NUST BUSINESS SCHOOL

INTER-COUNTRY AND CROSS COUNTRY ANALYSIS FOR LOAN LOSS ALLOWANCE

RESEARCH PAPER

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ABSTRACT

This paper analyses the determinants of banks' loan loss allowances for samples of Pakistani, Indian and Bangladesh banks. The research contains the study of 16 banks from the above mentioned counties. The model includes fundamental (non-discretionary) determinants of the allowance such as non-performing loans, and discretionary determinants such as income before the loan loss provision. In the paper we have carried out a cross country analysis along with an inter-country bank's analysis to see the factors that are sensitive to provisioning of loan losses as well as how much weight-age is given to these factors by each bank. The results suggest that the loan loss allowance is directly affected by the earnings, equity and net-charge offs. The limitations and further areas of research are mentioned below in the case study.

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1. INTRODUCTION

The main question answered in the report is how the allowance for loan losses affects their reported income and capital. Each country sets its accounting rules, these rules are set by the combination of national laws and pronouncements by accounting and banks regulatory authorities. One of the constraints that the study faces regarding the empirical analysis of loan loss by banks is their relatively short or no history of reporting crucial variables, such as non-performing loans, and a very small number of banks have been providing full information. The broad analysis uses data from the Bank-Scope database. It is a data base that provides some of the widest coverage of countries and banking organization of the entire world. For the broader scope, the analysis is done for three different countries and in order to provide a narrower focus the study also compares different banks at a national level. Some of the data is also acquired from the official websites of the selected banks.

There are three sections to this report. The first discusses and summarized the accounting process followed by banks at large and the next discusses the basic empirical model. The empirical model is discussed at national and cross country level. The last section provides the results gained from the research and their respective analysis.

2. HYPOTHESIS

1. The increase in non-performing loans increases the amount of loan loss allowance.
2. The increase in net-charge offs will decrease the amount of loan loss allowance.
3. The increase in the total loans given will increase the value of loan loss allowance.
4. The increase in equity will decrease the loan loss allowance (because the expanse is directly reported in the equity section, and thus more the expanse less is the equity reported).
5. The increase in net income before taxes will decrease the loan loss allowance for the banks.

3. Loan loss accounting

Under the accrual accounting rules, banks are required to recognize revenues as it is earned and expanses as they are incurred, regardless of the timing of the actual cash flow. The allowance set for loan losses is generally same throughout the world; the following discusses the producers and principles for loan loss under GAAP and IFRS.

3.1 The procedure for Loan Loss Accounting

There are two most widely used accounting standards the GAAP and IFRS. Under GAAP the companies follow a multistep process to determine their allowance for loan losses. At the end of each period, bank determines a probable value of the loan losses, and debits its loan loss expanse (provision) by an amount equal to the difference between its estimated loan loss value and the current balance of the account. The amount is shown as a reduction in the value of its outstanding loans. As the period progresses, bank realizes that it is unlikely to collect the full value of the selected loans and charges off the part of loan unlikely to be collected. This entry is a reduction in the loan loss allowance.

Banks analyze loans for impairment on an individual or on a portfolio basis. Few countries divide their loans in to specific allowance (loans not be recovered) and general allowances (banks has not identified impairment on specific loans).

Under IFRS[1] (IAS 39: Provision, Contingent Liabilities and Contingent Assets), IAS contains specific examples of loss events and additional guidance for evaluating and measuring impairments on portfolio. It also required estimate cash flows to be discounted in measuring impairment for groups of loans, this requirements is not under GAAP. Loan impairment difference can affect Tier II calculations for allowance for loan loss, because it is limited to 45% in Tier II.[2]

4. EMPIRICAL ANALYSIS

The goal of empirical analysis in this paper is to determine whether managers use their discretion to influence reported net income and equity. The basic model formed for this calculation is as follow:

$$\mathbf{LLA = \alpha + \sum \alpha\ N*D + \sum \beta\ D + \varepsilon}$$

Where:
LLA = Loan Loss allowance for banks
N = the non-discretionary determinants of the LLA for the banks (non-performing loans)
D = the discretionary determinants of the LLA for the banks
ε = the random error

The coefficient of non-discretionary determinant (non-performing loans) is the estimates the proportion of non-performing loans that a bank expects to lose. The coefficients provide expected losses, and a

[1] http://www.iasb.org/NR/rdonlyres/81F90956-3009-4346-B727-11119816C992/0/IAS37.pdf
[2] http://www.securitization.net/pdf/Deloitte/IFRSBankSecur_17Nov08.pdf

common way of capturing the variation in this expected loss rate is to the banks net-charge offs. Higher charge off means higher loan lost. Bankers use their accounting discretion over loan loss allowance to measure their earnings and capital closer to the target value. Banks with lower earnings reduce their loan loss allowance to help them increase earnings targets. Another coefficient on capital suggests that banks with lower capital ratios reduce loan loss allowance to increase their capital adequacy ratios. A higher loan loss provision will result in a higher value for loan loss allowance. Substituting in these proxies into equation, the estimated equation becomes:

$$\mathbf{LLA = \alpha_1 + \alpha_2 NPL + \alpha_3 NCO + \alpha_3 LOAN + \beta_1 ER + \beta_2 RETN + \sum \Phi Y + \varepsilon}$$

Where:
NPL = ratio of non-performing loans to total assets
NCO = ratio of net charge-offs over the years to total assets
LOAN = ratio of total loans to total assets
ER = ratio of total equity to total assets
RETN = ratio of net income before taxes and loan provision to total assets
Y = year fixed effect variable that equals 1

These assumptions brings little complications, in analyzing the banks with the above mentioned ratios separates banks that are experiencing asset quality problems from all other banks. Banks have little ability to increase their non-performing loans above their true level within the scope of accounting rules. Net charge-offs will vary across banks but is more likely to reflect variations in charge-off policies rather than to manage loan loss allowance.

Bank, may be expected to use other earnings management techniques to move reported net income in the same direction as they moved the loan loss provisions. In case of sharply increased loan loss allowance the bank may seek to boost their earnings and off-set higher loan loss provisions by recognizing gains on appreciated assets. A healthy bank does not need to use its loan loss accounting to manage its equity capital. Banks with higher charter value may select less risky loans portfolios and higher equity capital level to minimize their probability of higher loan loss allowance. On the contrary distressed banks may issue financial statements that substantially understates the true extent of bank losses and thus over stating their earnings and capitals. Banks with lower capital also hide more problems, implying larger loan loss allowance.

5. COMPARISON BETWEEN BANKS OF PAKISTAN, INDIA AND BANGLADESH

5.1 Methodology

The data has been collected from Bank-scope and the official websites of the banks, Bank-scope provides basic bank information, at the same time it does not have consistent information on loan loss reserves and non-performing loans. For our data limitations we had to select banks that provided us with the best available information. The basic equations for the multi-comparison will be the same as mentioned above with two changes, the expected level of capital may vary and country fixed effects are also added. The equation is estimated to be:

$$\mathbf{LLA = \alpha_1 + \alpha_2 NPL + \alpha_3 NCO + \alpha_3 LOAN + \beta_1 DER + \beta_2 DRETN + \sum \gamma C + \sum \Phi Y + \varepsilon}$$

Where

NPL = ratio of non-performing loans to total assets
NCO = ratio of net charge-offs over the years to total assets
LOAN = ratio of total loans to total assets
ER = ratio of total equity to total assets
DER = the difference between the value of ER for banking organization
RETN = ratio of net income before taxes and loan provision to total assets
DRENT = the difference between the value of ROA for bank and the average value of ROA for all banks
Y = year fixed effect variable that equals 1

6. LIMITATIONS

- One of the constraints that the study faces regarding the empirical analysis of loan loss by banks, there is relatively short or no history of reporting crucial variables, such as non-performing loans, and a very small number of banks have been providing full information.
- Secondly different company around the globe use different account and reporting methods therefore it is relatively difficult to compare the data
- Thirdly the reported information of the financial accounts of the company older than five years is not easily available
- Fourthly, in the research we were restricted to use one few ratios for the analysis due to non-availability of detail financial (accounting) information of the banks.

7. RESULTS AND ANALYSIS

7.1 INTER-COUNTRY BANK ANALYSIS

We have considered 5 to 6 banks for our analysis; the data for the banks has been collected from bank-scope data base or the official websites. To start off with our analysis we'll consider the individual banks and the factors that affect their loan loss allowance. We have made few modifications to above mention equation for the simplification of our analysis. Before going into further analysis we should keep the above mentioned limitations in mind. The details of each equation are given in Appendix A.
First bank on the list is Bank of Khyber, which is one of the oldest and well reputed banks of Pakistan, we have taken last 5 to 6 years data for the calculations purpose and following is the equation that was formed after the regression analysis:

$$LLA = 1359.81 - 5392.67NPL + 3949.78NCO - 1450.81LOAN + 192.019ER + 3073.6RETN + \varepsilon$$

The adjusted R is 90.986% for the equation, which shows that the data is relevant for analysis. Out of the 5 ratios, the non-performing loans to total assets (NPL) and total loans to total assets (LOAN) are the most effecting variables for the bank. Both are negatively co-related to loan loss allowance. Which states that if total assets are increased or the non-performing loans and total loan amount is decreased the loan loss allowance would decrease. Or in simpler words if the ratios would increase the equation would decrease. As mentioned before if the amount of bad debts will decrease automatically the amount for loan loss account would be estimated below the expected amount.

Bank of Punjab, was treated in the same manner as Bank of Khyber for the same analysis, the adjusted R for the bank is 59.5%. This shows that there are other factors that could affect the loan loss allowance, or the data could be more accurate if more years are included. The equation for the bank formed is as following:

$$LLA = 659.02 + 116088.8NPL + 1940272.6NCO + 3283.6LOAN - 52010.9ER + 26686.8RETN + \varepsilon$$

As the data quality could be improved, thus we see that no such variable play a significant part for bank of Punjab in calculating the loan loss allowance. The only factor that might be the most significant amongst all is the net-charge off ratio to total assets, and the intercept value for the ratio is 1.33. The ratio is positively related which means if the Net-charge off to total assets in increases the loan loss allowance will increase.

The Bank Alfalah equation formed had few errors regarding the data type, according to the company the net-charge write offs were very less as compared to the assets. That is why the intercept and the t-stat value calculated showed some errors. Thus for the better understanding for the loan loss allowance for the bank we have eliminated the factor from the equation. The rest of the variables and the equation have the following statistics, the overall R value for the equation was 74.5%, and again the value could be improved with adding more data or expanding more variables. According to the equation formed

none of the variables plays a significant role in calculating the loan loss allowance for bank Alfalah, this is possible because as mentioned early in the limitation the amount of data available. The equation formed for the Bank Alfalah is as following:

$$LLA = 14577561.6 + 125595458.5NPL - 13721488.2LOAN - 39558298ER - 64882333.6RETN + \varepsilon$$

Askari Bank is also one of the most reputed banks of Pakistan, while regressing for Askari Bank we have not considered the net-charge offs to total assets because of its insignificant values in the balance sheet. The adjusted R for the equation is 88.5% which means it could be used for the analysis purpose and at the same time improved for further refined outcomes. The most significant value out off the rest were non-performing loans to total assets which is calculated to be 1.5, the rest ratios were of little or no significance for the company. Following is the final equation formed for Askari Bank:

$$LLA = -7764892.1 + 102526986NPL + 2888439.6LOAN + 36384483ER + 106095346.7RETN + \varepsilon$$

For Allied Bank and MCB Bank we have treated the equations in the same manner as Askari bank, the R square values are 70.8% and 74.25% respectively. The values can be improved further. And due to the low R value the t-stats values were also low. The equations for Allied Bank and MCB Bank are as following respectively:

$$LLA = 21860463.2 - 156006285NPL - 38094796.6LOAN - 8700795.3ER + 274662095.0RETN + \varepsilon$$

$$LLA = -8642133.9 + 275049600.8NPL + 2532716.2LOAN + 60030931ER + 30297314.1RETN + \varepsilon$$

7.2 PAKISTAN vs. NON-PAKISTANI BANKS

Pakistan

Pakistan has been developed for over 60 years and in the years it has not been able to see a stable economy and room for growth. In the banking industry Pakistan has seen a lot of revolutions over the years, lots of foreign banks were introduced, the state bank further increased in its foreign and domestic monetary burdens and the political instability is increasing. In such circumstances it is very important for the banks to come up with the factors that affect their loan loss allowance, keeping in mind that the default rate has been at a rise. Following is the equation formed for the banks of Pakistan, and according to which the total loan to asset is the only ratio negatively co-related to the outcomes. This states that Pakistan should give out fewer loans at the moment and should focus more on the previous ones given out to reduce the loan loss burdens. But the equation proves that all these factors are important for the calculations of loan loss provisions.

$$LLA = 183514787.2 + 8734499438NPL - 346944680LOAN + 914191297ER + 317520319RETN + \varepsilon$$

India (Appendix B)

It was a common observation with the banks of India that the data is not available at the site. The data is thus not a true representation of the population. According to the data the banks of India usually have a negative relation of loan loss allowance with net-charge off to total assets and total loans to total assets, the relationship shows that by increasing the net-charge amount and/or total loan amount the amount of loan loss allowance will decrease. This could be true for two reasons either the banks are investing in a more diversified portfolio thus, decreasing the overall risk factor of bad debts or the banks have a sound recovery policies, and they are very confident about their specific loans. Following is the equation formed:

$$LLA = 17155.7 + 16566.2NPL - 1687338NCO - 17641.5LOAN + 49493DER + 428206DRETN + \varepsilon$$

Bangladesh (Appendix C)

The data for Bangladesh was probably the most accurate and desirable for the overall regression. The land is a newly born state around about 30 to 35 years and has a small area, due to which the small quantity of banks was enough to represent the larger picture of loan loss allowance situation for the country. For Bangladesh the most important factor that affects the output is RETN, which is the earning before taxes + loan loss provision to total assets. The relationship is negative in nature which means increasing any one variable in the numerator will decrease the loan loss allowance. This means that loan loss allowance is mostly affected by the earning of the banks. As mentioned earlier the loan loss allowances are used to manipulate the capital and earnings data, because more the loan loss allowance less is the earning reported. The country has a negative relationship with total loans to total assets and net-charge offs to total assets. Following is the equation formed for the Bangladesh banks:

$$LLA = 5840.5 + 35783.2NPL - 86928NCO - 11727.4LOAN + 3190.3ER - 132241.16RETN + \varepsilon$$

8. CONCLUSION AND REMARKS

The case study was conducted to look at the factors that affect the loan loss allowance for different banks and across different countries. For the study we considered few ratios and values that were relevant to loan loss allowance and the case study approves of the entire hypothesis mentioned in the case study along with their relationship with the outcome. The regression at few places was not the true representation of the entire population and this is because of limited resources of data we had.

Thus we believe that further analysis and study could be conducted on the topic. The analysis could be made more relevant if more years' data is considered or more variables are added into the equation.

APPENDIX A: PAKISTANI BANKS

APPENDIX B: INDIAN BANKS

APPENDIX C: BANGLADESHI BANKS

SUMMARY OUTPUT - *Agrani Bank*

Regression Statistics	
Multiple R	0.99970106
R Square	0.99940221
Adjusted R Square	0.997907735
Standard Error	191.8749807
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	123100085.3	24620017.06	668.7313006	0.001493805
Residual	2	73632.01643	36816.00822		
Total	7	123173717.3			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	3368.801553	3568.418315	0.944060156	0.444790514
Non-Performing Loan to TA (NPL)	29510.35629	1642.426102	17.96753975	0.003083263
Net Charge-Off to TA (NCO)	-8467.115229	5394.271241	-1.569649513	0.257065808
Total Loan to TA (LOAN)	-5075.633728	5732.855952	-0.885358671	0.469365416
TE to TA (ER)	10205.68256	2651.031071	3.849703111	0.061333153
EBIT and LLPro. to TA (RETN)	-133529.981	4349.966654	-30.69678267	0.001059555

BANGLADESH

AGRANI Bank Ltd.

Figures in Million BDR

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	Loan Loss Provision
2007	31,788.90	0	3,042.00	118,493.90	3,342.70	186,280.40	1,852.90
2006	27,817.00	2,918.60	3,290.40	105,869.30	-15,324.50	154,080.40	603.1
2005	28,143.60	3,350.00	-1,595.40	99,404.30	-17,264.40	155,527.90	3,003.30
2004	26,953.70	0	-21,721.10	95,920.80	-18,898.80	151,376.70	12,371.50
2003	0	6,295.40	2.5	89,312.70	3,403.20	141,435.70	17
2002	0	895.7	25	88,959.80	3,404.60	144,449.70	207.7
2001	0	266.8	4	80,015.80	3,325.60	131,067.50	162.6
2000	0	0	28.6	77,012.60	3,253.10	123,262.90	298

Ratios	NPL	NCO	LOAN	ER	RETN
2007	0.1707	0.0000	0.6361	0.0179	0.0263
2006	0.1805	0.0189	0.6871	-0.0995	0.0253
2005	0.1810	0.0215	0.6391	-0.1110	0.0091
2004	0.1781	0.0000	0.6337	-0.1248	-0.0618
2003	0.0000	0.0445	0.6315	0.0241	0.0001
2002	0.0000	0.0062	0.6159	0.0236	0.0016
2001	0.0000	0.0020	0.6105	0.0254	0.0013
2000	0.0000	0.0000	0.6248	0.0264	0.0026

SUMMARY OUTPUT - *Al Arafah Isla*

Regression Statistics	
Multiple R	0.927348974
R Square	0.859976119
Adjusted R Square	0.509916417
Standard Error	45.83896675
Observations	8

ANOVA

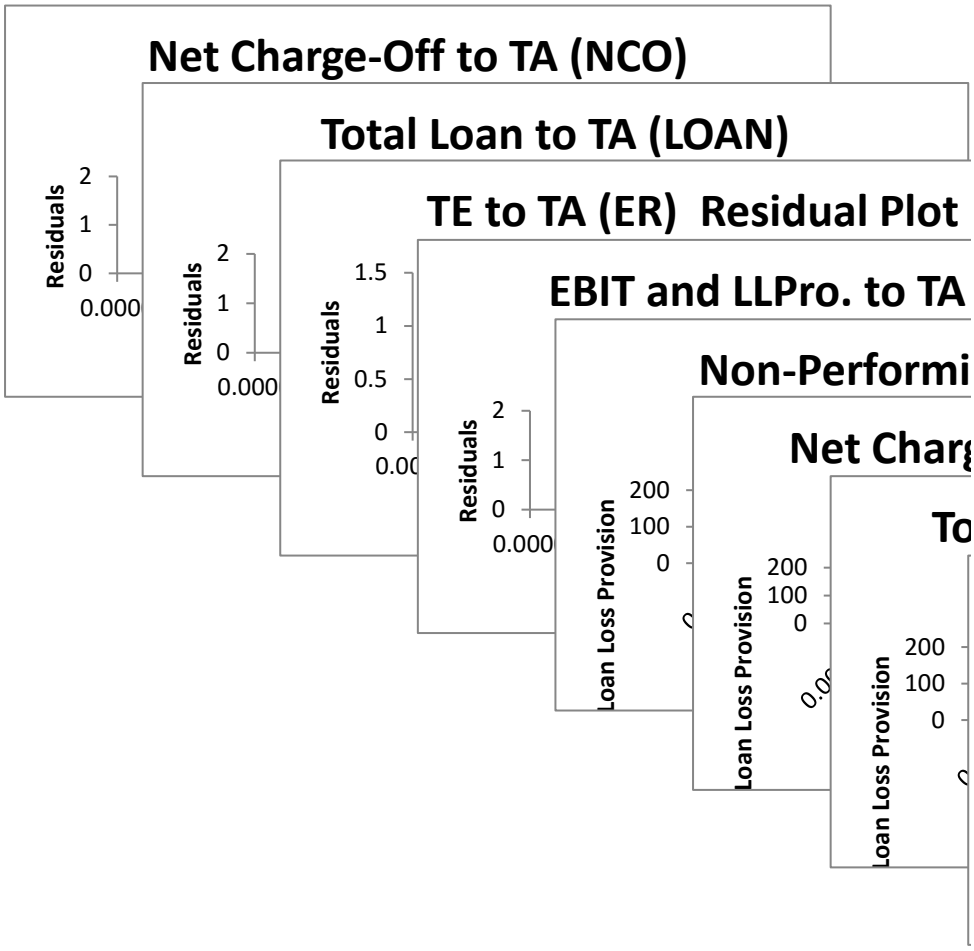
	df	*SS*
Regression	5	25809.75701
Residual	2	4202.421745
Total	7	30012.17875

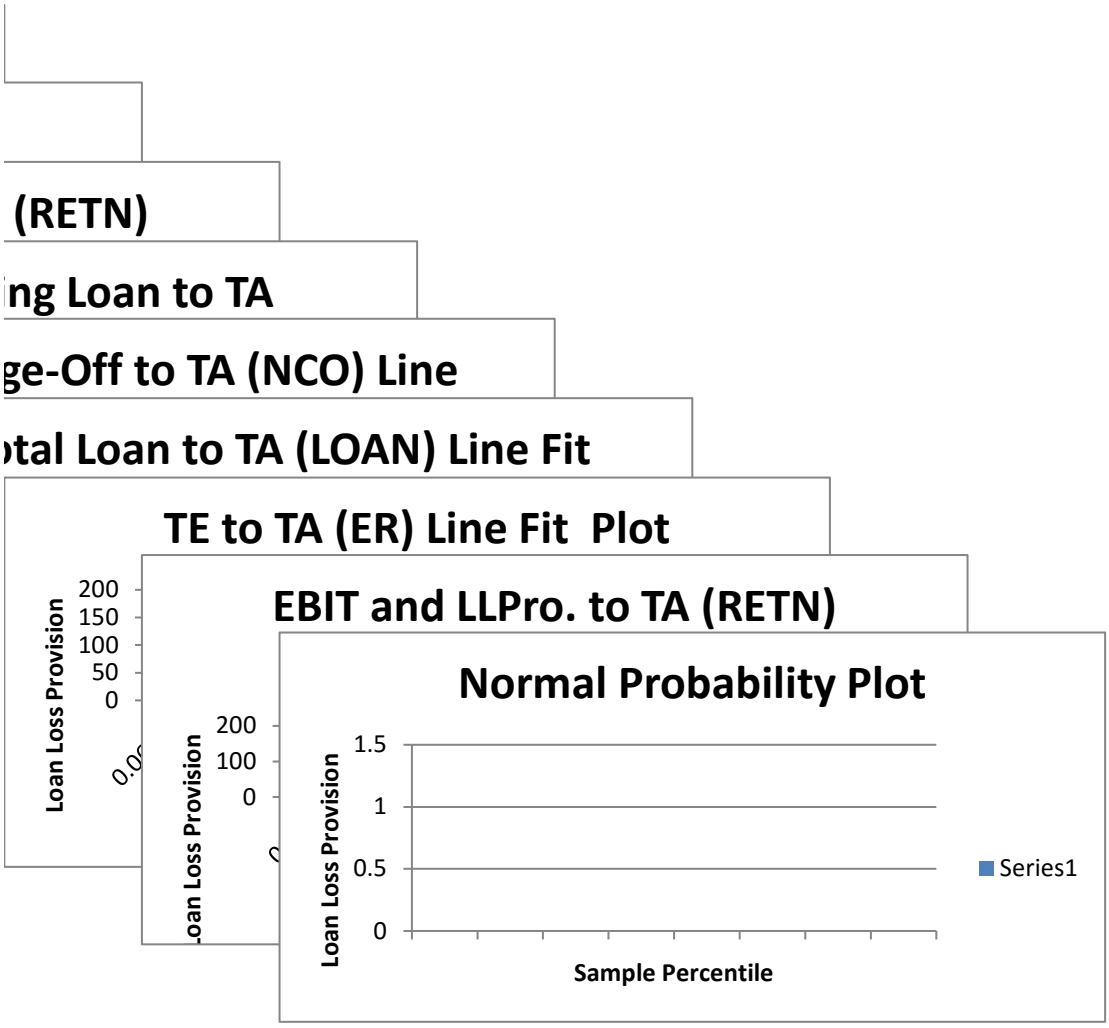
	Coefficients	*Standard Error*
Intercept	944.4546264	423.6962652
Non-Performing Loan to TA (NPL)	4837.214659	2287.084491
Net Charge-Off to TA (NCO)	7204.64018	6791.133464
Total Loan to TA (LOAN)	943.870296	380.7673873
TE to TA (ER)	-29042.84977	12634.23432
EBIT and LLPro. to TA (RETN)	11916.4416	5501.172253

mi Bank Limited

MS	*F*	*Significance F*
5161.951401	2.456655574	0.31417079
2101.210872		

t Stat	*P-value*
2.229084143	0.155602459
2.115013537	0.16871321
1.060889205	0.399917091
2.478863284	0.131412961
-2.298742372	0.148276012
2.166164056	0.162654435


Net Charge-Off to TA (NCO)
Total Loan to TA (LOAN)
TE to TA (ER) Residual Plot
EBIT and LLPro. to TA
Non-Performi
Net Charg
To
Residuals
Loan Loss Provision
2
1
0
0.000
1.5
0.5
200
100


(RETN)
ng Loan to TA
ge-Off to TA (NCO) Line
tal Loan to TA (LOAN) Line Fit
TE to TA (ER) Line Fit Plot
Loan Loss Provision
200
150
100
50
0
EBIT and LLPro. to TA (RETN)
Loan Loss Provision
200
100
0
Normal Probability Plot
Loan Loss Provision
1.5
1
0.5
0
Sample Percentile
Series1

Banglades

Al Arafah Islami Bank Limited

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity
2007	854.4	17.6	582.8	22,906.40	2,037.50
2006	569.1	124	855.5	17,423.20	1,690.20
2005	672.2	184	478	11,474.40	1,220.10
2004	903.9	6.2	311.8	8,150.20	957.3
2003	0	0	231.1	7,571.50	688.2
2002	0	0	144.4	468.8	359.1
2001	0	0	39.5	440.7	321.3
2000	0	0	85.8	635.8	301.7

Ratios	NPL	NCO	LOAN	ER	RETN
2007	0.0283	0.0006	0.7589	0.0675	0.0251
2006	0.0266	0.0058	0.8154	0.0791	0.0454
2005	0.0438	0.0120	0.7482	0.0796	0.0357
2004	0.0702	0.0005	0.6330	0.0744	0.0268
2003	0.0000	0.0000	0.6955	0.0632	0.0212
2002	0.0000	0.0000	0.0535	0.0410	0.0165
2001	0.0000	0.0000	0.0476	0.0347	0.0043
2000	0.0000	0.0000	0.0874	0.0415	0.0118

Figures in Million BDR

Total Asset	Loan Loss Provision
30,182.30	173.3
21,368.20	114.3
15,336.90	70
12,874.60	33.1
10,886.80	0
8,759.30	0
9,253.80	0
7,273.20	0

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.438750461
R Square	0.192501967
Adjusted R Square	-1.21749541
Standard Error	3068.456857
Observations	8

ANOVA

	df	*SS*
Regression	5	6733719.113
Residual	3	28246282.45
Total	8	34980001.56

	Coefficients	*Standard Error*
Intercept	8889.241055	18550.10604
Non-Performing Loan to TA (NPL)	0	0
Net Charge-Off to TA (NCO)	-103480261.2	153780077.1
Total Loan to TA (LOAN)	4399.549268	47614.12859
TE to TA (ER)	40988.22686	76425.17195
EBIT and LLPro. to TA (RETN)	-303054.1215	534616.8544

RESIDUAL OUTPUT

Observation	*Predicted Loan Loss Provision*	*Residuals*
1	-220.4762643	-666.3237357
2	1036.604207	825.0957934
3	2079.508997	-2850.208997
4	1869.033329	4057.466671
5	1339.265838	-1239.265838
6	100	8.52651E-14
7	767.289108	-767.289108
8	-640.5252136	640.5252136

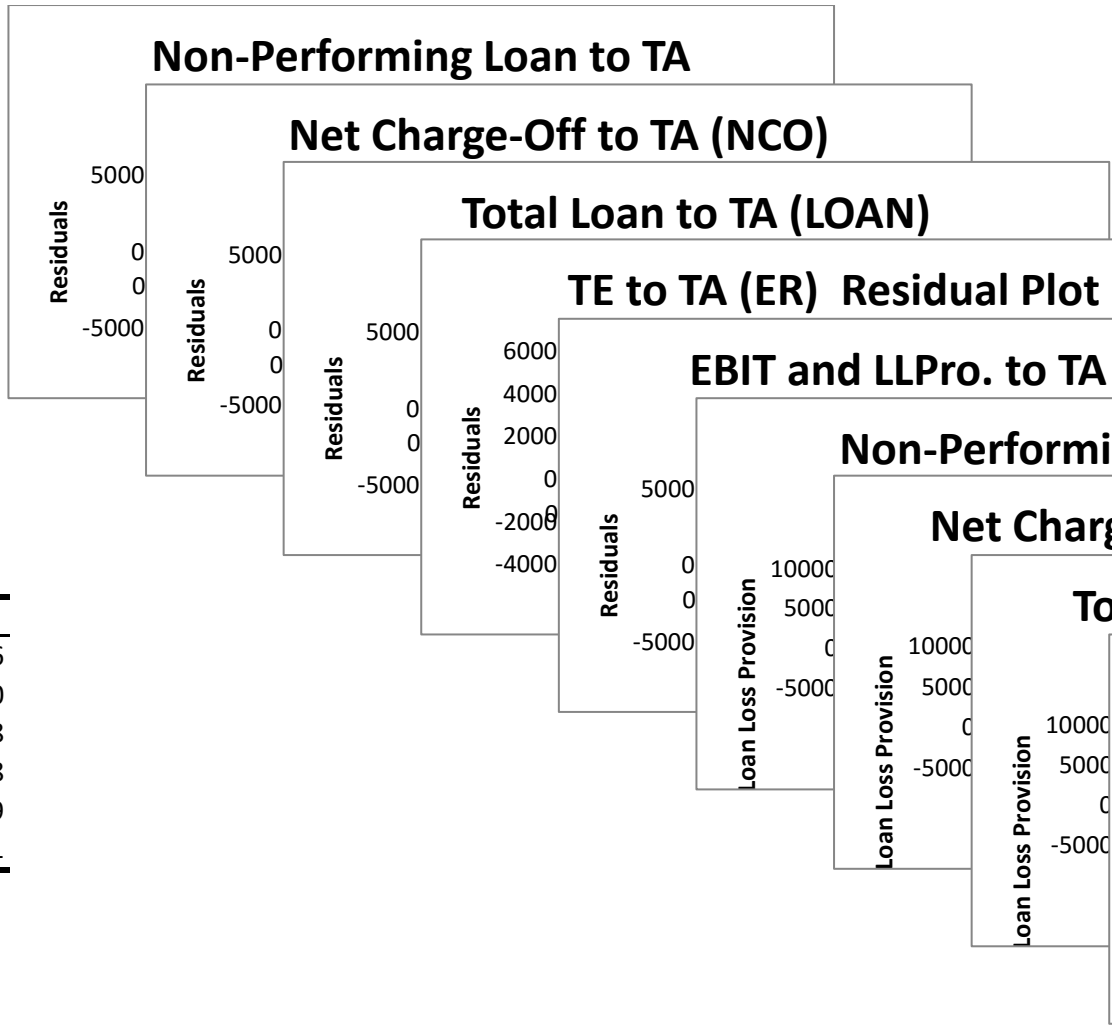
MS	*F*	*Significance F*
1346743.823	0.178794832	0.946963386
9415427.482		

t Stat	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*
0.47920163	0.664558002	-50145.47535	67923.95746	-50145.47535
65535	#NUM!	0	0	0
-0.672910713	0.549200808	-592877099.3	385916576.8	-592877099.3
0.09240008	0.932204763	-147129.8583	155928.9568	-147129.8583
0.536318412	0.628956901	-202230.7792	284207.2329	-202230.7792
-0.566862266	0.610448863	-2004443.554	1398335.311	-2004443.554

PROBABILITY OUTPUT

Standard Residuals
-0.354608898
0.439105339
-1.516844466
2.159331429
-0.659521295
4.5377E-17
-0.408341367
0.340879257

Percentile	*Loan Loss Provision*
6.25	-886.8
18.75	-770.7
31.25	0
43.75	0
56.25	100
68.75	100
81.25	1861.7
93.75	5926.5



Upper 95.0%
67923.95746
0
385916576.8
155928.9568
284207.2329
1398335.311

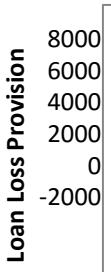
(RETN)

ng Loan to TA

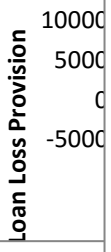
ge-Off to TA (NCO) Line

tal Loan to TA (LOAN) Line Fit

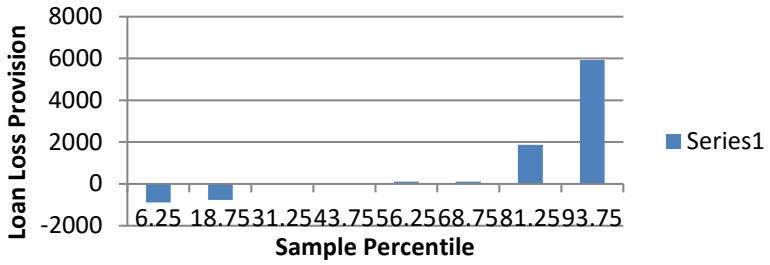
TE to TA (ER) Line Fit Plot



EBIT and LLPro. to TA (RETN)



Normal Probability Plot



Banglades

BANGLADESH BA

Figures in Millio

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	0	0	34,605.80
2006	0	0	24,040.10
2005	0	0	18,918.70
2004	0	0	9,394.80
2003	0	0	13,600.50
2002	0	11.4	9,498.10
2001	0	0	7,160.00
2000	0	0	7,959.80

Ratios	Non-Performing Loan to TA (NPL)	Net Charge-Off to TA (NCO)	Total Loan to TA (LOAN)
2007	0.0000	0.0000	0.1084
2006	0.0000	0.0000	0.1124
2005	0.0000	0.0000	0.1427
2004	0.0000	0.0000	0.1534
2003	0.0000	0.0000	0.1821
2002	0.0000	0.0000	0.1880
2001	0.0000	0.0000	0.0802
2000	0.0000	0.0000	0.0800

ANK Ltd.
on BDR

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
81,829.20	72,803.60	754,642.50	-886.8
71,405.80	62,129.40	635,317.80	1,861.70
68,183.10	47,475.70	477,831.80	-770.7
62,995.90	36,163.50	410,778.70	5,926.50
66,667.50	26,708.40	366,088.10	100
63,292.50	20,763.60	336,649.90	100
20,533.00	30	255,887.00	0
19,513.80	30	243,990.10	0

TE to TA (ER)	EBIT and LLPro. to TA (RETN)
0.0965	0.0447
0.0978	0.0408
0.0994	0.0380
0.0880	0.0373
0.0730	0.0374
0.0617	0.0285
0.0001	0.0280
0.0001	0.0326

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.701482773
R Square	0.492078081
Adjusted R Square	-0.518484477
Standard Error	293.7900877
Observations	8

ANOVA

	df	*SS*
Regression	5	250860.6818
Residual	3	258937.847
Total	8	509798.5288

	Coefficients	*Standard Error*
Intercept	352.331788	6269.189441
Non-Performing Loan to TA (NPL)	-1370.399608	6178.32641
Net Charge-Off to TA (NCO)	0	0
Total Loan to TA (LOAN)	4425.424558	6097.536961
TE to TA (ER)	21646.79376	24041.53227
EBIT and LLPro. to TA (RETN)	-27791.12023	19449.65442

RESIDUAL OUTPUT

Observation	*Predicted Loan Loss Provision*	*Residuals*
1	-36.79492557	36.79492557
2	176.9720769	-176.9720769
3	58.24681384	-58.24681384
4	-47.0562767	47.0562767
5	-83.50134552	83.50134552
6	311.4465615	-311.4465615
7	-40.07820389	40.07820389
8	424.0652994	339.2347006

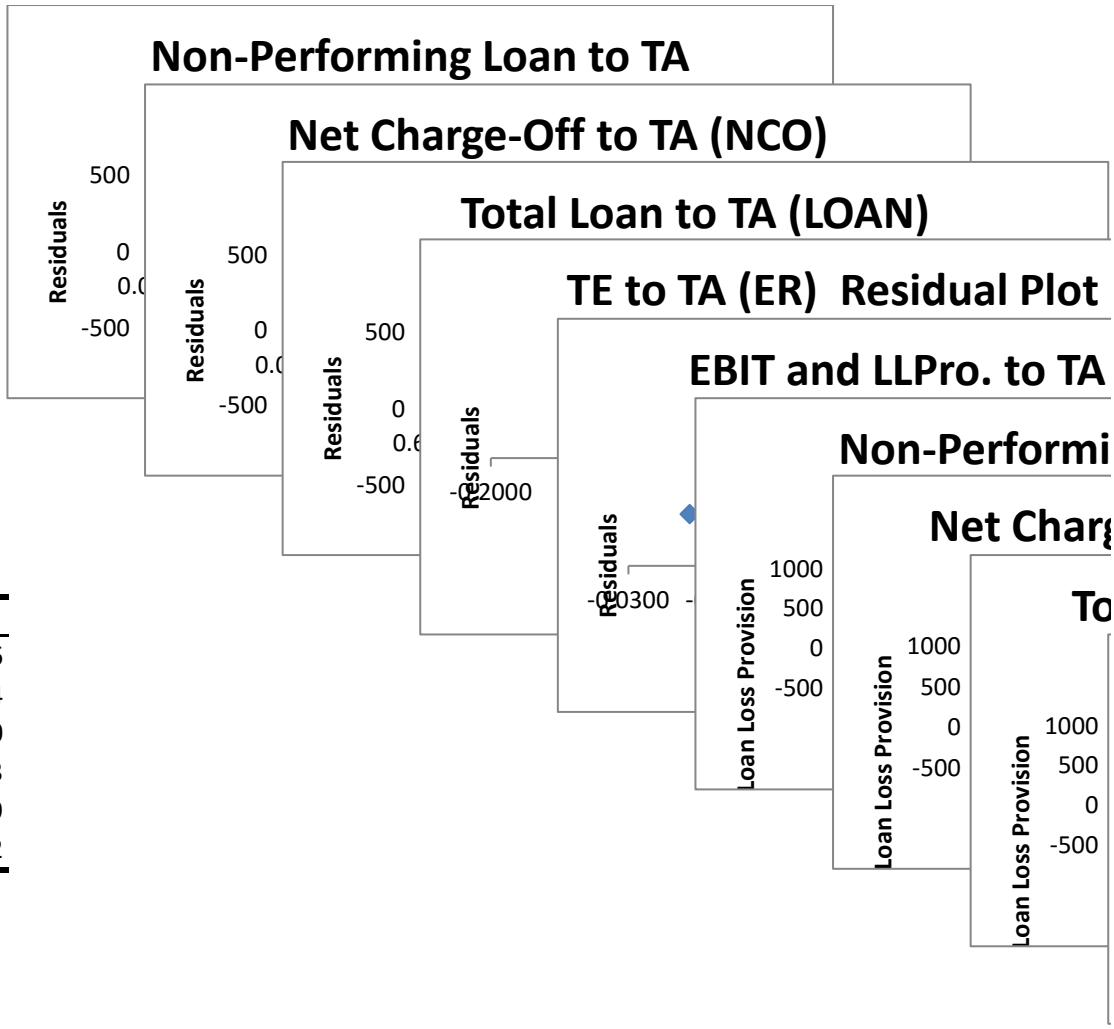
MS	*F*	*Significance F*
50172.13636	0.726604911	0.665945965
86312.61566		

t Stat	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*
0.056200533	0.958715666	-19599.02698	20303.69056	-19599.02698
-0.221807577	0.838704842	-21032.59166	18291.79244	-21032.59166
65535	#NUM!	0	0	0
0.725772486	0.520472968	-14979.65941	23830.50853	-14979.65941
0.900391602	0.434272586	-54864.09178	98157.67929	-54864.09178
-1.428874757	0.248367609	-89688.60108	34106.36062	-89688.60108

PROBABILITY OUTPUT

Standard Residuals
0.204519704
-0.983675772
-0.323757174
0.261556061
0.464131133
-1.731134325
0.22276937
1.885591003

Percentile	*Loan Loss Provision*
6.25	0
18.75	0
31.25	0
43.75	0
56.25	0
68.75	0
81.25	0
93.75	763.3



Upper 95.0%
20303.69056
18291.79244
0
23830.50853
98157.67929
34106.36062

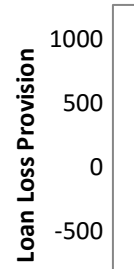
(RETN)

ng Loan to TA

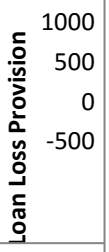
ge-Off to TA (NCO) Line

tal Loan to TA (LOAN) Line Fit

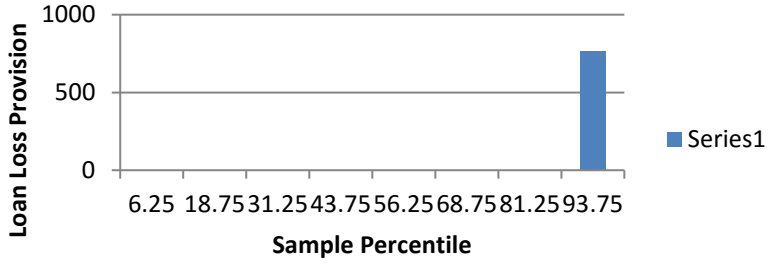
TE to TA (ER) Line Fit Plot



EBIT and LLPro. to TA (RETN)



Normal Probability Plot



Banglades

BANGLADESH KRISH

Figures in Millio

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	27,440.00	0	-1,487.70
2006	27,620.40	0	-1,772.70
2005	24,788.90	0	-1,844.00
2004	24,377.70	0	-1,407.60
2003	25,838.80	0	-1,332.80
2002	27,021.90	0	-1,920.70
2001	23,753.60	0	29.1
2000	22,165.40	0	-2,640.60

Ratios	Non-Performing Loan to TA (NPL)	Net Charge-Off to TA (NCO)	Total Loan to TA (LOAN)
2007	0.2587	0.0000	0.7397
2006	0.2697	0.0000	0.7310
2005	0.2602	0.0000	0.6893
2004	0.2789	0.0000	0.6840
2003	0.3144	0.0000	0.6911
2002	0.3407	0.0000	0.6940
2001	0.3099	0.0000	0.7027
2000	0.3175	0.0000	0.7086

l BANK Ltd.
n BDR

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
78,443.80	-18,116.10	106,051.00	0
74,850.10	-16,659.00	102,396.00	0
65,674.80	-15,519.00	95,284.00	0
59,792.70	-14,100.60	87,416.50	0
56,787.00	-13,339.20	82,173.20	0
55,035.40	-12,156.30	79,302.60	0
53,867.10	-10,860.90	76,653.30	0
49,474.40	-10,890.00	69,820.30	763.3

TE to TA (ER)	EBIT and LLPro. to TA (RETN)
-0.1708	-0.0140
-0.1627	-0.0173
-0.1629	-0.0194
-0.1613	-0.0161
-0.1623	-0.0162
-0.1533	-0.0242
-0.1417	0.0004
-0.1560	-0.0269

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.970681316
R Square	0.942222218
Adjusted R Square	0.797777764
Standard Error	417.5942756
Observations	8

ANOVA

	df	*SS*
Regression	5	5687632.737
Residual	2	348769.958
Total	7	6036402.695

	Coefficients	*Standard Error*
Intercept	20501.73443	9367.60806
Non-Performing Loan to TA (NPL)	617.1511809	2164.570405
Net Charge-Off to TA (NCO)	-7475.884401	5061.47877
Total Loan to TA (LOAN)	-22876.03547	11796.56929
TE to TA (ER)	-17072.49232	4122.952428
EBIT and LLPro. to TA (RETN)	-70220.67174	20854.19061

RESIDUAL OUTPUT

Observation	*Predicted Loan Loss Provision*	*Residuals*
1	338.2221017	-74.92210167
2	-165.2384439	217.9384439
3	-159.8338105	159.8338105
4	488.0292939	-488.0292939
5	-99.28931645	101.2893165
6	2525.23101	134.1689903
7	59.89006394	-59.89006394
8	-9.610898342	9.610898342

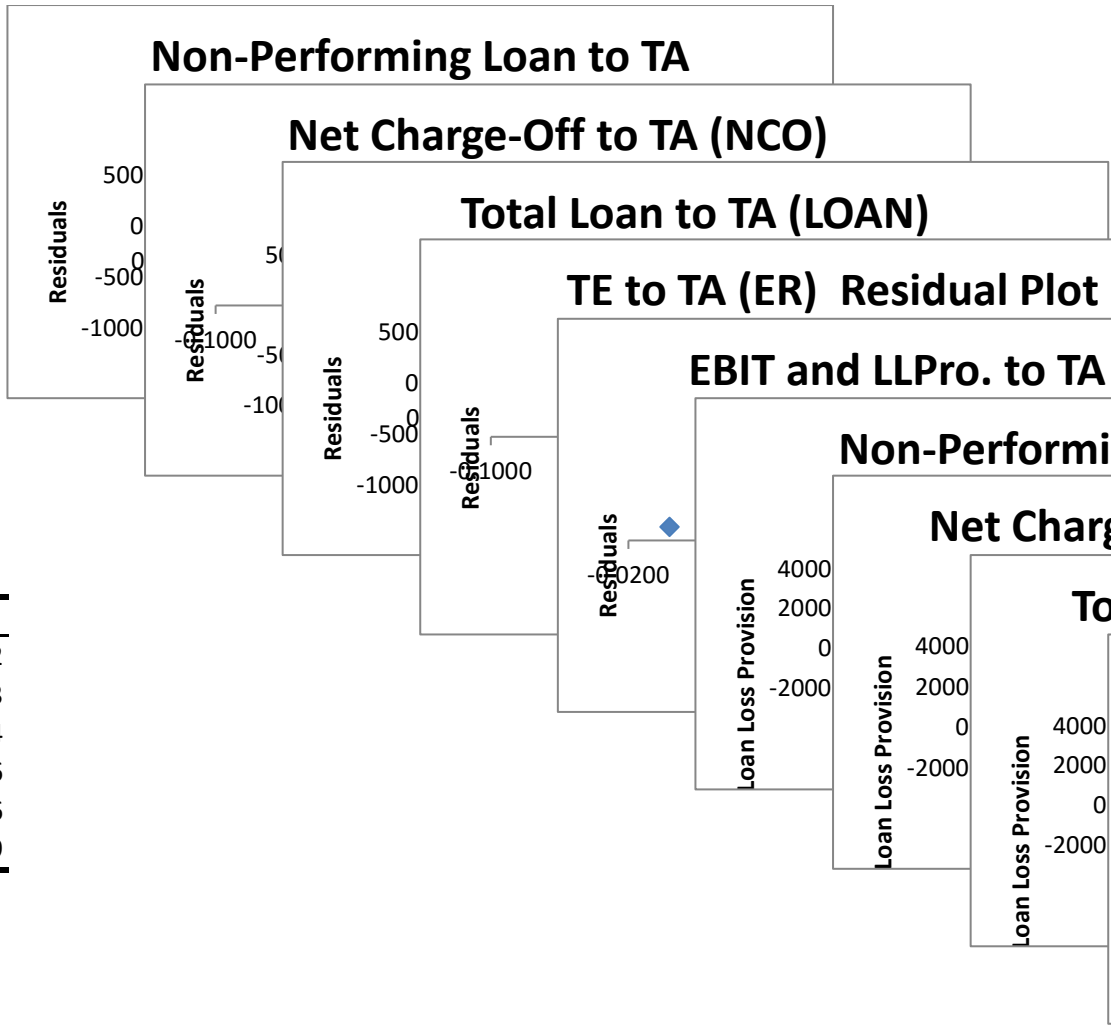
MS	*F*	*Significance F*
1137526.547	6.523076436	0.138245912
174384.979		

t Stat	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*
2.188577308	0.160093114	-19803.82996	60807.29882	-19803.82996
0.285114857	0.802369714	-8696.243581	9930.545943	-8696.243581
-1.477015857	0.277704068	-29253.66985	14301.90104	-29253.66985
-1.939210876	0.192033258	-73632.57655	27880.5056	-73632.57655
-4.140841452	0.053668855	-34812.12483	667.1402016	-34812.12483
-3.367221153	0.078016006	-159949.0119	19507.66839	-159949.0119

PROBABILITY OUTPUT

Standard Residuals
-0.335652153
0.976367537
0.716057897
-2.186378644
0.453777675
0.601079113
-0.268308396
0.04305697

Percentile	*Loan Loss Provision*
6.25	0
18.75	0
31.25	0
43.75	0
56.25	2
68.75	52.7
81.25	263.3
93.75	2659.4



Upper 95.0%
60807.29882
9930.545943
14301.90104
27880.5056
667.1402016
19507.66839

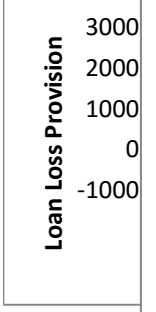
(RETN)

ng Loan to TA

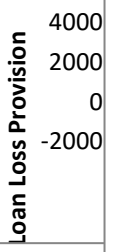
ge-Off to TA (NCO) Line

tal Loan to TA (LOAN) Line Fit

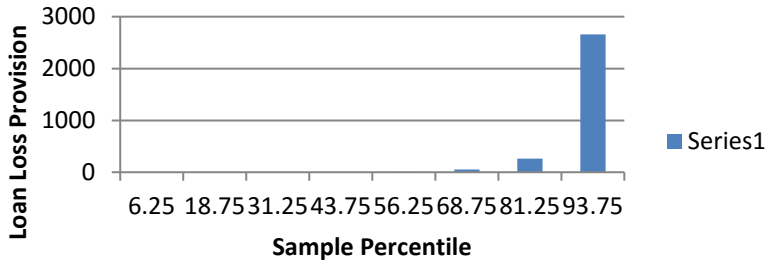
TE to TA (ER) Line Fit Plot



EBIT and LLPro. to TA (RETN)



Normal Probability Plot



Banglades

BANGLADESH SHILPA

Figures in Millio

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	3,664.70	5,337.00	-226.4
2006	10,024.40	1,381.00	394.2
2005	9,676.20	2,524.00	693
2004	12,700.80	150	528.2
2003	13,959.80	-194.3	676
2002	14,185.30	57	-3,053.40
2001	15,686.30	0	-232.2
2000	2,504.80	0	0

Ratios	Non-Performing Loan to TA (NPL)	Net Charge-Off to TA (NCO)	Total Loan to TA (LOAN)
2007	0.2615	0.3809	0.6359
2006	0.4628	0.0638	0.7465
2005	0.4338	0.1131	0.7367
2004	0.5139	0.0061	0.8036
2003	0.5686	-0.0079	0.8438
2002	0.5910	0.0024	0.8883
2001	0.6430	0.0000	0.8831
2000	0.1888	0.0000	0.7913

A BANK Ltd.
on BDR

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
8,910.70	2,253.30	14,012.40	263.3
16,168.70	2,472.90	21,658.40	52.7
16,432.90	1,371.90	22,307.20	0
19,859.90	582.3	24,714.60	0
20,715.40	-332.4	24,549.90	2
21,321.60	-1,187.30	24,002.90	2,659.40
21,541.20	1,866.10	24,393.60	0
10,496.20	1,963.60	13,265.30	0

TE to TA (ER)	EBIT and LLPro. to TA (RETN)
0.1608	0.0026
0.1142	0.0206
0.0615	0.0311
0.0236	0.0214
-0.0135	0.0276
-0.0495	-0.0164
0.0765	-0.0095
0.1480	0.0000

BANGLADESH

AGRANI, Al Arafah and Shilpa Bank

F

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset
2007	36,308.00	5,354.60	3,398.40	150,311.00	7,633.50	230,475.10
2006	38,410.50	4,423.60	4,540.10	139,461.20	-11,161.40	197,107.00
2005	38,492.00	6,058.00	-424.40	127,311.60	-14,672.40	193,172.00
2004	40,558.40	156.20	-20,881.10	123,930.90	-17,359.20	188,965.90
2003	13,959.80	6,101.10	909.60	117,599.60	3,759.00	176,872.40
2002	14,185.30	952.70	-2,884.00	110,750.20	2,576.40	177,211.90
2001	15,686.30	266.80	-188.70	101,997.70	5,513.00	164,714.90
2000	2,504.80	0.00	114.40	88,144.60	5,518.40	143,801.40

Ratios	NPL	NCO	LOAN	DER	DRETN	ER
2007	0.1575	0.0232	0.6522	0.0436	0.0211	0.0331
2006	0.1949	0.0224	0.7075	-0.0462	0.0234	-0.0566
2005	0.1993	0.0314	0.6591	-0.0655	0.0102	-0.0760
2004	0.2146	0.0008	0.6558	-0.0814	-0.0484	-0.0919
2003	0.0789	0.0345	0.6649	0.0317	0.0017	0.0213
2002	0.0800	0.0054	0.6250	0.0250	-0.0036	0.0145
2001	0.0952	0.0016	0.6192	0.0439	-0.0037	0.0335
2000	0.0174	0.0000	0.6130	0.0488	-0.0007	0.0384
					Average over the yeas =	**-0.010461056 E(ER)**

Figures in Million BDR

Loan Loss Provision
2,289.50
770.10
3,073.30
12,404.60
19.00
2,867.10
162.60
298.00

RETN
0.0247
0.0269
0.0137
-0.0449
0.0053
-0.0001
-0.0002
0.0029
0.003542401
E(RETN)

SUMMARY OUTPUT - *Bangladesh Banks*

Regression Statistics	
Multiple R	0.957285233
R Square	0.916395018
Adjusted R Square	0.707382563
Standard Error	2217.437159
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	107791173.2	21558234.63	4.38440387	0.196091171
Residual	2	9834055.107	4917027.553		
Total	7	117625228.3			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	5840.572405	32658.99981	0.178835005	0.874543662
NPL	35783.20474	24588.04917	1.455308817	0.28284008
NCO	-8692.09317	89964.62263	-0.096616791	0.93184049
LOAN	-11727.41017	52095.51671	-0.225113617	0.842799752
DER	3190.39992	35259.55501	0.090483272	0.936149221
DRETN	-132241.163	59506.97501	-2.222280044	0.156344591

INDIA

Andhra Bank

Figures in Million INR

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	Loan Loss Provision
2008	0	0	9,253.40	342,383.80	31,214.30	564,903.30	0.00
2007	0	0	7,856.70	278,890.70	31,503.20	475,687.70	0
2006	0	0	5,685.00	221,004.30	28,781.30	406,869.40	0.00
2005	0	1,167.00	5,212.30	175,168.40	18,178.20	327,430.60	124
2004	0	1,383.20	4,591.10	128,854.60	14,320.50	270,208.10	2,425.30
2003	0	955.1	3,827.00	115,129.80	11,079.90	247,363.20	1,865.00
2002	0	651.2	2,082.50	99,780.60	9,126.70	213,039.50	1,125.40

Ratios	NPL	NCO	LOAN	ER	RETN
2008	0.0000	0.0000	0.6061	0.0553	0.0164
2007	0.0000	0.0000	0.5863	0.0662	0.0165
2006	0.0000	0.0000	0.5432	0.0707	0.0140
2005	0.0000	0.0036	0.5350	0.0555	0.0163
2004	0.0000	0.0051	0.4769	0.0530	0.0260
2003	0.0000	0.0039	0.4654	0.0448	0.0230
2002	0.0000	0.0031	0.4684	0.0428	0.0151

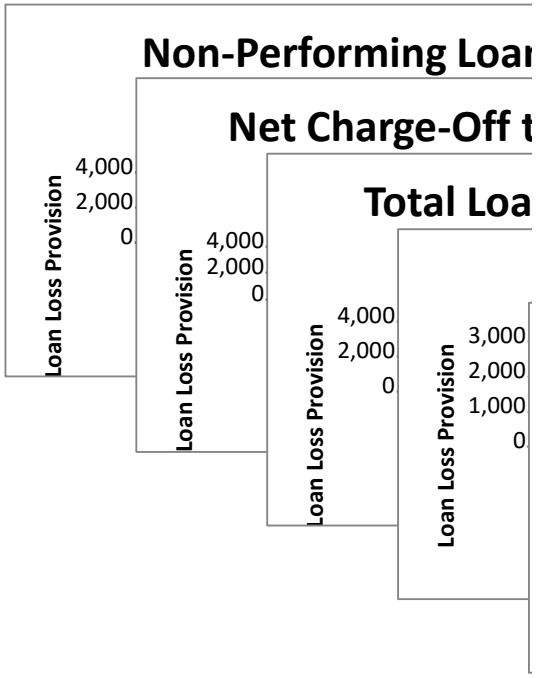
SUMMARY OUTPUT - *Andhra Bank*

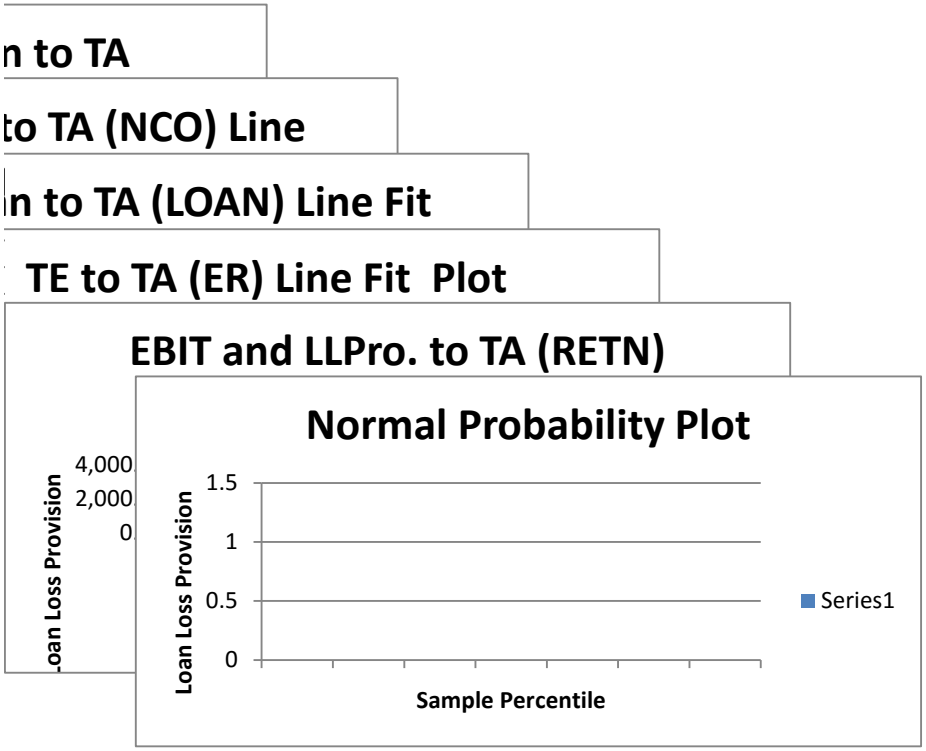
Regression Statistics	
Multiple R	0.987523955
R Square	0.975203561
Adjusted R Square	0.425610683
Standard Error	278.550042
Observations	7

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	6102986.557	1220597.311	19.66418564	0.169488389
Residual	2	155180.2518	77590.1259		
Total	7	6258166.809			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	4317.16944	2137.290148	2.019926702	0.180818548
Non-Performing Loan to TA (NPL)	0	0	65535	#NUM!
Net Charge-Off to TA (NCO)	-108281.6101	126001.3791	-0.859368452	0.480695707
Total Loan to TA (LOAN)	-10276.99828	3768.813121	-2.726852711	0.112284043
TE to TA (ER)	-12747.51537	16056.48459	-0.793916956	0.510478136
EBIT and LLPro. to TA (RETN)	155589.6567	37705.36508	4.126459362	0.054013796


Non-Performing Loa
Net Charge-Off t
Total Loa
Loan Loss Provision
4,000
2,000
0
Loan Loss Provision
4,000
2,000
0
Loan Loss Provision
4,000
2,000
0
Loan Loss Provision
3,000
2,000
1,000
0


n to TA
to TA (NCO) Line
n to TA (LOAN) Line Fit
TE to TA (ER) Line Fit Plot
EBIT and LLPro. to TA (RETN)
Loan Loss Provision
4,000
2,000
0
Normal Probability Plot
Loan Loss Provision
1.5
1
0.5
0
Sample Percentile
Series1

INDIA

Bombay Mercentile

Figures in Million INR

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	Loan Loss Provision
2005	3,844.10	0	23.3	9,482.20	1,968.60	29,457.30	-155.8
2004	4,134.20	0	400.5	10,355.50	1,987.30	29,197.80	-79.3
2003	4,527.30	0	370.9	6,323.50	-1,259.00	21,784.80	-104.3
2002	5,065.50	0	-1,027.00	7,156.90	-1,599.20	24,397.20	999.7
2001	5,075.60	0	-1,187.40	10,385.60	-536.8	28,951.90	1,015.20
2000	2,325.30	0	33.6	12,916.20	704.2	31,356.70	153.8
1999	2,037.90	0	-277.8	12,444.30	675.9	27,050.10	330
1998	1,767.30	0	30.3	12,244.10	1,057.70	22,716.50	115.5

Ratios	NPL	NCO	LOAN	ER	RETN
2005	0.1305	0.0000	0.3219	0.0668	-0.0045
2004	0.1416	0.0000	0.3547	0.0681	0.0110
2003	0.2078	0.0000	0.2903	-0.0578	0.0122
2002	0.2076	0.0000	0.2933	-0.0655	-0.0011
2001	0.1753	0.0000	0.3587	-0.0185	-0.0059
2000	0.0742	0.0000	0.4119	0.0225	0.0060
1999	0.0753	0.0000	0.4600	0.0250	0.0019
1998	0.0778	0.0000	0.5390	0.0466	0.0064

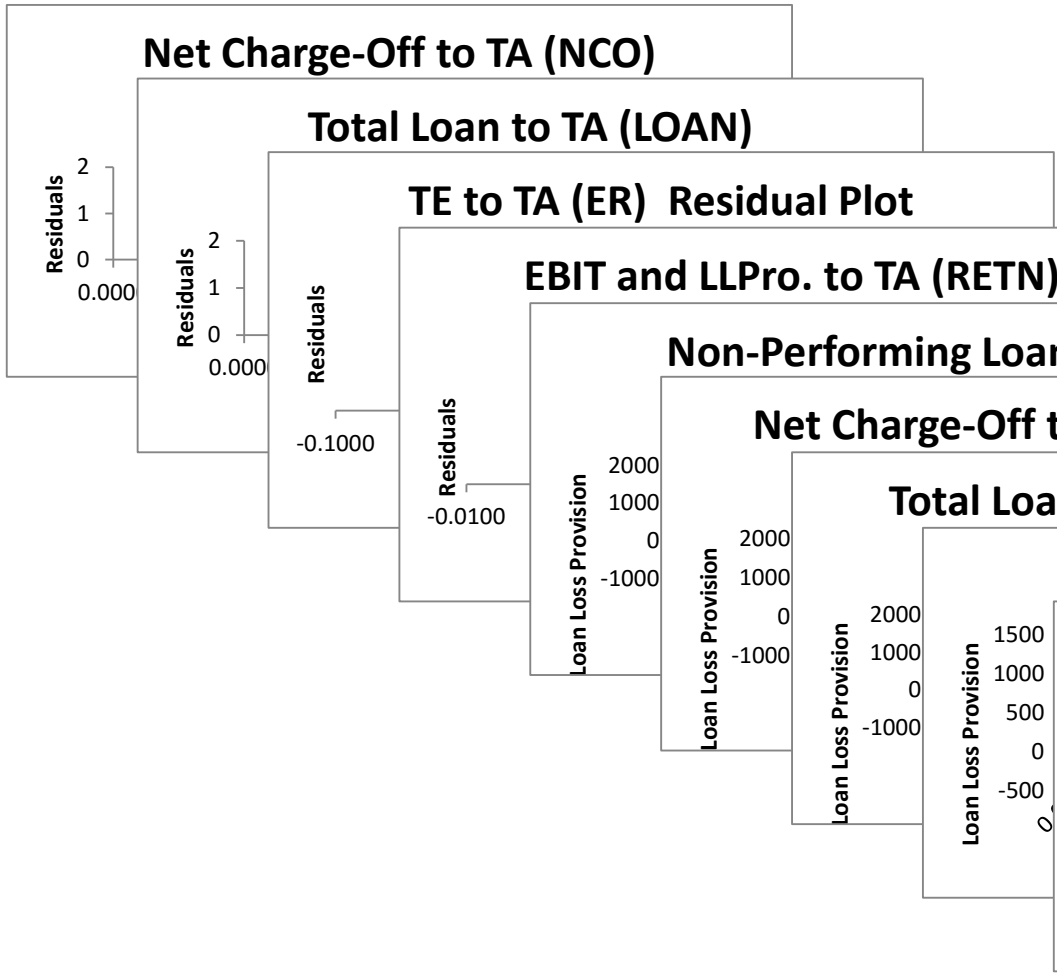
SUMMARY OUTPUT - *Bombay Mercentile*

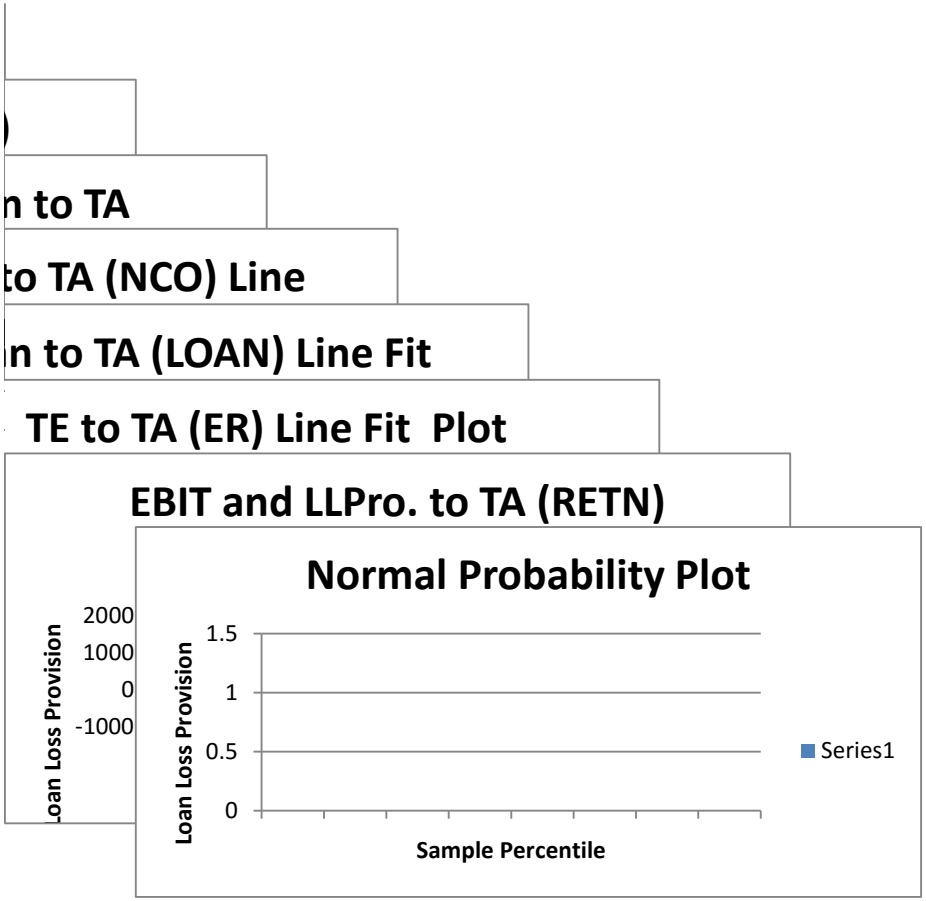
Regression Statistics	
Multiple R	0.873458571
R Square	0.762929875
Adjusted R Square	0.113503043
Standard Error	352.2901483
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	1198202.014	239640.4028	2.413620896	0.318432786
Residual	3	372325.0458	124108.3486		
Total	8	1570527.06			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-1019.676887	1888.035511	-0.540072939	0.626661564
Non-Performing Loan to TA (NPL)	2936.348533	5835.131327	0.503218928	0.64943375
Net Charge-Off to TA (NCO)	0	0	65535	#NUM!
Total Loan to TA (LOAN)	2900.192677	3069.051548	0.944980113	0.414384117
TE to TA (ER)	-5041.108394	3854.780106	-1.307755113	0.282144945
EBIT and LLPro. to TA (RETN)	-42977.03307	19753.21717	-2.175697898	0.117823781


Net Charge-Off to TA (NCO)
Residuals
2
1
0
0.000
Total Loan to TA (LOAN)
Residuals
2
1
0
0.000
TE to TA (ER) Residual Plot
Residuals
-0.1000
EBIT and LLPro. to TA (RETN)
Residuals
-0.0100
Non-Performing Loa
Loan Loss Provision
2000
1000
0
-1000
Net Charge-Off t
Loan Loss Provision
2000
1000
0
-1000
Total Loa
Loan Loss Provision
2000
1000
0
-1000
Loan Loss Provision
1500
1000
500
0
-500


n to TA
to TA (NCO) Line
n to TA (LOAN) Line Fit
TE to TA (ER) Line Fit Plot
EBIT and LLPro. to TA (RETN)
Loan Loss Provision
2000
1000
0
-1000
Normal Probability Plot
Loan Loss Provision
1.5
1
0.5
0
Sample Percentile
Series1

INDIA

Bank of Tokoyo

Figures in Million INR

	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	**Loan Loss Provision**
2008	0	0	1,472.40	23,070.70	11,341.70	34,941.10	-4.8
2007	0.1	0	767.7	15,885.70	6,144.00	23,764.00	-2.2
2006	0	1.4	333.9	10,335.10	5,503.10	18,599.90	-7
2005	1.4	13	661.7	5,588.60	2,943.10	10,609.20	-9.3
2004	14.6	0.2	990.2	4,275.10	2,823.10	10,618.20	-33.2

Ratios	NPL	NCO	LOAN	ER	RETN
2008	0.0000	0.0000	0.6603	0.3246	0.0420
2007	0.0000	0.0000	0.6685	0.2585	0.0322
2006	0.0000	0.0001	0.5557	0.2959	0.0176
2005	0.0001	0.0012	0.5268	0.2774	0.0615
2004	0.0014	0.0000	0.4026	0.2659	0.0901

INDIA

Bank of India

Figures in Million INR

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loan	Total Equity	Total Asset	**Loan Loss Provision**
2008	19,359.50	0	26,459.00	1,137,646.90	106,416.50	1,792,884.80	6,972.50
2007	21,004.90	0	15,401.20	849,358.90	59,867.30	1,417,279.80	5,568.90
2006	24,791.80	0	9,273.30	651,737.50	51,089.60	1,123,967.60	5,356.10
2005	31,559.10	0	4,396.40	555,288.90	45,905.30	951,021.40	3,512.30
2004	0.00	0	14,501.80	458,559.00	41,611.30	850,121.10	6,336.80
2003	0.00	0	12,058.40	426,331.90	36,496.80	764,016.10	6,820.30

Ratios	NPL	NCO	LOAN	ER	RETN
2008	0.0108	0.0000	0.6345	0.0594	0.0186
2007	0.0148	0.0000	0.5993	0.0422	0.0148
2006	0.0221	0.0000	0.5799	0.0455	0.0130
2005	0.0332	0.0000	0.5839	0.0483	0.0083
2004	0.0000	0.0000	0.5394	0.0489	0.0245
2003	0.0000	0.0000	0.5580	0.0478	0.0247

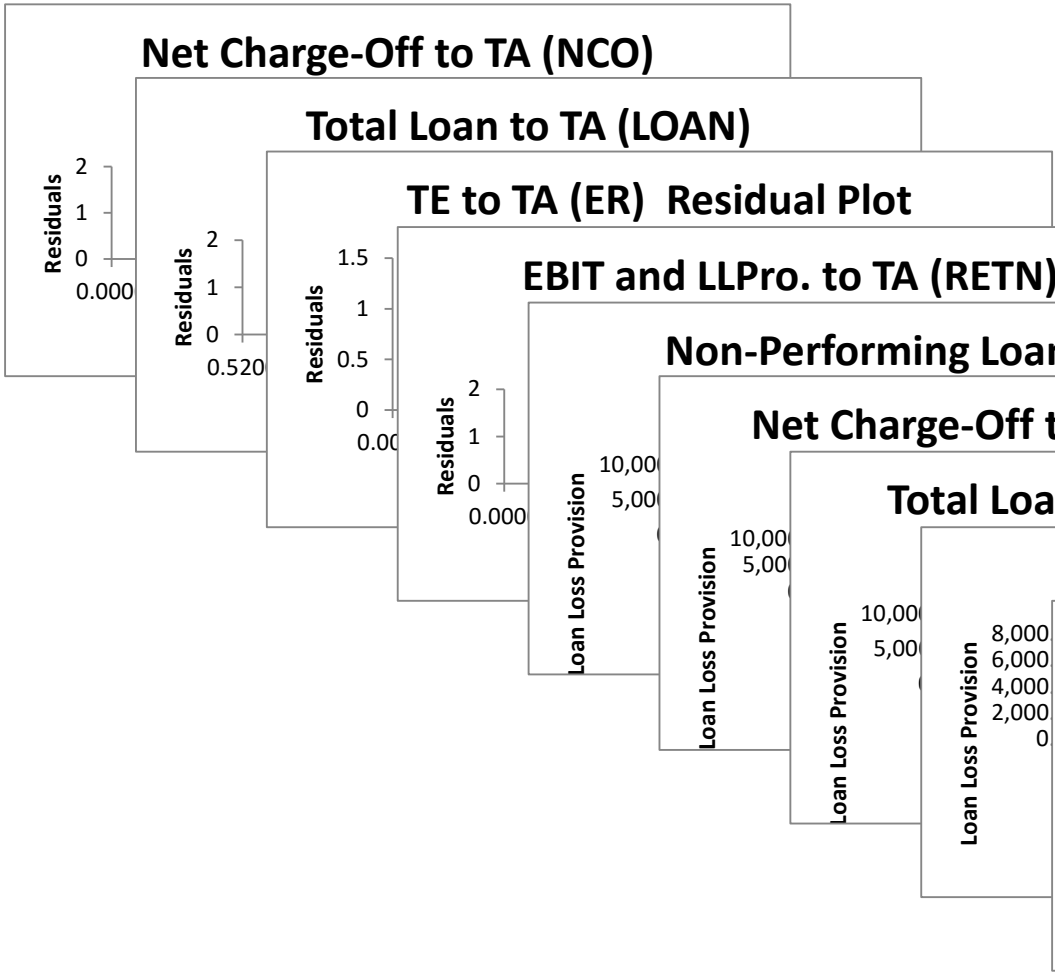
SUMMARY OUTPUT - *Bank of India*

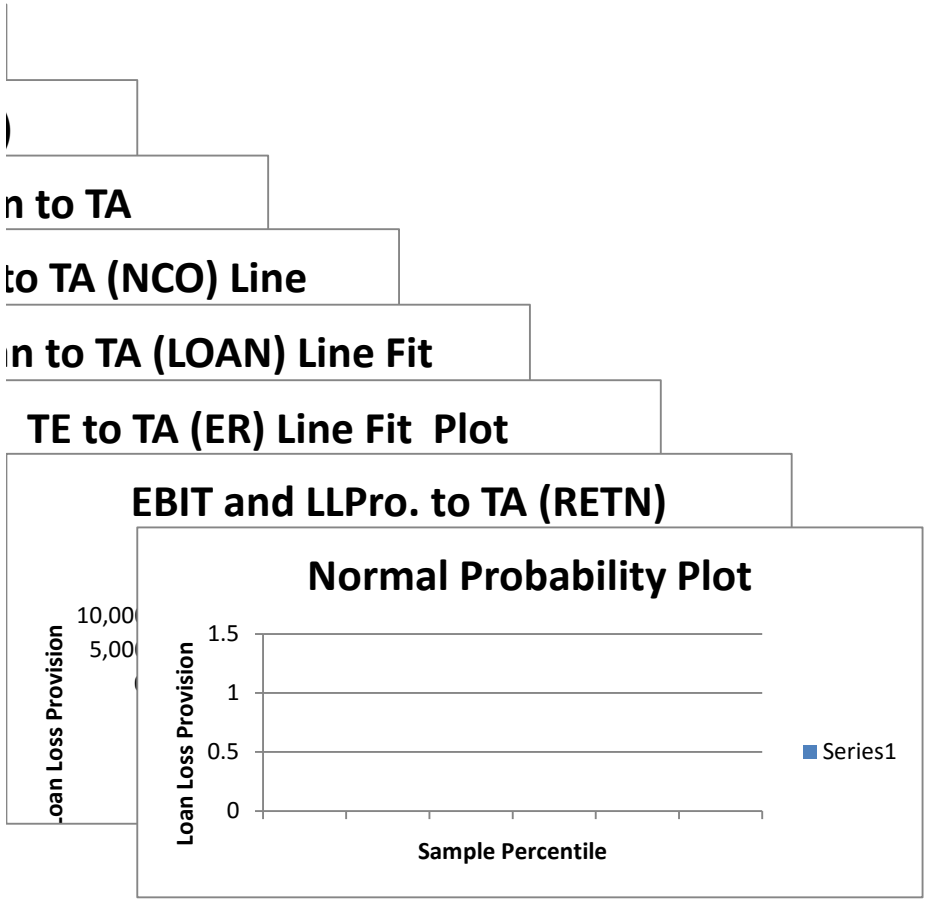
Regression Statistics	
Multiple R	0.975527124
R Square	0.95165317
Adjusted R Square	-0.24173415
Standard Error	628.8270979
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	7783468.836	1556693.767	4.920969835	#NUM!
Residual	1	395423.519	395423.519		
Total	6	8178892.355			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-12398.80086	28551.34281	-0.434263318	0.739182911
Non-Performing Loan to TA (NPL)	31896.19343	369585.3472	0.086302646	0.945193828
Net Charge-Off to TA (NCO)	0	0	65535	#NUM!
Total Loan to TA (LOAN)	25071.70414	29909.12202	0.838262792	0.555868315
TE to TA (ER)	-40219.37307	157575.3053	-0.255239062	0.840906533
EBIT and LLPro. to TA (RETN)	293287.0124	811083.6172	0.361598985	0.779111789


Net Charge-Off to TA (NCO)
Residuals
2
1
0
0.000
Total Loan to TA (LOAN)
Residuals
2
1
0
0.520
TE to TA (ER) Residual Plot
Residuals
1.5
1
0.5
0
0.00
EBIT and LLPro. to TA (RETN)
Residuals
2
1
0
0.000
Non-Performing Loa
Loan Loss Provision
10,00
5,00
Net Charge-Off t
Loan Loss Provision
10,00
5,00
Total Loa
Loan Loss Provision
10,00
5,00
Loan Loss Provision
8,000
6,000
4,000
2,000
0


n to TA
to TA (NCO) Line
n to TA (LOAN) Line Fit
TE to TA (ER) Line Fit Plot
EBIT and LLPro. to TA (RETN)
Normal Probability Plot
Loan Loss Provision
1.5
1
0.5
0
Series1
Sample Percentile

India

Bank of Rajastan

Figures in Million INR

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	Loan Loss Provision
2008	1,261.90	17.6	1,697.80	74,338.80	9,017.80	157,653.10	36.4
2007	1,210.40	27.10	1,587.80	57,040.10	4,230.30	120,722.20	302
2006	1,355.10	0	219.6	40,649.70	3,626.50	98,536.40	189.4
2005	1,591.80	0	516	28,961.70	3,507.30	91,546.90	-615.7
2004	2,373.20	0	965.9	23,325.80	3,294.80	84,540.00	767.3
2003	2,660.80	0	1,108.60	22,212.40	2,852.10	61,295.20	306
2002	3,328.40	0	538.3	19,559.60	2,337.00	48,068.90	249.8
2001	3,566.30	0	334.2	18,591.70	1,784.70	43,362.80	256.6

Ratios	NPL	NCO	LOAN	ER	RETN
2008	0.0080	0.0020	0.4715	0.0572	0.0110
2007	0.0100	0.0064	0.4725	0.0350	0.0157
2006	0.0138	0.0000	0.4125	0.0368	0.0042
2005	0.0174	0.0000	0.3164	0.0383	-0.0011
2004	0.0281	0.0000	0.2759	0.0390	0.0205
2003	0.0434	0.0000	0.3624	0.0465	0.0231
2002	0.0692	0.0000	0.4069	0.0486	0.0164
2001	0.0822	0.0000	0.4287	0.0412	0.0136

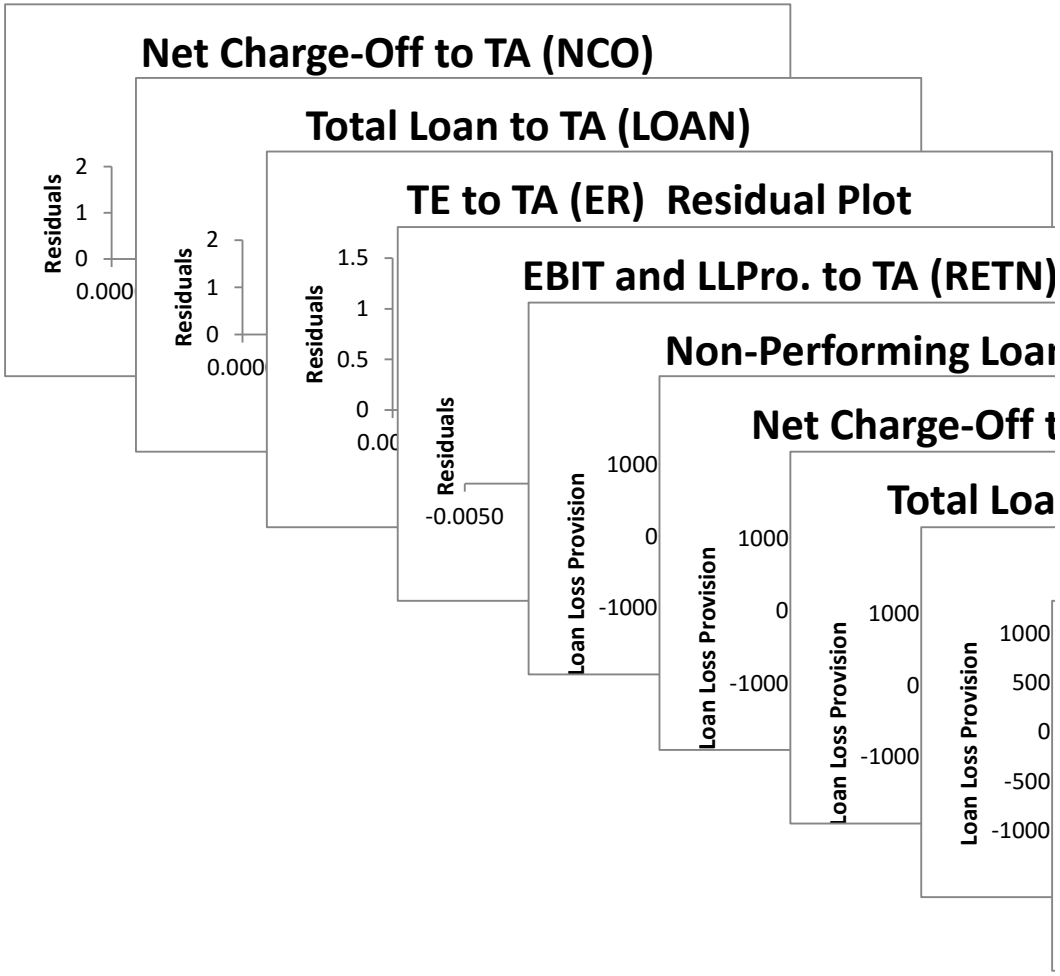
SUMMARY OUTPUT - *Bank of Rajastan*

Regression Statistics	
Multiple R	0.902639041
R Square	**0.814757238**
Adjusted R Square	**0.351650334**
Standard Error	310.354729
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	847293.1794	169458.6359	1.759328635	0.400801706
Residual	2	192640.1156	96320.05782		
Total	7	1039933.295			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	**-175.2038819**	886.6605836	***-0.197599719***	0.861620152
Non-Performing Loan to TA (NPL)	**-5762.487118**	6583.199047	***-0.875332354***	0.473703279
Net Charge-Off to TA (NCO)	**-111690.8685**	112201.5949	***-0.995448136***	0.424405736
Total Loan to TA (LOAN)	**2902.134473**	3118.47198	***0.93062708***	0.450291396
TE to TA (ER)	**-27914.58232**	22390.95919	***-1.246689884***	0.338720093
EBIT and LLPro. to TA (RETN)	**56400.05103**	21025.36068	***2.682477219***	0.115405933


Net Charge-Off to TA (NCO)
Residuals
2
1
0
0.000
Total Loan to TA (LOAN)
Residuals
2
1
0
0.000
TE to TA (ER) Residual Plot
Residuals
1.5
1
0.5
0
0.00
EBIT and LLPro. to TA (RETN)
Residuals
-0.0050
Non-Performing Loa
Loan Loss Provision
1000
0
-1000
Net Charge-Off t
Loan Loss Provision
1000
0
-1000
Total Loa
Loan Loss Provision
1000
0
-1000
Loan Loss Provision
1000
500
0
-500
-1000

)

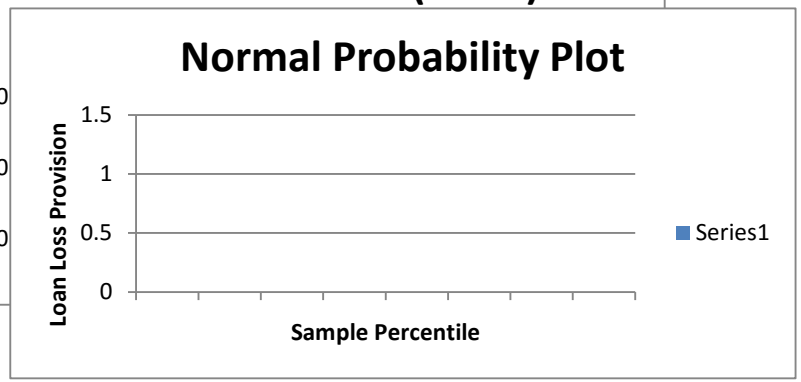
n to TA

to TA (NCO) Line

n to TA (LOAN) Line Fit

TE to TA (ER) Line Fit Plot

EBIT and LLPro. to TA (RETN)



INDIA

Andhra Bank, Bank of Tokoyo, Bank of India, Rajastan Bank

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset
2008	20,621.40	17.60	38,882.60	1,577,440.20	157,990.30	2,550,382.30
2007	22,215.40	27.10	25,613.40	1,201,175.40	101,744.80	2,037,453.70
2006	26,146.90	1.40	15,511.80	923,726.60	89,000.50	1,647,973.30
2005	33,152.30	1,180.00	10,786.40	765,007.60	70,533.90	1,380,608.10
2004	2,387.80	1,383.40	21,049.00	615,014.50	62,049.70	1,215,487.40
2003	2,660.80	955.10	16,994.00	563,674.10	50,428.80	1,072,674.50

Ratios	NPL	LOAN	DER	DRETN	ER	RETN
2008	0.0081	0.6185	0.0094	0.0004	0.0619	0.0180
2007	0.0109	0.5895	(0.0026)	(0.0021)	0.0499	0.0155
2006	0.0159	0.5605	0.0015	(0.0048)	0.0540	0.0128
2005	0.0240	0.5541	(0.0014)	(0.0076)	0.0511	0.0100
2004	0.0020	0.5060	(0.0015)	0.0075	0.0510	0.0251
2003	0.0025	0.5255	(0.0055)	0.0066	0.0470	0.0242
					Average over the years =	**0.0525 E(ER)**

Figures in Million INR

Loan Loss Provision
7,004.10
5,868.70
5,538.50
3,011.30
9,496.20
8,991.30

0.0176
E(RETN)

SUMMARY OUTPUT - *India*

Regression Statistics	
Multiple R	1
R Square	1
Adjusted R Square	65535
Standard Error	0
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	28793909.57	5758781.914	#NUM!	#NUM!
Residual	0	0	65535		
Total	5	28793909.57			

	Coefficients	*Standard Error*	*t Stat*	*Lower 95%*	*Upper 95%*
Intercept	17155.7354	0	65535	17155.7354	17155.7354
NPL	16566.24272	0	65535	16566.24272	16566.24272
NCO	-1687338.299	0	65535	-1687338.299	-1687338.299
LOAN	-17641.58985	0	65535	-17641.58985	-17641.58985
DER	49493.44925	0	65535	49493.44925	49493.44925
DRETN	428206.0135	0	65535	428206.0135	428206.0135

Lower 95.0%	*Upper 95.0%*
17155.7354	17155.7354
16566.24272	16566.24272
-1687338.299	-1687338.299
-17641.58985	-17641.58985
49493.44925	49493.44925
428206.0135	428206.0135

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.973910274
R Square	0.948501222
Adjusted R Square	0.742506108
Standard Error	892691.3391
Observations	6

ANOVA

	df	*SS*	*MS*	*F*
Regression	4	1.46772E+13	3.6693E+12	4.604484091
Residual	1	7.96898E+11	7.96898E+11	
Total	5	1.54741E+13		

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-8642133.992	20194558.83	-0.427943688	0.74257558
Non-Performing Loan to TA (NPL)	275049600.8	382796959.9	0.718526085	0.603352987
Total Loan to TA (LOAN)	2532716.264	8522034.467	0.297196201	0.816091676
TE to TA (ER)	60030931.08	32454701.06	1.849683686	0.315523533
EBIT and LLPro. to TA (RETN)	30297314.14	94768039.01	0.319699705	0.803010413

Significance F
0.334556737

Lower 95%	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
-265238333.1	247954065.1	-265238333.1	247954065.1
-4588846943	5138946144	-4588846943	5138946144
-105749998.4	110815431	-105749998.4	110815431
-352345145.2	472407007.4	-352345145.2	472407007.4
-1173844792	1234439420	-1173844792	1234439420

PAKISTAN

MCB Bank

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	10,725,308	777,920	21,308,035
2006	8,570,813	240,277	18,500,670
2005	8,395,989	121,950	13,018,487
2004	8,837,712	592,437	4,057,716
2003	10,999,507	98,267	3,612,924
2002	9,750,455	64,026	3,168,132

Ratios	Non-Performing Loan to TA (NPL)	Total Loan to TA (LOAN)	TE to TA (ER)
2007	0.0261	0.5334	0.1343
2006	0.0251	0.5795	0.1194
2005	0.0281	0.6035	0.0794
2004	0.0341	0.5298	0.0562
2003	0.0404	0.3569	0.0408
2002	0.0390	0.2999	0.0306

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
218,960,598	55,119,675	410,485,517	**10,772,274**
198,239,155	40,844,314	342,108,243	**8,608,344**
180,322,753	23,734,296	298,780,780	**7,816,924**
137,317,773	14,552,884	259,173,808	**6,692,398**
97,200,179	11,108,693	272,323,619	**6,810,917**
75,075,426	7,664,502	250,302,241	**5,852,944**

EBIT and LLPro. to TA (RETN)
0.0782
0.0792
0.0697
0.0415
0.0383
0.0360

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.841496465
R Square	0.708116301
Adjusted R Square	-0.459418493
Standard Error	1208782.161
Observations	6

ANOVA

	df	*SS*	*MS*	*F*
Regression	4	3.54479E+12	8.86198E+11	0.606505523
Residual	1	1.46115E+12	1.46115E+12	
Total	5	5.00595E+12		

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	21860463.29	13275213.97	1.646712688	0.347434156
Non-Performing Loan to TA (NPL)	-156006285	219052720.4	-0.71218602	0.60602291
Total Loan to TA (LOAN)	-38094796.68	40031532.86	-0.951619735	0.515778446
TE to TA (ER)	-8700795.324	39043812.71	-0.222846969	0.860412066
EBIT and LLPro. to Total Assets (RETN)	274662095	372418010.2	0.737510237	0.595453839

Significance F
0.731547004

Lower 95%	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
-146817123.3	190538049.9	-146817123.3	190538049.9
-2939334998	2627322428	-2939334998	2627322428
-546743649	470554055.6	-546743649	470554055.6
-504799473.2	487397882.5	-504799473.2	487397882.5
-4457357389	5006681579	-4457357389	5006681579

PAKISTAN

ALLIED Bank

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	11,354,923	267,643	5,953,076
2006	10,478,589	1,570,418	6,661,094
2005	12,699,000	2,318,338	4,834,195
2004	15,382,541	411,579	481,702
2003	17,833,014	3,625	954,059
2002	18,907,654	408,258	1,426,416

Ratios	Non-Performing Loan to TA (NPL)	Total Loan to TA (LOAN)	TE to TA (ER)
2007	0.0355	0.5261	0.0621
2006	0.0416	0.5715	0.0702
2005	0.0659	0.5775	0.0756
2004	0.0993	0.3840	0.0662
2003	0.1517	0.3460	-0.0338
2002	0.3332	0.3848	-0.0857

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
168,407,280	19,878,242	320,109,723	9,971,804
144,033,634	17,687,753	252,026,776	7,671,784
111,206,774	14,549,647	192,574,268	8,658,897
59,484,812	10,255,844	154,926,483	10,464,024
40,659,158	(3,974,476)	117,515,948	9,327,822
21,833,504	(4,861,802)	56,744,287	9,670,149

EBIT and LLPro. to Total Assets (RETN)	EBT/TA	NPL/EBT
0.0497	0.01860	1.90740434
0.0569	0.02643	1.573103307
0.0701	0.02510	2.626910996
0.0707	0.00311	31.93372874
0.0875	0.00812	18.6917308
0.1956	0.02514	13.2553572

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.988526625
R Square	0.977184889
Adjusted R Square	0.885924444
Standard Error	487475.2509
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	1.01779E+13	2.54448E+12	10.7076499	0.224847004
Residual	1	2.37632E+11	2.37632E+11		
Total	5	1.04156E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	-7764892.159	2388202.23	-3.251354538	0.189955771	-38109878.64
NPL	102526986	68050200.84	1.506637522	0.373037878	-762132798.1
LOAN	2888439.618	7245961.164	0.398627532	0.758515697	-89180226.42
ER	36384483.03	67572225.04	0.538453233	0.685551257	-822202042.7
RETN	106095346.8	117864433.5	0.900147259	0.533423626	-1391514277

Upper 95%	*Lower 95.0%*	*Upper 95.0%*
22580094.32	-38109878.64	22580094.32
967186770.1	-762132798.1	967186770.1
94957105.66	-89180226.42	94957105.66
894971008.8	-822202042.7	894971008.8
1603704970	-1391514277	1603704970

PAKISTAN

Askari Bank Ltd

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loan (Advances)
2007	6,910,000.00	34,325.00	2,299,785.00	100,780,162.00
2006	3,660,000.00	1,597.00	3,346,855.00	99,179,372.00
2005	2,373,000.00	31.00	2,859,081.00	85,976,895.00
2004	1,101,000.00	60,488.00	2,842,740.00	69,938,041.00
2003	1,278,000.00	51,360.00	1,901,800.00	44,777,538.00
2002	1,455,000.00	42,232.00	1,577,259.33	25,698,134.33

Ratios	NPL	LOAN	ER	RETN
2007	0.0379	0.5532	0.0673	0.0342
2006	0.0220	0.5973	0.0666	0.0270
2005	0.0164	0.5925	0.0607	0.0239
2004	0.0103	0.6526	0.0561	0.0295
2003	0.0150	0.5244	0.0591	0.0259
2002	0.0229	0.4040	0.0449	0.0266

Million PKR

Total Equity	Total Asset	Loan Loss Provision
12,265,987.00	182,171,885.00	3921741
11,053,230.00	166,033,588.00	1128513
8,813,483.00	145,099,907.00	601992
6,016,093.00	107,167,541.00	315464
5,046,842.00	85,386,902.00	308528
2,858,831.67	63,606,263.00	115,197

EBT/TA
0.0126
0.0202
0.0197
0.0265
0.0223
0.0248

PAKISTAN

Alfalah Bank Limited

	Non-Performing Loans	Net Charge-Off	Net Income before Tax
2007	4,753,415	17,466	2,697,827
2006	3,535,193	67	3,870,340
2005	2,488,194	13	3,968,867
2004	2,462,562	127,683	2,207,470
2003	3,212,880	17,814	2,745,272
2002	2,044,339	71,102	2,627,561

Ratios	Loan Loss Provision NPL	LOAN	ER
2007	0.0336	0.6183	0.1144
2006	0.0306	0.6449	0.1195
2005	0.0226	0.5651	0.1293
2004	0.0314	0.6435	0.1301
2003	0.0675	0.6223	0.1676
2002	0.0652	0.6077	0.2073

Total Loan (Advances)	Total Equity	Total Asset	**Loan Loss Provision**
87,346,401	16,156,503	141,277,421	3,669,877
74,468,644	13,796,634	115,470,401	1,815,374
62,323,508	14,260,439	110,281,257	1,193,042
50,542,166	10,214,432	78,538,221	1,183,999
29,626,223	7,978,712	47,606,397	1,525,807
19,051,338	6,500,009	31,352,471	401,765

RETN
0.0451
0.0492
0.0468
0.0432
0.0897
0.0966

SUMMARY OUTPUT - *Alfalah Bank*

Regression Statistics	
Multiple R	0.86336254
R Square	0.745394875
Adjusted R Square	-1.273025624
Standard Error	1246711.991
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	4.55042E+12	9.10084E+11	0.731912678	#NUM!
Residual	1	1.55429E+12	1.55429E+12		
Total	6	6.10471E+12			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	14577561.66	17351467.49	0.840134223	0.555169247
NPL	125595458.5	168349302.1	0.746040862	0.591950637
NCO	0	0	65535	#NUM!
LOAN	-13721488.26	26928994.99	-0.509543273	0.699990992
ER	-39558297.99	52129081.95	-0.758852765	0.58674283
RETN	-64882333.64	173291505.5	-0.374411507	0.771928018

PAKISTAN

Bank of Punjab

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loan (Advances)
2007	3,349.90	-41.9	4,855.60	133,899.10
2006	2,345.80	-106.8	4,770.90	101,324.40
2005	1,359.60	-72.5	3,170.70	63,631.20
2004	1,166.00	-65.5	1,740.90	39,438.90
2003	1,216.60	-33.1	1,003.80	18,344.00
2002	1,337.70	-48	436.2	6,621.00
2001	1,364.80	-46.3	422.6	5,771.50
2000	962.6	-20.8	319.4	6,143.60

Ratios	NPL	NCO	LOAN	ER
2007	0.0143	(0.0002)	0.5698	0.0644
2006	0.0142	(0.0006)	0.6146	0.0647
2005	0.0122	(0.0007)	0.5724	0.0610
2004	0.0176	(0.0010)	0.5947	0.0668
2003	0.0279	(0.0008)	0.4204	0.0701
2002	0.0453	(0.0016)	0.2242	0.0802
2001	0.0551	(0.0019)	0.2329	0.0911
2000	0.0452	(0.0010)	0.2887	0.1025

Million PKR

Total Equity	Total Asset	Loan Loss Provision
15,126.60	234,990.70	1,887.80
10,666.70	164,862.90	340.6
6,785.20	111,157.90	327.4
4,426.60	66,314.50	46.9
3,057.30	43,632.40	7.6
2,367.50	29,529.30	76.1
2,257.20	24,778.60	39.3
2,181.00	21,276.70	143.1

RETN
0.0287
0.0310
0.0315
0.0270
0.0232
0.0173
0.0186
0.0217

SUMMARY OUTPUT - *Bank of Punjab*

Regression Statistics	
Multiple R	0.771795247
R Square	0.595667904
Adjusted R Square	-0.415162337
Standard Error	750.8002391
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	1660904.962	332180.9924	0.589285797	0.726151416
Residual	2	1127401.998	563700.999		
Total	7	2788306.96			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	659.0295492	6160.220354	0.10698149	0.924568185
NPL	116088.8688	161170.2202	0.720287338	0.546154803
NCO	1940272.63	1454964.019	1.333553685	0.313945646
LOAN	3283.635676	9664.959258	0.339746458	0.766409138
ER	-52010.90948	69456.31281	-0.748829118	0.532049891
RETN	26686.85921	200545.1119	0.133071601	0.906317986

PAKISTAN

Bank of Khyber

Year	Non-Performing Loans	Net Charge-Off	EBT	Total Loan (Advances)	Total Equity
2007	2,301.30	655.6	91	10,085.60	5,568.20
2006	3,187.60	349	203.5	9,189.40	2,796.10
2005	2,869.40	232.4	234.7	10,589.70	2,046.60
2004	2,809.00	-28.9	299.1	9,001.40	1,828.00
2003	2,853.20	-19.8	397.1	5,382.30	1,562.70
2002	2,661.90	0	200.5	6,575.40	1,258.00
2001	2,357.50	0	162.7	6,925.70	1,116.60
2000	1,624.20	0	-155.9	5,482.40	635.5

Ratios	NPL	NCO	LOAN	ER	RETN
2007	0.0774	0.0220	0.3391	0.1872	0.0252
2006	0.1173	0.0128	0.3381	0.1029	0.0207
2005	0.1144	0.0093	0.4223	0.0816	0.0186
2004	0.1179	(0.0012)	0.3778	0.0767	0.0229
2003	0.1502	(0.0010)	0.2834	0.0823	0.0328
2002	0.1413	0.0000	0.3490	0.0668	0.0233
2001	0.1368	0.0000	0.4020	0.0648	0.0139
2000	0.1058	0.0000	0.3570	0.0414	0.0101

Million PKR

Total Asset	Loan Loss Provision
29,739.70	659.4
27,183.20	359
25,073.90	232.4
23,824.60	247
18,992.40	225.9
18,842.70	238.1
17,228.80	76.6
15,356.00	310.9

SUMMARY OUTPUT - *Bank of Khyber*

Regression Statistics	
Multiple R	0.987039127
R Square	0.974246237
Adjusted R Square	0.909861831
Standard Error	50.62820681
Observations	8

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	193929.1681	38785.83362	15.13171104	0.063146156
Residual	2	5126.43065	2563.215325		
Total	7	199055.5988			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	1359.818139	325.957226	4.171768658	0.052937896
NPL	-5392.672232	1758.540086	-3.066562017	0.091914154
NCO	3949.781528	6310.161551	0.625939843	0.595265614
LOAN	-1450.815812	602.8603009	-2.406553905	0.137845679
ER	192.0194653	1584.071017	0.121218975	0.91459839
RETN	3073.600377	6179.465117	0.497389389	0.668215041

PAKISTAN

MCB, ABL, BOP, BOK, Askari and Alfalah Bank Ltd

	Non-Performing Loans	Net Charge-Off	EBT	Total Loans	Total Equity	Total Asset	Loan Loss Provision
2007	33,749,297	1,097,968	32,263,670	575,638,426	103,441,102	1,054,309,276	28,338,243
2006	26,250,128	1,812,601	32,383,933	516,031,319	83,395,394	875,831,054	19,224,715
2005	25,960,412	2,440,492	24,684,035	439,904,151	61,366,697	746,872,444	18,271,415
2004	27,787,790	1,192,093	9,591,668	317,331,232	41,045,508	599,896,192	18,656,179
2003	33,327,471	171,013	9,215,456	212,286,824	20,164,391	522,895,491	17,973,308
							14,103,250

Ratios	NPL	NCO	LOAN	DER	DRETN	ER	RETN
2007	0.032010813	0.00104141	0.545986305	0.098112673	0.057480204	0.098112673	0.057480204
2006	0.02997168	0.002069579	0.58919048	0.095218585	0.058925346	0.095218585	0.058925346
2005	0.03475883	0.003267615	0.588995021	0.082164896	0.05751377	0.082164896	0.05751377
2004	0.046320997	0.001987165	0.528976907	0.068421017	0.047087892	0.068421017	0.047087892
2003	0.06373639	0.00032705	0.405983276	0.038562947	0.051996554	0.038562947	0.051996554
2002	0.065299883	0.001285224	0.429760509	0.032726917	0.047759326	0.032726917	0.047759326
						0.069201173	0.053460515
					Average over the yeas =	**E(ER)**	**E(RETN)**

SUMMARY OUTPUT - *Pakistan*

Regression Statistics	
Multiple R	1
R Square	1
Adjusted R Square	0
Standard Error	4.47035E-08
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	1.11836E+14	2.23673E+13	1.39907E+28	#NUM!
Residual	1	1.9984E-15	1.9984E-15		
Total	6	1.11836E+14			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	183514787.2	1.68134E-06	1.09148E+14	5.83264E-15
NPL	0	0	65535	#NUM!
NCO	8734499438	0.000126394	6.91052E+13	9.21232E-15
LOAN	-346944681	3.66669E-06	-9.46206E+13	6.72813E-15
DER	914191297.4	7.77394E-06	1.17597E+14	5.41357E-15
DRETN	#NAME?	6.42599E-06	-4.94119E+13	1.28839E-14