Journal of Advances and Scholarly Researches in Allied Education
Vol. 12, Issue No. 2, January-2017, ISSN 2230-7540

Analysis of Non-Performing Assets in Indian Banking Sector

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INTRODUCTION

The best indicator for the health of the banking industry in a country is its level of Non-performing assets (NPAs). NPAs are one of the major concerns for banks in India. It reflects the performance of banks. Reduced NPAs generally gives the impression that banks have strengthened their credit appraisal processes over the years and growth in NPAs involves the necessity of provisions, which bring down the overall profitability of banks. Non-performing Assets are threatening the stability and demolishing bank's profitability through a loss of interest income, write-off of the principal loan amount itself. RBI issued guidelines in 1993 based on recommendations of the Narasimham Committee that mandated identification and reduction of NPAs be treated as a 'national priority' because the level of NPA act as an indicator showing the bankers credit risks and efficiency of allocation of resource.

The NPAs have destructive impact on the return on assets, the interest income of banks is reduced, the current profits of the banks are eroded because the providing of doubtful debts and writing it off as bad debts and it limits the recycling funds. The capital adequacy ratio is disturbed and cost of capital will go up. The economic value addition (EVA) by banks gets upset because EVA is equal to the net operating profit minus cost of capital.

REVIEW OF THE LITERATURE

In the banking literature, the problem of NPLs has been revisited in several theoretical and empirical studies. A synoptic review of the literature brings to the fore insights into the determinants of NPL across countries. A considered view is that banks' lending policy could have crucial influence on non- performing loans (Reddy, 2004). He critically examined various issues pertaining to terms of credit of Indian banks. In this context, it was viewed that 'the element of power has no bearing on the illegal activity. A default is not entirely an irrational decision. Rather a defaulter takes into account probabilistic assessment of various costs and benefits of his decision'. Bhattacharya (2001) rightly points to the fact that in an increasing rate regime, quality borrowers would switch over to other avenues such as capital markets, internal accruals for their requirement of funds. Under such circumstances, banks would have no option but to dilute the quality of borrowers thereby increasing the probability of generation of NPAs. (In another study, Mohan (2003) observed that lending rates of banks have not come down as much as deposit rates and interest rates on Government bonds. While banks have reduced their prime lending rates (PLRs) to some extent and are also extending sub-PLR loans, effective lending rates continue to remain high. This development has adverse systemic implications, especially in a country like India where interest cost as a proportion of sales of corporates are much higher as compared to many emerging economies. The problem of NPAs is related to several internal and external factors confronting the borrowers (Muniappan, 2002). The internal factors are diversion of funds for expansion/ diversification/ modernisation, taking up new projects, helping/promoting associate concerns, time/cost overruns during the project implementation stage, business (product, marketing, etc.) failure, inefficient management, strained labour relations, inappropriate technology/technical problems, product obsolescence, etc, while external factors are recession, non-payment in other countries, inputs/power shortage. Bloem and Gorter (2001) suggested that a more or less predictable level of non-performing loans, though it may vary slightly from year to year, is caused by an inevitable number of 'wrong economic decisions by individuals and plain bad luck (inclement weather, unexpected price changes for certain products, etc.). Sahil B Mulla (2010) study the NPAS management of Indian Banks for the year 2008-09. He found out that there are many primary factors (such as: Diversion of funds, mostly for the expansion, changes in the Macro-environment like recession, inadequate control, changes in Government policies e.g. Import duties., deficiencies like delay in the release of limits/ funds by banks / FIs) and secondary factors (such as:

Selection of the project, implementation of the project, intention of the borrower, economic trend) responsible for high NPAs in banking sector. Various steps have been taken to reduce NPAs. He concluded that Bank of India has performed extremely well in NPA management. Persistent and follow-up of potential and other NPAs with outstanding of Rs. 1 crore and above is being done through the introduction of ACTION TAKEN REPORT (ATR) mechanism on periodical basis. Loan Restructuring and Loan Review Cells have been established to set up restructuring exercise in all viable cases expeditiously. Responsibilities have been assigned to monitor large NPAs (Rs l0Lakhs and above) at administrative levels.

OBJECTIVE OF THE PAPER

The objective of the present paper is to examine the performance of banks with respect to NPAs, study the trends of NPAs in public sector banks and suggesting various measures to reduce NPAs of the banks.

Data Analysis and Discussion

The relationship between two related items of financial statements is known as ratio. A ratio is just one number expressed in terms of another. The use of ratio has become increasingly popular during the last few years only. Originally, the bankers used the current ratio to judge the capacity of the borrowing business enterprises to repay the loan and make regular interest payments. Today it has assumed to be important tool that anybody connected with the business turns to ratio for measuring the financial strength and the earning capacity of the business.

Public Sector Banks: -

Public Sector Banks constitute the backbone of Indian banking system. Majority of the banking business in India is carried out through PSB's. We have seen after implementation of new prudential norms all the public sector banks went into red in the first year itself. The reason was simple that those accounts, which were earlier being perceived as standard account by banks, turned out to NPA category as per new prudential norms.

An analysis has been done on the trend of NPA's of Public sector banks over the five-year period i.e. from 2003-04 to 2007-08. The data pertaining to NPA's of PSB's has been collected from the "RBI, Report in Trend and Progress of Indian banking, 2007-08" published on Dec 17th, 2008. Public sector Banks constitute of 19 nationalized banks and 8 SBI and its associate banks.

The basis for studying trend of NPA's in PSB's is:

► Gross NPA's/ Gross Advances

► Net NPA's/ Net Advances

► Gross NPA's/ Total Assets

► Net NPA's/ Total Assets

► **Gross NPA's/ Gross Advances:**

Gross NPA Ratio is the ratio of gross NPA to gross advances of the banks. Gross NPA is the sum of all loan assets that are classified as NPA as per the RBI guidelines. The ratio is to be counted in terms of percentage and the formula for Gross NPA is as follows:

$$\text{Gross NPA Ratio} = \frac{\text{Gross NPAs}}{\text{Gross Advances}} \times 100$$

The ratio indicates the quality of credit portfolio of the banks. High gross NPA ratio indicates the low credit portfolio of bank and vice-a-versa. We can see from the Table-1 that Gross NPA to Gross advances ratio of PSB's has continuously gone down, year after year, 2003-04 to 2007-08. The ratio was 7.79% in 2003-04 and it came down to 2.23% in 2007-08 i.e. a reduction of 5.56% over five-year period. The Banks that have shown best performance in terms of percentage reduction in NPA's are Punjab and Sind Bank, Dena Bank, Central bank of India and Bank of Baroda. The gross NPA ratio of Punjab and Sind bank has been drastically reduced from 18.16% in 2003-04 to 0.74 % in 2007-08.

However, Punjab and Sind Bank has the highest gross NPA ratio of 9.62% followed by the Dena Bank with 7.49% and then by Central Bank of India with 7.37%. Whereas State Bank of Saurashtra, Andhra Bank, State Bank of Patiala and Vijaya Bank showed lower ratio with 2.15%, 2.3%, 2.69% and 2.69% in the past 5 years on an average basis.

As cleared from the C.V. calculated in the table-1 that the NPA's of Punjab and Sind Bank showed larger variability with C.V. of 83.87%. While Vijaya Bank, UCO Bank and State bank of Indore showed least variability with 27.61%, 39.72% and 38.01%.

The value of t-test calculated in the table-1 indicates that NPA's of Dena Bank was not significantly different from Scheduled commercial banks, followed by Central Bank of India and Punjab and Sind Bank, which also have NPA's almost similar to the average of Scheduled commercial banks taken together. Whereas the NPA's of Vijaya Bank, State bank of Saurashtra, State Bank of Indore, and State Bank of Patiala have huge difference from average of NPA's of SCB's. All these banks have much lower NPA's than the average of SCB's.

However it is cleared from the Chart-1 that the gross NPA ratio of following banks has shown an erratic (sometimes increase and sometimes decrease) trend:

1. Vijaya Bank

2. Oriental Bank of Commerce

3. State Bank of India

4. State Bank of Patiala

5. State Bank of Saurashtra

Whereas in all other Public Sector Banks, the problem asset ratio has continuously gone down, year after year, from 2003-04 to 07-08. The line graph of Punjab and Sind Bank, Dena Bank and Central Bank of India showed a huge decline from 2003-04 to 2007-08.

► **Net NPA's/ Net Advances:**

The net NPA percentage is the ratio of net NPA to net advances, in which the provision is to be deducted from the gross advance. The provision is to be made for the NPA account. The formula for that is:

$$\text{Net NPA Ratio} = \frac{\text{Gross NPA-Provisions}}{\text{Gross Advances-Provisions}} \text{ x } 100$$

This ratio indicates the degree of risk in the portfolio of the banks. High net NPA ratio indicates the high quantity of risky assets in the Banks for which no provision are made. From the Table-2 it becomes clear that the net NPA to net advances ratio of PSB's has been reduced from 2.99% in 2003-04 to 0.99% in 2007-08 i.e. a reduction of 2% over five year period. The Banks that have shown best performance in terms of percentage reduction in net NPA are Punjab and Sind Bank, Dena bank, Union Bank of India and Bank of Baroda. The net NPA ratio of Punjab and Sind bank has been reduced from 9.62% in 2003-04 to 0.37% in 2007-08 i.e. a reduction of 9.25% in five-year period. This has been quite appreciable.

The Andhra Bank has showed the lowest net NPA ratio of 0.35% in the past 5 years on an average basis. The Punjab National Bank, Vijaya Bank and State Bank of Hyderabad have also showed lower net NPA ratio with 0.57%, 0.70% and 0.40%. Whereas Punjab and Sind bank and Dena bank have the higher net NPA ratio with 4.24% and 4.12% in 5 years on an average.

As cleared from the t-value calculated in the table-2, the NPA's of Punjab and Sind Bank followed by Dena Bank was not significantly different from Scheduled commercial banks. The positive value of 't' in both the banks indicates that they have larger net NPA's than the average of SCB's i.e. population mean. Whereas the NPA's of Vijaya Bank, State bank of Hyderabad, Andhra Bank, Punjab national Bank, State Bank of Bikaner & Jaipur and State Bank of Patiala have huge difference from net NPA's of SCB's. The NPA's of all these banks were much lower than average of SCB's.

As cleared from C.V. that net NPA ratio of Punjab and Sind Bank and Bank of Baroda showed larger variability with 102.24% and 112.49% in comparison to Vijaya Bank and State bank of Bikaner and Jaipur with 23.37% and 23.72%.

The net NPA ratio of following banks has shown an erratic trend:

1. Vijaya Bank

2. OBC

3. Punjab National Bank

4. State Bank of Indore

5. State Bank of Bikaner and Jaipur

The NPA's of Punjab National Bank went down to 0.20% in 2004-05 from 0.98% in 2003-04, which again showed an increasing trend and reached to 0.76% in 2006-07. On the other hand, the remaining PSB's has shown a gradual decline in past 5 years. The net NPA ratio of Punjab and Sind Bank, Dena Bank, Bank of Baroda and Union Bank of India showed a huge decline from 2003-04 to 2007-08.

► **Gross NPA's/ Total Assets:**

This is the ratio of gross NPA to total assets of the Bank. It is also called Problem Asset ratio. The formula for Gross NPA to total assets is as follows:

$$\text{Problem Assets Ratio} = \frac{\text{Gross NPAs}}{\text{Total Assets}} \text{ x } 100$$

It has direct bearing on return on assets as well as liquidity-risk management of the bank. High problem asset ratio indicates high liquidity. From the table-3 given below it becomes clear that the gross NPA to total asset ratio of PSB's has been reduced from 3.50% in 2003-04 to 1.34% in 2007-08.

The Banks that have shown best performance in terms of percentage reduction in gross NPA to total asset ratio are Punjab and Sind Bank, Dena Bank and Bank of Baroda. The gross NPA to asset ratio of Punjab and Sind bank has been reduced from 8.02% in 2003-04 to 0.44% in 2007-08 i.e. a reduction of 7.58% in five-year period.

Punjab and Sind Bank has the highest gross NPA to total asset ratio of 4.47% in past 5 years on an average basis. The Dena Bank and Central Bank of India also have the higher ratio with 3.78% and 3.39%. On the other hand State Bank of Saurashtra, Andhra Bank, Vijaya Bank, State Bank of Hyderabad and State Bank of Patiala showed the lower ratio with 1.04%, 1.24%, 1.41%, 1.24% and 1.45%.

As cleared from C.V. that gross NPA to total assets ratio of Punjab and Sind Bank showed larger variability with 78.26% in comparison to the Bank of Maharashtra and Vijaya Bank with 25.51% and 22.29%.

As cleared from the t-value calculated in the Table-5 given below that NPA's of Oriental Bank of Commerce followed by Punjab and Sind Bank, Dena Bank and Central Bank of India was not significantly different from Scheduled commercial banks. All these banks except OBC have positive value of 't' that indicates NPA's of these banks were higher than average of SCB's i.e. population mean. Whereas the NPA's of Vijaya Bank, State bank of Saurashtra, State Bank of Indore, Andhra Bank and State Bank of Patiala have huge difference from problem assets of SCB's. The problem asset ratio of all these banks was much lower than average of SCB's taken together.

The gross NPA to total assets ratio of all Public sector banks have shown a gradual decline, year after year, i.e. from 2003-04 to 2007-08 except Bank of Maharashtra, OBC, Vijaya Bank and State Bank of Patiala whose ratio has shown an erratic trend.

► **Net NPA's/ Total Assets:**

This is the ratio of net NPAs to the total assets of the bank. The formula for the ratio is:

$$\text{Net NPA to Total Asset ratio} = \frac{\text{Gross NPA-Provisions}}{\text{Total Assets}} \times 100$$

The high ratio indicates the high quantity of risky assets in total assets of the bank, which are not expecting to generate income for the bank. We can see from the Table-4 given below that the net NPA to total asset ratio of PSB's has been reduced from 1.28% in 2003-04 to 0.59% in 2007-08. The Banks that have shown best performance in terms of percentage reduction in net NPA to total asset ratio are Punjab and Sind Bank, Dena bank, Union Bank of India and Bank of India. The net NPA to asset ratio of Punjab and Sind bank has been reduced from 3.85% in 2003-04 to 0.22% in 2007-08 i.e. a reduction of 3.63% in five-year period.

Dena Bank has the highest net NPA to total asset ratio of 1.96% in past 5 years on an average basis. The Punjab and Sind bank, UCO Bank and Central Bank of India also have higher net NPA to asset ratio with 1.76%, 1.41% and 1.26%. Whereas the State Bank of Hyderabad, Andhra Bank, Punjab National Bank and Vijaya Bank showed lower ratio with 0.18%, 0.182%, 0.30% and 0.36%.

As cleared from C.V. that net NPA to total assets ratio of Punjab and Sind Bank and Bank of Baroda showed larger variability with 95.19% and 98.17% in comparison to UCO Bank and State bank of India with 14.34% and 14.65%.

From the value of t-test calculated in the Table-4, it becomes clear that State Bank of Hyderabad, Vijaya Bank and Andhra Bank have significant difference in net NPA to total asset ratio with Scheduled Commercial Banks. The NPA's of these banks were much lower than the average of SCB's. The NPA's of UCO Bank also differ significantly with SCB's, but the 't' value of UCO Bank has positive sign, which indicates that the net NPA to asset ratio of UCO Bank was higher than the average of SCB's. Whereas the net NPA to total asset ratio of Bank of India, Bank of Baroda and Union Bank of India have approximately similar to the SCB's on an average basis.

The net NPA to total assets ratio of almost all PSB's especially Punjab and Sind Bank, Dena Bank, Bank of India, Indian Bank and Union Bank of India showed a huge decline from 2003-04 to 2007-08. Whereas the NPA's of following banks have shown an erratic trend:

1. Bank of Maharashtra
2. Oriental Bank of Commerce
3. Punjab National Bank
4. Vijaya Bank
5. State Bank of Travancore
6. Allahabad Bank
7. State Bank of Bikaner & Jaipur
8. State Bank of Indore

The NPA's of Punjab National Bank went down to 0.09% in 2004-05 from 0.44% in 2003-04, which again showed an increasing trend and reached to 0.45% in 2006-07.

Table-1 Gross NPAs as a percentage of Gross Advances

S. No	Name of the Bank	2003-04	2004-05	2005-06	2006-07	2007-08	Average	C.V.	T-test
1	Allahabad Bank	8.66	5.80	3.94	2.61	2.01	4.60	58.51	-2.578
2	Andhra Bank	4.60	2.46	1.94	1.41	1.08	2.30	60.48	-8.708
3	Bank of Baroda	10.52	7.30	3.90	2.47	1.84	5.21	70.02	-1.536
4	Bank of India	7.86	5.45	3.72	2.42	1.68	4.23	58.81	-3.135
5	Bank of Maharashtra	7.70	7.00	5.53	3.50	2.57	5.26	41.86	-2.488
6	Canara Bank	6.33	3.89	2.25	1.51	1.31	3.06	68.40	-4.973
7	Central Bank of India	12.55	9.50	6.85	4.81	3.16	7.37	50.70	-0.201
8	Corporation Bank	5.03	3.41	2.56	2.05	1.47	2.90	47.71	-7.756
9	Dena Bank	14.82	9.67	6.44	4.08	2.45	7.49	65.60	-0.099
10	Indian Bank	7.98	4.19	2.91	1.85	1.21	3.63	73.93	-3.403
11	Indian Overseas Bank	7.40	5.28	3.43	2.34	1.63	4.02	58.26	-3.531
12	Oriental Bank of Commerce	5.87	9.06	5.95	3.20	2.31	5.28	50.34	-2.047
13	Punjab & Sind Bank	18.16	17.17	9.61	2.43	0.74	9.62	83.87	0.53
14	Punjab National Bank	9.35	5.96	4.10	3.45	2.74	5.12	51.76	-2.185
15	Syndicate Bank	7.33	5.17	4.00	2.95	2.71	4.43	42.65	-3.878
16	UCO Bank	6.93	4.96	3.27	3.17	2.97	4.26	39.72	-4.559
17	Union Bank of India	7.59	5.01	3.84	2.94	2.18	4.31	49.04	-3.593
18	United Bank of India	9.07	6.14	4.66	3.61	2.70	5.24	47.67	-2.216
19	Vijaya Bank	3.44	2.94	3.17	2.29	1.60	2.69	27.61	-15.13
20	State Bank of India	7.75	5.96	3.60	2.92	3.04	4.65	45.60	-3.22
21	State Bank of Bikaner & Jaipur	5.36	3.26	2.42	2.23	1.73	3.00	47.67	-7.365
22	State Bank of Hyderabad	5.60	3.46	2.14	1.24	0.87	2.66	72.20	-5.873
23	State Bank of Indore	3.99	3.28	3.02	1.90	1.45	2.73	38.01	-10.743
24	State Bank of Mysore	7.76	4.56	3.30	2.29	1.69	3.92	61.40	-3.521
25	State Bank of Patiala	3.71	4.13	2.41	1.80	1.42	2.69	43.91	-9.482
26	State Bank of Saurashtra	3.68	2.70	1.85	1.10	1.42	2.15	48.61	-11.896
27	State Bank of Travancore	5.63	4.29	3.18	2.16	2.01	3.45	44.07	-6.252

Chart-1: Gross NPA's as a percentage of Gross Advances

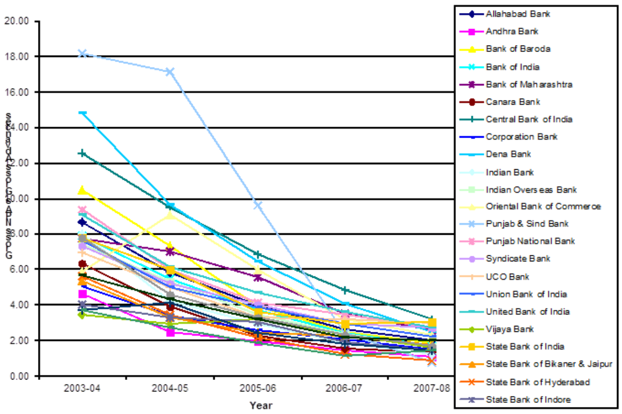


Table-2 Net NPAs as a percentage of Net Advances

S. No	Name of the Bank	2003-04	2004-05	2005-06	2006-07	2007-08	Average	C.V.	T-test
1	Allahabad Bank	2.37	1.28	0.84	1.07	0.80	1.27	50.58	-6.77
2	Andhra Bank	0.93	0.28	0.24	0.17	0.15	0.35	92.16	-19.644
3	Bank of Baroda	4.95	1.45	0.86	0.60	0.47	1.67	112.49	-1.854
4	Bank of India	4.49	2.80	1.49	0.95	0.52	2.05	78.58	-1.624
5	Bank of Maharashtra	2.46	2.15	2.03	1.21	0.87	1.74	38.55	-4.909
6	Canara Bank	2.89	1.88	1.11	0.94	0.84	1.53	56.27	-4.378
7	Central Bank of India	5.57	2.98	2.59	1.70	1.45	2.86	57.40	-0.493
8	Corporation Bank	1.80	1.12	0.64	0.47	0.32	0.87	69.03	-8.749
9	Dena Bank	9.40	5.23	3.04	1.99	0.94	4.12	81.34	0.6
10	Indian Bank	2.71	1.35	0.79	0.35	0.24	1.09	92.51	-4.737
11	Indian Overseas Bank	2.85	1.27	0.65	0.55	0.60	1.18	82.44	-4.664
12	Oriental Bank of Commerce	-	1.29	0.49	0.49	0.99	0.82	48.44	-12.185
13	Punjab & Sind Bank	9.62	8.11	2.42	0.66	0.37	4.24	102.24	0.525
14	Punjab National Bank	0.98	0.20	0.28	0.76	0.64	0.57	57.33	-18.058
15	Syndicate Bank	2.57	1.59	0.86	0.76	0.97	1.35	55.91	-5.54
16	UCO Bank	3.65	2.93	2.10	2.14	1.98	2.56	27.96	-2.062
17	Union Bank of India	2.87	2.64	1.56	0.96	0.17	1.64	69.14	-3.116
18	United Bank of India	3.75	2.43	1.95	1.50	1.10	2.15	47.77	-2.343
19	Vijaya Bank	0.91	0.59	0.85	0.59	0.57	0.70	23.37	-34.317
20	State Bank of India	3.45	2.65	1.88	1.56	1.78	2.26	34.45	-2.741
21	State Bank of Bikaner & Jaipur	1.24	1.61	1.18	1.09	0.83	1.19	23.72	-16.084
22	State Bank of Hyderabad	0.65	0.61	0.36	0.22	0.16	0.40	55.65	-28.328
23	State Bank of Indore	-	1.00	1.83	1.04	0.73	1.15	41.20	-8.738
24	State Bank of Mysore	2.96	0.92	0.74	0.45	0.43	1.10	96.35	-4.473
25	State Bank of Patiala	-	1.23	0.99	0.83	0.60	0.91	29.08	-17.39
26	State Bank of Saurashtra	-	1.40	1.16	0.70	0.91	1.04	29.12	-14.346
27	State Bank of Travancore	1.39	1.81	1.47	1.08	0.94	1.34	25.56	-12.305

Chart-2: Net NPA's as a percentage of Net Advances

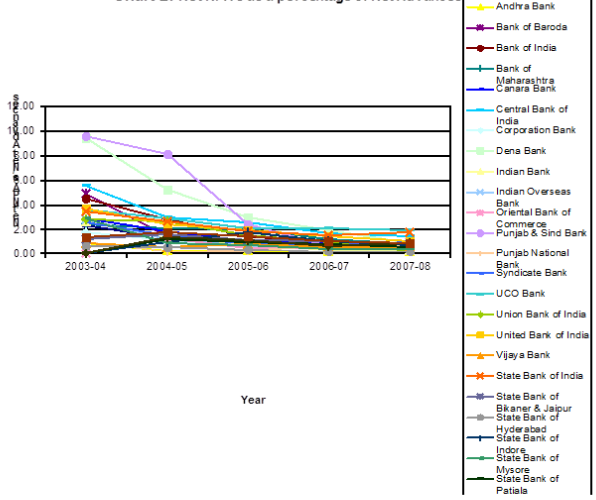


Table-3 Gross NPAs as a percentage of Total Assets

S. No	Name of the Bank	2003-04	2004-05	2005-06	2006-07	2007-08	Average	C.V.	T-test
1	Allahabad Bank	4.09	2.84	2.14	1.62	1.22	2.38	47.48	-1.439
2	Andhra Bank	2.28	1.35	1.07	0.84	0.66	1.24	51.31	-6.573
3	Bank of Baroda	4.68	3.51	2.11	1.46	1.10	2.57	58.13	-0.805
4	Bank of India	4.40	3.32	2.21	1.48	1.08	2.50	54.54	-1.005
5	Bank of Maharashtra	2.96	2.93	3.02	2.10	1.59	2.52	25.51	-2.052
6	Canara Bank	3.15	2.15	1.35	0.90	0.78	1.67	59.33	-3.267
7	Central Bank of India	4.88	3.82	3.59	2.77	1.90	3.39	33.12	0.561
8	Corporation Bank	2.48	1.91	1.54	1.18	0.88	1.60	39.19	-5.398
9	Dena Bank	6.70	4.78	3.58	2.37	1.48	3.78	54.26	0.732
10	Indian Bank	3.04	1.71	1.40	0.97	0.69	1.56	58.53	-3.786
11	Indian Overseas Bank	3.33	2.73	2.07	1.36	0.98	2.09	46.01	-2.358
12	Oriental Bank of Commerce	2.95	4.61	3.59	1.97	1.41	2.91	43.82	-0.358
13	Punjab & Sind Bank	8.02	7.62	4.94	1.32	0.44	4.47	78.26	0.868
14	Punjab National Bank	4.56	2.96	2.16	2.09	1.67	2.69	42.63	-0.824
15	Syndicate Bank	3.37	2.75	2.47	1.75	1.65	2.40	29.88	-2.222
16	UCO Bank	3.38	2.56	2.00	2.01	1.84	2.36	26.85	-2.656
17	Union Bank of India	4.02	2.84	2.35	1.82	1.34	2.47	41.68	-1.379
18	United Bank of India	2.96	2.50	2.24	1.93	1.40	2.21	26.64	-3.439
19	Vijaya Bank	1.62	1.47	1.71	1.33	0.91	1.41	22.29	-12.125
20	State Bank of India	3.11	2.71	1.95	1.76	1.78	2.26	27.09	-3.095
21	State Bank of Bikaner & Jaipur	2.40	1.71	1.41	1.34	1.06	1.58	32.29	-6.672
22	State Bank of Hyderabad	2.26	1.58	1.12	0.72	0.51	1.24	56.74	-5.959
23	State Bank of Indore	2.04	1.80	1.75	1.20	0.91	1.54	30.36	-7.509
24	State Bank of Mysore	3.74	2.51	2.06	1.43	1.09	2.17	47.90	-2.034
25	State Bank of Patiala	1.87	2.07	1.32	1.10	0.88	1.45	34.96	-7.341
26	State Bank of Saurashtra	1.56	1.22	0.95	0.65	0.82	1.04	34.38	-12.945
27	State Bank of Travancore	2.76	2.26	1.91	1.42	1.29	1.93	31.42	-4.363

Chart-3: Gross NPA's as a percentage of Total Assets

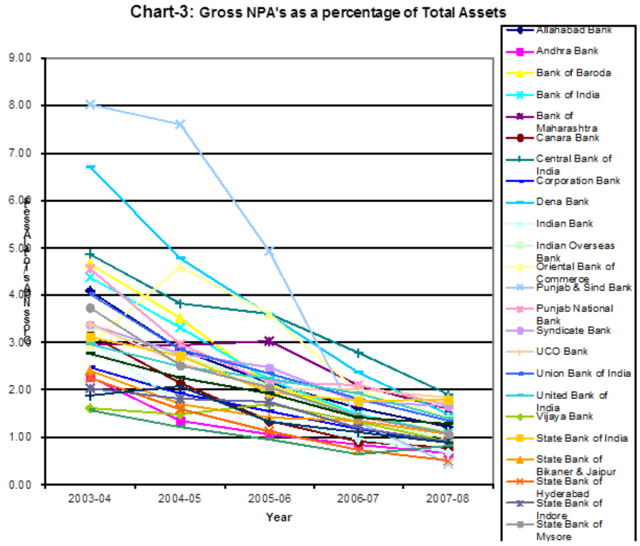
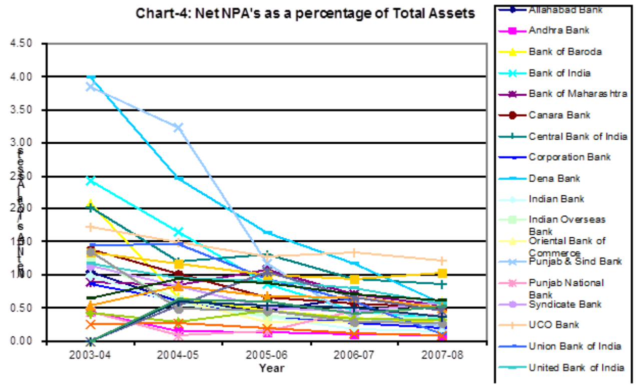


Table-4 Net NPAs as a percentage of Total Assets

S. No	Name of the Bank	2003-04	2004-05	2005-06	2006-07	2007-08	Average	C.V.	T-test
1	Allahabad Bank	1.05	0.60	0.45	0.65	0.48	0.65	37.23	-3.199
2	Andhra Bank	0.44	0.15	0.13	0.10	0.09	0.18	80.32	-12.359
3	Bank of Baroda	2.07	0.65	0.46	0.35	0.27	0.76	98.17	-0.689
4	Bank of India	2.43	1.64	0.86	0.45	0.33	1.14	77.39	0.385
5	Bank of Maharashtra	0.89	0.85	1.07	0.71	0.53	0.81	25.00	-1.988
6	Canara Bank	1.39	1.02	0.66	0.56	0.50	0.83	45.31	-0.98
7	Central Bank of India	2.01	1.19	1.30	0.94	0.86	1.26	36.18	1.324
8	Corporation Bank	0.86	0.61	0.38	0.27	0.19	0.46	59.07	-4.326
9	Dena Bank	3.99	2.46	1.63	1.16	0.56	1.96	67.88	1.63
10	Indian Bank	0.98	0.56	0.37	0.18	0.14	0.45	76.72	-3.555
11	Indian Overseas Bank	1.22	0.63	0.38	0.31	0.36	0.58	65.28	-2.421
12	Oriental Bank of Commerce	-	0.61	0.28	0.29	0.59	0.44	41.15	-6.013
13	Punjab & Sind Bank	3.85	3.24	1.16	0.35	0.22	1.76	95.19	1.031
14	Punjab National Bank	0.44	0.09	0.14	0.45	0.38	0.30	57.30	-8.975
15	Syndicate Bank	1.13	0.82	0.51	0.44	0.58	0.70	40.47	-2.334
16	UCO Bank	1.72	1.49	1.27	1.34	1.22	1.41	14.34	4.629
17	Union Bank of India	1.45	1.46	0.94	0.59	0.10	0.91	64.06	-0.315
18	United Bank of India	1.16	0.95	0.91	0.79	0.56	0.87	25.23	-1.176
19	Vijaya Bank	0.42	0.29	0.45	0.34	0.32	0.36	18.69	-20.572
20	State Bank of India	1.33	1.16	0.99	0.93	1.03	1.09	14.65	1.374
21	State Bank of Bikaner & Jaipur	0.53	0.83	0.68	0.65	0.51	0.64	20.19	-6.056
22	State Bank of Hyderabad	0.25	0.27	0.19	0.12	0.09	0.18	42.72	-22.926
23	State Bank of Indore	-	0.54	1.05	0.65	0.46	0.68	38.79	-2.406
24	State Bank of Mysore	1.35	0.49	0.45	0.28	0.27	0.57	78.90	-2.106
25	State Bank of Patiala	-	0.60	0.53	0.50	0.37	0.50	19.25	-10.18
26	State Bank of Saurashtra	-	0.63	0.59	0.41	0.52	0.54	17.93	-9.389
27	State Bank of Travancore	0.64	0.93	0.87	0.70	0.61	0.75	18.97	-3.771

Chart-4: Net NPA's as a percentage of Total Assets



CONCLUSION

The study observed that there is increase in advances over the period of time. The decline in the ratio of NPAs indicates improvement in the asset quality of public sector banks. The decline in gross NPAs to gross advances indicates the improvement in the credit portfolios in the public sector banks. As the net NPA to net advances has reduced over the given period, it gives positive indication of reduction in risky assets in banks. Gross NPAs to total assets has direct bearing on return on assets as well as liquidity-risk management of the bank. As the ratio has declined it means the liquidity position of banks has improved. Similarly, net NPAs to total assets have decreased reflecting the reduction on the quantity of risky assets in total assets of the bank, which are not expecting to generate income for the bank. Most of banks have the ratio higher than average of SCB's i.e. population mean. However, Indian banks still need to struggle hard in order to improve their position with respect to NPAs as Moody's has assigned Baa3, the lowest investment grading rating, to India. The rating agency downgraded the outlook for the Indian banking system to 'negative' from 'stable' saying that economic slowdown would impact asset quality, capitalization and profitability. However, Standard & Poor's upgraded the Indian banking sector saying its domestic regulations are in line with international standards and said the Reserve Bank has a moderately successful track record. Indian banks face challenges like increase in interest rates on saving deposits, a tighter monetary policy, restructured loan accounts and increasing infrastructure loans. The banks are also under pressure from loans outgoes to the sectors facing inordinate delays in execution of projects, raising concerns over the companies' ability to repay loans on time. Loans given to mining, power and realty companies might become NPAs for the banking sector due to the delay in completion of projects. Therefore, following measures has been suggested to improve the NPAs ratio of banks:

- Better credit culture, favourable macroeconomic and business conditions lead to lowering of NPAs.

- Introduction of new concepts like income recognition, prudential accounting norms and capital adequacy ratio
- Quick identification of NPAs, their containment at a minimum level and ensuring minimum impact of NPAs on the financials.
- Evaluation and assessment of the proposal, timely monitoring and evaluation and proper assessment of exit decision and modality

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