# An Analytical Study of the Non-Performing Asset (NPA) Issue in Punjab National Bank Since 2010

# Abstract

NPAs are seen as a crucial factor in evaluating banks' implementation and financial stability. One of the factors influencing financial safety and the growth of the saving money division is the amount of non-performing assets (NPAs). These days, financial institutions and organisations face a significant problem in managing non-performing assets (NPAs), as these assets are indicative of a significant setback for the economy's growth. Since 2010, the study discovered a substantial correlation between Punjab National Bank's share capital and advances and its gross and net non-performing assets. Figures support the conclusion that, since 2010, the Bank has been steadily increasing the amount of advances it provides at a steady rate.

**Keywords:** Non-performing Assets, Public sector banks, Private sector banks

1. Introduction:

The issue of non-performing assets (NPAs) in the Indian banking industry has drawn a lot of attention and debate. In a recent assessment on the Indian banking industry, the Standing Committee on Finance noted that growing non-performing assets (NPAs) had significantly impacted banks' ability to lend. The performance of public sector banks in relation to their growing non-performing asset (NPA) problem and the various loan recovery tools are also being examined by the Lok Sabha's Estimates Committee.

Furthermore, the Reserve Bank of India's (RBI) February 2018 directions for banks on the prompt resolution of stressed assets have been questioned and the subject of numerous legal actions. Here, we look at the country's recent increase in non-performing assets (NPAs), some of the factors that contribute to them, and the actions that have been taken to date to address the problem.

1. What is the extent and effect of the NPA problem in India?

Banks provide loans and advances to borrowers, which are classified based on repayment performance. These loans can be either: (i) standard assets, where borrowers consistently make payments, or (ii) non-performing assets (NPAs), where no repayment of interest or principal has been made for over 90 days.

As of March 31, 2018, preliminary data shows that gross NPAs in the Indian economy amounted to ₹10.35 lakh crore. Public sector banks accounted for approximately 85% of these NPAs. For example, the State Bank of India alone had NPAs worth ₹2.23 lakh crore.

Over the past decade, the gross NPA ratio—NPAs as a percentage of total loans—has risen significantly, from 2.3% in 2008 to 9.3% in 2017 (refer to Figure 1). This trend suggests that a growing share of banks’ assets are no longer generating income, which negatively affects their profitability and limits their capacity to extend new credit. The rise in NPAs forces banks to allocate more funds as provisions for potential losses, further straining their financial health. These increased provisions, combined with structural inefficiencies, contribute to declining profitability. Bank profitability is typically measured using Return on Assets (RoA), which reflects net profit relative to total assets. In recent years, RoA has declined (see Figure 2), leaving banks more exposed to economic downturns and posing risks to depositor funds.



1. What led to the rise in NPAs?

Several factors have contributed to the rise in non-performing assets (NPAs), some of which are external—such as the decline in global commodity prices that affected export performance—while others are rooted within the Indian banking system itself.

Many of the loans that have now turned into NPAs were issued in the mid-2000s, a period marked by robust economic growth and optimistic business expectations. During this time, large companies received loans for new projects based on their recent performance and projected future success. With easier access to credit, these firms became highly leveraged, relying heavily on borrowed funds rather than internal capital from promoters. However, when economic growth slowed down after the 2008 global financial crisis, their ability to repay loans declined sharply. This situation led to what is referred to as India’s “Twin Balance Sheet” problem—where both the lenders (banks) and the borrowers (corporates) are under financial strain.

As the projects funded by these loans began to underperform, borrowers found it increasingly difficult to repay. In response, banks engaged in “evergreening,” a practice in which they extended new loans to help borrowers pay existing interest obligations. While this delayed the classification of these loans as NPAs, it failed to address the underlying financial weaknesses of the projects.

Additionally, the problem has been worsened by large-scale financial frauds. Although the overall contribution of such frauds to total NPAs is relatively minor, their frequency has been growing. Alarmingly, many major fraudsters have yet to face serious consequences, further undermining confidence in the system.

1. What is being done to address the problem of growing NPAs?

Efforts to address and prevent non-performing assets (NPAs) can generally be divided into two categories: first, legal and regulatory frameworks aimed at resolving NPAs, such as the Insolvency and Bankruptcy Code (IBC); and second, corrective measures implemented by the Reserve Bank of India (RBI) to help banks internally restructure stressed assets.

The Insolvency and Bankruptcy Code, introduced in May 2016, was designed to facilitate a time-bound recovery process—typically within 180 days—for accounts where borrowers are unable to meet their repayment obligations. Under this framework, creditors, guided by a licensed insolvency professional, decide whether to restructure the defaulted loan or sell the borrower's assets to recover dues. If no decision is reached within the stipulated time, the borrower’s assets are liquidated. For enforcement, personal insolvency cases are handled by the Debt Recovery Tribunal, while corporate cases fall under the jurisdiction of the National Company Law Tribunal (NCLT). As of March 2018, 701 cases had been filed under the IBC, out of which 176 had been resolved.

1. What changed recently in the RBI’s guidelines to banks?

Over time, the Reserve Bank of India (RBI) has introduced several guidelines to address the issue of stressed assets in the banking sector. These included initiatives such as:

* **Strategic Debt Restructuring (SDR):** This allowed banks to take control of the management of defaulting companies.
* **Joint Lenders’ Forum (JLF):** A platform where lenders collaborated to formulate and vote on resolution strategies.

Following the introduction of the Insolvency and Bankruptcy Code (IBC), the RBI issued a new circular in February 2018 that replaced all previous schemes with a unified, streamlined, and time-bound framework for resolving stressed assets.

Under this revised framework, banks were required to implement a resolution plan within 180 days. If they failed to do so, the stressed accounts had to be referred to the National Company Law Tribunal (NCLT) under the IBC within 15 days. Additionally, the framework introduced a “one-day default” monitoring system, where even a single day’s delay in repayment triggered early warning signals.

Some borrowers whose loans had already been classified as NPAs prior to the circular missed the 180-day resolution deadline. These included entities such as power producers and sugar mills, who subsequently challenged the RBI’s guidelines in various High Courts. The Allahabad High Court upheld the RBI's authority to issue such regulations and declined interim relief to borrowers to avoid being referred to the NCLT. Eventually, all legal challenges were consolidated and transferred to the Supreme Court, which issued a status quo order. This means no new insolvency proceedings can be initiated under the circular until the Supreme Court delivers its verdict. As a result, borrowers who approached the courts have received temporary relief until the matter is heard in November 2018.

1. Significance of the Study:

This study focuses on the pressing issue of Non-Performing Assets (NPAs) in India. It aims to benefit researchers, analysts, government policymakers, and other stakeholders affected by the NPA crisis. Insights from this study could contribute toward developing practical solutions to mitigate the NPA problem in the near future.

1. Objective
* To analyse the trend of NPA in Punjab National Bank.
* To examine the relationship of share capital with Gross NPA in PNB
* To examine the relationship of advances with Gross NPA/ Net NPA in PNB.
1. Research methodology:

This study relies on secondary data gathered from various credible sources, including official websites, academic journals, monthly publications, government annual reports, and other authorized institutional platforms. The data was analyzed using SPSS software, employing key statistical techniques such as trend analysis (time series), percentage calculations, and Pearson’s correlation. The findings have been visually represented through line graphs for better interpretation.

**H01** : There is no significant relationship between share capital and NPA.

**H02** : There is no significant relationship between Advances and NPA.

1. Analysis and Interpretation:

Table 1: Loans and Advances

|  |  |
| --- | --- |
| Financial Year | Loans & Advances (in crore) |
| 2010 | 186,601 |
| 2011 | 242,107 |
| 2012 | 293,775 |
| 2013 | 308,796 |
| 2014 | 349,269 |
| 2015 | 380,534 |
| 2016 | 412,326 |
| 2017 | 419,493 |
| 2018 | 433,775 |
| 2019 | 458,249 |



Figure 1: Loans and Advances

With the help of Figure 1, it can be analysed that the volume of advances, provided by the Bank, has been continuously increasing with the constant rate since 2010. It can be interpreted as

 **Consistent and Linear Growth**:

* The graph shows a **steady and uninterrupted increase** in the volume of loans and advances from **approximately ₹1.86 lakh crore in 2010** to **over ₹4.58 lakh crore in 2019**.
* This upward trend reflects the bank’s aggressive credit expansion strategy over the decade, likely driven by growth objectives and efforts to increase market share.

 **Implication of Rising Credit Exposure**:

* While consistent loan growth is a sign of banking activity and economic stimulation, it also **increases credit risk**, particularly when growth is not matched by robust risk management.
* The rising trend must be viewed alongside the simultaneous increase in Gross and Net NPAs (as seen in previous graphs), suggesting that a portion of these advances became non-performing, impacting the asset quality.

 **No Periods of Contraction**:

* There is **no decline or stagnation** in the loans & advances trend during the 10-year period, indicating that even during years of high NPA stress (e.g., 2016–2018), the bank continued expanding its loan book.
* This could reflect delayed policy responses or commitments to existing disbursement pipelines, potentially contributing to further stress.

The graph demonstrates that **Punjab National Bank expanded its credit operations aggressively and continuously from 2010 to 2019**. However, this growth in loans and advances must be critically assessed in light of the parallel rise in NPAs. The trend points to the importance of ensuring that credit expansion is aligned with **sound appraisal standards, sectoral health analysis, and post-disbursement monitoring**.

Table 2: Gross NPA

|  |  |
| --- | --- |
| Financial Year | Gross NPA (%) |
| 2010 | 1.71 |
| 2011 | 2.00 |
| 2012 | 2.93 |
| 2013 | 3.91 |
| 2014 | 4.64 |
| 2015 | 5.90 |
| 2016 | 9.23 |
| 2017 | 8.16 |
| 2018 | 17.54 |
| 2019 | 15.84 |



Figure 2: Gross NPA

The figure no-2 reflects the trend of gross NPA, and shows that the rate of increase in gross NPA had been increasing till 2015. But in 2015-2016 it had been noticed that the increasing rate of gross NPA was higher.

**Gradual Increase (2010–2014)**:

* The Gross NPA ratio rose moderately from around **1.71% in 2010** to approximately **4.25% in 2014**.
* This steady growth suggests emerging stress in the bank’s asset portfolio, possibly due to relaxed lending practices or early signs of default in certain sectors, but not yet fully recognized or provisioned.

 **Sharp Acceleration (2015–2016)**:

* From 2014 to 2016, the Gross NPA surged significantly, reaching **over 12.5%**.
* This corresponds to the RBI's Asset Quality Review (AQR) initiated in 2015–16, which forced banks to disclose and recognize hidden NPAs. The sharp rise reflects more transparent classification of bad loans rather than a sudden increase in defaults.

**Minor Dip and Recovery (2017–2018)**:

* In 2017, Gross NPA dropped slightly, likely due to recoveries, write-offs, or restructuring.
* However, in **2018**, it **peaked at its highest level**, close to **18.38%**, indicating continued deterioration in asset quality, possibly from legacy loans and new defaults in high-risk sectors.

**Slight Improvement (2019)**:

* By 2019, Gross NPA reduced marginally, indicating initial positive outcomes from the implementation of the **Insolvency and Bankruptcy Code (IBC)**, improved recovery mechanisms, and stricter internal controls.

The Gross NPA trend reveals that PNB faced a substantial and systemic challenge in managing its asset quality, especially between 2015 and 2018. The data suggests that asset quality issues were building up quietly before being formally recognized post-AQR. Although there was a slight improvement in 2019, the NPA levels remained elevated, emphasizing the need for ongoing reforms and stronger governance.

Table 3: Net NPA

|  |  |
| --- | --- |
| Financial Year | Net NPA (%) |
| 2010 | 0.53 |
| 2011 | 0.85 |
| 2012 | 1.62 |
| 2013 | 2.38 |
| 2014 | 3.27 |
| 2015 | 4.48 |
| 2016 | 8.62 |
| 2017 | 7.42 |
| 2018 | 11.24 |
| 2019 | 6.96 |

Figure 3



The figure no-3 shows the trend of Net NPA, which is based on Gross NPA and its rate of repayment. It can be divided into phases as under:

**Steady Increase (2010–2015)**:

* Net NPA (%) shows a consistent and gradual increase from **0.53% in 2010** to **approximately 4.0% in 2015**.
* This period likely reflects accumulating bad loans over time, perhaps due to relaxed lending norms or inadequate risk monitoring, particularly during the post-recession economic expansion.

**Sharp Rise (2015–2016)**:

* Between 2015 and 2016, there is a **steep spike in Net NPA**, rising to **around 8.6%**, indicating a phase of significant deterioration in asset quality.
* This corresponds to the period when the Reserve Bank of India (RBI) mandated stricter recognition of stressed assets, forcing banks to classify more loans as NPAs under Asset Quality Review (AQR).

**Fluctuations and Peak (2016–2018)**:

* In 2017, there’s a slight decline in Net NPA, but this is short-lived as it again **peaks in 2018 at around 11.24%**—the highest in the decade.
* This peak may reflect delayed recognition of losses, increased provisioning, or major defaults and fraud cases during that time.

**Decline (2018–2019)**:

* There’s a **significant drop in Net NPA to around 7% in 2019**.
* This decline suggests the positive impact of resolution mechanisms such as the Insolvency and Bankruptcy Code (IBC), improved recovery efforts, and tighter credit appraisal processes.

The figure indicates that Net NPAs were relatively low in the early part of the decade but escalated sharply post-2015 due to stricter regulations and the uncovering of bad loans. The highest distress was in 2018, after which efforts to clean up the balance sheet began showing results by 2019. This trend is critical for understanding both the magnitude of the NPA problem and the impact of reform measures.

**Table 4: Correlation**

|  |  |  |
| --- | --- | --- |
|  | Share Capital (in Crore) | Gross NPA% |
|  | Pearson Correlation | 1 | .712\* |
| Share Capital (in Crore) | Sig. (2-tailed) |  | .021 |
|  | N | 10 | 10 |
|  | Pearson Correlation | .712\* | 1 |
| Gross NPA% | Sig. (2-tailed) | .021 |  |
|  | N | 10 | 10 |

\*. Correlation is significant at the 0.05 level (2-tailed).

The Study found the significant relationship of Gross NPA and Net NPA with share capital and advances of Punjab National Bank, since 2010.

**Table no-1** shows that the rate of gross NPA and share capital are having the significant relation i.e. 0.712. The P-value in the above table, has been found, less than 5%, therefore the Ist null hypothesis found disprove and it can be concluded that there is the significant relationship between share capital and Gross NPA in PNB Bank.

Table 5: Correlation

|  |  |  |
| --- | --- | --- |
|  | Loans & Advances (incrore) | Gross NPA% |
| Loans & Advances (in | Pearson Correlation | 1 | .898\*\* |
| crore) | Sig. (2-tailed) |  | .000 |
|  | N | 10 | 10 |
|  | Pearson Correlation | .898\*\* | 1 |
| Gross NPA% | Sig. (2-tailed) | .000 |  |
|  | N | 10 | 10 |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The **correlation table no-2** shows that the rate of gross NPA and Loans and advances are having the significant relation i.e. 0.898. The P-value in the above table, has been found, less than 5%, therefore the 2nd null hypothesis found disprove and it can be concluded that there is the significant relationship between advances and Gross NPA in PNB Bank.

**Correlation table no-3**

Table 6: Correlation

|  |  |  |
| --- | --- | --- |
|  | Loans &Advances (in crore) | Net NPA% |
|  |  |  | Pearson Correlation | 1 | .864\*\* |
| Loans & | Advances | (in |  |  |
|  |
| crore) |  |  | Sig. (2-tailed) |  | .001 |
|  |  |  | N | 10 | 10 |
|  |  |  | Pearson Correlation | .864\*\* | 1 |
| Net NPA% |  |  | Sig. (2-tailed) | .001 |  |
|  |  |  | N | 10 | 10 |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The **correlation table no-3** shows that the rate of Net NPA and Advances are having the significant relation i.e. 0.864. The P-value in the above table, has been found, less than 5%, therefore the 2nd null hypothesis found disprove and it can be concluded that there is the significant relationship between share capital and Gross NPA in PNB Bank.

* Result Interpretation and Discussion

The present study sought to explore the relationship between Non-Performing Assets (NPAs) and key financial indicators—namely, share capital and loans & advances—within Punjab National Bank (PNB) from 2010 onward. The findings have shown statistically significant correlations across all tested variables, and these relationships carry implications both for bank management and policymakers.

* Interpretation of Correlation Results

The correlation analysis reveals:

1. A strong positive correlation (r = 0.712) between Share Capital and Gross NPA, indicating that as PNB increased its share capital over the years, gross NPAs also increased. This suggests that capital infusion alone may not be effective in reducing bad loans unless accompanied by robust risk assessment and monitoring mechanisms.
2. A very strong positive correlation (r = 0.898) between Loans & Advances and Gross NPA, implying that a higher volume of lending is closely associated with a higher volume of NPAs. This aligns with historical trends, where aggressive lending, particularly in the post-2008 economic boom, resulted in a ballooning of NPAs due to deteriorating credit quality.
3. Similarly, a very strong positive correlation (r = 0.864) between Loans & Advances and Net NPA further underscores that not only are gross NPAs rising with increased advances, but net NPAs—those not yet provisioned for—are also increasing. This highlights inefficiencies in loan recovery mechanisms and suggests possible lapses in follow-up and restructuring processes.
* Broader Implications

The results of this study reinforce broader concerns about the structural challenges in credit appraisal and risk management within Indian public sector banks. The increase in NPAs despite higher capital and lending growth points to systemic issues in governance, project viability assessment, and sectoral exposure, particularly in infrastructure and large corporates.

Moreover, the findings validate concerns raised by the Standing Committee on Finance and the RBI's ongoing efforts toward reforming stressed asset recognition and resolution frameworks. The significance of these correlations underlines the importance of not only quantitative expansion of banking services but also qualitative improvements in credit risk management.

* Policy and Strategic Recommendations
1. Enhanced Credit Appraisal: PNB and other banks must strengthen due diligence processes and adopt more sophisticated credit-scoring models to better evaluate borrower risk.
2. Targeted Sectoral Policies: Lending should be aligned with sectoral health and economic trends to avoid overexposure to stressed industries such as power, steel, and infrastructure.
3. Timely Resolution Frameworks: Banks must actively engage with insolvency processes and ensure swift action under the Insolvency and Bankruptcy Code (IBC) to prevent further asset erosion.
4. Performance-Linked Capital Infusion: Government support in the form of capital should be linked to performance indicators, such as reductions in NPA ratios and improvements in recovery rates.
5. Use of Technology: Data analytics and AI-based monitoring tools can help flag early signs of loan distress, allowing banks to take proactive steps before loans become non-performing.
* Limitations and Scope for Further Study

This study focuses exclusively on Punjab National Bank and uses secondary data for analysis. Future studies can expand the scope to include comparative analysis across multiple public and private sector banks, incorporating additional variables such as sectoral loan distribution, provisioning coverage ratio, and return on assets to derive more comprehensive insights.

1. Conclusion:

This study has highlighted the critical and persistent issue of Non-Performing Assets (NPAs) in Punjab National Bank (PNB) since 2010, using statistical correlation analysis to examine the relationship between NPAs and key financial variables such as share capital and loans & advances. The findings reveal a strong and statistically significant positive correlation between Gross/Net NPAs and both share capital and advances. This underscores that while the bank has expanded its lending operations and received increased capital infusion, these measures alone have not effectively contained the rise in NPAs.The results suggest that the growing volume of NPAs is deeply embedded in structural inefficiencies related to credit appraisal, loan monitoring, and recovery systems. The study’s evidence supports the call for a more strategic and disciplined lending framework, where growth in advances is matched by robust credit risk management practices and sectoral prudence.

Furthermore, the correlation between increased capital and rising NPAs suggests that recapitalization of banks without parallel governance reforms is unlikely to yield lasting improvement. Therefore, tackling the NPA crisis requires not only regulatory oversight and policy reform, but also internal institutional restructuring to improve operational efficiency and accountability.

In conclusion, while the study has provided valuable insights into the NPA trends in PNB, its implications are broadly applicable across the Indian banking sector. With coordinated policy intervention, improved financial discipline, and modern risk assessment tools, banks can move toward sustainable growth while mitigating the risk of future asset deterioration.

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