

# NPAs Management in Indian Banking - Policy Implications

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## Abstract

The banking industry in India was passing through a critical phase in late eighties when questions were raised about the viability of the banking institutions. Financial reforms were introduced along with economic reforms in early nineties to make the banking system more efficient, viable and responsive to changing economic environment, so as to develop a financial sector that could be globally competitive. The introduction of various reforms in a phased manner did result in strengthening the system, as was evident from various indicators such as improvement in capital adequacy, reduction in non-performing assets, increased return on assets and equity etc. However, the greatest challenge to banking industry during last one and a half decade of their growth has been management of Non-Performing Assets (NPAs). The model for understanding causes for NPAs focuses on implications of factors such as credit deposit ratio, gross domestic product, priority sector advances, bank rate etc. The purpose is to come out with policy implications to manage NPAs at macro level. Simultaneously an attempt has been made to suggest specific strategies by diagnosing lender related, borrower related and external factors contributing to NPAs. The paper also attempts to spell out policy implications at macro and bank level to effectively manage NPAs that can have generic implications.

**Key Words:** NPAs, Banking, Policy, Management

## Introduction

The banking industry in India was passing through a critical phase in late eighties and early nineties when questions were raised about the viability of the banking institutions. Economy itself was passing through a critical phase in 1991 because of meager foreign exchange reserves. To salvage the situation the country had to take recourse to financial assistance from International Monetary Fund (IMF). Conditionality of the assistance led to introduction of Economic and Financial reforms in early nineties to make the economic and banking system more sound, efficient, viable and responsive to changing economic environment, so as to develop an economy that could emerge as globally competitive. The greatest challenge to banking industry during the last one and a half decade of its growth has been management of non-performing assets. The pace of response to manage NPAs in banks still remains a matter of great concern because of lack of integration between structural and institutional reforms with banking sector reforms. The paper attempts to study and analyze the impact of banking sector reforms on level of NPAs in Indian Banking industry, strategies used in different Asian countries to learn the lessons from their experience and to develop an econometric model for management of NPAs with a view to come out with policy implications and strategies for effective management of NPAs.

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The problem of NPAs is related to several internal and external factors confronting the borrowers (Muniappan, 2002). The internal factors are diversion of funds for expansion/diversification/modernisation, taking up new projects, helping or promoting associate concerns, time/cost overruns during the project implementation stage, business (product, marketing, etc.) failure, inefficient management, strained labour relations, inappropriate technology/technical problems, product obsolescence, etc., while external factors are recession, non-payment in other countries, inputs/power shortage, price escalation, accidents and natural calamities. In the Indian context, Rajaraman and Vasishtha (2002), in an empirical study, provided evidence of significant bivariate relationship between operating inefficiency indicator and the problem loans of public sector banks. As per the study by Rajiv Ranjan and Sarath Chandra (2003), a positive outlook on business conditions would entail greater dependence of economic agents including firms on banks for debt financing and thus, favorable loan repayment response of borrowers in order to maintain credit-worthiness.

The non-performing assets of various banks and suggested strategies to reduce the extent of NPAs have been studied by Kaveri (2001). Prashanth K Reddy (2002) in his study has focused on Non-Performing Assets in India in the Global context. He. Dong (2002) reviews the nature of Non-Performing Assets in the Indian banking system and discusses the key aspects that would be important for the Assets Reconstruction Companies to play an effective role in managing NPAs. Das and Kabra (2010) have empirically tested the implication on non-performing loans of public sector banks in terms of various indicators such as asset size, credit growth and macroeconomic condition, and operating efficiency indicators. Janardhan G. Naik (2006) pointed out the problems of NPAs management as a major challenge before the banking sector. Gourav Vallabh, Anoop Bhatia, Saurabh Mishra (2007) explore an empirical approach to the analysis of NPAs of public, private and foreign sector banks in India.

Fuentes and Maquieira (1998) undertook an in-depth analysis of loan losses due to the composition of lending by type of contract, volume of lending, cost of credit and default rates in the Chilean credit market. Their empirical analysis identified different variables affecting loan repayment as: limitations on the access to credit; macroeconomic stability; collection technology; bankruptcy code; information sharing; the judicial system; prescreening techniques; and major changes in financial market regulation. According to their study a satisfactory performance of the Chilean credit market, the repayment of loans, mainly hinges on good information sharing system, an advanced collection technology, macroeconomic performance and major changes in the financial market regulation. In another study of Chile, Fuentes and Maquieira (2003) analysed the effect of legal reforms and institutional changes on credit market development and the low level of unpaid debts in the Chilean banking sector. The study for the period between 1960-1997, concluded that both information sharing and deep financial market liberalisation were positively related to the credit market development. Rajiv Ranjan (2003) studying "Non-Performing Loans and Terms of Credit of Public Sector Banks in India", suggests that positive deviation of an individual bank's credit-deposit ratio (CDR), from that of industry's average could have favorable effect on reducing NPAs. Banks could exploit competitive portfolio advantage within a range of about 8-13 per cent difference

between their own CDR and that of the industry. Jimenez and Saurina (2003) developed a model for analysing the determinants of the probability of default (PD) of bank loans in terms of variables such as collateral, type of lender and bank-borrower relationship, while controlling the other explanatory variables such as size of loan, size of borrower, maturity structure of loans and currency composition of loans. Their empirical results suggested that collateralised loans had a higher probability of default, loans granted by savings banks were riskier and a close bank-borrower relationship had a positive effect on the willingness to take more risks. At the same time, size of bank loan had a negative effect on default while maturity term of loans, i.e., short-term loans of less than 1-year maturity had a significant positive effect on default.

Raghbendra Jha (2000) studying "The downward rigidity of Indian interest rates" says that the high level of NPAs with Indian banks is a cause as well as a consequence of high interest rates, since the high level of NPAs in itself makes it difficult to move to a lower interest rate regime. The percentage of non-performing assets (NPAs) is often associated with bank failures and financial crises in both developing and developed countries (Caprio and Klingebiel, 2002). Goldstein and Turner (1996) in their study also concluded that accumulation of non-performing assets is attributable to high cost of loans. In spite of one to one relationship between banking crises and non-performing assets, the literature on the causes of non-performing assets has focussed less on the influence of interest rate spread as compared to other macro-economic variables (Fofack, 2005). While subsidized rates charged for priority sector lending may help in increasing loan accessibility, it tends to the problem of selection of borrowers and lack of seriousness on the part of borrowers to utilise loan in a productive manner (Muraki, et al., 1997: 36). On the other hand low interest rates encourage ex-ante risk-taking (Kashyap and Stein, 2000). However, lower interest rates may be helpful for small borrowers to enhance their economic wellbeing. Demircuc-Kunt and Huizinga (1997) in their study found that better contract enforcement system coupled with efficiency of the legal system is associated with lower realized interest margins. As per study of Asian Development Bank, NPAs create problems for the banking sector's balance sheet on the asset side. They also create a negative impact on the income statement as a result of provisioning for loan losses.

### **Non Performing Asset (NPA)**

The NPA (Non Performing Asset) is an asset of the bank that ceased to generate the required income that was expected in a particular time period. As per the definition, an asset is classified as NPA, in case it fails to meet its commitment towards repayment of principal or payment of interest for a period of more than 90 days. The issue of NPAs and their effective management is crucial for the functioning of financial intermediaries as it affects the overall macroeconomic performance by affecting the savings and investment process. The banks in India are required to classify non-performing assets into three broad categories namely - Sub-standard, Doubtful, and Loss Assets. A loan asset is classified as sub standard, if it remain NPA for a period of less than or equal to 12 months with effect from 31st March 2005. A loan asset is classified as doubtful that has all the weaknesses inherent in assets that were classified as sub-standard, with the added characteristic that the

weaknesses make collection or liquidation in full, - on the basis of currently known facts, conditions and values - highly questionable and improbable. With effect from March 31, 2005, an asset would be classified as doubtful if it remained in the sub-standard category for 12 months. A loss asset is one where loss has been identified by the bank management or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value. 100% of the provision against assets identified as loss needs to be made in books of accounts.

### Factors that cause NPAs

This results in adversely affecting the profitability of the banks besides additional burden to make due provisions as also maintain capital adequacy level G.P Muniappan (2002). Some of the vital internal and external factors contributing to NPAs are as under:

#### Internal

- Diversion of funds for expansion/modernisation/setting up new projects/ helping or promoting sister concerns.
- Inordinate delays in implementation of the project leading to time and cost over run.
- Weak or inadequate credit appraisal, credit monitoring and follow up systems in banks.
- Lack of competence to appraise proposals.
- Inordinate delay in making credit facilities available to borrowers or release of subsidies by government.
- Wilful Default or Misappropriation of funds.
- Inefficient management - strained labour relations, managerial obsolescence.
- Inappropriate or obsolete technology

#### External

- Recession in the economy
- External factors like raw material shortage, sudden escalation in raw material/input price, power shortage, excess capacity leading to demand supply mismatch, natural calamities like floods, accidents etc.
- Product or service failing to capture expected market.
- Technology obsolescence, product obsolescence, etc.
- Change in government policies leading to adverse implications on the company's operations.
- Recessionary trends in the countries to which company is exporting its products
- Exchange rate fluctuations leading to adverse implications on business.

Study conducted by A.Q Siddiqui (Department of Banking Supervision, RBI) on 800 top NPA accounts of 17 banks revealed the causative factors for units becoming sick and consequently accounts turning out to NPA. The study suggests that the diversions of funds for expansion, diversification, modernization, assisting associate concerns are the major factors that lead to NPAs combined with the recessionary trends in the economy.

### NPA Management - Global Perspective

Korea's non-performing loan (NPL) problem originated from the excessive leverage at domestic companies, the ineffective credit risk management of domestic financial institutions, Contagion Effects, Lack of Monitoring, Directed credit. The contagion effect of the Asian Financial Crisis in October 1997 triggered a wave of corporate bankruptcies and accumulation of non-performing loans (NPLs) in the financial sector. The Korean government created the Korea Asset Management Corporation (KAMCO) with the mandate to recover NPLs in November 1997. KAMCO's major NPL disposition methods include bulk/individual sales to domestic and international investors, Asset-Backed Securities (ABS) issuance, bankruptcy auctions, debt collection, and workouts. KAMCO's use of securitization was supported by the spread of the Asset-Backed Securitization Act in 1998, followed by the Mortgage-Backed Securitization Company Act in 1999.

The major cause for Japan's NPL problem was the banking system's concentrated lending to the property sector through the 1980's, time consuming legal mechanisms, expansionary fiscal policy measures which supported real estate sectors, inadequate accounting systems and weak corporate governance. The subsequent explosion of the real estate bubble lowered the value of loan collaterals dramatically, affecting virtually all types of financial institutions. After an initial delay in responding to the NPL problem, the Japanese government created the Resolution and Collection Corp. (RCC) in 1998 to take over NPLs from 90 failed financial institutions at only 7.1 cents on the dollar- a substantial discount from book value. The important measures taken to overcome NPLs are Amendment of foreign exchange control law (1997), Accounting standards in line with international standards, Government Support by way of public funds to deal with banking sector (Prashanth K Reddy, 2002).

Thailand's NPL problem was triggered by the 1997 Asian Financial Crisis, which affected many banks that issued foreign currency loans to debtors with local currency income streams. Thailand accepted a rescue package from the International Monetary Fund valued at \$3.9 billion, in exchange for agreeing to certain economic reforms. The country's NPL ratio, in excess of 45 percent of total loans in 1998, was successfully reduced to just about 12 percent by March 2004. Financial Sector Restructuring Authority (FRA) was created and it rapidly divested the assets of 58 suspended finance companies through a series of bulk sales, 56 of which were subsequently shut down (Zafft and Vassiliou 2002).

The Philippine approach to manage NPL has focused on improving key legal structures to give the private sector the opportunity to sort its way out of the financial distress. The strategy promises to - upgrade the country's corporate rehabilitation and insolvency systems to world-class standards with the setting-up of special commercial courts to handle the various proceedings; improve the country's credit transaction infrastructure; pass the Special Purpose Vehicle (SPV) Act to provide tax and other incentives for the financial sector to sell and dispose of its non-performing assets to asset management companies; and pass a Securitisation Act and other component pieces of legislations.

The NPLs problem in Chinese economy was different as China's closed capital market shielded it to a large extent from the crisis. China's substantial NPAs were the outcome of sustained losses at state-owned enterprises (SOEs) and lack of a commercial credit culture in major financial institutions.

### Empirical Analysis - Level of GNPA's

An attempt has been made in this paper to analyse the level of Gross Non Performing Assets (GNPAs) and the variables that cause the same in Indian economy. The basic framework for empirical analysis involves a multiple regression model as under:

$$\text{GNPA} = F(\text{GDP}, \text{CDR}, \text{PA}, \text{BR})$$

In the above referred model the level of GNPA's in the economy is considered to be a function of the following independent variables:

- The growth rate of aggregate economic activity is included as lagged growth rate of GDP (LGDP) for capturing borrower's response to expected macroeconomic environment and business prospects.
- The credit deposit ratio (CDR).
- The ratio of banks priority sector advances (PA) to total advances
- Bank Rate (BR)

To analyse the impact of factors that lead to NPAs the variables CDR, LGDP, PA/GA, BR are regressed with GNPA's. The data from 1994-95 to 2009-10 is used for regression.

$$\text{GNPA}[t] = 23.392 - 0.2620 \text{ CDR}[t] + 0.332 \text{ LGDP}[t] - 0.253 \text{ PA/GA}[t] + 1.088 \text{ BR}[t] + e[t]$$

GNPA: Gross Non Performing Assets

CDR: Credit Deposit Ratio

GDP (t-1): Gross Domestic Product of the previous year

GPA: Growth in Priority Sector Advances

BR: Bank Rate

The regressed equation shows that the credit deposit ratio and gross priority sector advances to total advances have negative effect on gross non performing assets i.e. increase in these would result in reduction of NPAs. Here particularly the notion that directed lending under priority sector advances leads to higher NPAs does not seem to be tenable. One of the major reasons for this is greater spread of risk under large number of priority sector advances. Also effective monitoring and credit delivery systems especially operated by some banks reveal that prospects of recovery of priority sector loans is normally better than large size commercial loans.\* Further the experience also suggests that probability of wilful defaulters is relatively far higher in case of big loans as compared to small loans extended under priority sector.

\*The sign and significance of the coefficient of priority sector lending turned negative and non-significant due to multi-collinearity

GPA will have negative effect on the level of GNPA's but Lagged GDP and Bank Rate have positive effect on the level of GNPA's.

Similarly increase in credit deposit ratio indicates favorable macro economic environment, resulting in more and quality proposals for lending which leads to reduction in NPAs. It may also happen that higher availability of credit in a favorable market conditions may get channelised for payment of dues as against creation of productive assets for which credit facility gets extended. This may result in temporary reduction in NPAs. However it may cause greater problem in the long run.

The effect of bank rate is consistent with the previous studies i.e. the increase in the interest rate results in increase in the level of GNPA's. As increase in cost of borrowing results in squeezing the margins and in turn availability of cash profits, this adversely affects corporate ability to repay loans. Lagged GDP has a positive effect on the level of GNPA's i.e. with the increase in the Gross Domestic Product there would be increase in the level of GNPA's. It is evident from t-test that LGDP as explanatory variable is not significant even at 10% significance level. What matters more is current GDP, rather than LGDP. Banks have to be very careful in devising monitoring mechanisms by closely associating them with the operations of the borrower and flow of cash, so that dues are collected as and when company has cash, rather than allowing them to channelise the cash for other purposes, especially when borrower is in default.

The adjusted R-squared value is 0.9669, which implies that 96.69 percent of variation in GNPA can be explained by the variables used for the regression i.e. CDR, Lagged GDP, PA, and BR. The calculated F-test statistic in the regression is 74.15 while F value from the table is 4.53, showing that the regression is significant and the explanatory variables will have significant influence on the dependent variable i.e. GNPA. The t-test statistics show that the variables CDR, BR, Constant are statistically significant at the five percent level and PA/GA is statistically significant at ten percent level while LGDP is not significant at these levels. The replacement of Priority Sector Advances (PA) variable by the Growth in priority sector increased the forecasting ability of the model which can be inferred from the increase in the 2-tail-p value in "Multiple Linear Regression - Ordinary Least Squares" table given in Appendix A.

Nachiket Mor has argued that the current organizational competencies, regulatory framework, quality of disclosure and incentive structure produce an inconsistent framework, which leads to an unsustainable performance level for a bank. Micro level issues will have to be addressed in order to root out the problem. Processes at every stage of an asset's life impact the overall quality of the intermediation process and so a consistent set of procedures are necessary to handle the problem. The problem of NPAs gets further aggravated because of ineffective and weak legal redressing mechanism which does not penalize in time the wilful defaulters as also bankers having extended credit to doubtful debtors. There is utmost need to be harsh in quickly penalising both wilful defaulters as also bankers who act as instruments in lending by diluting appraisal norms.

The factors that cause NPAs in banking industry can be broadly divided into three categories, namely-Lender-related, Borrower-related and External Factors beyond the control of borrower or lender. Major quantum of NPAs arises because of lender or borrower related factors which require better credit risk management systems to be introduced and effectively

implemented by each bank. However, simultaneously banks have to be alert and vigilant to external factors and respond to them proactively to minimize their effect on accretion of additional NPAs. The lender related factors are mainly indiscriminate lending; lack of mechanism for credit information dissemination, lack of effective IT and MIS credit systems in place, collateral based lending, weak monitoring mechanisms, dilution of standards at the time of sanction, indiscriminate relaxation of pre-disbursement conditions at the time of disbursement, and above all lack of objectivity in appraisal systems. Borrower related reasons are mainly - wilful default, weak financial position of the unit, diversion of funds, delay in implementation, absence of timely up-gradation of technology, lack of innovation on the part of borrower, lack of financial discipline, generation not adequate to meet financial commitments etc. External factors beyond the control of banker or borrower are overall downturn in economy, recession, changes in the industrial and fiscal policy resulting in adverse effect on the operations of the borrower, obsolescence in technology, change in customer preferences, exchange rate fluctuations etc. What it requires to effectively manage the credit portfolio is to identify the root cause behind the problem and work out a strategy, in case it can be tackled. In case the problem is beyond redemption, banker has to necessarily look into an exit route without losing time, so as to salvage the situation to the extent it can at the earliest.

### Approaches to Tackle NPAs

Setting up of Asset Reconstruction Companies have turned out to be successful in Korea, Japan, Thailand and similar efforts have started yielding results in China and India too. In the case of corporate borrowers i.e. medium and large scale industries, ARC's can help in tackling the problem to a great extent. However ARC's may not be effective in tackling the problem of priority sector lending which has a broad spread, with quantum of credit to each borrower being relatively small. Introduction of Lok Adalats can be relatively effective in tackling NPAs pertaining to priority sector lending.

For small industries and business entities that are adversely affected because of inordinate delay in recovery of their debts, securitization of assets can help a lot. It would be prudent on the part of government to allow more foreign investment in asset securitization companies to create a better business environment for small and medium companies to facilitate their operations by securitization of their receivables. The existing legal system needs to be revamped to ensure faster recovery mechanism and a comprehensive bankruptcy code providing for winding-up, reorganization, and settlement of all other issues, including corporate insolvency.

Mergers as a strategy to salvage weak banks as also to strengthen the operations of the strong banks would be another vital strategy for growth in the banking industry in India. It will also facilitate the tackling of the problem of NPAs. Several loss-making old private banks have been merged with public sector banks during the last few years. At the same time a few new private sector banks could not survive on their own and got merged with large reputed private banks. Times Bank merged with HDFC Bank. Bank of Punjab got merged with Centurian

Bank. The Bank of Sikkim has been merged with the Union Bank of India. The State Bank of Banarès was merged with the Bank of Baroda. This trend of mergers is going to be more pronounced in the years to come.

The implementation of Basel II norms would further focus on risk differentiation and the need for introduction of effective approaches to assess credit risk. One of the key messages of Basel II norms to the management of banks would require further strengthening of monitoring and supervision tools and techniques so as to better attune to risk and be better able to act on those risk assessments at the appropriate time. The whole approach has to be pre-emptive rather than crisis mode towards risk management.

### Management of NPAs - Initiatives Taken

Over and above credit and monetary policy initiatives by way of changes in the bank rate, lending to priority sector, impetus to credit deposit ratio so as to boost economic growth leading to curtailment of NPAs, Reserve Bank of India (RBI) and Government of India (GOI) have been taking a number of initiatives to create an environment favorable for check on additional accretion of NPAs as also management of existing NPAs. Some of the vital initiatives taken are as under:

**Decontrol and Deregulation** RBI has taken a number of measures for decontrol and deregulation of banks, so as to force Indian banks to operate on global standards by being efficient amidst competitive environment. This continuous deregulation has made the banking industry market extremely competitive with greater autonomy, operational flexibility, decontrolled interest rates and liberalized norms for foreign exchange. Introduction of prudential norms as per Basel Accord also helped a lot in introduction of systems to manage NPAs by taking timely corrective actions. All these measures have resulted in greater operational efficiency and productivity in all operations including credit off-take and recovery measures.

**Introduction of good Corporate Governance Practices-** Allowing Public Sector Banks to tap public equity by retaining government stake of 51% has enabled banks not only to raise their equity but also become accountable to private share holders. Together with introduction of norms for good corporate governance by Securities and Exchange Board of India (SEBI), RBI has focused its efforts in setting appropriate standards to take care of special needs of banking companies. RBI constituted Board for Financial Supervision (BFS) in November 1994 as a committee of the Central Board of Directors of the Reserve Bank of India and is chaired by Governor. BFS inspects and monitors banks using "CAMELS" (Capital adequacy, Asset quality, Management, Earnings, Liquidity and Systems and Controls) approach. BFS has also been upgrading the quality of the statutory audit and internal audit functions in banks and financial institutions through its Audit Sub-Committee. A Study on the State of Corporate Governance in India reveals that in majority of the banks, an improvement in Capital Adequacy Ratio has resulted in better asset quality, higher returns and share prices and increase in NPAs have been causing fall in share prices. Further in case of majority of banks, any improvement in Return on Assets results in increase in overall shareholders wealth reflected in higher share prices.

**Activating Credit Information Bureau (CIB)** - To curb fresh accretion of NPAs, taking a cue from Credit Information Bureau (India) Ltd. (CIBIL) set up in January 2001, RBI has taken steps for collection and dissemination of information on the suits filed accounts, list of defaulters, including wilful defaulters and details on parties that have committed bank frauds. Accordingly banks and FIs submit the list of suit-filed accounts of Rs.1 crore and above and suit-filed accounts of wilful defaulters of Rs.25 lakh and above, on quarterly basis to CIBIL which gets shared amongst banks/FI's to ensure that credit facilities do not get extended to such accounts or promoters of sister concerns of such accounts. This has been a very helpful tool for sharing the information amongst banking circle to safeguard their interest and manage credit risk.

**Corporate Debt Restructuring** - Companies that lead to weak financial position, mainly on account of external factors or unforeseen circumstances need to be duly identified in time and if found viable need to be restructured. Corporate Debt Restructuring is a strategy in the hands of bankers to deal with prospective and existing NPAs to bring them back to standard category, without causing pain to defaulting borrower. The objective of the CDR is to initiate timely action to restructure corporate debts of viable corporate entities, particularly those which are outside the purview of BIFR, DRT or other legal proceedings. It is a voluntary system based on debtor-creditor agreement and inter-creditor agreement. The scheme is applicable to accounts involving multiple banks and financial institutions with outstanding exposures of Rs. 20 crore and above by banks and institutions. However, the quantum of restructured standard assets at Rs.97,834 cr in March 2010 and Rs.1,06,859 cr in March 2011 were higher than the gross NPAs of the banking system at Rs.81, 816 cr and Rs.94, 088 cr respectively during the respective period as per the Working Group (WG) to review the existing prudential guidelines on restructuring of advances by banks/financial institutions set up under the chairperson and Executive Director B Mahapatra. The working group had expressed a concern that some of these restructured standard accounts could fall back into the NPA category over a period of time if these borrowers facing temporary cash flow problems in the wake of the global financial turmoil, did not recover within a reasonable time and attain viability. The WG has recommended that the RBI may do away with the regulatory forbearance regarding asset classification, provisioning and capital adequacy on restructuring of loan and advances in line with the international prudential measures. However, in view of present domestic macroeconomic situation as also global situation, this measure could be considered say, after a period of two years. In the interregnum, for prudently recognising the inherent risks in assets classified as standard on restructuring, the provision requirement on such accounts should be increased from the present 2% to 5%. This may be made applicable with immediate effect in cases of new restructurings (flow) but in a phased manner during the two year period for the existing standard restructured accounts (stock), i.e., abinitio a provision of 3.5% in the first year of adoption of the recommendation which should be subsequently raised to 5% in the second year of adoption of the recommendation, when the asset classification benefit ceases. The implementation of this recommendation would further improve the health of banking system and give more realistic picture about NPAs.

**E-banking** - E-banking has helped a lot in developing Management Information Systems and Services to improve operational efficiency and objective decision making in general and to deal with NPAs in particular. Reserve Bank of India has been advising banks to review their existing IT and MIS framework and put in place a robust MIS mechanism for early detection of signs of distress at individual account level as well as at segment level (asset class, industry, geographic, size, etc.). Banks use such early warning signals for putting in place an effective preventive asset quality management framework, including a transparent restructuring mechanism for viable accounts under distress within the prevailing regulatory framework.

**Strengthening Risk Assessment and Risk Management** - In addition to each bank taking its own measures to strengthen risk assessment and risk management systems, RBI has initiated a number of steps in this direction to evolve a suitable model for risk management. RBI has basically focused its regulatory efforts in identified risk prone areas – asset liability management, credit management, changes in market conditions and counter-party and country risks by evolving and introducing suitable models. RBI has also introduced risk –based supervision of banks. It is important that commercial banks put in place rigorous policies on loan advances so that loans - term and working capital - are sanctioned to credit worthy borrowers having ability to repay and mitigate moral hazards. Banks should apply efficient and effective credit risk management systems also to enhance periodic/regular credit risk monitoring mechanism of their loan portfolios to reduce the level of NPA.

**Debt Recovery Tribunals (DRT) to expedite recovery** - DRT Act 1993 provides for rules and regulations that can enable banks and financial institutions to recover their dues expeditiously by filing an application for recovery. Once their claim is adjudicated, a Recovery Certificate is issued in favor of banks/FIs. Based on Recovery Certificate, execution proceedings are initiated by the recovery officer appointed by the tribunal. Debt recovery tribunals have started yielding results as evident from recovery of 27.6% of the involved amount during 2010-11 of SCBs and 17.0% during 2011-12.

**Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002 (SARFESI)** - SARFESI provides for the enforcement of security interests in movable (tangible or intangible assets, including accounts receivable) and immovable property without the intervention of the court, by way of a simple, expeditious and cost-effective process. When any borrower makes any default in repayment of secured debt or any installment thereof, and his account in respect of such debt has been classified by the secured creditor as a non-performing asset, then the secured creditor may call upon the borrower, by way of a written legal notice, to discharge in full his liabilities within 60 days from the date of the notice, failing which the secured creditor would be entitled to exercise all or any of the rights set out under SARFESI. The notice must contain details of debt and secured assets.

The provisions of SARFESI relating to security of interest can be invoked by - any bank; public financial institution under Section 4A of the Companies Act of 1956; any institution specified by central government under sub clause (ii) of clause

(h) of section 2 of the Recovery of Debt Due to Banks and Financial Institutions Act of 1993; any other institution or non-banking financial company as specified by the central government; or the International Finance Corporation or a consortium thereof. It provides for taking possession of assets of the borrower, takeover of management of secured assets, appointment of a manager for the secured assets. No civil court will have jurisdiction over any of the matters under SARFESI. The weapon in the hand of bankers by way SARFESI has also started yielding results as evident from recovery of 37.9% of the outstanding amount under SARFESI during 2010-11 of SCBs and 28.6% during 2011-12.

**Asset Reconstruction Companies (ARC)** - Chapter II of SARFESI provides for the setting up of reconstruction and securitisation companies for securitisation i.e. acquisition of financial assets from its owner, whether by raising funds by such Securitisation or Reconstruction Company from qualified institutional buyers by issue of security receipts representing undivided interest in such financial assets or otherwise. SARFESI deals with the registration of these companies, their pre-requisite qualifications etc. The steps that securitisation or reconstruction companies can take for the purpose of asset reconstruction are: takeover of the management of the business of the borrower, sale or lease of a part or whole of the business of the borrower, rescheduling of payment of debts payable by the borrower, enforcement of security interest in accordance with the provisions of the act, settlement of the dues payable by the borrower, taking possession of secured assets. ARCs shall be deemed to be the lender and all rights of the lender shall vest in the ARC in relation to such financial assets. All contracts, deeds, bonds, agreements, powers of attorney, grants of legal representation, permissions, approvals, consents or no objections and instruments relating to financial assets existing before the acquisition of financial assets by the ARC shall have full force and be enforced as if they had been issued in favour of the ARC.

The efforts taken at both macro and micro level have been yielding results as evident from benefits derived by way of check on NPAs in banks. The gross NPAs of scheduled commercial banks (SCBs) increased marginally from Rs. 47300 cr in 1996-97 to Rs 97922 cr in 2010-11 resulting in average annual growth of 5.33 per cent. Against this average annual growth in gross advances as also net advances has been 20.99 per cent between 1996-97 and 2010-11. The percentage of gross NPAs to gross advances of SCBs fell from 15.7 per cent in 1996-97 to 2.5 percent in 2010-11. However the net NPAs in absolute terms fell from Rs 22340 cr in 1996-97 to Rs 20101 cr in 2006-07, resulting in almost negative annual growth. However subsequently it increased to touch a level of Rs 41700 cr in 2010-11. The percentage of net NPAs of SCBs to net advances fell from 8.1 per cent in 1996-97 to 1.10 per cent 2010-11. In the corresponding period net NPAs to total assets of SCBs fell from 3.3 per cent to 0.7 per cent respectively. There has been almost consistent year to year reduction in percentage of gross NPAs to gross advances and net NPAs to net advances between 1996-97 and 2010-11. However there has been a sudden spurt in Gross NPAs of SCBs that increased from Rs 97922 cr in 2010-11 to Rs 142300 cr in 2011-12 i.e. an increase of 45.35 per cent. During the corresponding period Net NPAs of SCBs increased from Rs 41700 cr to Rs 64900 cr i.e. an increase of 55.63 per cent. Both Gross NPAs to Gross

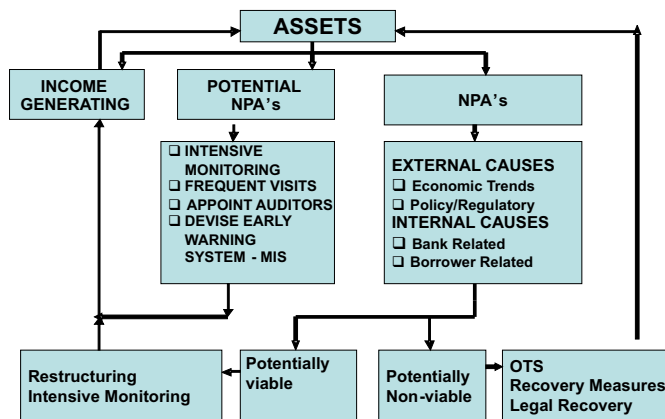
Advances and Net NPAs to Net Advances percentages increased from 2.5 to 3.1 per cent and 1.1 to 1.4 per cent respectively during the corresponding period. The main reasons for sudden spurt in NPAs have been slowdown in economic growth, high interest rates and increased liquidity in the banking system.

This reveals that the steps taken at macro level by way of banking sector reforms as also at micro level by each bank to improve the quality of asset portfolio of banks has been yielding results. However still performance of Indian banking industry as a whole lags compared to other developed countries and therefore much needs to be further vigorously followed up to control the accretion of NPAs, so that Indian banking industry achieves global standards in managing NPAs.

First and the foremost step to check accretion of NPAs would be to use credit rating models to objectively appraise the proposals and not to dilute standards at the time of appraisal or disbursement, as any lapses in appraisal stage can never be retrieved and rectified. Having disbursed the money, the banks should put in place an Early Warning System that would monitor all the advances of the bank, so as to identify and take timely corrective actions to salvage potential NPAs from turning into NPAs and to recover dues from existing NPAs.

The potential NPAs are the assets that have the characteristics of becoming a NPA in the near future. The potential NPAs can be identified by being alert to market information, discussion with senior officials of the borrower, ensuring timely receipt of working results of the company on monthly or if needed fortnightly basis, proper analysis of financial statements of the company and competitive position of the company in the current environment. If an asset is likely to fall into potential NPA category, monitoring mechanism need to be strengthened by taking recourse to innovative strategies. If an asset has become NPA because of will ful default or diversion of funds then the bank should inform RBI about the company, give public notice about the company and initiate recovery process for recovery. If the viability prospects exist with certainty, then the bank can go for restructuring its loans. Else one has to work out One Time Settlement (OTS) possibility and recovery through legal measures, depending upon the assessment of situation. In case an asset is turning out to be non-viable because of inordinate delay in implementation, the banker may have to look for change in management or recovery action. If delay in implementation has temporarily jeopardized viability of the company, the banker may have to work out restructuring proposal to salvage the situation. Fig-1 gives the strategic approaches to manage NPAs.

Fig 1: Management of NPA's



## Conclusion

NPAs create problems for the banking sector's balance sheet on the asset side. They also adversely affect profit and profitability of banks as a result of provisioning for loan losses. Thus a riskier loan portfolio combined with lower net income makes new lending more difficult, often resulting in slower credit growth. Under worst circumstances, a high level of NPAs in a banking system poses a systemic risk, leading to a panic run on deposits and sharply limiting financial intermediation and, with a time lag, adversely affects investment and growth in the economy.

The causes for NPAs can be both internal i.e. bank and borrower related as also external. Some studies have revealed that internal causes particularly by way of - diversions of funds for expansion, diversification, modernization, assisting associates - do contribute a great deal in accumulation of NPAs and need to be effectively managed. The problem of NPAs differs from country to country and therefore needs country specific measures more than general measures to tackle. An econometric model to assess the causes of NPAs at macro level reveals that the credit deposit ratio and gross priority sector advances to total advances have negative effect on gross non performing assets i.e. increase in these would result in reduction of NPAs. On the other hand increase in the bank rate results in increase in the level of GNPA's because of increase in debt service burden being not commensurate with the profit margins. However, lagged GDP has a positive effect on the level of GNPA's i.e. increase in the Gross Domestic Product for the previous year will lead to increase in GNPA's in the next year.

Effective management of NPAs requires strategic moves at macro level to be consistently applied by RBI as also GOI through monetary policy, credit policy, supervisory mechanism; fiscal measures and taxation measures; appropriate legal system for expeditious recovery of dues to be duly complimented by internal measures by strengthening credit risk assessment and management strategies. What matters the most to manage NPAs is to strictly adhere to stringent appraisal norms at the time of appraisal and disbursement of loan assistance followed by close monitoring that need to be based on mutual trust between borrower and banker. Further, effective and efficient management information system should lead banks to take corrective steps by way of restructuring, one time settlement or

legal recovery proceedings as deemed fit on case to case basis. RBI and GOI has initiated many measures that have helped in marked improvement in management of NPAs in Indian Banking System as a whole, as is evident from consistent reduction in Gross NPAs as also Net NPAs percentage to total advances during the last one decade.

## Note

1. Authors followed Step-wise Regression Procedure to detect Multi-collinearity.

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**Appendix A**

**T-test:**

**T value at 5% significance level from the tables is 1.943**

**T value at 10% significance level from the tables is 1.44**

<b>Multiple Linear Regression - Ordinary Least Squares</b>					
Variable	Parameter	S.E.	T-STAT H0: parameter = 0	2-tail p-value	1-tail p-value
CDR[t]	-0.262041	0.084737	-3.092396	0.021322	0.010661
LGDP[t]	0.33181	0.262985	1.261704	0.253885	0.126943
PA/GA[t]	-0.253121	0.144721	-1.749029	0.130866	0.065433
BR[t]	1.088182	0.149893	7.259742	0.000347	0.000174
Constant	23.392373	4.105267	5.698137	0.001262	0.000631
Variable	Elasticity	S.E.*	T-STAT H0:  elast  = 1	2-tail p-value	1-tail p-value
%CDR[t]	-1.370377	0.443144	0.835794	0.435285	0.217642
%LGDP[t]	0.192405	0.152496	-5.295825	0.001837	0.000919
%PA/GA[t]	-0.795646	0.454907	-0.449221	0.669043	0.334522
%BR[t]	0.832885	0.114727	-1.45664	0.195474	0.097737
%Constant	2.140733	0.37569	3.036368	0.02291	0.011455
*Note	computed against deterministic endogenous series				

<b>Multiple Linear Regression - Regression Statistics</b>	
Multiple R	0.990036
R-squared	0.980172
Adjusted R-squared	0.966954
F-TEST	74.151279
Observations	15
Degrees of Freedom	10