

# Temporal and Institutional Essence of Non - Performing Assets in Banks : An Indian Scenario

\* *K. R. Pillai*

## Abstract

The Indian banking system displayed commendable performance even in the wake of the global financial landslide. The entire credit goes to the regulatory framework, which maintains an effective surveillance on the banks in India on an emulative extent. However, the claim of a well-knit banking framework has not translated itself into its capability to insulate the banks from potential credit risk. The accumulation of bad loans poses a threat to the impending erosion of otherwise productive assets within the banks. Though the Indian banking system has moved enormously on the competitive side, from its conventional social banking approach, ever since the new economic policy regime in the early 1990s, non-performing assets (NPAs) still remain an unresolved issue in the country. The present study examined the chronological trends in NPAs in the Indian banking system in the new millennium. The various dimensions of NPAs of public sector banks, private sector banks, and foreign banks in India were examined. The pre-and-post global meltdown trends were compared as part of the study. Fifteen years of data pertaining to NPAs of the financial institutions under study were obtained from the CMIE database and were subject to statistical analysis using SPSS. The outcome of the study gave valuable insights into temporal and institutional implications of NPAs in the banking system of India.

**Key words :** NPAs, impaired credit, stressed asset, distressed asset, bad debt, asset quality, credit risk, banking collapse, India, banking performance

**JEL Classification :** E42, G20, G21

**Paper Submission Date :** February 6, 2017 ; **Paper sent back for Revision :** February 13, 2018 ; **Paper Acceptance Date :** February 16, 2018

Every economy has taken utmost care to develop and maintain a banking and financial system suitable to their socioeconomic and political structure, in recognition of its pre-emptive nature as a growth propeller. The banking sector serves as a sub-sector to the total financial system and extends supports to rebalance the economy through a process of efficient and effective mobilization and deployment of monetary resources, akin to the vascular system in a human body. Conventionally, banks mobilized money from surplus units and, in turn, made available deficit units for conducting economically viable activities. In the process of evolution and growth, banks have expanded their service domain by diversifying their asset portfolio. Thus, the presence of banks, with their much sought-after services, has become inevitable in the modern world. The Indian government has also taken a series of steps to develop the banking sector, which can cater to the assortment of needs of a growing economy, after independence.

However, the primacy of the banking system to economic progress will be at stake, when it accumulates unmanageable volume of contaminated assets. This impasse creeps into the very system of asset channelization, from potentially unproductive to productive ventures, when the banks' borrowers fail to fulfill their contractual

---

\* *Professor*, School of Management, Manipal Academy of Higher Education (MAHE), Manipal - 576 104, Karnataka.  
E-mail : kr.pillai@manipal.edu, krpillai123@gmail.com

obligations. Hence, the potential risk of financial institutions is associated with the perceived uncertainty that arises out of its inability to churn their liability into productive assets (Rose & Hudgins, 2010). The failure of the banking industry, especially triggered by credit risks, has far reaching ramifications on the economy, forestalling the flow of funds to productive purposes. The very purpose of the banking system is to channelize funds from where it is surplus to where it is scarce. The credit risk, owing to the distress in assets, makes the assets decline in value, and it may eventually lead to banking collapse. Hence, banks are much concerned about non-performing assets (NPAs) with them. An asset is notified as non - performing if the dues in the form of principal and interest are not paid by the borrower for a period of 90 days, which was 180 days prior to March 2004. Managing NPAs is a prominent indicator of fund management strategy, underscoring the internal consistency of the system (Khurana & Singh, 2010 ; Rose & Hudgins, 2010).

## Background and Research Questions

Bank nationalization in India at the end of 1960s and early 1980s made it a mandate to vigorous branch expansion and its consequent deposit creation on an enormous scale. Banks started issuing loans and advances indiscriminately under the aegis of social approach of banking. The liberal lending schemes of the banks led to schemes such as branch expansion, priority sector - lending, and the takeover of private banks. The target oriented and indiscriminate expansion of loans and advances by public sector banks (PSBs) had an inherent weakness of creating more stressed assets in the country. Sizeable volume of impaired credit in the asset portfolio will distort the quality of banks' balance sheet (Joshi & Joshi, 2009), thereby causing loss of institutional credibility in managing the assets in a desirable manner.

The problem of NPAs became a topic for discussion and started capturing the attention of bankers and policy makers only when the Narasimham Committee on banking regulations put forward certain guidelines for prudential norms and asset classification in the banking system. The issue remains unabated and escalating regardless of more than two decades of efforts in place by Reserve Bank of India (RBI). In the year 2002, the RBI issued guidelines to create an early system of alert to recognize the incipient symptoms of an asset being prone to distress. These guidelines (Reserve Bank of India, 2002, 2003) enabled the banks to capture the inherent weakness of an asset, at an early state, and thereby follow corrective measures to address the issue. The Reserve Bank of India (2014) has reiterated that the banks are liable to make every possible effort to protect the value of their assets as custodians of public deposits. It has also been noted that the gross NPA ratio is a major indicator of institutional soundness and resilience (Reserve Bank of India, 2015a). However, the *Financial Stability Report (FSR)* of RBI (2015a) noted a pervasive deterioration of asset quality by registering the highest ratio of stressed assets of about 19.5% as of June 2015. The report aired a serious concern on this banking predicament based on the risk indicators.

By collating the data on banking stability indicators since 2010, the Reserve Bank of India (2016), in its recent FSR, has alerted that the stability conditions in the banking sector have worsened significantly due to degraded assets and low profitability. The report (Ibid) remarked that the extant of stressed asset ratio of PSBs is 14% as against 4.5% of the same indicator of private sector and foreign sector banks together. In this back drop, the present study examines the following research questions:

- (i) What is the trend of NPAs in Indian banks since 2000 - 01?
- (ii) What is the institutional essence of NPAs among PSBs, private banks, and foreign banks during the reference period?
- (iii) What was the impact of global financial crisis on NPAs of Indian banks?

**Table 1. Asset Classification and NPA Recognition in the Indian Banking System**

Asset Categories	Basis for Classification
<b>Standard Assets</b>	Payment regularity of principal and interest rate.
SMA-0	Principal or interest payment not overdue for more than 30 days, but account showing signs of incipient stress.
SMA-1	Payment (principal or interest) overdue between 31 - 60 days.
SMA-2	Payment (principal or interest) overdue between 61 - 90 days.
<b>Sub-standard assets:</b>	
(i) Secured	Non-payment up to 6 months.
(ii) Unsecured	Non-payment between 6 months to 1 year.
<b>Doubtful assets:</b>	
(i)	Non-payment for 2 years.
(ii)	Non-payment for 3rd and 4th years.
(iii)	Non-payment from 5th year onwards.
Loss assets	Identified as non-collectible and recommended for writing-off.

Source: Prepared from RBI (2015b) Master Circular

## Conceptualization of NPAs in India

The Indian banking system embarked on a global competitive arena in the early 1990s. Acknowledging the need of instilling some prudential norms in asset management in the wake of a liberalized era, the Narasimham Committee Recommendations in 1991 aired much concern on distressed assets getting piled up in the banking system. The committee introduced a criterion to recognize the bad loans of banks and financial institutions by suggesting a time limit of non-payment against a loan, for being considered as NPA. The various concepts associated with asset classification and NPA recognition are presented in the Table 1, with their implications based on RBI's (2015b) prudential norms on income recognition and asset classification guidelines.

Acknowledging the unsavoury ramifications of high value distressed credit, the RBI (2014) has asked the banking system to identify incipient distress in the credit advanced in terms of special mention accounts (SMA). Though the concept of SMA was introduced in 2002, desirable progress could not be materialized. Hence, the guidelines for revitalizing distressed assets (RBI, 2014) require the banks to have three sub-categories under SMA. Each category offers clear road map of proximity to NPAs, which will prevent management oversight and at the same time, facilitate prompt prudential reporting of asset anomalies.

## Brief Review of Literature

Bhattacharya (2014) observed that NPAs are an outcome of the incentive to entertain riskier loans in anticipation of potential lucrative returns against the same marginal cost of funds. On examining the comparative position of private and public sector banks, with respect to NPAs, the author alluded that the latter is more subject to pressure of bad-debts, mainly on account of two reasons. Firstly, the dilution of the quality of borrowers under the welfare aspect of banking. Secondly, the insistence of provisioning norms and capital adequacy ratios, that will impair the profitability. The study affirmed that the banking system warrants a carefully drawn policy framework for lending activities in the wake of growing complexities brought about with deregulation and movement towards progressive global integration.

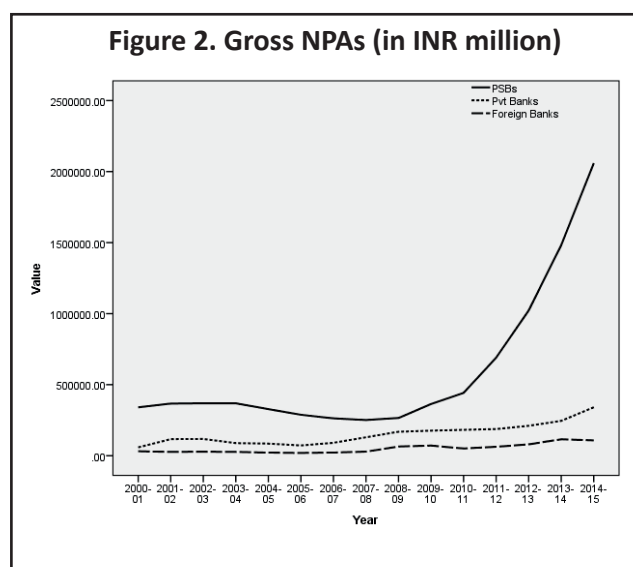
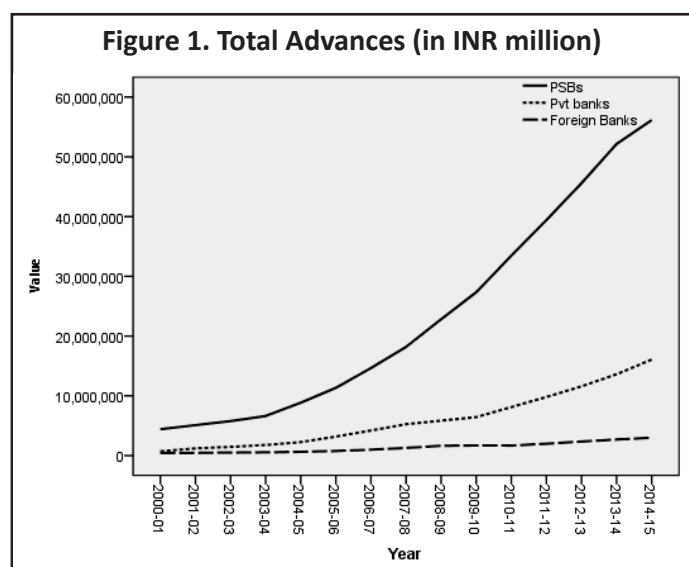
Greuning and Brantanovic (2002) emphasized a broader approach to managing banking risk. They argued that instead of giving primacy to due date for an asset to be notified as bad or good, the borrowers' ability to repay must be given weightage. Acknowledging the pre-eminence of the credit side of the banks, the study remarked that the non-performing portfolio indicated the quality of total portfolio and eventually, the future lending decisions.

Citing the literature, Chipalkatti and Rishi (2007) endorsed that the Indian banks, especially weaker ones, the banks with less asset base under reported their bad loans to implicate sound capital adequacy norms in the era of heightened competitive pressure and tightened regulatory framework.

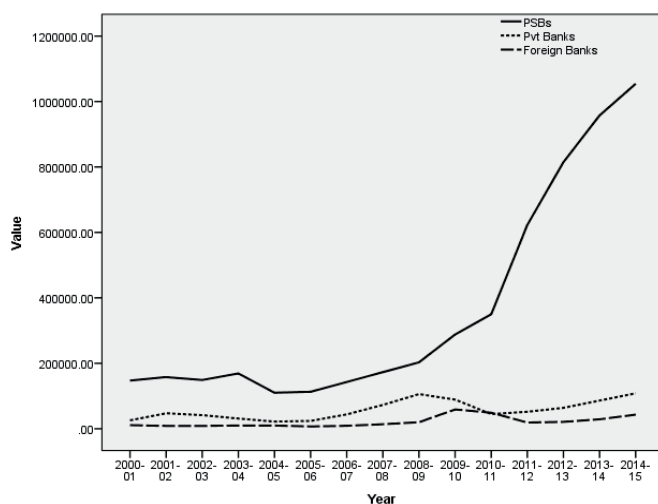
## Methodology

Attempting to catch the temporal and institutional essence of distressed assets in the Indian banking system, the current study follows a mixture of longitudinal and cross-sectional designs using an analytical approach. The required database for the analysis was accessed from the Centre for Monitoring of Indian Economy's (CMIE) online platform of Economic Outlook. The study considered relevant indicators on public sector, private domestic, and foreign banks for a period from 2000-01 to 2014-15 for analysis. The database comprised of total advances, gross NPA (GNPA), sub-standard assets, doubtful assets, and loss assets. Since the net NPA concept involves the depletion of profitability of banks, owing to compulsory provisioning requirements, which is an economic waste of scarce resources, the current research ignored it to deal with a broader dimension of NPAs.

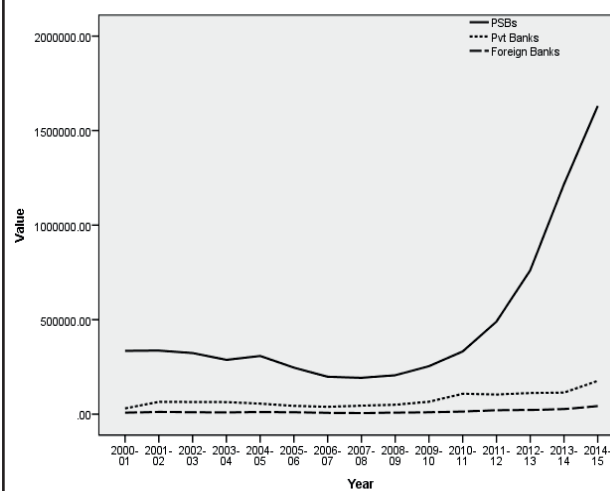
The relevant indicators of the banks' assets were downloaded in excel format from the online repository during April 2016. The database was then extracted by SPSS for statistical treatment. The temporal asset quality of relevant indicators is represented through line graphs. The institutional essence of NPAs can also be discerned by comparing the shapes of various lines representing a specific banking sector. Analysis of variance was conducted to examine whether there is any variation in the indicators taken for the study pertaining to the institutions concerned. The inference can also endorse whether the differences are statistically significant or not. Correlation was loaded to infer the empirical proof of the association of various indicators of relevance with respect to a specific bank. Independent *t* - test was conducted to investigate the impact of global financial meltdown on NPAs and its associated concepts within the scope and coverage of the study.



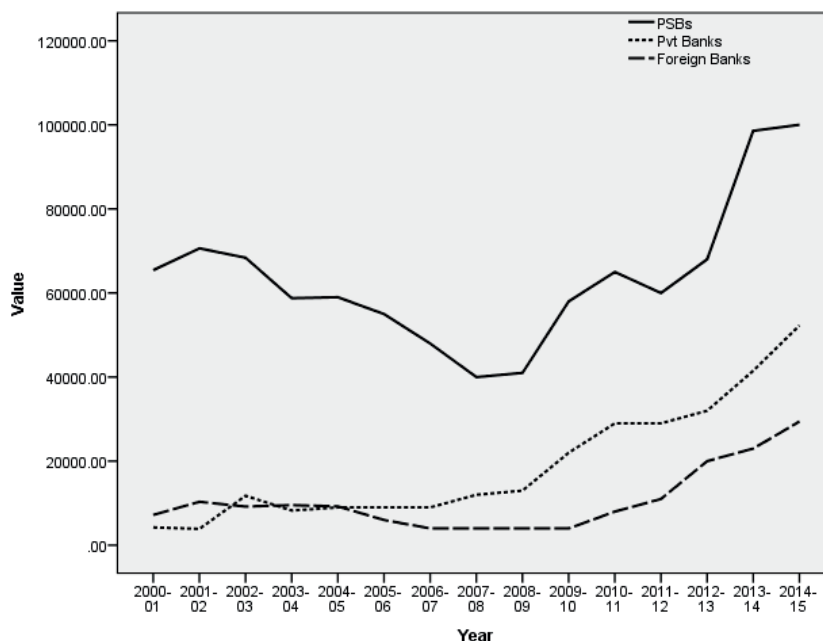
**Figure 3. Sub - Standard Assets (in INR million)**



**Figure 4. Doubtful Assets (in INR million)**



**Figure 5. Loss Assets (in INR million)**



## Analysis and Results

It is evidenced in the data that the total advances of PSBs have been growing uninterruptedly during the period covered under the study. The growth became exponential after 2007 as is evidenced in the Figure 1. The Indian private banks followed suit, but on a comparatively low profile ; whereas, foreign banks registered a slow pace of growth.

On examining the longitudinal trends in NPAs, it is understood that the temporal and institutional essences display certain interesting trends. Prior to global meltdown, the PSBs exhibited an overall trend of decline in

NPAs, indicating the rising quality of asset structure with them ; whereas, their private counterparts, both domestic and foreign, experienced net positive growth in NPAs on an average (refer Figure 2). The fall in NPAs of PSBs during this period is vivid and explicit. What is found in the aftermath of global recession with respect to NPAs of PSBs is that it has taken almost vertical growth path outweighing the growth of loans (refer Figures 1 and 2).

The trends in NPAs have been mirrored in the longitudinal changes in sub-standard and doubtful assets, but with some variations in loss assets (refer Figures 3, 4, and 5). The worse situation of assets has been validated by the trend line representing NPAs and their associated components. It is evidenced in the data that the spillover of global financial contagion swept away much assets of private banks, both foreign and Indian, as against their advances (refer Figures 1, 2, and 5).

**Table 2. ANOVA (*N* = 15; in INR mln)**

Particulars	<i>F</i>	<i>Sig.</i>
Total advances of Indian banks	17.849	.000
NPAs	21.676	.000
Sub-standard assets	14.180	.000
Doubtful assets	23.784	.000
Loss assets	71.918	.000

Note: The three categories are public sector banks, Indian private banks, and foreign banks.

**Table 3. Correlation Coefficients with Respect to Public Sector Banks (*N* = 15)**

		1	2	3	4	5
1.	Total Advances	1				
2.	GNPA	.827** .000	1			
3.	Sub-Standard Assets	.916** .000	.974** .000	1		
4.	Doubtful Assets	.720** .004	.981** .000	.913** .000	1	
5.	Loss Assets	.115 .694	.599* .024	.430 .125	.711** .004	1

**Table 4. Correlation Coefficients with Respect to Private Sector Banks (*N* = 15)**

		1	2	3	4	5
1.	Total Advances	1				
2.	GNPA	.907** .000	1			
3.	Sub-Standard Assets	.537* .048	.711** .004	1		
4.	Doubtful Assets	.803** .001	.835** .000	.214 .463	1	
5.	Loss Assets	.963** .000	.916** .000	.455 .102	.882** .000	1

**Table 5. Correlation Coefficients with Respect to Foreign Banks (N = 15)**

		1	2	3	4	5
1.	Total Advances	1				
2.	GNPA	.860**	1			
		.000				
3.	Sub-Standard Assets	.627*	.802**	1		
		.016	.001			
4.	Doubtful Assets	.805**	.867**	.407	1	
		.001	.000	.148		
5.	Loss Assets	.706**	.760**	.233	.942**	1
		.005	.002	.423	.000	

**Table 6. T- test**

Particulars		Value of Test Statistic	Sig.
Public Sector Banks	Total Advances	-5.991	.000
	Gross NPA	-2.315	.059
	Sub-standard Assets	-3.622	.011
	Doubtful Assets	-2.043	.086
	Loss Assets	-1.388	.188
Private Banks	Total Advances	-5.025	.001
	Gross NPA	-4.921	.001
	Sub-standard Assets	-3.642	.003
	Doubtful Assets	-3.540	.004
	Loss Assets	-4.630	.003
Foreign Banks	Total Advances	-6.269	.000
	Gross NPA	-5.779	.001
	Sub-standard Assets	-4.013	.007
	Doubtful Assets	-2.518	.044
	Loss Assets	-1.742	.127

The ANOVA table (Table 2) empirically supports that there is explicit institutional quirkiness among the banks concerned with respect to the indicators of relevance (refer Table 2). The *F*- ratios of all the indicators are statistically significant, giving an empirical proof to the observed differences. The results of correlation subscribe to the empirically proven intra-bank association among the indicators taken for the study (refer Tables 3, 4, and 5).

A close inspection of the tables notifies certain interesting facts. There is no empirically proven association between the total loan advances and loss assets of PSBs, but they are highly correlated with respect to private banks, both domestic and foreign.

It was also attempted to investigate the impacts of the global financial crisis on NPAs with respect to the institutional profiling relevant to the study. Independent t - test was performed on selected variables. The results are presented in the Table 6. As it is evidenced from the Table 6 that the temporal trends in loss assets of both public sector and foreign banks are not statistically significant, indicating the probability of similarity of trends pre-and-



post-crisis. All other indicators, irrespective of the institutional attributes, are significant, either at the 0.05 level or at the 0.1 level, underpinning the mean equalities irrespective of global cues.

## Discussion

Fundamental causes for the occurrence and amplification of bad debts are lack of proper internal governance (dilution of loan criteria and a mad rush to earn a speculative profit through exotic assets) and policy failure. It is evidenced from the recent Indian experience that the major cause of (willful) default is the dilution of sound credit practices owing to the pressure from influential zone. It has thrown the banks to undue and potentially avoidable credit risks by granting financial accommodation under unsatisfactory terms with full cognizance of violating loan criteria. Banks must put in place a liquidity risk management arrangement to sail on smoothly and stay ahead of benchmark persistently. There is a growing need for banks to strengthen their internal credit appraisal system, with due regards to their credit assessment and risk management mechanism ("R. Gandhi : Growing NPAs in banks – Efficacy of ratings accountability and transparency of credit rating agencies, 2014). According to Bhattacharya (2014), there is a need of a sound credit policy with banks to enable them to position themselves correctly in the market and to impose self-regulation to ward-off potential collapse. Taking cue from this, the findings of the current study also underpin the need for sound credit policy in terms of proper assessment of the borrower at the loan origination phase (Maji & Hazarika, 2016) to ward off potential defaults. The RBI (2014) guidelines for revitalizing the distressed assets in the banking system are expected to reinforce the internalization of the process of effective credit management.

Bhattacharya (2014) suggested the imposition of prudential norms like capital adequacy and stricter provisioning norms to arrest the degradation of assets due to riskier exposures. However, mandatory provisioning may gulp down the profitability of banks. Hence, researchers (Greuning & Brantanovic, 2002) argued that a bank's capacity to withstand loan defaults requires prime concern in provisioning decisions, instead of any type of regulatory imposition.

The *FSR 2016* (RBI, 2016) has clearly alluded that the credit risk of the Indian banking system is mainly due to deteriorating asset quality, lowered soundness, and sluggish profitability. An impaired asset inflicts considerable strain on the income recognition policy of banks, as they cannot book it on the accruals until it turns out. The banking regulator in the country (Reserve Bank of India) is fully cognizant of this pressing predicament. The RBI has been very accommodative to the credit contagion of PSBs. A guideline (RBI, 2003) is already in place for making arrangement for compromise settlement of chronic NPAs of PSBs, subject to a ceiling of ₹ 10 crores. However, this guideline has not addressed the distress of banks on account of willful defaults, fraud, and malfeasance. Tackling the issue of willful default is a hard nut to crack in the country. What makes a mockery to the regulatory regime is the mounting bad debts of large business power houses. It is estimated that the share of large borrowers in the NPAs is 86.4% (RBI, 2016). It has also been mentioned elsewhere that non-payment of loans is too serious to be overlooked, as the banks deal with public money on trust (Pillai & Mathew, 2017).

The RBI (2016) observed that the PSBs, in general, lack centralized database for monitoring collaterals, and it is a major encumbrance in monitoring the dynamics of asset status. This revelation reiterates the immediate implementation, without fail, of the centralized reporting and dissemination of credit data to lenders, which is an important proposal in the RBI (2014) framework for revitalizing the stressed assets in the banking system. The framework will also be indicative of a solid internal control mechanism for preventive and corrective measures. The PSBs might have overlooked the serious issue of assets distressed as they have been basking under the protective cover of government ownership.

The efforts of RBI (2014) to set up a Central Repository of Information on Large Credits (CRILC) to collect, store, and disseminate credit data to lenders is not only supportive to formulate a corrective action plan for early



resolution of the stress in the account, but to verify the financial credentials of a prospective borrower to the lender.

The banking regulator divulged the role of large corporates in the substantial stake in NPAs in the country (RBI, 2016), it is still growing, as orchestrated by vicious nexus between the banking officials and businessmen. Latest in the series of these episodes was unfolded during mid of February 2018, in which two of the employees of a dubious public sector bank involved themselves into a scam of ₹ 11,440 crores, showing mockery to the so-called rigid regulatory regime and administrative pyramid in the country. Such events are unconceivable in the technology embedded era of core banking business and conservative scrutiny of almost every banking transaction on a daily basis by the apex bank. The Reserve Bank of India (2018), immediately after the media hype, issued a press release stating that the fraud is a case of operational risk arising out of delinquent behaviour of the employees involved and failure of the internal monitoring system. What remains ambiguous is the recurrence of similar incidences in shorter frequencies.

## Conclusion

The NPAs inflict excessive strain upon the banking system, as the lending institutions have multiple options before they commit to a potential borrower, who is not credit worthy or a willful defaulter. Willful defaults will lead to avoidable problems in delivering further credit to the needy and deserving potential debtors. One can easily infer that the major reason for stressed loan is nothing other than not maintaining sound principles of credit. Banks should not succumb to speculative projects due to the potential lucrative returns. The issue of handling NPAs requires utmost priority from the perspective of varied services by the banking system to the development of the economy and growth equalizer as well.

One cannot ignore the fact that a part of the reduction in NPAs is due to the writing off bad loans by banks. Indian banks should take care to ensure that they give loans to credit worthy customers. In this context, the dictum : prevention is always better than cure acts as the golden rule to reduce NPAs. The actual magnitude of NPAs is higher than the reported one, as the defaulted loans will not be included in the NPA category if it does not cross 90 days of non-payment by the turn of an accounting year.

One may wonder that despite mounting volume of NPAs, Indian banks are able to get away from collapse. This may be due to the diversified income portfolio. Unlike the traditional banking system, where the sole earning is from loans and investments, however, in the modern banking system, returns are from a bundle of financial services : credits, payments, savings, advocacy, agency, consultancy, and other utility services. Striking a balance between proper market positioning and establishing credit regulatory mechanism is easier said than done in the wake of tumultuous business conditions and uncertainties.

The NPAs do not only show the performance of banks, but in a larger dimension, depict the status of health of the industry, trade, and commerce. When the NPA ratio is considered to be a major yardstick of robustness and resilience of the system, an effective and sustained endeavor should be adopted by the banking system through a process of internalization for a hygienic asset structure. Every lending institution must carry out an independent and objective credit appraisal periodically to address the issue of stress latent in its assets. The signs of stress must be identified at an early stage and remedial measures must be taken amicably to solve the issue. Much stress on loan books will induce the banks to be risk averse (RBI, 2016), and this will be a deterrent in the long run by being over conscious in extending financial assistance ; which, consequently, will be a glitch on economic growth.

## Research Implications, Limitations of the Study, and Scope for Further Research

The results of the study throw light on the credit delivery mechanism of banks by emboldening the internal credit appraisal system. The financial vulnerability of public sector banks is due to their social dimension of banking. The government policy regimes can give ample reassurance to the prudential management of banking portfolio and to help banks sustain a hygienic asset composition. The institutional defaulters should be dealt with suitable recovery mechanisms.

The study could not capture the factors influencing NPAs, as it is beyond the scope of the current inquiry. Studies in this regard can offer many insights to the management of NPAs. The antecedents of NPAs are varied in India due to diversity in socioeconomic and political fabric and geographic attributes. Hence, future studies may give focus on sectoral or institutional aspects in study design.

## References

- Bhattacharya, H. (2014). *Banking strategy, credit appraisal and lending decisions: A risk-return framework* (2nd ed.). New Delhi: Oxford University Press.
- Chipalkatti, N., & Rishi, M. (2007). Do Indian banks understate their bad loans? *The Journal of Developing Areas*, 40 (2), 75 - 91.
- Greuning, H. V., & Bratanovic, S. B. (2002). *Analyzing and managing banking risk: A framework for assessing corporate governance and financial risks* (2nd ed). Washington, DC. : The World Bank.
- Joshi, V. C., & Joshi, V. V. (2009). *Managing Indian banks: The challenges ahead*. New Delhi: Response Books.
- Khurana, A., & Singh, M. (2010). NPA management: A study of new private sector banks in India. *Indian Journal of Finance*, 4 (9), 3 - 13.
- Maji, S. G., & Hazarika, P. (2016). Does competition influence the financial soundness of banks? Evidence from the Indian banking sector. *Indian Journal of Finance*, 10(10), 27- 41. doi:10.17010/ijf/2016/v10i10/102994
- Pillai, K. R., & Mathew, L. (2017). Loan-loss provisions in Indian banks: An appraisal of institutional attributes. *Indian Journal of Finance*, 11(10), 7-19. doi:10.17010/ijf/2017/v11i10/118771
- R. Gandhi : *Growing NPAs in banks – Efficacy of ratings accountability and transparency of credit rating agencies*. (2014, May 31). Retrieved from <http://www.bis.org/review/r140602g.pdf>
- Reserve Bank of India. (2002). *Guidelines on preventing slippage of NPA accounts*. Retrieved from <https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=899&Mode=0>
- Reserve Bank of India. (2003). *Revised guidelines for compromise settlement of chronic non-performing assets (NPAs) of public sector banks*. Retrieved from <https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=1048&Mode=0>

- Reserve Bank of India. (2014). *Early recognition of financial distress, prompt steps for resolution and fair recovery for lenders : Framework for revitalizing distressed assets in the economy*. Retrieved from <https://rbidocs.rbi.org.in/rdocs/content/pdfs/NPA300114RFF.pdf>
- Reserve Bank of India. (2015a). *Financial stability report : December 2015* (Issue No. 12). Retrieved from <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/0FSR6F7E7BC6C14F42E99568A80D9FF7BBA6.PDF>
- Reserve Bank of India. (2015b). *Master circular - Prudential norms on income recognition, asset classification and provisioning pertaining to advances*. Retrieved from <https://rbidocs.rbi.org.in/rdocs/notification/PDFs/74MIR010714FL.pdf>
- Reserve Bank of India. (2016). *Financial stability report : December 2016* (Issue No. 14). Retrieved from [https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/0FSR\\_166BABD6ABE04B48AFB534749A1BF38882.PDF](https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/0FSR_166BABD6ABE04B48AFB534749A1BF38882.PDF)
- Reserve Bank of India. (2018, February 16). *RBI's statement on fraud in Punjab National Bank* [press release]. Retrieved from <https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR2233D1161580FE1F4CC688DB9B0C4C97D4C1.PDF>
- Rose, P. S., & Hudgins, S. C. (2010). *Bank management and financial services* (7th ed.). New Delhi : Tata McGraw Hill Education Pvt. Ltd.

### About the Author

**Dr. K. R. Pillai, Professor at the School of Management, Manipal Academy of Higher Education (MAHE), Manipal, Karnataka is a Ph.D. graduate in Economics from the University of Kerala. His professional career spans across 25 years. His research interests comprise of Developmental Economics, Sustainable Tourism, Environment-Economy Linkage, and Health Economics.**