

# Analyzing the Impact of Non-Performing Assets on Financial Stability in Indian Public Sector Banks

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**Abstract:** *The increasing quantity of non-performing assets (NPAs) in the banking sector might have a variety of detrimental effects on the economy. A poor investment climate may be inferred from the financial and economic decline brought on by inadequate management of non-performing assets (NPAs). In the framework of the Reserve Bank of India's stringent regulatory framework, this study focuses on recovery processes and other bank-specific indicators. It also examines the management of non-performing assets from the viewpoint of Indian public sector banks that are subject to stringent asset classification regulations. Additionally, it utilizes state-of-the-art technical platforms built on the Core Banking Solution (CBS). Because it increases the demand for reserves for dubious debt and lowers the margin, nonperforming assets (NPA) pose a serious obstacle to evaluating a bank's financial performance. Numerous banks from different categories work together to lend money to a range of businesses, such as the public sector, priority sector, agricultural, SSI, and others. These developments need pre-sanctioning evaluation and post-disbursement supervision in order to contain the rising non-performing assets (NPAs) in the Indian banking sector. Banks must decrease non-performing assets (NPAs) in order to boost profitability and satisfy Basel Accord capital adequacy standards. There is now a thorough framework for handling non-performing assets (NPAs) that offers a variety of options for debt collection and restructuring. Through an analysis of the banks' financial performance relative to key performance indicators and their management of non-performing assets in light of the Reserve Bank of India's new policy initiatives and regulatory compliance, this study tracks the movement of non-performing assets (NPAs) in Indian public sector banks.*

**Keywords:** Indian Public Sector Banks, Non-Performing Assets, Analytical Study, Financial Distress, Bad Loans, Banking Sector Challenges

## I. INTRODUCTION

A loan asset that no longer generates revenue for the bank via principal or interest payments is known as a non-performing asset (NPA). Banking is one of the key sectors in India that is contributing to the growth of the national economy. This sector is essential to development strategy and the backbone of modern economic growth. The banks that fall under this category are those in which the government owns a substantial portion. They are divided into two groups: nationalized banks and State Bank of India and its affiliates. The ability of PSBs to continuously create high-quality assets in an increasingly competitive environment while maintaining stringent prudential rules and enough capital would determine their destiny. In reality, different banks use different Early Warning Systems (EWS) to detect possibly non-performing assets (NPAs). A research conducted at the Board of Financial Supervision's request by the Reserve Bank of India identified the primary EWS methods used by Indian banks. These safeguards included designating a Relationship Manager or Credit Officer to supervise a particular account or accounts, compiling a "know your client" profile, constructing a credit rating system, recognizing accounts that are subject to a special mention or watch list, and monitoring early warning indicators.

Due to the significant drop in profitability brought on by the high provisioning of non-performing assets, it is now linked to technology.

It's a good thing that technology is being used to track and lower non-performing assets. This will help the banks avoid having individuals interfere. Bank managers would have less options for how to classify the failing accounts as the scheme will designate them as non-performing assets (NPAs). Indian Bank and SBI now use the Core Banking Solution (CBS) system as their only technological platform for calculating non-performing assets (NPA). Most other PSU banks are employing the CBS technique to complete their NPA estimations and CBS migration. The biggest challenge confronting the country's financial sector today is integrating unauthorized loans into the legitimate system. Basel II requirements required banks to make significant changes to their business models, which made it possible to closely monitor any potential future economic repercussions. The impacted banks are regularly monitoring loans to identify accounts that may later become non-performing since inadequate credit risk management by the banks adds to the increase of non-performing assets (NPAs). This is due to the fact that banks need to maintain enough capital to cover any potential risks. Basel II standards require banks to maintain a minimum capital adequacy requirement of 8% of risk assets. All commercial banks in India have conformed with Basel II, with the exception of regional and small rural banks.

The Reserve Bank of India mandates that the Capital to Risk Weighted Assets Ratio (CRAR) or Capital Adequacy Ratio (CAR) for India be maintained at a minimum of 9%. To strengthen the reliability, transparency, and security of the Indian banking sector and to bring it up to date with global standards, the Reserve Bank of India (RBI) has enforced stringent regulatory restrictions. These restrictions are necessary because of the expanding international financial and commercial operations, the burgeoning economy of India, and the increased influx of cash from other nations. This research project is organized as follows. The review of the corpus of literature is addressed in section 1. The theoretical basis is explained in section 2. Section 3 outlines the methodology. The data analysis and results interpretation are summarized in Section 4. Section 5 displays the results. The last section concludes.

## II. LITERATURE REVIEW

According to the RBI Annual Currency Report dated March 31, 2010, "the management of non-performing assets (NPAs) in banks remains an area of concern, particularly due to the likelihood of a deterioration in the quality of structured advances." NPAs are an unavoidable expense for the world's banking sector. The ability of a bank to manage non-performing assets (NPAs) and maintain them within acceptable bounds determines how effectively the bank performs. Therefore, the only option to change the NPA curve is to design and execute a strong monitoring and control system supported by the required legislative changes. Over the years, research on non-performing assets (NPAs) has been conducted in an attempt to understand the issue, its causes, and potential solutions. Empirical studies on the subject of commercial bank non-performing assets (NPAs) have been carried out both domestically and internationally. Using metrics such as capital adequacy standards and non-performing assets, Swamy (2001) projected the relative performance of many bank groups from 1995–1996 to 1999–2000. Credit risk, also referred to as default risk, is the possibility that an asset's value would decrease as a consequence of borrowers' simple failure or incapacity to make required payments (Sarma, 1996). In addition to lowering the banks' overall revenue, the loss of income from non-performing assets prevents them from offering higher Prime Lending Rates (PLR) (Jain and Balachandran, 1997). The banking industry is subject to a variety of risks, including those related to interest rates, the market, credit, operations, liquidity, and management. However, credit risk is by far the least beneficial of all of them (Iyer, 1999). examined how India's nonperforming assets (NPAs) compare, contrast, and corrective measures with those of other nations. Mohan (2003) developed the idea of "lazy banking" by analyzing bank lending and investment procedures closely. Measurably speaking, bank lending practices could have a big impact on non-performing loans and other big credit problems for Indian banks (Reddy, 2004). Sathya (2005) examined how bank privatization affected efficiency and effectiveness. Between 1984 and 2003, Jimenez and Saurina (2006) studied the Spanish banking industry. Their findings show that a number of factors, including GDP growth, high real interest rates, and lax lending standards, contribute to non-performing loans (NPLs). According to this research, the latter may lead bank managers to lend disproportionately during boom times due to catastrophe myopia, herd mentality, and agency issues. If non-performing assets (NPAs) represent more than 10% of GDP, a nation is considered to be experiencing a banking crisis (Khan and Bishnoi, 2001). Even though the Narasimham Committee's banking reforms have been implemented gradually, a significant barrier to the country's ability to execute them is the vast volume of non-performing assets (Velayudham, 2001; Pacha Malyadri,

S. Sirisha, 2011). With an emphasis on the weaker sectors, this research attempts to assess the current situation of non-performing assets (NPAs) in India's public and private domains.

The opposing effect of non-performing loans (NPAs) on public sector banks' productivity has been proven by a number of research on PSBs and NPAs (e.g., Ranjan & Dhal, 2003; Misra & Dhal, 2009). These studies support the use of panel regression modeling to examine the relationship between profitability and levels of non-performing assets.

### III. THEORETICAL FRAMEWORK

Financial crises often impact the real sector of the economy because "banking crises vary greatly in scope and character" (Peter Spicka, 2008), according to generally recognized research. As a result, the strength of the whole financial system is significantly influenced by the health of the banks' finances. Using the revised Basel II framework, this study investigates the financial soundness of Indian banks in the years 2009–2010. Because to its exceptional capital adequacy, the Indian banking system was able to continue working regularly even in the face of one of the worst financial crises in history, and it was able to weather the consequences of the global financial crisis. The most important measure of a bank's financial health is its core CRAR, which is an indicative of paid-up capital and reserves. This research shows that at the conclusion of the 2010 fiscal year, about 70% of all capital in Indian banks was comprised of core capital, as measured by Tier I capital. While the capital adequacy of Indian banks continued to be excellent, there were increasing concerns around non-performing assets (NPAs). In November 2008, the policy's countercyclical phase included loosening the risk weights and provisioning suggestions in addition to addressing the global crisis' infection. To provide a safety net against the likely fall in asset quality, the demand for a provision on standard assets in the commercial real estate sector was increased from 0.40 percent to 1 percent in November 2009. The size of the sector's rationalized advances and the notable rise in credit in this area were the reasons for this growth. The decision to raise banks' provisioning cushions—which included both floating and particular provisions against non-performing assets (NPAs)—was made in October 2009. By September 2009, they also had to make sure that, with a CRAR of 0.1657 percent, their total Provisioning Coverage Ratio—which includes floating provisions—was at least 70%. This indicates that in October 2010, banks' share increased from 13.34 percent at the end of March 2009 to 13.5057 percent. By the end of March 2010, banks have to be implementing the necessary safety measures. According to the RBI's June 2010 directions on the CRAR, other parties must make sure that compromise settlements with nationalized banks are finalized in a timely, equitable, transparent, and compliant manner. Additionally, it was discovered that he improved by 0.0495 percent in compliance with Basel II criteria and by 0.0125 percent in compliance with Basel I norms. According to this, Indian banks shall provide a certificate attesting to the compromise settlements' adherence to Reserve Bank regulations to the officer or authority approving a compromise that has satisfactorily fulfilled the conditions for an in-mise or one-time settlement under the amended structure.

### IV. RESEARCH METHODOLOGY

The Report on Trend and Progress of Banking in India 2009-2010 and tables on banks released by the RBI provide the bulk of the secondary data utilized in this research. Reports, magazines, and websites covering the latest happenings in the Indian banking sector were the sources of the secondary data. The data used primarily support the study by using specific factors presented in tables and charts to allow for a logical analysis, as the research focuses primarily on the nature, growth, and management of non-performing assets (NPAs) in public sector banks and RBI capital adequacy standards. There are seven banks connected to the State Bank of India and twenty additional nationalized banks in India.

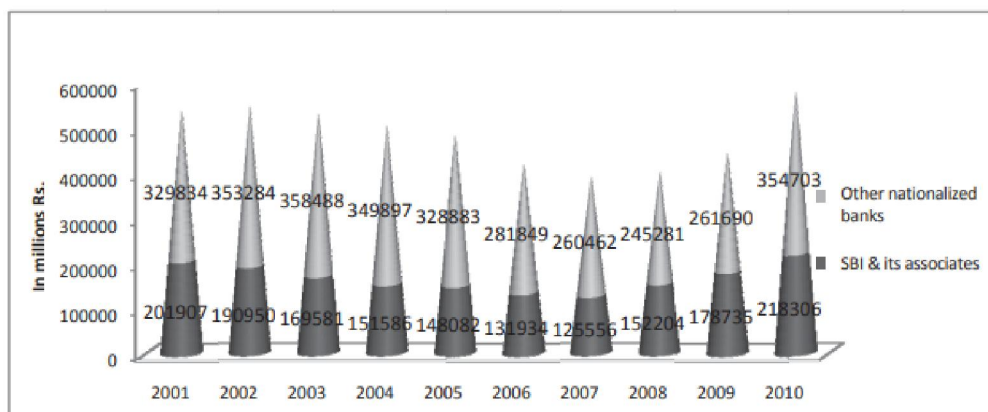
### V. DATA ANALYSIS

Table 1 shows that the average CRAR of public sector banks conformed with Basel I and Basel II rules as of the end of March 2009 and March 2010. In compliance with Basel I criteria, the State Bank of India and its associated banks raised their average CRAR by 0.24 percent, or from 12.0728 percent at the end of March 2009 to 12.3128 percent at the end of March 2010. Furthermore, according to Basel II criteria, this group's average CRAR climbed somewhat throughout that period, rising from 13.34 percent at the end of March 2009 to 13.5057 percent at the end of March 2010. During the same era, the CRAR criteria of other nationalized banks have also improved by 0.0125 percent under

Basel I standards and 0.0195 percent under Basel II regulations. This indicates that Indian banks who are using the updated framework have successfully met the higher capital needs.

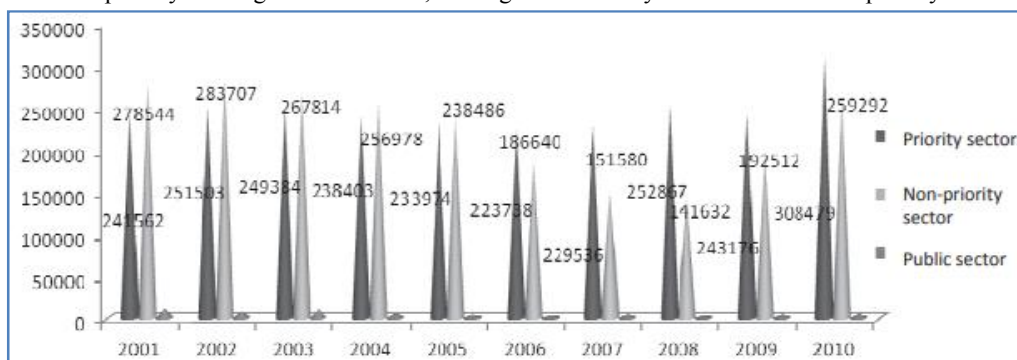
**TABLE 1. AVERAGE CRAR OF PUBLIC SECTOR BANKS UNDER BASEL I & BASEL II AS ON MARCH 31, 2009 AND MARCH 31, 2010 (IN PER CENT)**

Banks	Basel I		Basel II	
	2009	2010	2009	2010
SBI & its associates	12.0728	12.3128	13.34	13.5057
Other nationalized banks	12.0255	12.038	13..1380	13.1875

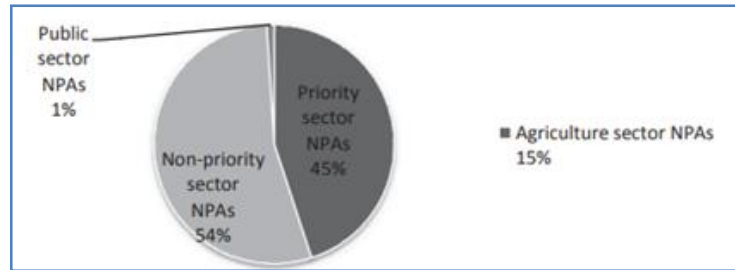


**FIG. 1. NON-PERFORMING ASSETS OF PUBLIC SECTOR BANKS FROM MARCH 31, 2001 TO MARCH 31, 2010**

Figure 2 demonstrates unequivocally that the proportion of priority sector non-performing assets (NPAs) increased from FY 2001 to FY 2010, with the exception of FY 2010, when it remained mostly steady. On the other hand, non-performing assets (NPAs) in the non-priority sector have consistently decreased; they have decreased by about 50%, from a peak of Rs. 283707.1 million in the FY 2002 to a low of Rs. 141631.6 million in the FY 2008. Still, it increased with time, hitting Rs. 192511.5 million in the FY 2009 and Rs. 259291.7 million in the FY 2010. Furthermore, figure 3 shows that, of all non-performing assets (NPAs) in FY 2010, the non-priority sector contributed around 45%, while the priority sector contributed 54%. The public sector's share of all non-performing assets (NPAs) in the 2010 fiscal year was a pitiful 1%. Furthermore, the sectoral NPA ratio of public sector banks indicates that the non-performing asset (NPA) ratio of the priority sector grew in FY 2010, although more slowly than that of the non-priority sector.



**FIG. 2. COMPOSITION OF NPAS OF PUBLIC SECTOR BANKS FROM MARCH 31, 2001 TO MARCH 31, 2010 (IN MILLIONS RS.)**



**FIG. 3. NPAs OF PUBLIC SECTOR BANKS: SECTOR-WISE AS ON MARCH 31, 2010**

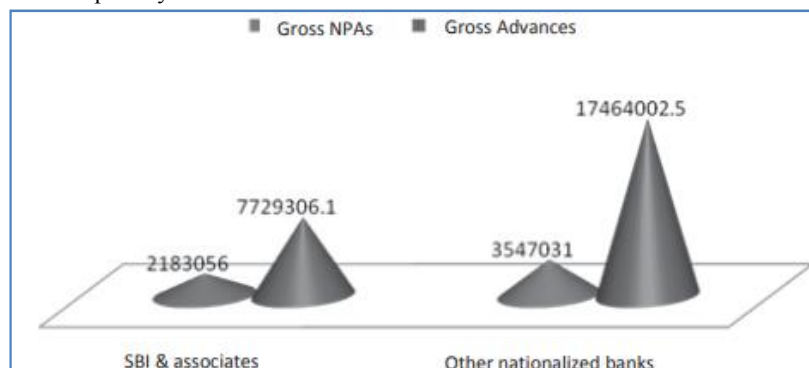
**ANALYZING GROSS NON-PERFORMING ASSETS (GNPA) TO GROSS ADVANCES RATIO FROM**

There has been a noticeable improvement in the ratio between FY 2005 and FY 2010 when comparing Indian public sector banks to SBI & associates and other nationalized banks (see Table 2). The gross non-performing assets (NPAs) ratio of public sector banks decreased from 5.35 percent at the end of March 2005 to 2.23 percent at the end of March 2008. The gross non-performing assets (NPA) ratio dropped to 2.01% in FY 2009, which was a catastrophe year. However, as Table 2 shows, public sector banks' gross nonperforming asset ratio (NPA) increased to 2.27 percent in FY 2010, a sign of a drop in loan quality when compared to previous years.

**TABLE 2. GROSS NPAs TO GROSS ADVANCES RATIO FROM MARCH 31, 2005 TO MARCH 31, 2010 (IN PER CENT)**

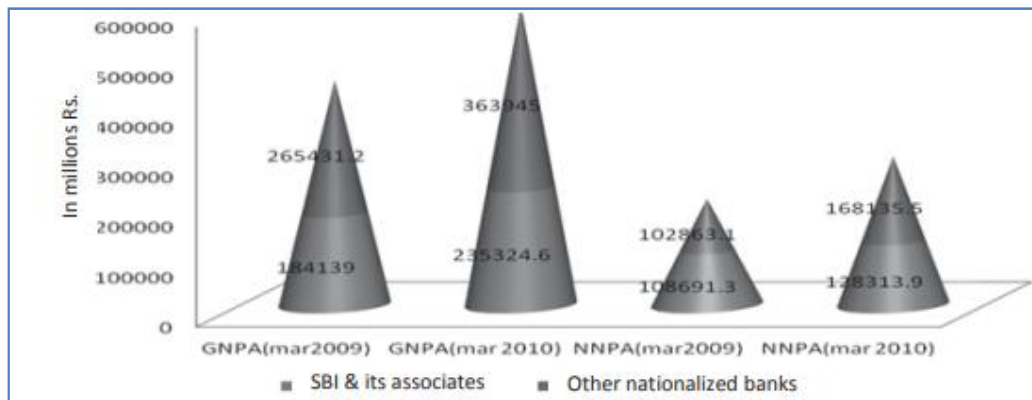
Banks	SBI & its associates	Other nationalized banks	Public sector banks
2005	5.32	5.36	5.3
2006	1.04	3.81	2.8
2007	2.59	2.69	2.6
2008	2.58	2.06	2.2
2009	2.55	1.75	2.0
2010	2.82	2.03	2.2

It is noteworthy that, even accounting for the expansion of bank lending, the rise in nonperforming assets (NPAs) has mostly followed a trailing cyclical trend. The findings of De Lis et al.'s 2001 research revealed "a strong positive impact of credit growth on problem loans with a lag of three years." "The business cycle may have an impact on the credit risk reflected in non-performing loans," according to B.M. Mishra and S. Dhal (2010). The pro-cyclical nature of the banking system, which allows asset quality to be jeopardized during periods of rapid credit expansion—specifically, prior to FY 2009, as indicated in the study Gross NPA and Gross Advances of Public Sector Banks as of March 31, 2010—is the reason behind the non-performing assets (NPAs) for banks in the upcoming years. The consequences of the global economic crisis in FY 2008 may have contributed to the significant growth in non-performing assets (NPAs) in both the priority and non-priority sectors in FY 2010.



**FIG. 4. GROSS NPAs AND GROSS ADVANCES OF PUBLIC SECTOR BANKS AS ON MARCH 31, 2010 (IN MILLIONS RS.)**

The flow of non-performing assets (NPAs) in public sector banks between the end of March 2009 and the end of March 2010 is shown in Figure 5. Moreover, the graph unequivocally demonstrates that between the end of March 2009 and the end of March 2010, the Gross Non-Performing Assets (NPAs) increased by almost 33.3%. Between the end of March 2009 and the end of March 2010, there was a significant rise of 40.1% in the Net NPAs of public sector banks subsequent to the netting out of provisions. The bank's poor lending methods in the years before to the recession as well as ineffective monitoring and revival processes in the years after the lending years were the main contributors to the negative movement of non-performing assets (NPAs). Inadequate pre-approval and post-disbursement controls are shown by public sector banks' incapacity to supervise and manage non-performing assets (NPAs) in the aftermath of the financial crisis in India.



**FIG. 5. MOVEMENT OF NPAS IN PUBLIC SECTOR BANKS**

## VI. FINDINGS

The Reserve Bank of India (RBI) recommendation of 9% and the Basel II norm of 8% are both routinely exceeded by the capital adequacy ratio that India's public sector banks have been maintaining. Because of the banks' aggressive lending practices, the quality of loans made by Indian public sector banks has gradually decreased. The 2008–2009 economic downturn had a direct impact on the increase of non-performing assets in FY 2010. Government intervention is required to stop the misuse of lax lending policies specific to the priority sector (which includes agriculture, SSIs, and others), even though the quality of lending and recovery in the non-priority sector has been improving over time. This is because the amount of non-performing assets (NPAs) in the priority sector is not showing any signs of high economic growth. Since the Reserve Bank of India has strict regulatory guidelines, public sector banks in India have been able to manage non-performing assets over time. Even if the banks have been able to strengthen their capital adequacy standards, there is still room for improvement in terms of monitoring and recovery techniques in order to improve the overall management of non-performing assets (NPAs). It is unquestionably a good idea for Indian public sector banks to use the Core Banking Solution (CBS) to monitor the progress of non-performing assets.

## VII. CONCLUSION

A major issue that banks worldwide are now facing is the increase of non-performing assets (NPAs). Non-recovery of loan installments and interest on the loan, which is a result of growing non-performing assets (NPAs) and negatively impacts bank lending activities, diminish the value of the loan-disbursement process. Because of this, there has been a great emphasis placed on strengthening capital adequacy criteria, such as the CRAR, which gauges banks' ability to withstand losses from non-performing assets. In terms of capital adequacy requirements, public sector banks in India have been able to manage high levels of CRAR to provide an adequate cushion for any unexpected losses. Despite this, the growth in non-performing assets (NPAs) in recent years is still cause for worry and has to be seriously addressed when loans are being disbursed and recovered. Recent bank practices have resulted in compromise agreements; nevertheless, the Debt Recovery Tribunals and many other sections have expressed grave reservations about this approach. It was found that, despite the availability of many securities, banks ignore RBI standards and use various criteria for different borrowers, agreeing to a lower amount than what was indicated. In conclusion, the study notes that

the regulatory bodies' prudential and provisioning standards, among other initiatives, have put pressure on banks to perform better, which has improved the Indian banking system's financial health and reduced non-performing assets (NPA). In a nutshell, we can conclude that public sector banks in India have shown flexibility during economic downturns, but maintaining their continuous existence and growth depends on managing non-performing assets (NPAs) via improved advances and recovery processes.

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