

**Determinants of NPAs in the Indian Public Sector Banks:  
A Critique of Policy Reforms**

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## Acknowledgement

The authors are grateful to A. D. P. Garg, Krishna Kumar, A.J. C. Bose, K.V. Bhanu Murthy and Nandini Guha for help. However, usual disclaimers apply.

## Abstract

The paper analyses the process leading to formation and perpetuation of high levels of NPAs in Indian public sector banks (PSBs henceforth). It distinguishes between random and non-random reasons of NPAs formation in PSBs. It points out that a high degree of arbitrariness is involved in defining NPAs as it fails to capture diversity in terms of the seasonal and cyclical nature of the economic activities in India. The study conceptualises random reasons for default in a simplified framework of a Poisson process. It then argues that the nonrandom reasons go beyond the conventional paradigm of interim, ex-ante and ex-post information asymmetries and incomplete contracts. It points out that the financial notion of NPA as a mere risk phenomenon is inadequate, because a number of reasons leading to non-random generation of NPA are related to the dimension of uncertainty. It highlighted that the use of a secondary asset market may take care of NPA problem, but it requires a number of conditions for its use, which hardly exist in India. The study observes a number of reasons of generation of NPAs which are very important and peculiar to India. This is followed by a critical evaluation of the series of policy measures that have been adopted to improve the NPA scenario since liberalization. While one set of policies granting greater autonomy to the PSBs are proved to be quite effective in restricting formation fresh NPAs, the other set of policies designed to recover loans, after default, have failed to deliver the goods. Finally, it concludes by making an assessment of the existing institutions and highlights the fact that the incidence of NPA is as much due to the malfunctioning of the banking institutions as due to the external institutional environment.

# **Determinants of NPAs in the Indian Public Sector Banks: A Critique of Policy Reforms**

## **Section I: Introduction**

The severity of the incidence of non-performing assets (NPA henceforth) in Indian public sector banks (PSBs henceforth), noted in the early 1990s, raised a severe hue and cry in various quarters. In fact, the problem started much earlier, which became evident from continued recapitalisation of many PSBs since 1985-86<sup>1</sup>. Whatever be the root cause, malfunctioning of the PSBs increased by the end of the 1980s. This led to the setting up of the Narasimham Committee (1991), which, in fact, identified NPA as one of the possible causes/effects of the malfunctioning of the PSBs. In order to quantify the NPA problem, Narasimham Committee (1991) made it mandatory on the part of the banks to publish annually the magnitude of NPAs. NPAs are those categories of assets (advances, bills discounted, overdraft, cash credits etc) for which any amount remains due for a period of 180 days.<sup>2</sup> Following the recommendations, banks started publishing in their annual reports NPA data, which were astonishingly high. RBI (1999) report on NPA stated that reduction in NPA should be treated as a 'national priority'. In the Task Force<sup>3</sup> report on non-performing assets in the Indian financial system, it is argued that three NPA ridden banks (UCO bank, United Bank of India and Indian Bank) are open sores threatening the health of the entire financial system. The report went to the extent of stating that these banks were not viable candidates either for privatization or for merger, and thus they should be closed down. The Verma Committee (1999), on the other hand, felt that these three banks could be revived if they submit themselves to the discipline of a rigorous restructuring, underpinned with adequate infusion of funds and simultaneous relief from the load of NPA and excess manpower.<sup>4</sup> The difference in the respective recommendations has provoked protests of varying orders of frenzy, from the unionised employees. The unions have argued that the banks have been the victims of the wilful default<sup>5</sup> by large corporate borrowers.

Numerous studies regarding NPA started pouring in. However, empirical works on NPA problems of commercial banks are inadequate. Rajaraman, Bhaumik and Bhatia (1999) attempted to examine NPA variations across Indian commercial banks. The findings show that the bank

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<sup>1</sup> Over a period from 1985-86 to 2000-2001, the government has contributed Rs 20,046 crores towards recapitalisation of PSBs. See Mathur (2002), p. 2246.

<sup>2</sup> For details, see The Narasimham Committee (1991), p. 57.

<sup>3</sup> This Task Force was appointed by the Confederation of Indian Industries in March, 1999.

<sup>4</sup> The committee further felt that if the restructuring strategy failed to produce the desired results, only then other measures such as closure and/or privatisation could be considered.

<sup>5</sup> The RBI has defined wilful default as non-payment of dues despite having adequate cash flow and net worth. Signs of siphoning of funds by the borrower, falsification of records, disposal of securities without bank's approval, fraudulent practices etc point out to a default situation. See Madhvendra P Das, Economic Times, 9 March, 1999, p. 14.

specific characteristics such as ownership or adherence to prudential norms do not suffice to explain inter-bank variations in NPAs. The region of operation however matters. This is a very significant contribution to understanding of the phenomenon and the steps to tackle it. The policy implications of the results of the paper are that sustainable reform in the financial sector and improvement in the performing efficiency of domestic banks require improvement in the enforcement environment in some regions of the country. The regional exposure effect would be more transparently evident were banks to report NPAs by state or region instead of merely as a national average as at present. The operating environment matters particularly in the Indian context where there are externally imposed compulsions on banks to enter into and operate in difficult regions. The environmental limits on bank operations cannot be tackled by reforms at bank level alone as will be discussed in a section below. Another paper by Rajaraman and Vasishth (2002) performed panel regression on NPA data of twenty seven public sector banks covering a five year period from 1995-96 to 1999-2000. Among banks with higher than average NPAs, the exercise identifies two groups. In one case, high level of NPAs is explained by poor operating efficiency, and in the other case, the operating indicator does not suffice to explain the high level of NPAs and leaves an unexplained intercept shift.

Surprisingly, very few serious attempts have been made to find out the causes or determinants of the NPA in Indian banks. Without such a study, policy recommendations and measures to contain NPA would not be of much use, as evident from the continued poor performance of PSBs in spite of ten years of reforms. The present study makes an attempt to fill up such a gap. Once the root causes of NPA are identified, one can evaluate the policies and find the lacuna therein in order to understand why the pace of improvement in the NPA scenario has been so slow.

### **Plan of the paper**

The scheme of the paper is as follows. Section II discusses the severity of the NPA problem, as highlighted by various scholars and RBI. Section III discusses some conceptual issues that would help understand the determinants of NPAs of PSBs. It focuses on NPA as an ordinary aspect of banking activity and clarifies that high NPA, so far as it is associated with high profits, does not pose any serious problem for the banks. It also discusses the limits to which banks can adjust to the NPA problem. It further analyses the factors leading to formation of NPAs in the Indian PSBs. In this regard, alternative hypotheses have been put forward and investigated. In the light of the above analysis, section IV critically evaluates the series of policy measures that have been adopted to improve the NPA scenario since liberalization. Finally, section V concludes by making an assessment of the existing institutions and highlights the fact that the incidence of NPA is as much due to the malfunctioning of the banking institutions as due to the external institutional environment.

## **Section II: Severity of NPA problem in the Indian PSBs**

NPA data on PSBs are being published since the implementation of the recommendations of the Narasimham Committee (1991). The Committee observed that banks were not following a uniform practice in respect of income recognition, valuation of investments as well as provisioning against doubtful assets. It further observed that a proper system of income recognition and provisioning was fundamental to the preservation of the strength and stability of the banking system.<sup>6</sup> It was noted that PSBs accumulated NPAs using the cover of an archaic banking law which permitted banks to show revenue in their balance sheets whenever accrual of interest became due and not necessarily when the interest was realized. However, real profit bearing lies in realisation of interest from credit extended and not accrual of interest. In order to comprehend the current situation of the banks the Committee suggested a classification of assets into the following broad categories: standard, substandard, doubtful and loss assets, that is, according to the quality of the assets. "Broadly stated substandard assets would be those which exhibit problems and would include assets classified as non-performing assets for a period not exceeding two years. Doubtful assets are those non-performing assets which remain as such for a period exceeding two years and would also include loans in respect of which installments are overdue for a period exceeding two years. Loss assets are accounts where loss has been identified but the amounts have not been written off."<sup>7</sup> Excepting the standard assets category, the other asset categories come under NPAs. The Committee defined NPA as an advance where, as on the balance sheet date:

- (a) In respect of term loans, interest remains past due for a period of more than 180 days.
- (b) In respect of overdrafts and cash credits, accounts remain out of order for a period of more than 180 days.
- (c) In respect of bills purchased and discounted, the bill remains overdue and unpaid for a period of 180 days.
- (d) In respect of other accounts, any amount to be received remains past due for a period of more than 180 days.

This definition will be changed in 2003-04, when the duration of non-receipt of loan servicing for classification as non-performing has to be reduced from two quarters to one quarter (i.e. 90 days) following international norms<sup>8</sup>. A time series data on NPA is available since 1992-93 onwards. After 2002-03, there would be comparability problems because of changes in the definition of NPAs mentioned above.

### **Current anomalies in defining an NPA**

There is a high degree of arbitrariness involved in defining NPAs so far as the duration of non-payment is concerned. The uniform norm of repayment of dues for 180 days (now 90 days) fails to capture diversity in terms of the seasonal and cyclical nature of the economic activities in India.

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<sup>6</sup> Narasimham Committee (1991), p. 54.

<sup>7</sup> Ibid, p. 56.

For example, the agricultural cycle from sowing to harvesting and selling at a reasonable price (including some storage time) may extend more than 90 days. It may happen that selling crops immediately after the harvest in order to repay loans within 90 days may fetch a much lower price and the revenue may be lower than the loan amount. A sizeable part of the manufacturing activities is seasonal in nature, their products are sold in particular season like summer or winter, and thus the manufacturer cannot repay their dues throughout the year. In fact, the lean season may extend to more than 180 days. Further, in current banking practice, interest is fixed and applied from the first month and is also required to be served by the borrower in the month end. If the project has a longer gestation lag, the amount will turn to be NPA much before the project becomes operational. The current practice of fixing interest and defining NPA may induce more NPA.

An analysis of NPA over time is constrained by quality of the data, changes in definitions and composite criteria as regards gross or net and varied quality of assets. Many of the interior branches of the banks are not properly audited. In addition to that, NPAs are not a homogenous category. Within NPAs there are various types of assets and relative changes in them are also important. Further, NPAs do not include default in interest payment or principal on privately placed debt<sup>9</sup>.

### **Choice of Gross or net NPAs**

For the present study relevant data on NPA are collected from various issues of Report on Trend and Progress in Indian Banking. Aggregate data are available since 1993 and bank-wise data are available since 1995-96. It reports gross NPAs/ gross advances, net NPAs/ net advances, gross NPA/total assets and net NPAs/total assets. Net NPAs are obtained from gross NPA after deduction of the following:

- (a) balances in interest suspense account i.e. interest due but not received;
- (b) claims received from credit guarantors and kept in suspense accounts pending final settlement;
- (c) part payments received and kept in suspensions; and
- (d) total provisions held (Report on Trend and Progress of Banking in India 1996-97; p.13).

Similarly, gross advances consist of bills purchased and discounted, cash credits, overdrafts and loans and term loans, whereas net advance is calculated by netting out bills rediscounted, DICGC claims etc from gross advance. It is interesting to note that banks will try to show a lower net NPA figure irrespective of gross NPA magnitude because net NPA below a stipulated level has been made one of the requirements for granting autonomy to PSBs. Rajaraman et al (2002) argued that gross NPA is a better indicator than net NPA since the former does not incorporate the endogenous

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<sup>8</sup> See RBI, Annual Report 2001, reporting a policy announcement made on April 19, 2001.

provisioning process. This is because banks make provisioning for NPAs according to their capacities. Hence two banks with same gross NPA may be able to show different levels of net NPAs<sup>10</sup>. On the other hand, two banks may show nearly the same net NPA figures when their gross NPA figures are different. Clearly one may not get a true picture of NPA from net NPA figures. They will have to be supplemented by gross NPA figures.

#### **Dilemma of relating NPAs to advances or assets**

The severity of the incidence of NPA can be understood in relation to other variables like assets or advances. The ratio would help understand changes in the intensity over time and the variation of the intensity across banks and other financial institutions. Even, a cross-country comparison is also possible. There is some disagreement about what to be used as numerator and denominator for constructing a ratio to capture satisfactorily, the intensity of the NPA problem. The ratio used by the policy makers to judge the extent of the NPA problem of a bank is net NPA/net advances as it is internationally recognised.<sup>11</sup> Rajaraman et al (2002) has taken NPAs as a percent of gross/net advances rather than as a percent of total assets. They argue that the former is a post-facto measure of failure to judge credit risk, whereas the latter is a measure of threat to solvency posed by that misjudgement. A similar view was also expressed by Mukherjee (2003). She, however, preferred to use the ratio of NPA to advances for Indian banks. It is argued that such a measure will enable the bank to have an idea about what proportion of its lending is paid off. It is further argued that considering only the NPA to total assets ratio may underestimate the problem of NPA. This is because, in India, NPAs constitute a very small proportion of total assets, as loans and advances are around 40 percent of the total assets. However, in banking circles, it is argued that the international norm relates the NPA ratio to assets and not to advances. If NPAs are expressed as a ratio of assets, it allows the decomposition of the figure into substandard, doubtful and loss assets. This would throw more light on quality of assets.<sup>12</sup>

It does not appear to be easy to settle for one ratio against the other, as a measure of the NPA problem. The use of NPA as a ratio of advances is not free from problems. It may be argued

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<sup>9</sup> In the year 2000, RBI has issued draft guidelines which state that any default in payment of interest or principal in bank investments in privately-placed debt will have to be treated by the banks as NPAs. See Mayur Shetty, *Economic Times*, 6<sup>th</sup> April, 2000, p. 1.

<sup>10</sup> For example, in 1995-96, net NPA/total asset ratios of State Bank of Mysore and Indian Overseas Bank, State Bank of Indore and UCO bank were between 3.5 and 4.5 percent, but their gross NPA to total asset ratios varied between 7 to 12 percent. On the other hand State Bank of Patiala and Union Bank of India had gross NPA ratio of 4.8 percent and 4.6 percent respectively, but their net NPA ratios were 2.62 and 6.1 percent in the same year.

<sup>11</sup> Report on Trend and Progress of Banking in India 1996-97, p. 13.

<sup>12</sup> Joshi, P.N (2000) NPAs: How do we tackle them? *Economic times*, 11<sup>th</sup> July, p. 9.

that an asset, which has been degenerated into NPA in the current year, may relate to either advances made in the current year or to advances made in the earlier years. Clearly, NPA and advances relate to different periods of time. Hence use of both the gross NPAs/ gross advances and net NPAs/ net advances do not appear to be very meaningful. On the other hand, as argued earlier, NPA as a proportion of assets is an underestimation of the problem. However, in order to get a holistic picture, it may be necessary to use all the four ratios. It may be mentioned that correlations between these four indicators of NPA in different years are highly significant over the relevant years.

*Table 1: Gross and Net NPAs of PSBs ( amounts in Rs crores)*

End March	Gross NPAs	Gross Advance	(1) as a % of (2)	(1) as a % of tot. Asst	Net NPAs	Net Advance	(5) as a % of (2)	(6) as a % of tot. Asst	Increment in Gross NPAs	Increment in gross Adv.	(9) as a % of (10)	Gross minus net NPA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1993	39,253	169,194	23.2	12								
1994	41,041	165,488	24.8	11					1788	-3,706	-48.25	
1995	38385	196,846	19.5	8.7	17567	164,178	11	4	-2656	31,358	-8.47	20,818
1996	41661	231,450	18	8.2	18297	205,584	8.9	3.6	3276	34,604	9.47	23,364
1997	43577	244,214	17.8	7.8	20285	220,922	9.2	3.6	1916	12,764	15.01	23,292
1998	45653	284,971	16	7	21232	260,459	8.2	3.3	2076	40,757	5.09	24,421
1999	51710	325,328	15.9	6.7	24211	297,789	8.1	3.1	6057	40,357	15.01	27,499
2000	53033	379,461	14	6	26187	352,714	7.4	2.9	1323	54,133	2.44	26,846
2001	54672	442,134	12.4	5.3	27,977	415,207	6.7	2.7	1639	62,673	2.62	26,695
2002	56473	509,368	11.1	4.9	27958	480,681	5.8	2.4	1801	67,234	2.68	28,515
2003	54086	577,813	9.4	4.2	24963	549,351	4.5	1.9	-2387	68,445	-3.49	29,123

Source: RBI website: [rbi.org.in](http://rbi.org.in)

### **NPA levels for PSBs**

Taking advantage of loopholes in the old banking law, PSBs developed enough laxity to accumulate a large volume of NPA. It is clear from the figures of NPA that are available for each year since 1993. Gross NPAs in the PSBs have increased rapidly from Rs 39 thousand crores in 1993 to Rs 54 thousand crores in 2003 as shown in table 1. It grew at a rate of around five percent per annum during the period excepting the last year when it declined. Sheer size of NPA and its growth rate over the greater part of the 1990s indicate the ill health of the Indian public sector banks. In the year 1994, it was found that almost a quarter of the total volume of existing advances made by these banks remained non-performing. After implementations of the Narasimham Committee Report (1991) banks could no longer show interest on an accrual basis but it had to make provisioning from its income while granting of advances. This led to a situation in which a large number of the PSBs started reporting negative profit in 1992-93. Banks fulfilling certain conditions were allowed to write off these losses against their capital. This called for recapitalisation of these banks. Further, recapitalisation was required to a large extent in order to

write off bad debts. The total bad debt written off by 27 PSBs in 1997-98 was Rs 2,800 crores.<sup>13</sup> A number of profitable Indian PSBs recorded huge increases in bad debt write offs in 1998-99 as compared to previous years.<sup>14</sup> One more compelling reason for recapitalisation was to enter into capital market<sup>15</sup>. Since the beginning of banking reforms in the early eighties, the government has contributed Rs 20,046 crores towards recapitalisation and allowed banks to write off Rs 3,978 crores. Clearly, in the pre-reform era, when provisioning was not done, the profits of PSBs were overstated in their accounts. However, it is interesting to note that recapitalisation started as early as 1985-86, as noted by Mathur (2002). This is indicative of the malfunctioning of the banks which started much before Narasimham Committee and continued throughout the nineties.

Table 2: Asset classification based on quality (Amount in Rs crores)

Year	1 Standard Assets	2 Sub-standard assets	3 Doubtful assets	4 Loss assets	Total assets	1 as % of total assets	2 as % of total assets	3 as % of total assets	4 as % of total assets
1993	130087	12552	20106	393	163138	76.8	7.4	11.9	2.3
1994	124580	12163	23317	4073	164133	75.2	7.4	14.1	2.4
1995	158967	7758	22913	3732	193370	80.6	3.9	11.6	1.9
1996	189660	9299	24707	4351	228017	82.0	4.0	10.7	1.9
1997	200637	12471	26015	5090	244213	82.2	5.1	10.6	2.1
1998	239318	14463	25819	5371	284971	84.0	5.1	9.1	1.9
1999	273618	16033	29252	6425	325328	84.1	4.9	9.0	2.0
2000	326783	16361	30535	6398	380077	86.0	4.3	8.0	1.7
2001	387360	14745	33485	6544	442134	87.6	3.3	7.6	1.5
2002	452862	15788	33658	7061	509369	88.9	3.1	6.6	1.4
2003	523724	14909	32340	6840	577813	90.6	2.6	5.6	1.2
Growth Rate 1993-2003 (%)	15.86	4.85	5.15	19.04	14.24				

Source: RBI website: [rbi.org.in](http://rbi.org.in)

Over the years bank advances increased much faster rate than that of NPA and thereby reduced the share of gross NPA in gross advances to 14 percent by the end of the decade and close to 9 percent in 2003. In terms of total assets of these banks, it was found that around 11 percent of these assets were non-performing in 1994, this ratio however substantially declined to 6 percent in 2000 and close to 4 percent in 2003. This happened not because of the substantial recovery of NPA but due to a rapid increase in bank advances and assets. Further, as shown in table 1, increment of gross NPA was quite high throughout the period under consideration, excepting in 1995 and 2003<sup>16</sup>. This, in other words, shows that the volume of fresh defaults far exceeded the recovery in these years.

<sup>13</sup> See M.K. Venu. Sharp increase in write offs by banks, financial institutions, Economic Times, 15th March, 1999, p. 1.

<sup>14</sup> M.K. Venu, Banks speed up loan clean up in 1999, Economic Times, 23<sup>rd</sup> December, 1999, p. 18

<sup>15</sup> Mathur (2000), p. 2248.

<sup>16</sup> For instance, PSBs recovered around Rs 500 crores in 2002-03 under the Act of Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI). See RBI website.

Table 3: NPA distribution across sectors (Rs crores)

Year	Priority Sector Gross NPA	Non-Priority Sector Gross NPA	Public Sector Gross NPA	Total Gross NPA	Share of Priority Sector NPA in Total (%)	Share of Non-priority Sector NPA in Total (%)	Share of Public Sector NPA in Total (%)
1995	19208	17861	1316	38385	50	46.5	3.4
1996	19106	19067	1411	39584	48.3	48.2	3.6
1997	20776	21340	1461	43577	47.7	49	3.3
1998	21184	23107	1362	45653	46.4	50.6	3
1999	22606	27608	1496	51710	43.7	53.4	2.9
2000	23715	28524	1055	53294	44.5	53.5	2
2001	24156	27307	1711	53174	45.4	51.4	3.2
2002	25139	30251	1116	56506	44.5	53.5	2.0
2003	24938	26781	1087	52807	47.2	50.7	2.1
Growth Rate 1995-2003 (%)	3.88	6.38	-2.32	4.95			

Source: RBI website: [rbi.org.in](http://rbi.org.in)

A closer look at the NPAs would reveal that a majority of these assets are doubtful, i.e., for which installments are due for a period exceeding two years (table 2). Assets under this category increased from twenty three thousand crores to thirty thousand crores of rupees between 1994 and 2000. Share of these assets in total assets however declined from 14.1 percent to 8 percent during this period along with a rapid increase in the later. It may be argued that a parametric shift has taken place in the distribution of NPA held by different PSBs (table 4). A statistically significant fall is observed in the means and variances of all the four measures of NPA during the period 1995-96 to 2002-03.<sup>17</sup> However, it remains to be seen to what extent these NPA ratios are accommodated within the banking system.

<sup>17</sup> Difference in the mean ratios of NPAs of PSBs (using t-test) for the years 2002-03 and 1995-96 is found to be significantly negative. Similarly, F- test is used to test variance ratio which indicated a decline of the variance in the later period.

Table 4: Trends in the ratios of gross NPA to gross advances across nationalised banks

	1995-	1996-	1997-	1998-	1999-	2000-	2001-	2002-
Banks	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA	15.96	16.02	14.14	15.56	14.25	12.93	11.95	9.34
STATE BANK OF BIKANER & JAIPUR	12.45	13.83	11.73	16.11	16.15	12.91	9.85	8.15
STATE BANK OF HYDERABAD	17.89	19.19	18.96	15.94	14.18	14.08	10.08	7.28
STATE BANK OF INDORE	14.2	15.81	15.05	14.68	10.8	9.16	7.18	5.53
STATE BANK OF MYSORE	14.54	16.92	17.47	16.96	13.89	12.83	12.07	10.14
STATE BANK OF PATIALA	11.49	11.32	11.88	13.98	10.99	9.66	6.94	4.8
STATE BANK OF SAURASHTRA	13.5	14.79	14.83	15.43	13.71	14.57	10.18	7.32
STATE BANK OF TRAVANCORE	11.74	14.49	20.06	18.46	14.43	11.38	9.41	6.67
ALLAHABAD BANK	23.98	23.93	23.18	20.09	19.07	17.66	16.94	13.65
ANDHRA BANK	11.61	11.81	9.86	9.42	7.83	6.13	5.26	4.89
BANK OF BARODA	16.16	17.15	14.63	16.03	14.73	14.11	12.39	11.02
BANK OF INDIA	14.49	11.78	11.55	11.87	12.9	10.25	9.37	8.55
BANK OF MAHARASHTRA	21.87	20.67	17.39	15.97	12.65	12.35	10.44	9.55
CANARA BANK	17.93	20.26	18.69	18.32	10.42	7.48	6.22	5.96
CENTRAL BANK OF INDIA CORPORATION BANK	23.91	25	20.47	17.41	16.63	16.06	14.7	13.06
DENA BANK	9.67	9.92	7.6	5.66	5.39	5.4	5.19	5.27
INDIAN BANK	14.7	15.1	13.73	12.37	18.15	25.31	24.11	17.86
INDIAN OVERSEAS BANK	34.15	39.12	38.96	38.7	32.77	21.76	17.86	12.39
ORIENTAL BANK OF COMMERCE	22.59	15.8	13.38	13.32	13.18	11.81	11.35	10.29
PUNJAB & SIND BANK	5.68	7.36	6.16	6.3	5.54	5.21	6.57	6.94
PUNJAB NATIONAL BANK	27.7	30.71	26.79	23.01	15.27	18.45	18.19	19.25
SYNDICATE BANK	18.74	16.31	14.5	14.12	13.19	11.71	11.38	11.58
UCO BANK	20.97	19.32	15.31	10.72	7.74	7.87	8.38	8.32
UNITED BANK OF INDIA	24.54	28.35	24.04	22.55	18.79	11.64	9.59	8.24
UNION BANK OF INDIA	10.38	10.38	11.18	12.41	12.27	11.2	10.77	8.96
VIJAYA BANK	38	36.2	33.5	32.38	27.6	21.51	16.16	12.15
ALL NATIONALISED BANKS	20.36	18.73	15.21	13.65	11.52	10	9.39	6.18
	18.0	17.8	16.0	15.9	14.0	12.4	11.1	9.4

Source: RBI, Report on Trends and Progress of banking in India, Mumbai, various issues.

### Section III: Determinants of NPAs: Some conceptual and empirical issues

In a layman's perception, NPA formation in a bank is paradoxical.<sup>18</sup> Unlike moneylenders who on several occasions lend money without any collateral, the advances made by the banks are generally backed by some kind of collateral, which can be liquidated in case of default. This collateral is in fact insisted on while making an advance to guard against the possibility of default. But the problem arises in several cases of default when some of these collaterals could not be acquired or liquidated by the bank to realise the loss involved. This inability was primarily due to institutional constraints, such as inappropriate legal framework, political interference or the general non-compliance attitude of the borrowing community. In addition to that, the existence of inadequately formed asset market might have aggravated the problem further. High transaction costs of operating in such a market also may be another reason.

Even if we accept that NPA is a fact of life, so far as banking practices are concerned, then ideally there should be no reason why one should be worried about it. A bank can obtain the desired rate of return through properly adjusting the rate of interest on different categories of loans/advances in accordance with their risk profile.<sup>19</sup> If the sample size is large enough for different categories of advances, which is in fact true for most of the Indian PSBs, the realised return, and desired return on the total asset of the bank would coincide.<sup>20</sup> The loss due to NPA would exactly be compensated by higher interest earning in specific risk categories. In other words, high incidence of NPA need not necessarily affect the profitability of the bank. In fact, both can go together. This is because high profits can be earned only at the cost of facing high risk i.e. generating high NPA.

There is no problem with a moderate NPA as it can be taken care of by differential rates of interest on advances made to different sectors. However, there is a limit to which the rate of interest can be increased in order to reflect the high profile of an asset category. If NPA becomes very high, it will be difficult to deal with its aftermath by means of an increase in rate of interest.<sup>21</sup> A rise in the rate of interest may go against the central bank's dictum. It may also lead to adverse

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<sup>18</sup> See Venkitaraman, Myth and reality, Economic Times, 6<sup>th</sup> January 1999, p. 9.

<sup>19</sup> It may be pointed out that such an attempt was not possible during pre-deregulatory phase when interest rates on deposits and loans were fully administered. Even after deregulation, there exist ceilings or floors of interest rate on several types of loans.

<sup>20</sup> Suppose the bank's desired rate of return be  $w$  from lending of  $A_1, A_2, A_3, \dots, A_k$  amounts of loans to  $k$  categories of borrowers, where  $A_1 + A_2 + A_3 + \dots + A_k = A$

The bank's desired growth of capital after  $t$  years =  $A(1+w)^t - A$

Probability of default for different category of borrowers =  $d_i$ , where  $i = 1, 2, \dots, k$ .

The rate of interest for different categories of loans =  $r_i$ , where  $i = 1, 2, \dots, k$ .

The bank's expected growth of capital after  $t$ -th year =  $\sum_i (1-d_i) A_i (1+r_i)^t - A$

This holds good or is realised for large samples.

For given  $w$  and  $d_i$ , by suitably fixing  $r_i$ , the desired growth of capital would be equal to the expected and realised growth.

<sup>21</sup> For instance, if the deposit rate of interest is 5 percent, the default rate (of loan amount) is 6 percent and the operational cost is 2 percent of the current deposit, the bank has to raise the lending rate to 13 percent (assuming all the deposit is used for lending) even to operate without profit. Under the present condition of lending rate in the market, SLR and CRR (and interest rate on investment), 6 percent default is too high to manage.

selection a la Akerlof (1970). If the increment in the rate of interest were very high, the problem would be aggravated by further increase in default. This occurs through two routes. Firstly, at a high rate of interest, a section among borrowers borrows with an intention to default. Secondly, an increase in the probability of default would take place either because individuals take more risk when the interest rate is higher. One may add that if the demand for loans is inelastic, raising the rate of interest may not reduce the demand for credit. It may create a category of genuine defaulters whose margin is squeezed. This poses a limit to the use of the tool of raising the interest rate to overcome NPA problems.<sup>22</sup>

In case of large NPA accumulation by a bank, it may also react by decreasing its exposure to the particular sector generating high NPA and changing its composition of advances. However, this is also not without problems. With change in the composition of advances and increase in advances to non-risky sectors, rate of interest offered to these sectors will fall. This is currently happening to Indian banks which when faced with NPAs originating from industries affected by recession are increasing their investment in government securities on the one hand<sup>23</sup> and wooing the household sector with lower interest rate on personal loans on the other.

However, apart from ceiling on interest rate or statutory restrictions on interest rates for some categories of loans irrespective of their risk profile, there may exist genuine problems of estimation of risks. Risks may not be time independent. They vary with the changes in overall business conditions. They may increase with economic slowdown and decrease with economic upturn. In addition to this there may also exist the problem of moral hazard or intentional default, principal agency problems where managers satisfy their own interest without considerations to the depositors/shareholders, political intervention and contagious effects in case of non-recovery, and all this may aggravate the problem of NPA. In fact, many of these factors proved very critical for the Indian PSBs, raising the NPA to an alarming level. This indicates that the role of evaluation and monitoring by the banks and transparency in banking operations assumes primary importance.

For analytical simplicity, the occurrence of default, in the Indian context, may be split into two components: random and the non-random components. The random component of default is assumed to be stochastic in nature. The different economic or commercial activities involve different levels of risks that are faced by borrowers with varied ability to sustain. Consequently, these risks are translated into NPAs through default. The relevant parameters can be estimated with a high degree of confidence when the number of borrowers in different categories of advances is reasonably high.

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<sup>22</sup> It may be useful to further extend the ideas contained in Akerlof. While interest rate is raised to cover up the risk factor, the basic idea is to increase the spread, keeping the rate of deposits unchanged. Assuming that return from other avenues which compete with bank deposits for money will remain the same, the relative attractiveness of bank deposits will remain the same. This is not a situation where there will be an increased flow of funds to the bank. This coupled with the problems of default mentioned by Akerlof will lead to a situation, where the role of banks as conduits of resource allocation between savers and investors will be undermined and allocative efficiency will suffer.

<sup>23</sup> Bhattacharya and Sivasubramaniam (2001), p. 4156.

The problem however arises with the second or non-random component. There are various possible situations when this component may increase. In such a case, a loan is not paid even when it is possible for the borrower to repay it – a case of wilful default. Several distinct instances may be put forward some of which are already mentioned.

*Random aspect of the default problem - a Poisson process*

In order to conceptualise the phenomenon of random default, we may express it in a simplified framework of a Poisson process. Let the bank lend to N number of borrowers where N is large. A borrower, operating in a smoothly functioning economy, would default only if he makes mistakes in predictions and/ or takes wrong decisions in his business. No other factors influence default. Under these circumstances, the occurrence of the incidence of default within a period, say a year, would be a Poisson process. Let X be number of default,

$$P(X = n) = e^{-m} m^n/n! \quad \text{for } n = 0, 1, 2, \dots$$

The expected number of defaulters in a year would be equal to m, called default density<sup>24</sup>. If the economic conditions change, and have not been anticipated earlier, then the value of m will also change. For instance, if there is a downturn in the economy with adverse business conditions, then many of the predictions and decisions made by the borrowers that were correct under earlier circumstances would turn out to be wrong in the present situation. The Poisson process will move to a different state with greater expected value. Thus in a downturn of the economy, we have a rising sequence of default density,  $\{m_i\}$ , where  $m_i > m_{i-1}$  and  $m_i$  implies expected default in the i-th year. Similarly in the phase of economic upturn we have a declining sequence of default density. The same can be said about the growth of NPA. The above result is based on the assumption that the default is purely a stochastic process, and that the process does not involve any memory as is the typical characteristic of a Poisson process. Still it explains the possibility of increasing default and NPA and the bank cannot adjust interest rate according to the risk for the loans exceeding one year's term leading to a less than expected realisation of repayment.

If the memory is introduced, particularly, in the process of default by the borrowers, the situation would be more alarming irrespective of the condition of the economy and the above stochastic model is no longer applicable. For instance, if borrower  $a_{i1}$  (1-th borrower in the i-th category) defaults and is not penalised, which the borrower  $a_{im}$  learns then the latter's probability of default increases:  $P(a_{im} \text{ defaults} / a_{i1} \text{ already defaulted and not punished}) > P(a_{im} \text{ defaults})$ . Over time, we then have an increasing sequence of defaults for which the bank has no estimation. It leads to contagious defaults. Although there are models for estimation of the speed of spreading rumour, technology or contamination, that may be invoked, but the bank has no control over the

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<sup>24</sup> Also see Kijima, Masaaki (2001)

process of default for those who have already borrowed.<sup>25</sup> However, it cannot be a situation where all the defaulters will escape from punishment, but also one cannot assign probability of punishing a defaulter. The borrowers would act according to their subjective probability, which vary from borrower to borrower.

The chances of loan defaults that a bank now faces cannot be expressed in terms of pure risk (that is, known probability distribution of defaults for different categories of loans) but more in terms of uncertainty. This problem may be taken care of to an extent by introducing memory in the process of lending by the bank that can make subjective assessment of chance of default for the borrower by studying his past record, his surroundings, his business activity, etc. Thus, screening of borrowers for the purpose of lending by a bank is important to avoid uncertainty to an extent. But some of the problems originating from adverse selections, moral hazards, principal agency relations or political interference may still haunt the banking sector as discussed below.

The very existence of banks is often interpreted in terms of its superior ability to overcome three basic problems of information asymmetry, namely ex-ante, interim and ex-post information asymmetry, over an individual lender. It may be seen that in the Indian context, a bank often fails to overcome these problems due to various non-random factors as discussed below.

#### *Non-random aspect of default*

##### **1. Ex-ante information asymmetry**

Irrespective of the size of the project, almost 70-75 percent of the investment is financed by banks and financial institutions and 25-30 percent comes from the promoters as their contribution in the form of capital<sup>26</sup>. In other words, major part of the investment in all the projects is financed by banks and financial institutions. It is the job of the banker to properly scrutinise the projects and stay away from unviable and un-bankable projects. The bank's role is to screen potential projects to determine expected return and risk from the not very objective data presented by the demanders of funds. Clearly, the bank's credit department takes the centre stage, because it is through its evaluation of potential investment opportunities the bank productively invests idle deposits mobilised from the household sector in the public interest. Term project proposals require detailed scrutiny as compared to working capital proposals, particularly keeping in view the future growth prospects of the project and that of the industry. The decision of the term loan is irreversible and any wrong decision could result in bad investment. There may exist situations where many borrowers hide information while borrowing and once the loans are granted they default. When banks fail to detect them adverse selection problems result.<sup>27</sup> Adverse selection of the projects

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<sup>25</sup> For a discussion on the literature on diffusion of technology or rumour, see Karmeshu (1996).

<sup>26</sup> Desai, U.C. Managing bad loans, Economic Times, 17<sup>th</sup> February 1999, p. 9

<sup>27</sup> Adverse selection exists when one participant in a transaction has more information about the game being played than does the other participant.

without properly scrutinising their viability has led to substantial accumulation of NPA in the banks. The following situations lead to failure to overcome ex-ante information asymmetry and thereby cause adverse selection of borrowers.

***a) Lack of organisational learning in the bank - repeated lending to same person or group of persons with similar dubious characteristics***

Organisational learning on the part of the bank is very important in controlling the growth of NPA. It is obvious that with the experience of repeated lending over a period of time to varieties of borrowers, a bank can identify a particular type of borrower who is more likely to default. But in practice it fails to learn from the past. Due to several constraints, whether internal or external, like political interference, it cannot bar these potential defaulters. For instance, loans have been extended to

- i) industries in the negative list circulated by IDBI, department of industries and RBI.
- ii) existing accounts which have gone irregular, i.e. ever-greening of accounts.<sup>28</sup>
- iii) a party which is irregular on existing accounts in a different branch of the same bank.
- iv) several projects with promoters or directors with doubtful integrity.<sup>29</sup>

***b) Lack of vision of bank in sanctioning, reviewing and enhancing credit limits***

While examining long term viability, both foresight<sup>30</sup> as well as proper scrutiny is lacking on the part of the bank. Inefficient decisions have resulted in many newly born projects turning sick or closing down. There are instances in which instalments and interest have become due before the commencement of commercial production. Such accounts are considered as NPA, which reflects improper scrutiny and failure in considering moratorium period on a realistic basis.<sup>31</sup>

***c) Political interference***

Political leaders/organisations wield enormous power over the banks in granting loans to particular borrowers. It pays the political leaders to encourage default by the borrowers, in the absence of an efficient legal system. For instance, rural panchayats are responsible for recommending loans, but once the loan is disbursed, these rural political bodies take no initiative to ensure that the loan is serviced and repaid<sup>32</sup>. There are many instances where big companies received a large volume of loans under political influence and were able to escape punishment after default. Examples include UB Engineering promoted by Vijay Mallya, an MP in the Rajya Sabha and Mukand Steel promoted by Viren Shah, current governor of West Bengal.<sup>33</sup> Earlier,

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<sup>28</sup> Central Bank sees red over evergreening. Economic Times, 25<sup>th</sup> August 1999, p. 16

<sup>29</sup> Desai, U.C, Managing bad loans, Economic Times, 17<sup>th</sup> February 1999, p. 9.

<sup>30</sup> Possibly due to bounded rationality.

<sup>31</sup> Kannan, K. NPAs: How do we tackle them? Economic times, 11th July, p. 9.

<sup>32</sup> This phenomenon is observed in West Bengal, where banks saddled with NPAs have become reluctant to come with fresh advances under employment generation and rural development programmes unless some improvement takes place on the loan recovery front. See Ghosh, Sugoto, Bengal Banks told to get moving on loan recovery, Economic Times, 1 February, 1999, p. 16. Similar phenomena may be prevalent in a number of other states.

<sup>33</sup> Sangita Mehta (2002), Foreclosure: Of legal tussles and recovery, Economic Times, 24<sup>th</sup> July 2002, p. 11.

loan *melas* and debt write off under political pressure have also contributed to NPA problem of which further discussion will be made in the next section.

## **2. Interim information asymmetry**

There are asymmetries of information that develop subsequent to signing of a contract. Even when information asymmetries do not exist at the time of contracting, the parties to a contract often anticipate that asymmetries will develop sometime after a contract is signed. Because lenders have trouble ascertaining the quality of investment projects that borrowers wish to undertake, the borrowers have incentives to engage in activities that may be personally beneficial but increase the probability of default and thus harm the lender. For example, the borrower has incentives to cheat by misallocating funds for his own personal use, either through embezzlement or by spending on perquisites, which do not lead to increased profits. Moreover, the borrower has incentives to undertake investment in unprofitable projects that increase his power or to invest in projects with higher risk, in which the borrower does well if the project succeeds but the lender bears most of the loss if the project fails. When there are some actions which the borrower can take and which affect the likelihood of not being able to repay the debt, then there exists a kind of moral hazard problem.<sup>34</sup> RBI (1999) report on NPA investigated around 800 top NPA accounts in 17 banks. It reveals that while loans were taken mostly for expansion, diversification, modernisation, taking up new projects and for helping /promoting associated concerns, the single most prominent reason for units becoming sick and accounts turning sick is the diversion of funds by promoters.<sup>35</sup> Further, nontransparent accounting policy and poor auditing practices often mislead the banks who otherwise could have taken appropriate measures to minimize loss due to default.<sup>36</sup>

## **3. Ex-post information asymmetry - need for monitoring**

Once lending decisions are made, ongoing monitoring needs to be done with a view to prevent moral hazard or otherwise in order to assure the maximum possibility of repayment. The Indian PSBs are not in a position to monitor perfectly the actions of those to whom it lends money. RBI (1999) report on NPA provided a number of instances where banks have financed projects of a company whose registered office is far away from the concerned branch of the bank, thus

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<sup>34</sup> In games with moral hazard, one player can not directly observe the move made during the game (hidden action) that another player can and this unobserved move is made after the uninformed player moves. In case of a loan given by a bank, this may arise on either side of the transacting parties. One form of moral hazard may take place due to moral deprivation of the borrowers. But it also may arise due to moral deprivation of the manager who is not acting towards fulfilling its duty towards depositors/shareholders. The problem of NPA may also arise due to a connivance of both the manager and the borrower.

<sup>35</sup> Economic Times, Fund Diversion leads to mounting NPAs: RBI, Economic Times, 30th June, 1999, p. 1.

<sup>36</sup> Here a dubious role is played by chartered accountants who prepare the annual reports of the borrower and present it to the banks for credit, conceal such diversion of funds. Also see K.Kannan, 'NPAs: How do we tackle them?', Economic Times, 11<sup>th</sup> July 2000, p. 9.

making it very difficult to monitor the accounts. Disbursement of loan in another area created problems for the bankers who often failed to keep track and check on end-use of the fund disbursed. Over-invoicing in cost of construction and machinery; disbursements against machines-materials-asset not relevant to the project, frequent cash withdrawals of huge amount, inter-firm transactions, payments for buying property of the partner or director by withdrawing from cash credit account, and operating cash credit accounts for public issues are some prominent examples which point to the fact that bankers have not been vigilant in controlling the end-use of funds. During periodic inspection, appropriate enquiries are ignored even when certain irregularities are observed by the bankers.

Three decades of government ownership have rendered banks organisationally weak. Faulty appraisals, absence of effective post-sanction monitoring have resulted in NPAs.<sup>37</sup> Defective credit appraisal system, absence of risk rating and deficiencies in post-credit supervision and follow-up<sup>38</sup> are important reasons that led to accumulation of NPAs. Further, it may be seen how conflict between government policy and bank's interest generates NPA in the priority sector. In the case of priority sector lending, a certain proportion of the total advances would be provided to a particular type of borrower, irrespective of requirement, usage of the money, credibility or ability to repay. While devising such programmes the government has not devised any method of recovering loans in case of default. Thus, pre-approved nature of loans sanctioned under sponsored programmes (leading to adverse selection), lack of effective follow up due to large number of accounts (and lack of monitoring) lead to formation of NPA in priority sectors for Indian PSBs.

#### **4. Incomplete contract**

Contracts are inherently incomplete as it is difficult to specify all the modalities and the terms and conditions prior to signing of a contract. This is seen to be all the more true in the case of financial transactions in the PSBs where many disputes emerged regarding the magnitude of the interest amount dues. For instance, changes in the banking practice of applying and fixing of interest from quarterly to monthly caused confusion regarding the exact annual interest rates and thereby interest bills. Already a large number of litigations involving a sizable amount of bank money is pending in the court, for which neither interest nor the principal is forthcoming.<sup>39</sup>

#### *Interaction between random and non-random factor*

NPAs are also created by interaction of random and non-random components. When a borrower can not pay back the due to the fact that his venture failed and he escapes any form of penalty, this induces another to default, even when he has the capacity to pay back. In such a

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<sup>37</sup> Khan, S.H. NPAs: How do we tackle them? Economic Times, 11<sup>th</sup> July, 2000, p. 9

<sup>38</sup> Joshi, P.N. NPAs: How do we tackle them? Economic Times, 11<sup>th</sup> July, 2000, p. 9.

<sup>39</sup> Economic Times (1998) SBI, BOI have crores locked in litigation 9th November, p. 12.

scenario, occurrence of NPA due to random reasons leads to creation of additional NPA due to non-random reasons, a phenomenon called contagious default.

RBI (1999) study of 800 top NPA borrowal accounts (referred above) distinguished between internal and external reasons behind accumulation of NPA. The external factors may be mentioned as under:

1. industrial recession<sup>40</sup>
2. natural calamities like floods and accidents
3. changes in economic policy and technology increasing the incidence of sickness
4. labour problems, non availability and price escalations of raw materials, power shortage and other factors not within the control of the banks<sup>41</sup>.

Among internal factors<sup>42</sup>, mention has been made of the following:

1. inefficient management and business failure
2. inappropriate technology<sup>43</sup> and product obsolescence  
time and cost over runs by units.

Each of the external and internal reasons for NPA formation adduced by the RBI may come under both random and non-random process of default as discussed above. We may take the examples of industrial recession or policy of technological changes increasing the intensity of sickness which come under external factors. This might have genuinely affected the borrower, thereby making it a random factor behind NPA formation. It is also possible that an unaffected borrower wilfully defaults and pretends that the above factor affected his business. This comes under non-random factor behind default. The external factors, according to RBI, are beyond the control of the banks and thus, the banks cannot be held responsible for the defaults caused by these factors.

### ***Default risk– inappropriate conceptualisation***

In the literature on finance, two kinds of risks are distinguished: systematic and unsystematic risk. Systematic risks arise due to economic, sociological, and political reasons which have bearing on the entire market. Unsystematic risk arises due to factors peculiar to any firm such as labour strike, change in product line, change in demand for the product. It is necessary to relate our concepts of random and non-random reasons of NPA to these two kinds of risk.

It may be argued that random reasons of NPA formation may either relate to the entire economy like a recession or it may also relate to factors typical of a borrowing firm, as has been mentioned above. Thus the random reasons of NPA formation may be related to both systematic and unsystematic risk. However, so far as the non-random factors are concerned, not all of them

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<sup>40</sup> Slowdown in the economy, liberalisation, the South Asian Crisis, effect of globalisation of domestic industries, cyclical factors are popular reasons cited for accumulation of NPAs.

<sup>41</sup> Changes in market condition, among other reasons.

<sup>42</sup> An internal reason, which was not cited by the committee, is under financing of a project by a bank.

<sup>43</sup> Labour-oriented small-size technology operations, for example. Also see K.Kannan, NPAs: How do we tackle them? Economic Times, 11<sup>th</sup> July, 2000, p. 9.

can be reduced to risk alone. This would be well understood if we take the case of political interference, which is an important factor in non-random default. As discussed above, it arises when there is a strong lobby related to a specific sector of the economy, which is placated by the politicians for votes. This factor is neither related to the whole economy nor typically to a borrowing firm. This makes it difficult to relate it to systematic or unsystematic risk. But the fact remains that if an advance is made to a borrower with political clout, there is a high chance of default associated with it. Interestingly, the loan may be granted to the borrower in the first place because of his political connections.

It may be noted that many other reasons leading to non-random generation of NPA can also be related to the dimension of uncertainty and not risk<sup>44</sup>. It is known that the phenomenon of moral hazard exists, but the probability of its occurrence is unknown. So far as the aspect of contagious default is concerned there is no basis of providing some estimate of probability of default induced by another default. The aspect of contagious default as well seems to tread in the realm of uncertainty and not risk.

If the above reasoning is correct, then it has very significant implications. The financial notion of NPA as a risk phenomenon only, is an inherently incomplete approach.<sup>45</sup> Moreover, if policy prescriptions and provisions being applied to banking practices to handle NPA is based on risk aspect alone, then they adhere to a financial notion of understanding NPA and are hence inadequate.

#### *Alternative hypotheses explaining NPAs of the Indian PSBs*

##### ***1. High incidence of NPAs are a result of slowdown of the economy, particularly industrial recession***

The macro factors that are popularly adduced to explain high incidence of NPAs include slow down of the economy, particularly in the industrial sector, liberalisation, the South East Asian Crisis, effect of globalisation on domestic industries and cyclical factors. It is difficult to isolate the impact of liberalization or South East Asian crisis on NPAs, but one can relate the latter to economic slow down. During 1993 and 2001, gross NPAs increased at a rate of 5.01 percent per annum. The growth rate of GDP at factor cost in India was reasonably high (5.52 per cent per annum) during the 1980s which accelerated in the 1990s to reach 6.12 percent per annum.<sup>46</sup> The

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<sup>44</sup> In case of both risk and uncertainty possible outcomes are known. In case of risk, it is possible to assign probabilities to the outcomes, but it is not possible in the case of uncertainty.

<sup>45</sup> Three sources of risk affecting banks: default risk, interest rate risk and liquidity risk are discussed in textbooks (Freixas and Rotchet, 1997). NPA is related to default risk which is said to occur when a borrower is not able to repay a debt (principal and interest).

<sup>46</sup> Data on the growth rate of GDP and various sectors are compiled by RBI (2003) Handbook of Statistics of the Indian Economy 2002-03.

growth performance of the industry sector was even better in the 1980s and 1990s - although it marginally declined from 7.65 percent per annum to 6.59 percent per annum between the two decades. It seems that the stagnation/recession hypothesis of NPAs is not corroborated by the factual position. However it may happen that some specific industries stagnated and contributed to high NPAs which is discussed below.

## ***2. Stagnation in specific industries with large share of loans contributed to NPAs***

As on March 31, 2001, industry shared 43.58 percent of the outstanding credit of the PSBs. Textiles shared 6.10 percent of which cotton textiles shared 2.37 percent. Basic metal and metal products shared 5.84 percent, within this group iron and steel shared 4.22 percent. Personal loans including housing shared a very high proportion of the total outstanding credit (11.73 percent). According to the estimates of Uchikawa (2001), the growth performance of the textiles industries was rather slow in the 1980s (4.8 percent) which turned to be negative in the 1990s (-1.1 percent). Wood industries witnessed a negative growth in the 1980s (-2.1 percent) which however made some improvement in the 1990s. The industries that did not perform so well over these decades, include leather, beverage and metals industries. Dasgupta undertook a study on financial risk, measured in terms of Altman's Zeta Score, on several industry groups for the years from 1993-94 to 1999-2000.<sup>47</sup> It was observed that textiles, paper, pig iron and sponge iron, steel and castings had high risks throughout the period. Cement, sharing the major part of the non-metallic mineral products, started becoming riskier after 1996-97. Leather products were able to overcome their financial risks and metal products, which were earlier not risky, have become so since 1997-98 (p.4).

It is therefore evident that selected groups of industries became a major source of NPA accumulation. Steel being so important in this regard, one needs to mention that with the initiation of liberalisation and globalisation and state emphasis on infrastructure building, this industry made massive investment for capacity building. However, for various reasons, it could neither raise exports nor face adequate growth of domestic demand. The unfulfilled expectations raised by liberalisation, contributed towards NPA formation.

## ***3. The high share of lending to the priority sector, consisting of primarily agriculture and SSI, contributed to NPAs in a big way***

The agricultural sector achieved a moderate growth (3.12 percent per annum) in the 1980s which was slightly reduced in the 1990s (2.98 percent per annum). Similarly, the SSI sector's

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<sup>47</sup> Dasgupta, Sushmita 'Nonperforming assets of the steel industry – a general economic concern', [www.indiainfoline.com](http://www.indiainfoline.com).

performance was also impressive. It was as high as 11.63 percent in the eighties which declined to 8.59 percent in 1990-2001. NPAs in these sectors cannot be attributed to their poor performance.

However, in agriculture, price crash of commercial crops after harvest is a common phenomenon which leads to loan defaults by the farmers. Sometimes, failures of the high valued crops, like cotton due to pests attack or other reasons, may lead to default by farmers as recently noted in many states of India.

However, the explanation of NPAs was not in terms of their performance, but in terms of the indiscriminate choice of the borrowers that contributed to the high incidence of default. There is some element of truth in it as this sector's share of NPAs is more than that of loans as in 1993. Nevertheless, over time its share in loan declined but the decline in the share of NPAs was faster than the share of the loans (Mukherjee, 2003). The growth rate of NPAs of the priority sector was 3.9 percent which was much lower than that of the non-priority sector (6.4 percent) during the period 1993 - 2001. The relative improvement of the priority sector's NPAs in the later part of the 1990s may be attributed to the more cautious approaches and policies of the banks and their exertion of choice in selecting borrowers helped to motivate the borrowers, who are generally small, to repay the loans in due time. Using the same logic one may say that in the non-priority sector it is neither possible to deny loans to a large number of big borrowers nor to motivate them to repay. In consequence NPAs due to the non-priority sector are growing disproportionately.

#### ***4. NPAs are generated as a result of lending to more risky ventures in search of higher profits***

One may argue that the banks attempt to earn a high rate of profit by taking risky lending with high interest rates and the high NPA is a necessary outcome. Under such circumstances it is expected that both the NPAs and interest earnings would increase or move together. In order to test this association a simple correlation exercise has been undertaken between gross NPAs to advances ratios and gross interest earnings to advances ratios across PSBs for the years from 1995 to 2001, as shown in table 5.

*Table5: Correlation coefficient between Gross NPAs to Advances ratios and interest earnings to advances ratios across PSBs*

Year	1995-6	1996-7	1997-8	1998-9	1999-2000	2000-1	2001-2	Pooled
Correlation coefficient for 27 PSBs	0.17	0.27	0.35	0.45	0.55	0.29	0.32	0.32
t-values	0.86	1.40	1.87	2.52*	3.29*	1.52	1.69	4.62*

Note: \* Significant at less than 5 percent level.

It may be seen from the above table 5 that the correlation becomes significantly positive only in the last two years of the decades, i.e., 1998-99 and 1999-2000, when the relevant NPA ratios, in fact, already started declining. Prior to this it was insignificant implying that in the peak

period of NPA problem there was no marked association between high risk lending with high interest rate on the one hand and the high incidence of NPAs on the other. However, it is interesting to note that the correlation and the level of confidence improved throughout the second half of the 1990s when most of the PSBs also improved their NPA ratios. It was since the beginning of the next decade that the association again loosened.

The foregoing suggests that the generation of NPAs is a normal characteristic of banking practices. But it is expected to remain within a bound defined by the level of risks and their management as observed in many developed countries. However, in the case of Indian PSBs, the level of NPAs far exceeded that which was expected from the risk profile of their advances. It seems that one of the primary reasons of generation of disproportionately high NPAs is related to the problem involving the asset market as discussed below.

### ***Problems related to the asset market***

Apart from screening and monitoring the actions of the borrower after the loan is granted, another instrument available with banks to minimise default/occurrence of NPA is liquidation of the mortgaged asset after default. The crux of the problem, not highlighted in the literature, is the non-existence or malfunctioning of the asset market that enables/encourages generation of NPA through conventional routes of asymmetric information, adverse selection, moral hazard and improper monitoring. In brief, collateral is very useful for the bank in a situation where there is a possibility of default. It may be pointed out that if the asset market is perfect, the use of collateral with a reasonable amount of margin money is sufficient to avoid any NPA accumulation irrespective of the problems like adverse selection and moral hazard. But in reality, collaterals are not always safeguards against NPAs. Calomiris and Hubbard (1990) and Greenwald and Stiglitz (1988), emphasised that a sharp decrease in the valuation of firms' assets in a stock market crash lowers the value of the collateral and thereby makes adverse selection a more important problem for lenders since the losses from loan defaults are now higher. In other words, collateral can be a risky asset whose value can fluctuate. They, however, missed the point that market for many of the assets are not well developed or there may exist a legal problem in liquidating the asset. In such a situation collateral value may not be fully realised. Further, operations in this kind of markets may have high transaction costs. Thus collateral fails to solve the problems of default in general, or of adverse selections created by asymmetric information<sup>48</sup> of which further discussion will be made in the section below.

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<sup>48</sup> In such cases, the importance of the issue of screening of borrowers by the lender remains and this has to be done through collecting extraneous information about borrower. But that is again costly. As per neo-classical principle, the collection of information would go up to the extent where the marginal cost of information collection equals the marginal benefit of the information collected. While deciding to go for additional informational collection, one needs to know the worth of that information which leads to a problem of circularity or infinite regress.

### *Reasons peculiar to Indian PSBs*

Apart from the above reasons, there are a number of typical reasons leading to emergence of the NPA problem in the case of Indian PSBs. Some of these include malfunctioning of the institutional environment, captured by its economic, political, legal, social manifestations. The other reasons include use of the bank as an instrument of public policy, incompatibility of bank's interest with certain policy instruments as well as the change in the economic regime. It is also argued that new laws on environment and social security not envisaged at the time of appraisal have also contributed to accumulation of NPA.

### *Defaulter friendly legal system*

RBI report (1999) on NPA pointed out lacunae in credit recovery, largely arising from inadequate legal provisions on foreclosure and bankruptcy, long drawn legal procedures and difficulties in execution of the decrees awarded by the court. The legal system does not permit early recovery of dues. The report said that the Indian legal system is sympathetic towards borrowers and works against bank's interest (defaulter friendly legal system). It may also be mentioned that there is no social stigma attached to the defaulters, especially wilful defaulters.<sup>49</sup> Further, it is becoming increasingly futile to keep the litigation alive for long, as it is only a drain on resources. These legal procedures are highly time consuming as the matters get invariably delayed with law courts granting adjournments one after another for any small reason. More money is spent than what is hoped to be recovered by pursuing these cases in the courts of law. Despite most of the loans being backed by security, banks are unable to enforce their claims on the collateral, when loans turn non-performing, and therefore loan recoveries remain insignificant. Unsustainability of litigation in cases where borrowers are neither paying up nor likely to do so makes provisioning against these NPAs a losing proposition. The bank may feel that a write-off against such loans would help clean up the balance sheet and induce greater transparency. Thus there may be a tendency to write off a small amount of advances in the face of prohibitive legal and administrative cost and inordinate delay in final settlement.

### *Use of bank as an instrument of public policy*

A number of examples may be cited in order to show that the use of PSBs as an instrument of public policy has helped accumulation of NPAs. Lending under populist schemes like loan melas, directed lending to certain sectors like mini-steel, mini-paper, mini-cement units, sugar and cotton spinning co-operatives are examples.

### ***Use of certain policy instruments cutting across interest of banks***

Indecision on exiting out of bad loans through OTS due to fear of investigating agencies like CBI, CVC-have all contributed to worsening the NPA situation of the banks. The banks are owned by the government, which brings them under the purview of CVC, and business decisions are given a go by for adhering to procedures. The private and foreign banks are outside the purview of the CVC, which makes them recover and write off at a faster pace. BIFR is an escape route easily available to a wilful defaulter. Once the case is registered with BIFR, the bank's option to proceed legally is closed. For quite a few corporate houses, reaching to BIFR has become the most convenient route to avoid bank litigation. Over the years the process of revival of sick industries has led to a situation in which the corporate houses do not mind blackmailing the lenders with the threat of taking refuge under the Sick Industrial Companies (Special Provisions) Act. The BIFR experience shows how it has become a safe haven for companies that want to deter a feasible solution such as closure and prefer to be parasites on public money. There is a proposal to repeal Sick Industrial Companies Act that will prevent defaulting companies from taking refuge in BIFR.<sup>50</sup>

### ***Intentional misuse of settlement policy of RBI***

RBI has initiated a policy of settlement of loans with the borrowers, where an element of concession is granted to the defaulters. This has created a moral hazard problem where even the smaller and less influential borrowers are refusing to pay off their loan and increasing a developing a tendency to misuse of settlement policy of RBI.

### **Euphoria generated with liberalization**

A dream of globalisation led to huge investments which unfortunately could not be utilized due to hesitant liberalization policies. Large corporate houses delayed payments and contributed indirectly to NPA of SSI units<sup>51</sup>. Projects financed in the pre-reform era, with high gearing, low promoter's stake, with viability based on high tariff and fiscal concessions have turned sick in the new regime<sup>52</sup>.

### **Section IV: A critical evaluation of the Policy measures to control NPAs**

A discussion of NPAs reveals that two sets of factors are in action. One that leads to the emergence of NPA and the other helps in its perpetuation and does not allow the problem to be resolved. Correspondingly, policies to solve these problems are of two distinct types. One set of policies aims at preventing an asset from degenerating into NPA and the other set is to ensure

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<sup>49</sup> K.Kannan (2000) NPAs: How do we tackle them? Economic Times, 11<sup>th</sup> July, 2000.

<sup>50</sup> Economic Times, Mission NPA II: Foreclosures deterrent to trip defaulters, March 1, 2001, p. 16.

<sup>51</sup> Joshi, P.N. NPAs: How do we tackle them? Economic Times, 11<sup>th</sup> July, 2000, p. 9.

<sup>52</sup> Ibid.

recovery in case of default. While PSBs have their share of fault in failing to check the growth of NPAs, the more significant problem appears to be related with the asset market. It is in this context, the policy measures introduced need to be critically looked into.

In the first set of policies, the measures intended to granting a measure of autonomy subject to prudential guidelines are discussed below. These measures may be classified into two categories. One was deregulation of interest rate, while the other one related to dismantling of statutory credit allocation mechanisms.

The period prior to 1992 was characterised by administered interest rate as well as tight credit allocation mechanisms<sup>53</sup>. In April 1992, steps were taken by RBI to deregulate interest rate on liabilities and assets in a phased manner. Interest rate deregulation started with deposit rate. Banks were allowed to fix deposit rates below a ceiling rate announced by RBI. Deregulation of lending rates began in October 1994 with deregulation of rates for advances greater than Rs 200,000 subject to a certain norm. The single most important event in this phase was deregulation of entry of private domestic banks through the issue of specific guidelines by RBI on 22 January 1993 as per the recommendations of Narasimham Committee. The interest rate on liabilities was further deregulated subsequently. Since July 1996, RBI had been taking steps to abolish ceiling on interest rates for deposits of different maturities, beginning with those with the maximum maturity. By April 1998 interest rate on deposits for more than fifteen days had also been freed. Banks were allowed to charge differential rates on deposits of similar maturity but of different sizes. However, interest rates on saving deposits continue to be governed by RBI. Interest rates on NRI domestic term deposits under Non-Resident (External) Rupee Accounts scheme have also been deregulated, and banks have been given the freedom to fix their own interest rates on deposit under Foreign Currency Non-Resident Accounts (Banks) scheme subject to a ceiling prescribed by the RBI from time to time. Alongside this, banks were exempted from obtaining prior approval of the RBI or prior concurrence of the IBA for introducing new deposits mobilization schemes, except for NRI deposits. However it remains obligatory for banks to obtain prior approval of their respective boards and follow the directives on interest rates, premature withdrawal, sanction of loans and advances against deposits etc issued by RBI from time to time. During this phase, deregulation of interest rate on assets was continued. After deregulating the lending rate for loans above Rs 2,00,000, lending rates for loans below Rs 200,000 have also been partially deregulated with effect from April 1998. Interest on all loans below Rs 2, 00,000 was allowed to vary up to an upper limit set by PLR. These rates were earlier fixed at 12 percent for credit up to Rs 25,000 and 13.5 percent for credits limits between Rs 25000 and Rs 2,00,000.

Deregulation in lending rates has been followed by lifting of different quantitative restrictions on credit allocation. All instructions relating to maximum permissible bank finance

and credit monitoring arrangements have been withdrawn since April 1997. Similar deregulations have also been made with respect to term finance by virtue of which RBI has withdrawn its stipulation both on time and quantum of loans that can be granted by banks either individually or in consortia for a single project. Deregulation of interest rate has provided an opportunity for banks to fix interest rates for different categories of borrowers in accordance with their risk profile. Discarding of credit allocation schemes has led to more autonomy on the part of the banks in formulating their own method of assessing working capital needs of borrowers within the prudential guidelines and exposure norms prescribed by RBI.

### **Problems with these policies**

Monetary developments in the first half of 1998-99, as outlined in the mid-term review of the credit policy, has made it clear that there is adequate liquidity in the system and had advised the banks to step up their lending operations. However, this has not happened. Due to very stringent RBI norms on NPAs, there appears to be a universal thought process in all echelons of the banking system that it is better not to lend rather than to face the risk of NPAs. Banks are more comfortable with lending to companies with AAA or AA ratings since they do not run the risk of NPAs. This resulted in what has been termed as “islandisation of credit”<sup>54</sup>. It is a phenomenon where the credit delivery is polarised and handful of large companies with very good ratings gobble up most of the credit leaving the rest of the industrial sector high and dry. It has been observed that Corporation Bank roped in certain zero risk clients in 1999 for extending 500 crores at PLR<sup>55</sup>. However, it is argued that such a phenomenon is also fraught with problems. Denying credit to companies without top ratings has an adverse effect on the industrial production and GDP growth. This will not only stifle the companies that are deprived of credit but also harm the companies with top ratings by aggravating recession.<sup>56</sup>

The new banking culture, nurtured by economic and financial reforms has induced PSBs to focus on consumer credit and capital-market related activities, apart from corporate elite. Lending to agriculture, small-scale industries and the self-employment sector has become infra-dig. This illusion was shattered with the capital market becoming moribund during 2003. While, in the case of consumer lending, a sort of saturation point was reached<sup>57</sup>, the PSBs found the soft option of investing a bulk of their resources in government securities. This trend which has

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<sup>53</sup> Different credit allocation mechanisms included capital authorisation scheme, credit-monitoring arrangement, and consortium financing and lead bank system.

<sup>54</sup> This term has been coined by Prasad Godbole in his contribution on credit delivery published in Economic Times, 23rd December, 1998.

<sup>55</sup> Economic Times (1998) Corporation Bank to lend Rs 500 crores to “0” risk clients, 17th August, 1998, p. 12.

<sup>56</sup> Godbole, P. Credit delivery: Risk some, win some, Economic Times, 23d December, 1998, p. 7.

<sup>57</sup> This was predicted by a report on retail banking by KPMG, an international consultancy agency in 1998. See, Mukherjee, S. Stress on retail banking may hurt bank bottom lines, Economic Times, 21 December, 1998, p. 10.

become a chronic feature of PSBs, has been characterised as a sort of sickness of the PSBs<sup>58</sup>. It is against this backdrop, the activist role that RBI has at long last resumed playing in prodding PSBs to lend more to the rural and semi-urban areas has to be viewed. Credit policy measures announced on April 29,2003 also carries a firm tone that PSBs be dissuaded them from exercising the soft option of investing bulk of their resources in government securities. A drastic step like imposing a ceiling on PSBs investments, say 30 percent of their NTDL has already been suggested<sup>59</sup> to provoke these PSBs to reach out to the intended sectors.

To overcome the second type of problems, the steps taken by the government are to strengthen institutional framework so as to ensure speedy recovery consequent on default. After default, the only course of action left to banks is to take possession of the collateral and sell in the market at an a price covering the loan amount, interest amount and the incidental expenses. But, for utilizing of the asset market in solving problem of NPA may require the following three conditions.

1. The bank can smoothly take the possession of the asset.
2. A secondary market in the ceased asset must exist.
3. Transaction cost of operating in the market is low so that it may be used for realising a commensurate price of the collateral.

Selvam Committee framed by IBA on NPAs argued that it takes decades for courts to decide cases and even when degrees are obtained, execution of decrees are virtually an impossible task. In view of the inability of the legal system to help tackle the problem of NPAs, government set up the Debt Recovery Tribunals (DRTs henceforth) during 1994 in terms of “Recovery of Debts Due to banks and Financial Institutions Act, 1993.” DRTs have been conferred jurisdiction to try and entertain application for recovery of debts due to banks and financial institutions. The jurisdiction of the civil courts has been excluded in matters falling within the jurisdiction of the Tribunal except under Articles 226 and 227 of the Constitution of India. The Debt Recovery Tribunal, which has the jurisdiction to entertain only claims from banks and financial institutions, will not have the jurisdiction to entertain a cross suit or counter-claim that may be founded either on the same or a separate cause of action and/or the amount of which may even be in excess of the claim in suit. This is because the Debt Recovery Tribunal has no jurisdiction to pass and decree or order for recovery against the bank or financial institutions.

An Appellate Tribunal has also been constituted to entertain appeals from orders of the Debt Recovery Tribunal. If a person is aggrieved by the order of the DRT, it can file an appeal to the Appellate Tribunal within 30 days from date of receipt of the DRT order. If the DRT or Appellate Tribunal holds that possession of assets by the secured creditor was wrongful and directs the secured creditor to return asset to concerned borrower, the borrower shall be entitled to compensation and costs as may be determined by DRT or Appellate tribunal. The Tribunal can

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<sup>58</sup> Mujumdar, N.A(2003), p. 8.

<sup>59</sup> Ibid, p. 8.

also direct return of assets, if the secured creditor had already sold or transferred the asset to a third party.

However, DRTs, conceived as fast techniques for recovery of bank loans remained virtual non-starters. The reasons include inadequate infrastructure unable to handle large number of cases under DRTs, inappropriate legal framework governing the functioning of DRTs and ineffective threat of forcing recovery through DRT, when loans are not backed by assets<sup>60</sup>.

A new ordinance called “Securitisation and Reconstruction of Financial Asset and Enforcement of Security Interest Act” was issued on June 21, 2003. It allowed secured lenders to sell and lease assets which are charged with them by a defaulting borrower without the lender’s consent, after issuing a notice<sup>61</sup> the assets are immediately classified as non performing, without a protracted legal battle. The ordinance deals with three basic issues: securitisation of assets, setting up of an asset construction company and enforcement of securities. What is being focused here is enforcement of security, which boils down to taking control of a defaulter’s assets.

However it has been observed that, DRTs frequently raise objections when lenders approach them with the plea to initiate action under Securitisation Act in suit filed accounts that have been lying before the tribunals. This is an example how two measures designed to solve the same problem run at cross purposes. The passage of the above mentioned act did not mean end of court interventions in settlement of NPA problem. The legality of the Act has been challenged by several lenders against whom banks had threatened action of seizure and sell-off assets under the powers derived from the legislation. The Supreme court had issued a stay on sale of assets under the act after Mardia Chemicals had filed a case against ICICI Bank for paying up its dues, failing which the bank had threatened recovery action under the act. Subsequently, several companies that had incurred the wrath of its lenders filed cases in the high courts challenging the notices issued to them and have obtained stay of further action<sup>62</sup>.

Pending litigation blocks attachment and selling of collateral by the bank in case of default. In the meantime, the value of assets erodes faster with lengthy time taken for sale only realising junk value. After the first round of notices to big defaulters with loans up to Rs10 crores as per Securitisation Act, some banks<sup>63</sup>, still reluctant to seize assets have sent a second round of notices to defaulters to come forward for compromise for settlement. Banks do not want to attach the assets of the defaulter as it has inadequate expertise in managing or disposing of those attached assets to recover its due from its defaulters. Instead it prefers to bring the provisions of Securitisation Act to bring its defaulters to the negotiation table and execute compromise deals

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<sup>60</sup> Gogoi and Iyengar, RBI maps out new rules for recovery, Economic Times, 2nd August,2000,p. 1.

<sup>61</sup> From March 2004, a borrower can be classified as a defaulter if dues are not paid for 90 days against 180 days. See Mehta (2002).

<sup>62</sup> Sen, Sarbajeet K, DRTs block implementation of Securitisation Act, Buisness Line, July 7, 2003, p. 12.

<sup>63</sup> Sukumar, C.R., Bank of Maharastra prefers compromise deals on NPA, Business Line, May 24, 2003, p. 10.

towards early recovery of NPAs. The biggest failure of PSBs in recovering their NPA is on account of big borrowers with PSBs making recoveries of merely Rs 168 crores against NPAs under this category of Rs 22,355 crores till March 2003. This poor response of the scheme forced RBI to extend the scheme till December 31, 2003 against the earlier deadline of October 31, 2003<sup>64</sup>. High value defaults with dues exceeding Rs 5 crores accounted for total NPAs of PSBs to the extent of Rs 22,866 crores, accounted for a large portion of their total Rs 56,000 crores NPAs. Quite clearly, the response of this section of defaulters is the most critical part of any attempt to significantly bring down the NPA burden of PSBs. It is felt that reluctance of the large defaulters to come forward for settlement discussions indicates that they are probably more confident to take on the lenders if action is threatened under the Securitisation Act presumably because of political clout<sup>65</sup>. Thus, political interference appears to be significant as it acts as a double-edged sword, both in creating as well as perpetuation of NPA problem.

Narasimham Committee suggested formation of an “Asset Reconstruction Fund” which will take over bad and doubtful debts from banks at a discount and subsequently follow up the recovery of dues owed to them by the primary borrowers. Having acquired bad loans, ARFs have four options to recover. They include sale of collateral, restructuring the loan, foreclosure of the loan and seizure of all the assets and going for liquidation of the company. A complexity of factors conspires against formation and consequent satisfactory operation of ARFs. They are discussed below.

*a) Lack of a market in impaired financial asset*

The first step towards formation of ARF is to transfer impaired financial assets from banks to the new entity. However, it has been observed that talks between banks and RBI on guidelines for ARFs appears to be stuck on the pricing of the impaired assets<sup>66</sup> in the absence of a market, where such prices may be determined. ARF managers prefer to price the impaired assets net of provisioning with a view to reduce financial outgoes to the banks. Banks have not agreed to this and have expressed preference for auditors and chartered accountants to value the market price of an NPA put up on sale to the ARF<sup>67</sup>. This problem is aggravated due to lack of existence of a secondary market of physical assets. This leads us the next problem.

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<sup>64</sup> Sen, Sarbajeet K, RBI one time settlement schemes fail, Buisness Line, July 1, 2003, p. 1.

<sup>65</sup> Many of them may have enormous clout with the banks themselves (borrower-manger nexus).

<sup>66</sup> Banks at receiving end on bad debt sale by ARCs, Buisness line, March 8, 2003, p. 10.

<sup>67</sup> Even when a price is agreed on by both the parties, bank and ARF, presence of kickbacks may be alleged and parliament, CBI and CVC may frame charges of corruption against bank management. See, Onkar Goswami, The myth of Asset Reconstruction Companies, Economic Times, 12th August, 1999, p. 6.

*b) Lack of a secondary market in physical asset*

It appears ARCs can not be a success story in absence of secondary market in ceased asset<sup>68</sup>. The problem originates due to the fact that these assets are idiosyncratic, i.e. invested for a specific purpose. Its value is realised only if it is functioning for that particular purpose. It has no value (except scrap value) for other purposes. The set of its potential buyers is highly restricted to those who can utilise this asset in a productive way, provided the asset will remain technologically viable.

*c) Claims of banks preceded by that of financial institutions*

There is again a legal aspect of the current standoff with regard to ARFs. As per the law, financial institutions providing long term funds have first charge on assets, with banks holding second or third charge. On current asset, the bank hold the first charge, but in the case of an NPA current asset are usually nil. In such a case, financial institutions get away with the sale proceeds of the NPA, leaving the banks in the lurch. While some bankers have argued for a pro-rata sharing of sale proceeds irrespective of the nature of the charge, RBI can not change the basic law.<sup>69</sup>

The above discussion reveals that a number of conditions are necessary for operating in a secondary market for assets with a low transaction cost. They include speedy trial at lower litigation cost, getting possession of the asset, once the verdict is given in favour of the bank, lower intermediation cost.

**Section VI: Concluding observations – A degenerated banking institutions and institutional environment**

It was commonly believed that the Indian government could not afford bank failure, the government would rescue the banks whatever was the level of the crisis. This caused some sort of desperation on the part of both the bankers and borrowers. The earliest estimates of NPAs was available for the year 1993 when gross NPAs of the PSBs amounted to as high as Rs 39 thousand crores. The severity of the problem was well understood as it shared 23.2 percent of the total advances or 11.8 percent of the total assets. The state, and RBI in particular, made concerted efforts to control it. When the new accounting practice was introduced, where interest earnings included the realised interest only<sup>70</sup>, not the interest accrual, PSBs showed substantial losses and thereby a massive recapitalisation was called for. On the other hand, in order to clean off the NPAs

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<sup>68</sup> Renu Kohli (2004) Looking beyond Non-performing Assets, The Indian Express, 12th February.

<sup>69</sup> However, it could enforce a MOU between long term and short term lenders before transfer of NPAs to an ARC. See Business Line, March 8, 2003, p. 10.

<sup>70</sup> In the earlier practice, interest accrual to any loan is automatically entered in the revenue book irrespective of being realised.

from the balance sheet, banks had to make provisioning against these loss assets. This in turn affected their profit to a great extent putting these banks in a kind of vicious cycle.

Over the next ten years these ratios slowly declined – by 2003, gross NPAs to total advances became 9.4 percent and that in total assets became 4.2 percent. This decline was not due to recovery of the loss assets but due to faster growth of advances and assets of the banks compared to their NPAs. However, incremental NPAs in fresh advances or assets declined considerably. This may be interpreted in terms of concerted efforts made by the RBI in raising competitiveness and efficiency and in terms of granting greater autonomy to the banks in their decision making.

However, in absolute terms, gross NPAs rapidly increased – within the ten year period, 1993-2003, it rose from Rs 39 thousand crores to Rs 54 thousand crores. While analysing the factors responsible for the massive accumulation of NPAs alternative approaches and frameworks have been used in this paper. First, formation of NPAs is seen as an integral part of banking activities and its magnitude would depend on the exposure of the banks to various levels of risks across sectors of economic activities. But, it was noted that the risks (measured by returns in terms of interest earnings) are not commensurate with the NPAs. The explanations of liberalisation and globalisation, overall economic slowdown, stagnation in many industries and agriculture leading to NPA formation, could not stand in explaining such a high share of default in total advances. Nevertheless, the above mentioned problems might have contributed towards NPA formation to an extent.

A micro-level probe would reveal that non-economic factors, like moral hazards, adverse selection, screening and monitoring problems, principal agency problems, are highly important - some of which are operating through political and bureaucratic channels and some others through banks' own administrative channels in granting loans and in preventing recovery of dues. In case of Indian PSBs this has become a rampant and all-pervasive phenomenon. In fact high incidence of default in the priority sector lending may be attributed to a great extent to the political factors. Similarly, there are ample evidence of big borrowers in the non-priority sectors who defaulted but the banks could not penalise and confiscate their assets because the latter wielded enormous political power and at times influence over the board of members of the banks. The problem of confiscation of asset was further aggravated by two important factors – legal factors that take a long time to settle any dispute, and highly imperfect or inadequately formed markets for confiscated assets. Banks, therefore, often fail to realise the value of the defaulted amount by disposing of the confiscated assets. All this leads the banks to go for compromise with the defaulters giving several concessions to the latter and this encourages the others to default. The evolving policies of settlement of NPAs are being frequently thwarted by legal injunctions and are yet to be concretised.

Thus, NPA formation depends not only on banking rules, regulations and practices that are part of its institutions, but also on the external institutional environment within which PSBs operate, like the political will, cultural practices or the social customs/moral fabric of the society, and overall economic conditions. Several of these internal and external institutions have degenerated over the decades, some of which are worth mentioning.

*Table 6: Growth rate of schedule commercial banks' deposits and investments in government securities*

Period	Growth rate of commercial banks' deposits (%)	Growth rate and investments in government securities (%)
1970-80	20.68	21.16
1980-90	17.96	19.22
1990-2002	17.07	20.62

Till the initiation of reforms in 1992, Indian PSBs, had been operating not as an independent organization, but as if a subsidiary to the government with the objective of meeting the financial requirements of the state. They operated under the strict guidelines of the RBI, which were all encompassing. Although most of their deposit came from the private sector, i.e., households, a major part of their lending was confined to the government, and they also made substantial investment in government bills/securities as shown in the table 6. The share of investment in government securities in aggregate deposits of the commercial banks slowly increased from 23.6 percent in 1970 to 25.97 percent in 1990, thereafter it rapidly increased to 30.48 percent in 1995, to 35.32 percent in 2000 and to 40.75 percent in 2001. On the other hand, a reasonable return (excepting the amount deposited as CRR and the assets held as SLR) with full security is also beneficial for the bank.<sup>71</sup> The developmental policies of the state-requiring mobilisation of a large sum of money made the state a major customer of the PSBs. RBI acted as the mediator between the state and PSBs more or less determining the amount/share of the deposit to be allocated to the state and the private sectors. For the private sector lending it fixed ceiling and floor rates of interest depending on the type of loan, size of loan, type of borrower, nature of collateral, etc.<sup>72</sup> The interest rates often did not reflect the risks of lending. RBI also fixed interest rates on deposits. The bank had little room for making own decisions in adjusting interest rates with the risks of lending, especially to the private borrowers.

With frequent intervals, RBI changed CRR, SLR, and shares of loans to priority sector and other sectors, and the banks gradually learnt to adjust receiving deposits, lending and making

<sup>71</sup> Interest on government securities was around 7 to 9 percent in the early 1980s, 11 to 11.50 percent in the early 1990s and to the peak level of 14 percent in the mid 1990s. Thereafter it rapidly declined and reached to the level of 9-9.5 percent in 2001.

<sup>72</sup> For instance minimum of the key lending rates was 13.50 percent in 1980, which increased to 16 percent in 1989 and then to 19 percent in 1991-92. Thereafter it declined slowly. Similarly, the ceiling rate was 19.50 percent in 1980-81,

investments accordingly.<sup>73</sup> Through division of labour in the branches, banks were able to routinise things. Under this system, there was very limited scope for making profitable innovations in terms of both organisational changes and seeking new sources of fund and new avenues of investments/lending.

As stated above, for many of the private sector loans, banks were not able to match risks with interest rate restrictions imposed by the RBI. Once RBI fixed the share of loans and the rate of interest to particular sectors, banks became constrained not to discriminate among borrowers of a limited number. For a long period, real interest rates were negative for many of these loans; obviously, vested interest, political and local intervention would creep in in order to extract surplus in the system (i.e., difference between the opportunity costs and actual cost of borrowing). Since it was not mandatory on the part of the banks to declare NPA or recover loans, and since, RBI was happy so long as the banks were able to finance state expenditure, a laxity crept into the banking sector. This happened particularly for the kind of private sector lending mentioned above and, in general, profit earning/ meeting the interests of the depositors became the secondary objective of the banks. Often the non-intended borrowers received the loans, and even for the case of some target borrowers, the influential brokers who arranged the loans would take away a sizeable amount of the loan disbursed. The borrowers would not be able to repay the loans; even if they could, they would not be interested in doing so. The broker had to manipulate the system in such a way that the bank could not penalise the borrowers. On the contrary, the bank granted fresh loans to the defaulters so that the debt would roll on (known as evergreening of accounts). Under these circumstances, it was quite obvious that some personnel of the bank would also try to extract some surplus.

Thus a new institution which is degenerative of the bank evolved. The institution involved a nexus of some personnel of banks, brokers, and borrowers, that would siphon off public money through manipulating banking machinery, state machinery, mobilising political and local forces. The banks on the other hand showed this lost money, or the rolling loans, as normal assets, as if earning interests or compounding over the years. The banking institution and their institutional environment that evolved over the decades were therefore not supportive of healthy and innovative ways of making progress by the banks.

This is reflected in the functioning of the banks during the post reform period when several attempts have been made to improve upon the situation. Changes in the instruments with the banks, on the one hand, through reducing CRR, SLR, (marginally raising capital adequacy

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which declined to 16.50 percent in 1987-88. The minimum rate for selective credit control also varied over the years which was freed in 1994-95 (RBI, 2003, Hand Book of Statistics on the Indian Economy, p.99).

<sup>73</sup> CRR more or less steadily increased from 4 percent by the end of 1974 over the decades to reach 15 percent in the mid 1989 and remained at that level till mid 1993. It then rapidly declined, with some occasional reversal, to the level of 4.75 percent by the end of 2002. A similar pattern may be noted with respect to SLR – it steadily increased from 26 percent in the early 1970 to 35 percent in late 1981 and remained around the peak level of 38-38.5 percent in the late 1980s and early 1990. Since 1993 it started declining rapidly to reach 25 percent in 1997.

ratio), raised banks' loanable money from a given deposit, and on the other hand, considerably widening banks' freedom in their own decision making raised efficiency. Of late, state enactment provided greater power to the banks to penalise defaulters.

It was expected that all this would make the PSBs more profitable, efficient and innovative with much reduced NPA. It needs to be mentioned that the institutions are slow to change, routines are difficult to break or change. Previously, almost the entire part of the decisions was de facto guided by the state/ RBI, and the return on the compulsory lending to the state was also certain. Under the changed situation, in spite of the autonomy in decision making, PSBs could not come out of this routine behaviour of operating in a risk free environment. They invested the extra money released from reduced SLR, CRR, on government bills and securities with assured return. Their lack of innovativeness is also indicated by the late introduction of credit/debit cards, ATM facilities which private banks started much early. Possibly PSBs did it under compulsion, as the ultimate strength of a bank is its depositors who tended to move away from the PSBs.

As regards continued loan defaults and NPA, the bank routines/ rigidities, and the institutions involving nexus of borrowers, agents and bank personnel continued to be responsible even under liberalisation, RBI's insistence on reduction of NPA and more restrictive legal enactment. It is not yet mentioned that the innovations may be a routine affair and can be institutionalised. But this is not the case with the Indian PSBs. Rather it could be a case with institutions, involving the nexus of vested interests indicated above, making frequent innovations in diverting bank money for personal gain as revealed in the past when special types of fraud cases were made public. The latter institutions are very difficult to change – it not only requires stringent punitive enactment and vigilance, but also public awareness, campaign and reforming electoral colleagues. Political forces to induce default must be contained. Given the institutional features of the PSBs and their institutional environment, no radical improvement is expected from these banks within a short period whatever be the improvement in the legal structure, organizational change and the level of autonomy. These are nevertheless essential for long term improvement and for building healthy institutions albeit slowly.

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