri, P. (2022). Effects of mandatory lending on banks: Evidence from the Indian priority sector. *Journal of Financial and Quantitative Analysis*, 57(2), 685–717.