

## **BANK LOAN RECOVERY- A STUDY ON PUBLIC SECTOR BANKS IN INDIA**

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### **ABSTRACT:**

*Banks receive deposits from public and also borrow money from other sources for raising Working Capital Funds. A minimum period of seven days is to be given by a bank before it can begin recovery proceedings against a defaulted loan. Thus, working capital funds, which are banks liabilities, get converted into assets. The Indian banking sector has been facing serious problems of raising Non- Performing Assets (NPAs). The NPAs growth has a direct impact on profitability of banks. Non- performing assets are one of the major concerns for scheduled commercial banks in India.*

**KEY WORDS:** *Non Performing Assets, Profitability, Net Profit, Gross NPA, Net NPA and Advances.*

### **1. INTRODUCTION:**

Today, the banking industry in our country is stronger and capable of withstanding the pressures of competition. It withstood Global Financial Crisis (2008). In the era of Globalization Banking Sector in India is rapidly changing since 1990s due to technological innovation, financial liberalization with entry of new private and foreign banks, and regulatory changes in the corporate sector. Indian banking industry is gradually moving towards adopting the best practices in accounting, internationally accepted prudential norms, with higher disclosures and transparency, corporate governance and risk management, interest rates have been deregulated, while the rigour of directed lending is being progressively reduced.

**2. NON-PERFORMING ASSET (NPA):** An asset which ceases to generate income or the bank is called a Non-Performing Asset (NPA). When a borrower could not pay interest and /or instalment on a loan which remain overdue for more than 180 days. The period of non-performance of 180 days has been reduced to 90 days with effect from March 31st 2004. 1. Sub-standard assets: NPA for a period not more than 12 months. For sub-standard asset, the bank has to maintain 15% of its reserves. 2. Doubtful Assets: NPA for a period more than 12 months. 3. Loss assets: It has been Identified by the bank or central bank inspectors, external or internal auditor. But the amount of loan has not been written off, partly or wholly and it is not recoverable

### **3. REVIEW OF LITERATURE:**

**1. Narasimham Committee,** Govt. of India (1991) recognized the weakness of banking sector and recommended provision for capital adequacy, liberalization of interest rate, reduction in SLR, rehabilitation of Public Sector Banks by the government, introduction of prudential norms relating to income recognition, asset classification and provisioning and easy norms for entry of foreign banks. **2. K. Kothai (2003)** conducted a study on "Non-performing assets of Scheduled Commercial Banks in India. The research observed a decreasing trend in the NPA's of the SCBs over the period of the study.

**3. Kumar (2005)** examined that by scheduling the non-performing asset level efficiency profitability of banks can be improved. The International Journal of Management Excellence Volume 3 No.1 April 2014 © Tech Mind Research, Canada 387 Page percentage of gap is

observed in public sector banks as compared to private sector banks .Attaining Zero level NPA's of the banks is very tough even if they followed the steps given by the Indian government but to compete with foreign banks as regard to international standards, Indian banks have to work hard to control NPA's.

4. **Banarjee, B** and Dan, A.K (2006) examined that Non-Performing Assets are one of the most crucial problems faced by banks and require attention for the improvement of Public Sector Banks. These are increasing very fast at present scenario due to following reason. banks.

5.**Bhattacharya (2001)** has carried out a“Study on management of Non-Performing Advances in banks,” it reveals three important aspects. a.Scientific techniques in ‘management of NPA’s b. Causes of an account turning into an NPA’s and c. General contribution factor for accounts turning into NPA’s. He has suggested

6.**Shyamal (2012)** found that the prudential norms and other schemes had rushed banks to improve their performance and accordingly resulted in orderly decrease of the NPA’s as well as an enhancement in the financial strength of the Indian banking structure.26–33

#### **.BANK LOAN RECOVERY:**

A minimum period of seven days is to be given by a bank before it can begin recovery proceedings against a defaulted loan. The Indian Banking Association has clear policy guidelines with regard to repossession of property to recover any debts.

#### **TYPES OF BANK LOAN IN INDIA:**

- Secured personal loans. ...
- Fixed-rate loans. ...
- Variable-interest loans. ...
- Secured and Unsecured Lines of Credit. ...
- Debt consolidation loans.
- Credit Card Loans: ...
- Home Loans: ...
- Car Loans: ...
- Two-Wheeler Loans: ...
- Education Loans: ...
- Loan against the Insurance Schemes: ...
- Loan Against Fixed Deposits:

#### **IMPACT OF NPA**

NPA impact the performance and profitability of banks. The most notable impact of NPA is change in banker' s sentiments which may hinder credit expansion to productive purpose.

#### **5. RESEARCH METHODOLOGY**

For our study, we have considered Non-Performing Assets in Scheduled Commercial Banks which includes public sector banks and private sector banks which are listed in the Second Schedule of the Reserve Bank of India Act, 1934. The study is based on secondary data. The paper discusses the conceptual framework of NPA and it also highlights the trends, status and impact of NPA on scheduled commercial banks during the period of 13 years i.e., from 2005 to 2017.

## **SOURCES OF DATA**

The data collected is mainly secondary in nature. The sources of data for this thesis include the literature published by Indian Bank and the Reserve Bank of India, various magazines, Journals, Books dealing with the current banking scenario and research papers.

**SAMPLE:**

## **TWO PUBLIC SECTOR BANKS**

### **1. STATE BANK OF INDIA**

### **2. ANDHRA BANK DATA:**

Secondary data from CMIE (Centre for Monitoring Indian Economy) Reserve Bank of India publications

## **STATISTICAL TOOLS:**

- 1.) Mean recovery rate
- 2.) Skewness
- 3) Standard derivation of recovery rates

## **OBJECTIVES:**

1. To study the bank loans in detail with respect to granting of loans and collecting the interest and principal amount.
2. To investigate into how the bank loans are managed.
3. To study the relationship between total amount of loan sanctioned and the recoveries made against the schedule.
4. To study the level of association between the recoveries made and the scheduled recoveries.
- 5.To investigate various factors contribute for recovery.

## **LIMITATIONS OF THE STUDY**

The study of non-performing assets limited to the Indian Banks. The study of Non-Performing Assets based on secondary data only.

## **SCOPE OF THE STUDY**

The study could suggest measures for the banks to avoid future NPAs & to reduce existing NPAs.

## **RESEARCH SCOPE**

The banking sector of India consists of public sector banks, private sector banks, co-operative banks and foreign banks. But among these four types" public sector banks still dominate the banking industry, with approximate 82% of the market share in total deposit and advances of the industry.

## **1.DATA ANALYSIS AND INTERPRETATION**

### **Descriptive statistics**

Bank wise post Sarfaesi Act descriptive statistics are provided which covers

- Mean
- Standard Deviation

**TABLE: Descriptive Statistics-Andhra Bank**

	N	Range	Minimum	Maximum	Mean
WRITE-OFFS	13	30003.60	1836.24	31839.90	8427.6600
COLLECTIONS	13	66662.20	2013.20	68675.40	17251.0323
NET NPA	13	92167.05	1936.35	94103.40	21824.7831
OPENING NPA	13	111899.10	2537.20	114436.30	25454.3477
CLOSING NPA	13	174081.39	2618.41	176699.80	38844.5477
RECOVERY	13	171326.80	1679.10	173005.90	76464.9423
NET ADVANCES	13	948708.91	244733.69	1193442.60	713655.7215
ADVANCES	13	1121092.30	247371.00	1368463.30	752500.2692
Valid N (listwise)	13				

TABLE. Descriptive Statistics-Andhra Bank

	N	Std. Deviation	Variance	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
WRITE-OFFS	13	9820.21008	96436525.988	1.638	.610
COLLECTIONS	13	23130.87510	535037385.812	1.529	.610
NET NPA	13	28390.64129	806028513.099	1.743	.610
OPENING NPA	13	35026.03559	1226823169.421	1.706	.610
CLOSING NPA	13	53799.94919	2894434533.377	1.764	.610
RECOVERY	13	57518.40174	3308366538.202	.154	.610
NET ADVANCES	13	369408.22424	13645.000	.108	.610
ADVANCES	13	414278.30940	1.763	.242	.610
Valid N (listwise)	13				

**Interpretation:** The descriptive statistics of Andhra Bank of Post Sarfaesi Act for a period of 13 years were presented in the table 6.1 and 6.1.1 by taking Opening NPA, Net NPA, Write-offs, Collections, Closing NPA, Advances & Net Advances into consideration. The descriptive statistics have been done with the help of number of years, Range, standard deviation, mean & skewness. The highest range was generated by advances, (1121092.3000cr) followed by net advances (948708.9100), Recovery (174685), CGNPA (174081.3900), NNPA (921678.08) write-offs' (3003.6600), whereas in Mean statistics the highest mean was generated by Advances i.e. (752500.269231) followed by Net advances 71655.7215, Recovery 76206.6192, CNPA 38844.547, ONPA 25454.3476, NNPA 21824.783, write-offs 8427.660000, In skewness the highest statistics is given by CNPA i.e., 1.764 followed by NNPA 1.743, ONPA 1.706, write-offs 1.638, Advances 0.242, Recovery 0.137 with the lowest statistics of 0.108 by Net advances with same standard error.

TABLE: Calculation of percentage of recovery.

Years	Recovery	Percentage of Recovery (%)
2005	43656.24	26.3963%
2006	55179.9	-83.0331%
2007	9362.31	247.8820%
2008	32569.8	203.2038%
2009	98752.9	21.0827%
2010	119572.7	26.6366%
2011	151422.22	-22.5567%

2012	117266.3	0.3938%
2013	117728.2	-39.4555%
2014	71277.9	142.7202%
2015	173005.9	-98.5140%
2016	2570.7	-165.316%
2017	-1679.1	-592.001%

**INTERPRETATION:** The Table No.6.2 in column 2 are shown the recoveries of Andhra Bank for the 13-year study period. The highest recoveries were made during the year 2015 at Rs.173005.9 crores and the least during the year 2017 at Rs. -1679.1 crores. The mean recoveries over the study period are Rs.76206.6192 Crores. Column No.3 in the table depicts the percentage rate of recoveries over the study period. The highest and the least rate of recoveries are recorded as 247.882% and - 592.0016% during the years 2007 and 2017 respectively.

**TABLE: Calculation of standard deviation**

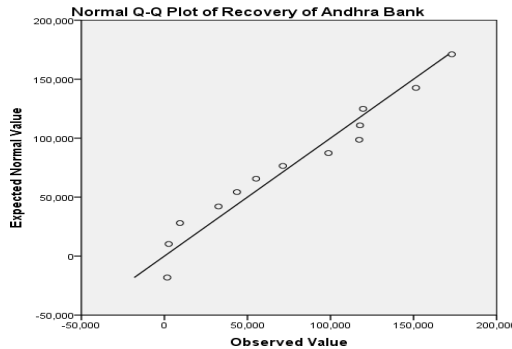
YEA R	RECOVE RYMEAN(X)	(X- $\bar{X}$ )	(X-X) <sup>2</sup>	(X-X) <sup>2</sup> /n	$\sqrt{(X-X)^2/n}$	
2005	43656.24	76206.619231	-32550.3793	1059527192.5	95465603.753	9770.6501
2006	55179.9	76206.619231	-21026.7192	442122920.31	168136303.46	12966.738350
2007	9362.31	76206.619231	-66844.3092	7.6312563E11	67197.7401	259.2252
2008	32569.81	76206.619231	-43636.8092	19041710099.7	44834108.201	6695.8276
2009	98752.9	76206.619231	22546.2808	508334777.91	627588383.15	25051.7141
2010	119572.7	76206.619231	4366.0808	1880616963.9	950247615.38	30826
2011	151422.3	76206.619231	75215.6808	5657398638.2	1572882076.9	39659.577
2012	117266.3	76206.619231	41059.6808	1685897387.3	911219153.84	30186.4067
2013	117728.2	76206.619231	41521.5808	17724041672.1	918969846.15	30314.5154
2014	71277.9	76206.619231	-4928.7192	24292272.952	303857897.53	17431.5202
2015	173005.9	76206.619231	96799.2808	9370100763.3	2083538230.7	45645.7909
2016	2570.7	76206.619231	-73635.9192	5422248596.4	720776981.79	26847.20
2017	-1679.1	76206.619231	-77885.7192	6066185255.3	1389292.310	1178.683

**TABLE: Calculation of coefficient of variation**

YEAR	STANDARD DEVIATION	MEAN	COEFFICIENT OF VARIATION
2005	9770.6501	76206.619231	0.1282
2006	12966.738350	76206.619231	0.1701
2007	259.2252	76206.619231	0.00340
2008	6695.8276	76206.619231	0.0878
2009	25051.7141	76206.619231	0.3287
2010	30826	76206.619231	0.4045
2011	39659.577	76206.619231	0.5204

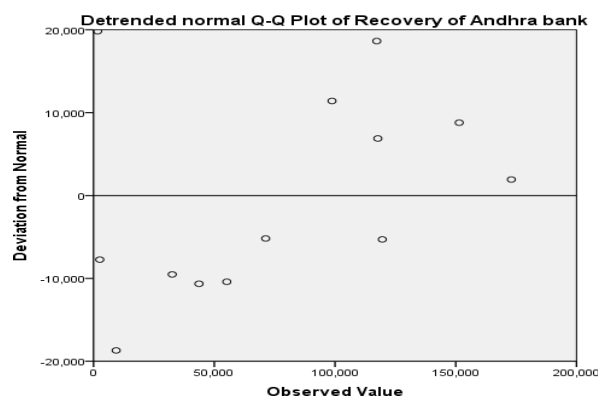
2012	30186.4067	76206.619231	0.3961
2013	30314.5154	76206.619231	0.3977
2014	17431.5202	76206.619231	0.2287
2015	45645.7909	76206.619231	0.5989
2016	26847.20	76206.619231	0.3522
2017	1178.683	76206.619231	0.0154

FIGURE 6.1

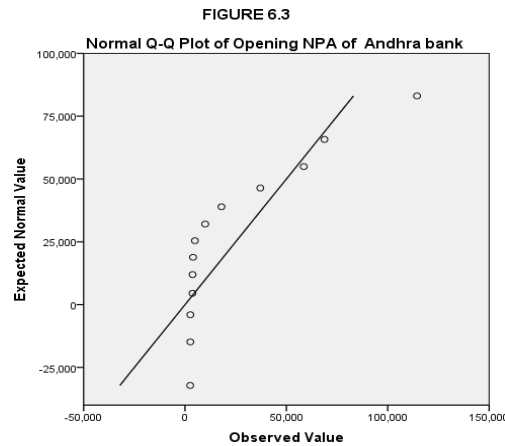


**Interpretation:** The graph no.6.1 depicts the quintile -quartile plot (Q-Q plot) of the observed and expected recovery. The horizontal axis represents observed recoveries while the vertical axis represents the expected recoveries which are estimated by regressing the post data and projecting the recoveries. From the data analysis of Q-Q plot. It is observed from the Recovery of Andhra Bank that seven observations are above the trend line and six observations are below the trend line. This enables us to identify that the actual recoveries fall short of the expectations most of the time. One good thing represents by the graph is that almost all the values are very near to equilibrium line. This shows that over a long period of 13 years, the deviations between expected and observed are almost nullified. So, RECOVERY is not normally distributed.

FIGURE 6.2



**Interpretation:** The graph no.6.2 depicts the quantile-quantile plot (Q-Q plot) of the observed and expected recovery. The horizontal axis represents observed recoveries while the vertical axis represents the expected recoveries which are estimated by regressing the post data and projecting the recoveries To test further normality of the data De trended normal Q-Q plot being used and it gives the result that RECOVERY data points lies below the trend line Showing the data is not normal distributed. Therefore the observed value minus expected value is greater than zero.



**Interpretation:** The graph no. 6.3 depicts the quantile-quantile plot (Q-Q plot) of the observed and expected recovery. The horizontal axis represents observed recoveries while the vertical axis represents the expected recoveries which are estimated by regressing the post data and projecting the recoveries. It is observed from the Q-Q plot of Opening NPA of Andhra Bank that most of the expected recoveries lie above the equilibrium line. Six of the observations are above the trend line and six are below the trend line whereas one is on the trend line. This enables me to conclude that the actual recoveries made fall short of the expectations most of the time. One good thing portrayed by the graph is that almost all the values are very near to equilibrium line. When all the deviations from the equilibrium line are accumulated, it gives a small value. This shows that over a long period say 13 years the deviations between expected and observed are almost nullified. o, the Opening Non-Performing Asset is not distributed normally.

**TABLE Descriptive Statistics-SBI**

	N	Range	Minimum	Maximum	Mean
COLLECTIONS	13	881290.05	43256.35	924546.40	126400.7515
WRITE-OFFS	13	298186.61	44963.69	343150.30	147033.6538
NET NPA	13	598728.55	43256.35	641984.90	228421.9008
OPENING NPA	13	918475.91	63252.09	981728.00	315612.8894
CLOSING NPA	13	1060177.81	63252.09	1123429.90	397001.1285
RECOVERY	13	1613443.45	22732.15	1636175.60	934184.5085
NET ADVANCES	13	11445093.26	3230402.54	14675495.80	8073617.0254
ADVANCES	13	12505271.07	3293654.63	15798925.70	8470618.1538
Valid N (listwise)	13				

**TABLE.6.5.1. Descriptive Statistics-SBI**

	N	Std. Deviation	Variance	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
COLL_SBI	13	240216.22098	57703832821.984	3.584	.616
WO_SBI	13	106260.66338	11291328581.310	.726	.616

NNPA_SBI	13	178583.92459	31892218122.134	1.048	.616
ONPA_SBI	13	282219.02446	79647577767.596	1.213	.616
CNPPA_SBI	13	348761.08064	121634291369.736	1.060	.616
REC_SBI	13	483992.84451	234249073541.340	-.492	.616
NADV_SBI	13	4059606.12166	1648034.000	.390	.616
ADV_SBI	13	4395747.62939	193225.000	.432	.616
Valid N (listwise)	13				

**Interpretation:** The descriptive statistics of Andhra Bank of Post Sarfaesi Act for a period of 13 years were presented in the table 6.1 and 6.1.1 by taking Opening NPA, Net NPA, Write-offs, Collections, Closing NPA, Advances & Net Advances into consideration .The descriptive statistics have been done with the help of number of years, Range, standard deviation, mean & skewness. The highest range was generated by advances, (1121092.3000cr) followed by net advances (948708.9100), Recovery (174685), CGNPA (174081.3900), NNPA (921678.08) write-offs (3003.6600), whereas in Mean statistics the highest mean was generated by Advances i.e (752500.269231) followed by Net advances 71655.7215, Recovery 76206.6192, CNPA 38844.547, ONPA 25454.3476, NNPA 21824.783, write-offs 8427.660000, In skewness the highest statistics is given by CNPA i.e, 1.764 followed by NNPA 1.743, ONPA 1.706 , write-offs 1.638 , Advances 0.242 , Recovery 0.137 with the lowest statistics of 0.108 by Net advances with same standard error.

**TABLE: 6.6. Calculation of percentage of recovery-SBI**

Years	Recovery	Percentage of Recovery (%)
2005	653841.05	9.8587%
2006	718301.73	-103.1647%
2007	-22732.15	-707.5764%
2008	138115.18	797.9700%
2009	1240232.9	-30.3853%
2010	863383.2	39.5334%
2011	1204708.2	-17.9036%
2012	989021.1	65.4338%
2013	1636175.6	-2.0013%
2014	1603430.5	-42.3394%
2015	924546.4	35.9232%
2016	1256673.9	-28.9205%
2017	893236.7	22.269%

**Interpretation:** The table in column 2 are shown the recoveries of SBI for the 13 year study period. The highest recoveries were made during the year 2013 at Rs.1636175.6 crores and the least during the year 2007 at Rs. -22732.15 crores. The mean recoveries over the study period are Rs.930687.2546 crores.

Column No.3 in the table depicts the percentage rate of recoveries over the study period. The highest and the least rate of recoveries are recorded as 797.9700% and -707.57647% during the years 2008 and 2007 respectively.



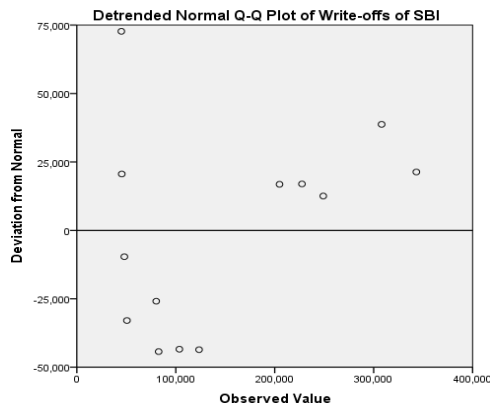
**TABLE: 6.7. Calculation of Standard Deviation-SBI**

YEAR	RECOVERY X	MEAN ( $\bar{X}$ )	$(X-\bar{X})$	$(X-\bar{X})^2$	$(X-X)^2/n$	$\sqrt{(x-x)^2/n}$
2005	653841.05	930687.2546	-276846.2046	76643821006.9	5895678539	76783.322
2006	718301.73	930687.2546	-212385.524	4510611063.8	3469816235.67	58905.146
2007	-22732.15	930687.2546	-953419.404	909008561086	69923735468.1	264430.965
2008	138115.18	930687.2546	-792572.07461	628170493451	48320807188.5	219819.9426
2009	1240232.9	930687.2546	309545.645	95818506579.9	7370654352.3	85852.515
2010	863383.2	930687.2546	-67304.05	4529835766.94	34844890515	18666.786
2011	1204708.2	930687.2546	274020.94	75087478512.4	5775959885.56	75999736
2012	989021.1	930687.2546	58333.85	3402837517.98	261756732.152	16178.897
2013	1636175.6	930687.2546	705488.345	497713805481	38285677344.6	195667.262
2014	1603430.5	930687.2546	672743.245	452583474217	34814113401.3	186585.405
2015	924546.4	930687.2546	-6140.85461	37710095.3411	2900776.5647	1703.1666
2016	1256673.9	930687.2546	325986.645	106267292972	8174407151.69	90412.4281
2017	893236.7	930687.2546	-37450.5546	140254404040.59	107888003.122	10386.915

**TABLE: Calculation of coefficient of variation-SB**

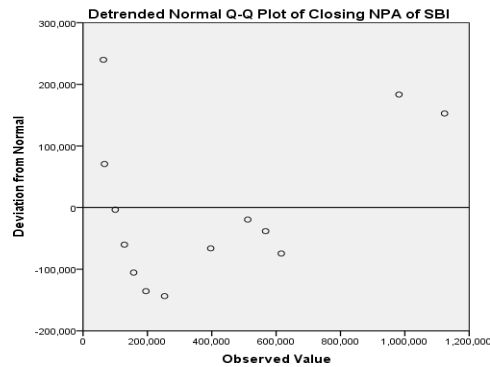
YEAR	STANDARD DEVIATION	MEAN	COEFFICIENT OF VARIATION
2005	76783.322	930687.2546	0.08250
2006	58905.146	930687.2546	0.06329
2007	264430.965	930687.2546	0.2841
2008	219819.9426	930687.2546	0.02361
2009	85852.515	930687.2546	0.09224
2010	18666.786	930687.2546	0.02005
2011	75999736	930687.2546	81.6598
2012	16178.897	930687.2546	0.01738
2013	195667.262	930687.2546	0.21023
2014	186585.405	930687.2546	0.20048
2015	1703.1666	930687.2546	0.00183
2016	90412.4281	930687.2546	0.09714
2017	10386.915	930687.2546	0.01116

FIGURE 6.24



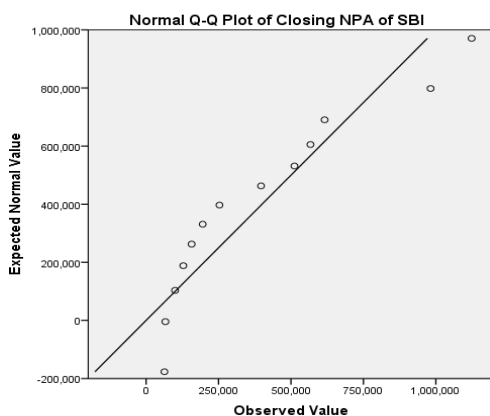
**Interpretation:** The graph no.6.24 depicts the quantile-quantile plot (Q-Q plot) of the observed and expected recovery. The horizontal axis represents observed recoveries while the vertical axis represents the expected recoveries which are estimated by regressing the post data and projecting the recoveries. To test further normality of the data detrended normal Q-Q plot being used and it gives the result that WRITE-OFFS data points lies below the trend line showing the data is not normal distributed. Therefore, the observed values minus.

FIGURE 6.26



**Interpretation:** It is observed graph no.6.25 from the Q-Q plot of Net Advances of SBI that nine observations are above the trend line and four are below the trend line. This enables us to interpret that the actual recoveries fall short of the expectations always. The important thing depicts by the graph is that almost all the values are very near to trend line. This exhibits that over a period of 13 years, the deviations between expected and observed are almost nullified

FIGURE 6.25



**Interpretation:** The graph no.6.26 depicts the quantile-quantile plot (Q-Q plot) of the observed and expected recovery. The horizontal axis represents observed recoveries while the vertical axis represents the expected recoveries which are estimated by regressing the post data and projecting the recoveries. To test further normality of the data Detrended normal Q-Q plot being used and it gives the

result that CLOSING NPA data points lies below the trend line showing the data is not normal distributed.

## **2.FINDINGS, SUGGESTION&CONCLUSION**

### **FINDINGS:**

- Gross NPAs of scheduled commercial banks have increased from Rs. 708 billion in 2000- 01 to Rs 2642 billion in 2012-13.
- Net NPAs of scheduled commercial banks have increased from Rs. 355 billion in 2000-01 to Rs. 986 billion in 2012-13.
- NPAs as a Percentage of Net Advances which was lowest 1.0 % in 2007-08 & 2008-09 and highest 5.5 % in 2001-02. It was 2.2 % in 2013-14.
- The average Percentage of Net NPAs during 2001-02 to 2013-14 was around 2.0%
- Number of Cases Referred to Lok Adalat was 1,86,535 in 2008 and reached to 16,36,957 in 2014 Ineffective recovery, wilful defaults and Defective lending process are the important factors which are responsible for the rise of NPAs in banks

### **ANDHRA BANK**

1) An observation of the mean of values of recoveries for Andhra Bank for the study period is Rs.76,206.62 cr. This value is found to be varying from the annual recoveries and this variability implies that the annual recoveries are volatile.

**SUGGESTION:1)** It is suggested that the management should focus on all possible measures to improve and smooth the recoveries to bring efficiency in bank loan recoveries.

2) From the data analysis it is observed that the standard deviation of the mean recoveries of Andhra bank is comparatively higher and this signifies high volatility in annual recoveries as in the case of mean recoveries.

**SUGGESTION:2)** It is suggested that the variability in the annual recoveries be stabilised as much as possible.

### **STATE BANK OF INDIA**

1) An investigation of the mean values of recoveries for Andhra Bank for the study period is Rs.930687.26cr.This value is found to differ from the annual recoveries very much and this variegation implies that the annual recoveries are unstable.

**SUGGESTION:1)** It is suggested that the management should focus on all possible measures to improve and smooth the recoveries to bring efficiency in bank loan recoveries.

2) It is observed from the data analysis that the standard deviation of the mean recoveries of Andhra bank is comparatively high and this exhibits high variability in annual recoveries.

**SUGGESTION:2)** It is suggested that the variability in the annual recoveries be stabilised as much as possible. NPAs reduce the earning capacity banks and badly affect the ROI.

**CONCLUSION:** The following findings and conclusions are drawn from the data analysis of the banks under consideration. Based on this proper suggestions are offered.

### **REFERENCES:**

1. Govt of India. (1991) Report of the Committee on Financial System 1991”,(Narasimham Committee), Ministry of Finance, pp-54.
2. Kothai (2003) Non-Performing Assets Scheduled bank in India. Volume1issue 3 December 2011
3. .Kumar (2005) Non- performing asset level efficiency and profitability of banks can be improved. The highest International Journal of Management Excellence Volume 3 No.1 April 2014 © Tech Mind Research, Canada 387.
4. Banergee, B , and Dan, A. K (2006) “ Management of Non Performing Advance in the Public Sector Banks in India” New Trends in Corporate Reporting (Edited Book), RBSA Publishers, Jaipur,pp-11



5. *Bhattacharya (2001) K.M, Management of Non Performing Advances in Banks, Journal of Accounting and finance, oct.2001-Mar, 2002 vol.16 No.1.*
6. *Shyamala A (2012) "NPAs in Indian Banking Sector Impact on Profitability"Indian Streams Research Journal,Vol 1,No.V,pp.1-7, June 2012.*