ISSN: 2320-2882

# IJCRT.ORG



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

# PERFORMANCE OF SELECTED PUBLIC AND PRIVATE INDIAN BANKS WITH PRINCIPAL COMPONENT ANALYSIS – A COMPARATIVE STUDY

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#### Abstract:

This study is related to performance of one private sector bank, HDFC and one public sector bank, Bank of India in India. This study has applied principal component analysis to identify the related component based on the performance of these banks. The period of the study taken for the research was between 2014 to 2023. The study used principal component analysis using 13variables to evaluate the components and soundness of the bank. The study reveals that Bank of India and HDFC variables have grouped into three major components (income ratio, profitability ratio and expenses ratio) and each bank variables in these components varies accordingly.

Key Words – Principal Component Analysis (PCA). HDFC Bank, Bank of India. Eigen values, Rotated Components

#### Introduction

India's banking sector, one of the world's largest and most important, is a critical engine for the country's economic success and evolution. Individuals, corporations, and the government all benefit from its critical financial services. The Indian banking system is divided into two types: scheduled banks and non-scheduled banks. Commercial and cooperative banks are subsets of scheduled banks. The largest type of scheduled bank is commercial banks, which account for the vast majority of banking activity in India. Cooperative banks, on the other hand, are smaller and more regionally oriented.

The Indian banking industry has undergone significant reforms in recent years with the goal of increasing competition, increasing efficiency, and reinforcing the financial system. These changes have strengthened the Indian banking industry and enabled it to support the country's economic progress. Public sector banks dominate the Indian banking industry, accounting for more than 60% of total assets. However, the private sector is rapidly expanding and now accounts for more than 30% of total assets. The digital banking is also rapidly expanding. People are increasingly embracing mobile and online banking services to conduct their banking operations. This trend is being pushed by India's increasing use of smartphones and the internet.

## The key trends in Indian banking industry:

- Technology and Growth Banking industry is focusing more on the investments in the recent technologies to gain customer attention and due to introduction of the technology they show more focus to safe guard customers money and identities, from the hackers and other threats. Since the digital era the technology has grown multiple folds.
- Popularity Over Digital Payments Since the government started encouraging zero cash /cashless policy or digital payment system, over a decade the growth and popularity on digital payments has picked up its pace from the high-tech malls to street shops. This is becoming possible to each and every individual's due to the availability of smart phones and cheap internet.
- Growth of NBFCs From the millennium the unpopular categories like non-banking sectors gained its power, they started posting bigger threats to the banking industry via selling similar products as banks with attractive and competitive rates, also they process speed attracts the customer.
- NPAs or Bad Loans Due to the pandemic and economic crisis with global politics the raise of bad loans increasing, in order to safeguard the public money and survive in the competitions banks are facing an uphill task.

## LITERATURE REVIEW

This study compares the financial performance of public and private sector banks, taking into consideration both internal and external factors that influence the banking industry's overall performance. The study's findings could be utilized to reinforce central policies and identify elements that negatively affect performance, allowing banks to better equip themselves to deal with any future financial shocks. Despite cooperating under various government plans, the operational scope and objectives of public and private sector banks differ greatly. While public sector banks prioritize societal welfare, private sector banks seek profit. In this study author examined the financial performance of a few public and private sector banks from 2017 to 2021. The findings concluded that both public and private sector banks need to focus on decreasing their non-performing assets (NPAs) as they significantly dent profitability by affecting revenue. To reinforce their banking performance, banks need to work from the perspective of improving revenue while also cutting expenses. (Tamilarasu S, Srinivasan K, 2022)

This article covers the performance of the banks performance and regulations associated to the growth. Reserve Bank of India and the Ministry of Finance oversee and supervise India's numerous financial institutions, which include both public and private banks. Because competition is strong and clients are more demanding, the efficiency and profitability of the Indian banking sector have taken center stage. The primary emphasis of this study is the financial performance of India's major public sector banks. The financial performance of these banks was assessed from 2015-16 to 2019-20. FRA (Financial Ratio Analysis) is a tool used to assess the financial performance of public sector banks by examining their ratios. The study's findings can assist banks. (R. Shah, & H. A. Hasan, 2022)

This article pronounces the comparative performance during the period of 2005 to 2014, for the 37 major banks by using Principal Component Analysis. The PCA express that India's major bank SBI doesn't have a match from the compared list. When the other banks results show they all relatively comes in similar group but differ from the leader. In the article author elaborated over the banking practices for the better performance for the analysed period. With the support of PCA the authors detailed the outcomes and the performing banks and they have underlined the top results on both the private sector & public sector banks and other underperforming results. (Dr. Subhabaha Pal, Prof. (Dr.) Satyabrata Pal, Dr. Kaushik Bhattacharjee, 2017)

This paper uses data envelopment analysis (DEA) to estimate and compare the business, profit, and Z-score efficiencies of private and public sector banks in India. It finds that public sector banks (PSBs) have higher efficiency scores than private banks. Tobit regression analysis shows that return on assets and capital levels are significantly related to all types of efficiencies for private banks, while the efficiency of PSBs is mainly affected by the level of non-performing assets, market share, size of the bank, return on assets, and capital level. The study also finds that the Prompt Corrective Action (PCA) framework of the Reserve Bank of India (RBI) and the merger and consolidation of PSBs by the government have favorably impacted the efficiencies of PSBs. Additionally, the study identifies the stability risk of Indian banks and suggests that banks should build up adequate capital for stressful situations. (Biswajit Patra, Purna Chandra Padhan & Puja Padhi, 2023)

#### **RESEARCH OBJECTIVES**

**1.** To examine the financial performance of selective private and public sector banks by using the Key Performance Indicators.

**2.** To evaluate the performance according to the parameter under the Principal Component Analysis (PCA) model.

#### **SCOPE OF THE STUDY & LIMITATIONS**

The present study covers only one public sector banks and one private sector banks which has been operated during the period of 2014 to 2023 (ten years). In this article the financial ratios and other parameters were investigated in Banks performance. The findings of this study have important ramifications for shareholders, investors, and managers, to guide them for key financial decisions.

#### **RESEARCH METHODOLOGY**

Sources of Data via various online resources like research papers, corporate articles, financial data websites and share market websites. Also used the excel functions and formulas to work through the PC Analysis. Sample Size & Period of Data Coverage – the period covered for the article and analysis 2014 – 2023 and the data collection was covering private sector bank HDFC Bank Ltd. and public sector banks Bank of India).

#### IV. RESULTS AND DISCUSSION

#### Principal Component Analysis for HDFC Bank

The descriptive statistics of the financial indicators taken for study is displayed in the following Table. It can be observed that the average of ROCE is 3.212, CASA (44.685), etc., with their respective standard deviations.

	Table 1 Descriptive Statis	sti <mark>cs (H</mark> DFC Ba	nk)
Financial	indicators	Mean	Std. Deviation
ROCE_(%	)	3.2120	0.12761
CASA_(%	)	44.6850	2.12747
Net_Profit	_Margin_(%)	23.0980	3.08353
Operating_	_Profit_Margin_(%)	3.7260	1.96222
Return_on	_Assets_(%)	1.7240	0.04695
Return_on	_Equity_/_Networth_(%)	16.1460	1.42538
Net_Intere	est_Margin_(X)	3.7270	0.13768
Cost_to_Ir	ncome_(%)	38.4220	1.54819
Interest_In	come/Total_Assets_(%)	7.5690	0.79275
Non-Intere	est_Income/Total_Assets_(%	(b) 1.4530	0.09286
Operating_	_Profit/Total_Assets_(%)	0.2660	0.11462
Operating_	_Expenses/Total_Assets_(%	) 2.1300	0.22794
Interest_E	xpenses/Total_Assets_(%)	3.8380	0.67014

#### Table 2 Communalities (HDFC Bank)

Financial indicators	Initial	Extraction
ROCE_(%)	1.000	.917
CASA_(%)	1.000	.522
Net_Profit_Margin_ (%)	1.000	.985
Operating_Profit_Margin_ (%)	1.000	.982
Return_on_Assets_ (%)	1.000	.603
Return_on_Equity_/_Networth_ (%)	1.000	.881
Net_Interest_Margin_(X)	1.000	.839
Cost_to_Income_(%)	1.000	.910
Interest_Income/Total_Assets_ (%)	1.000	.975
Non-Interest_Income/Total_Assets_(%)	1.000	.932
Operating_Profit/Total_Assets_(%)	1.000	.963
Operating_Expenses/Total_Assets_ (%)	1.000	.979
Interest_Expenses/Total_Assets_ (%)	1.000	.983
Extraction Method: Principal Component A	Analysis.	

	Table 5 Total Variance Explained (HDFC Bank)												
				Extrac	tion Sums	of Squared	Rotation Sums of Squared						
	Initia	l Eigenvalu	es		Loading	gs							
Com								% of					
pone		% of	Cumul		% of	Cumulativ		Varianc	Cumulati				
nt	Total	Variance	ative %	Total	Variance	e %	Total	e	ve %				
1	8.160	62.766	62.766	8.160	62.766	62.766	4.711	36.241	36.241				
2	1.921	14.774	77.540	1.921	14.774	77.540	4.383	33.712	69.953				
3	1.391	10.704	88.244	1.391	10.704	88.244	2.378	18.292	88.244				
4	.746	5.739	93.983										
5	.580	4.458	98.441										
6	.139	1.073	99.514										
7	.060	.460	99.974										
8	.003	.021	99.995										
9	.001	.005	100.00										
			0										
10	7.692E-16	5.917E-15	100.00										
			0										
11	3.377E-16	2.598E-15	100.00										
			0										
12	6.685E-17	5.142E-16	100.00										
			0										
13	-5.695E-	-4.381E-16	100.00										
	17		0										
Extrac	tion Metho	d: Principal	Compon	ent An	alvsis								

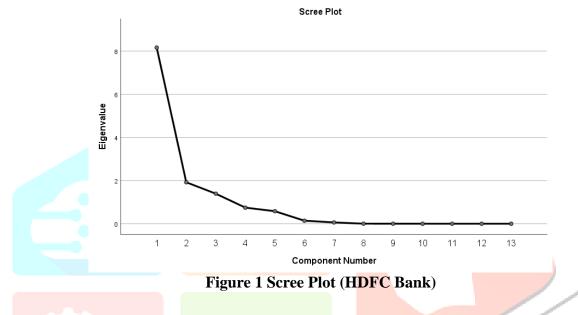
## Table 3 Total Variance Explained (HDFC Bank)

Extraction Method: Principal Component Analysis.

The above table provides a detailed summary of the variance explained by each principal component, both before and after extraction. The cumulative percentages help in understanding how much of the total variance is explained as you consider more components. The extraction method, in this case, is Principal Component Analysis.

The data represents the rotated component matrix using 0.50 as a cut-off point for factor loading for naming the factors. In this way we get nine components, with measurable value and other four does not have significant Eigenvalues. Also, the last column of the Table Total Variance Explained indicates that more then 88 per cent of the total variation in the dataset can be explained by the extracted three components, i.e., the thirteen financial indicators taken for study can be grouped into three main components, and the groups are shown in the Table Rotated Components Matrix, given below.

The table expressed first three components holding significant Eigenvalues compare to the rest of them in it. But, four through nine components carries vary minimal values. This was evident in extraction sums of squared loading and also in the rotation sums of squared loadings.

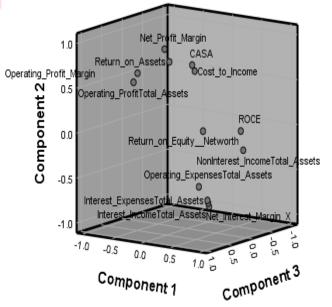


As per the above scree Plot graph the totally 3 factors are considered based on the Eigenvalue. Value of more than 1 Eigenvalue are to be considered for deciding factors. As per the graph there are three plots/pointers with eigenvalues more than 1 (in the elbow shape, are considered as a basis to pick factors).

	Component						
Financial indicators	1	3					
Non-	.955						
Interest_Income/Total_Assets_(%)							
Operating_Profit/Total_Assets_(%)	876						
Operating_Profit_Margin_(%)	832						
Return_on_Equity_/_Networth_(%)	.700						
Operating_Expenses/Total_Assets_ (%)	.616						
Net_Interest_Margin_(X)		821					
Net_Profit_Margin_(%)		.800					
Return_on_Assets_(%)		.732					
Interest_Income/Total_Assets_(%)		720					
CASA_(%)		.717					
Interest_Expenses/Total_Assets_( %)		680					
ROCE_(%)			905				
Cost_to_Income_(%)			721				
Extraction Method: Principal Comp							
Rotation Method: Varimax with Ka		lization.					
a. Rotation converged in 4 iterations	5.	112					

#### Table 4 Rotated Component Matrix<sup>a</sup> (HDFC Bank)

The grouping of variables is presented, Component 1 hold of **Operating Income Ratio**, which hold higher values of both positive and negative which drives decisions in both directions among this Non-Interest\_Income / Total\_Assets & Operating\_Profit / Total\_Assets hold both high positive number and negative numbers. As the same the next component with **Net profit Ratio**, six elements were selected with countable values, among these Net\_Profit\_Margin & Net\_Interest\_Margin are top positive and negative elements and finally last component represents the **Expenses Ratio**, out of the lot this has lesser elements with high in negative values.



#### Figure 2 Component Plot in Rotated Spate (HDFC Bank)

The grouping of variables is presented in the cubic figure. Component Plot in Rotated Space which confirms the components were grouped as per the above rotated components table. It can be observed from the Rotated Component Matrix Table that the financial indicators Non-Interest Income/Total Assets (%), Operating Profit/Total Assets (%), Operating Profit Margin (%), Return on Equity / Networth (%), and Operating Expenses/Total Assets (%) were loaded in the first component. This implies that these indicators perform in the same direction. The financial indicators Net Interest Margin, Net Profit Margin (%), Return on Assets (%), Interest Income/Total Assets (%), CASA (%), and Interest Expenses/Total Assets (%) were loaded in the second component. This implies that these indicators perform in the same direction. The financial indicators ROCE and Cost to Income (%) were loaded in the third component. This implies that these indicators perform in the same direction.

#### Principal component analysis for BANK OF INDIA

The descriptive statistics of the financial indicators taken for study is displayed in the following Table. It can be observed that the average ROCE is 1.426, CASA (32.467), etc. with their respective standard deviations. Also, it can be noticed that the financial indicators Net Profit Margin, Operating Profit Margin, Return on Assets, Return on Equity / Networth, and Operating Profit/Total Assets are in negative values.

Table 1. Descriptive Statistic	s (Bank of	India)
		Std.
	Mean	Deviation
ROCE (%)	1.426	.243
CASA (%)	32.467	6.498
Net Profit Margin (%)	-2.115	10.083
Operating Profit Margin (%)	-16.558	9.509
Return on Assets (%)	157	.631
Return on Equity / Networth (%)	-3.358	11.849
Net Interest Margin (X)	2.008	.240
Cost to Income (%)	42.779	8.388
Interest Income/Total Assets (%)	6.255	.570
Non-Interest Income/Total Assets	.883	.172
(%)		
Operating Profit/Total Assets (%)	-1.038	.628
Operating Expenses/Total Assets (%)	1.501	.175
Interest Expenses/Total Assets (%)	4.241	.654

Indicators	Initial	Extraction
ROCE (%)	1.000	.598
CASA (%)	1.000	.981
Net Profit Margin (%)	1.000	.994
Operating Profit Margin (%)	1.000	.985
Return on Assets (%)	1.000	.998
Return on Equity / Networth (%)	1.000	.995
Net Interest Margin (X)	1.000	.995
Cost to Income (%)	1.000	.997
Interest Income/Total Assets (%)	1.000	.930
Non-Interest Income/Total Assets (%)	1.000	.832
Operating Profit/Total Assets (%)	1.000	.982
Operating Expenses/Total Assets (%)	1.000	.841
Interest Expenses/Total Assets (%)	1.000	.955
Extraction Method: Principal Compone	ent Analysi	s.

#### Table 2 Communalities (Bank of India)

The above table 2 provides a detailed summary of the variance explained by each principal component, both before and after extraction. The cumulative percentages help in understanding how much of the total variance is explained as you consider more components. The extraction method, in this case, is Principal Component Analysis.

The data represents the rotated component matrix using 0.50 as a cut-off point for factor loading for naming the factors. In this way we get nine components, with measurable value and other four does not have significant Eigenvalues. Also, the last column of the Table Total Variance Explained indicates that nearly 93 per cent of the total variation in the dataset can be explained by the extracted three components, i.e., the thirteen financial indicators taken for study can be grouped into three main components, and the groups are shown in the Table Rotated Components Matrix, given below.

The table expressed first three components holding significant Eigenvalues compare to the rest of them in it. But, four through nine components carries vary minimal values. This was evident in extraction sums of squared loading and also in the rotation sums of squared loadings.

	Extraction Sums of Squared Rotation Sums of										
	Init	itial Eigenvalues			Loading	1		Loading			
					% of			% of			
Comp		% of	Cumulativ		Varianc	Cumulativ		Varianc	Cumulativ		
onent	Total	Variance	e %	Total	e	e %	Total	e	e %		
1	6.152	47.323	47.323	6.152	47.323	47.323	6.050	46.539	46.539		
2	4.665	35.883	83.206	4.665	35.883	83.206	3.823	29.406	75.945		
3	1.266	9.737	92.943	1.266	9.737	92.943	2.210	16.998	92.943		
4	.832	6.403	99.346								
5	.071	.546	99.892								
6	.012	.089	99.981								
7	.002	.016	99.997								
8	.000	.003	100.000								
9	2.137E-5	.000	100.000								
10	4.451E-16	3.424E-15	100.000								
11	2.414E-16	1.857E-15	100.000								
12	-1.593E-	-1.225E-16	100.000								
	17										
13	-4.689E-	-3.607E-15	100.000								
	16										
Extract	ion Method:	Principal Co	omponent A	nalysis.							
				Se	cree Plot						
									I.		
		6							-		
			۲								
	value	4	$\mathbf{h}$						_		
	Eigenvalue	,									
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		0					<b>~~~~</b>		_		
		1	2 3 4	56			11 12	2 13			
			т.								
		1		Cor	nponent Numb		11 12	2 13			

### Table 3 Total Variance Explained (Bank of India)

Figure 1 Scree Plot (Bank of India)

As per the above scree Plot graph the totally 3 factors are considered based on the Eigenvalue. Value of more than 1 Eigenvalue are to be considered for deciding factors. As per the graph there are three plots/pointers with eigenvalues more than 1 (in the elbow shape, are considered as a basis to pick factors).

	(		
Financial indicators	1	2	3
Operating Profit/Total Assets (%)	.990		
Operating Profit Margin (%)	.983		
Return on Equity / Networth (%)	.977		
Return on Assets (%)	.972		
Net Profit Margin (%)	.962		
Cost to Income (%)	883		
Interest Income/Total Assets (%)		936	
Non-Interest Income/Total Assets (%)		.912	
CASA (%)		.862	
Interest Expenses/Total Assets (%)		853	
Net Interest Margin (X)			.990
Operating Expenses/Total Assets (%)			.670
ROCE (%)			.513
Extraction Method: Principal Component	nt Analysis.		
Rotation Method: Varimax with Kaiser	Normaliza	tion.	
a. Rotation converged in 4 iterations.			

#### Table 4 Rotated Component Matrix<sup>a</sup> (Bank of India)

The grouping of variables presented for Bank of India, Component 1 represents **Operating Income Ratio**, Operating Profit/Total Assets (0.990), Operating Profit Margin (0.983), Return on Equity / Networth (0.977), Return on Assets (0.970) & Net Profit Margin (0.962) with high positive values. The second component **Net profit Ratio**, covers four elements were, among these equal positive and negative elements and finally **Expenses Ratio component**, with three elements with positive value

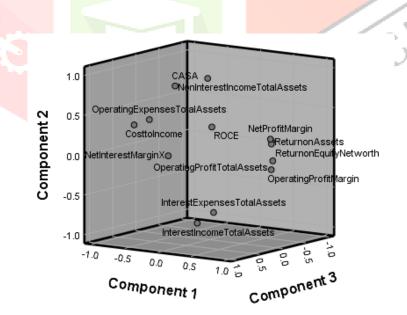


Figure 2 Component Plot in Rotated Spate (Bank of India)

It can be observed from the Rotated Component Matrix Table that the financial indicators Operating Profit/Total Assets (%), Operating Profit Margin (%), Return on Equity / Networth (%), Return on Assets (%), Net Profit Margin (%), and Cost to Income (%) were loaded in the first component. This implies that these indicators perform in the same direction.

The financial indicators Interest Income/Total Assets (%), Non-Interest Income/Total Assets (%), CASA (%), Interest Expenses/Total Assets (%) were loaded in the second component. This implies that these indicators perform in the same direction. The financial indicators Net Interest Margin, Operating Expenses/Total Assets (%) and ROCE (%) were loaded in the third

component. This implies that these

#### CONCLUSION

Although country is in development phase and expecting exponential growth compare to grown economy, banks need to support the events. To be a part of supportive role players, they should be much more conscious in their approach, when handling the performing parameters, like lending loans, investing short- and long-term assets, ROCE and so on. The present study using principal component analysis to evaluate the performance of HDFC bank and bank of India. The study found that financial indicators of HDFC bank and Bank of India has been grouped into three components. In order to maintain the long-term growth, the bank should focus on advanced technology management using AI, customer centricity, regulation recalibration risk management and effective management of work force. Irrespective of bank whether public or private sector banks, all banks need to focus on liquid cash management, long term viability and efficient utilization funds and also need keen focus on return on investments.

#### References

- (1) Aviation Management Courses in India (n.d.); The scope of banking in India; https://www.ilamindia.in/the\_scope\_of\_banking\_in\_india.php#:~:text=The%20worth%20of%20ban king%20industry,industry%20in%20the%20world%20soon
- (2) Banking sector in India. (n.d.). India Brand Equity Foundation. https://www.ibef.org/industry/banking-india
- (3) Biswajit Patra, Purna Chandra Padhan & Puja Padhi (2023) Efficiency of Indian Banks private versus public sector banks: A two-stage analysis, Cogent Economics & Finance, 11:1, DOI: 10.1080/23322039.2022.2163081
- (4) Dr. Pasunuri Amaraveni & Mulukalapally Susruth, February -2019; Performance of Public Sector Banks in India - A Principal Component Analysis; RESEARCH REVIEW International Journal of Multidisciplinary, Volume-04 ISSN: 2455-3085 (Online)Issue-02; https://doi.org/10.5281/zenodo.2576212
- (5) Dr. Subhabaha Pal, Prof. (Dr.) Satyabrata Pal, Dr. Kaushik Bhattacharjee, July September, 2017; A PCA Approach for Comparing Performances of Major Indian Banks during 2004-05 to 2013-14; https://ajmjournal.com/HTMLPaper.aspx?Journal=Asian+Journal+of+Management%3bPID%3d201 7-8-3-13
- (6) https://www.moneycontrol.com/financials/bankofindia/ratiosVI/BOI/2#BOI
- (7) https://www.moneycontrol.com/financials/hdfcbank/ratiosVI/HDF01/1#HDF01
- (8) Ruzuta Shah, Dr. H. A. Hasan, January March 2022; A STUDY OF FINANCIAL PERFORMANCE OF PUBLIC SECTOR BANKS OF INDIA; https://www.gapinterdisciplinarities.org/res/articles/(33-36)ASTUDYOFFINANCIALPERFORMANCEOFPUBLICSECTORBANKSOFINDIA.pdf
- (9) Tamilarasu S, Srinivasan K, April 2022; A STUDY ON FINANCIAL PERFORMANCE ANALYSIS OF SELECTED PUBLIC AND PRIVATE SECTOR BANKS; Volume 10, Issue 4 April 2022 | ISSN: 2320-2882; https://www.ijcrt.org/papers/IJCRT2204543.pdf
- (10) Thanigaivelan, P. & Vidya, M. (2022). A Study on Factors Influencing the Financial Performance Analysis Selected Private Sector Banks in India. [S.l.]: SSRN. https://ssrn.com/abstract=4136629.

Index

HDFC Bank			<u>Dat</u>	<u>a</u>						
HDFC Bank	23-	22-	21-	20-	19-	18-	17-	16-	15-	14-
Key Ratios	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar
ROCE (%)	2.97	3.22	3.42	3.33	3.34	3.20	3.18	3.17	3.11	3.18
CASA (%)	44.38	48.16	46.11	42.23	42.37	43.49	48.03	43.24	44.03	44.81
Net Profit Margin (%)	27.29	28.93	25.74	22.86	21.29	21.79	20.99	20.41	21.07	20.61
Operating Profit Margin (%)	7.97	5.83	4.89	2.60	3.48	2.82	3.25	2.56	2.51	1.35
Return on Assets (%)	1.78	1.78	1.78	1.71	1.69	1.64	1.68	1.73	1.73	1.72
Return on Equity / Net worth (%)	1 <mark>5.74</mark>	15.39	15.27	15.35	14.12	16.45	16.26	16.91	16.47	19.5
Net Interest Margin (X)	3.52	3.48	3.71	3.67	3.87	3.76	3.83	3.89	3.79	3.75
Cost to Income (%)	3 <mark>8.35</mark>	41.05	40.37	38.52	38.41	39.62	37.84	36.69	36.84	36.53
Interest Income/Total Assets (%)	6.55	6.17	6.91	7.50	7.95	7.54	8.02	8.49	8.20	8.36
Non-Interest Income/Total Assets										
(%)	1.26	1.42	1.44	1.51	1.41	1.43	1.42	1.51	1.52	1.61
Operating Profit/Total Assets (%)	0.52	0.36	0.33	0.19	0.27	0.21	0.26	0.21	0.20	0.11
Operating Expenses/Total Assets		l.								
(%)	1.93	1.81	1.87	2.00	2.09	2.13	2.28	2.39	2.36	2.44
Interest Expenses/Total Assets (%)	3.03	2.69	3.2	3.83	4.07	3.77	4.18	4.60	4.41	4.6
Bank Of India			1		/		R			

# Ba<mark>nk Of India</mark>

					100 C	1 1				
	23-	22-	21-	20-	19-	18-	17-	16-	15-	14-
Key Ratios	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar	Mar
ROCE (%)	1.68	1.4	1.53	1.80	1.32	1.18	1.59	1.01	1.24	1.51
CASA (%)	3 <mark>8.41</mark>	40.08	36.68	36.51	35.9	34.1	31.89	25.87	22.29	22.94
Net Profit Margin (%)	8.44	8.94	5.32	-6.98	-13.6	-15.87	-3.96	-14.56	3.93	7.19
Operating Profit Margin (%)	-6.45	-11.75	-13	-22.83	-26.19	-30.93	-21.2	-23.3	-5.81	-4.12
Return on Assets (%)	0.49	0.46	0.29	-0.45	-0.88	-0.99	-0.24	-0.99	0.27	0.47
Return on Equity / Net worth (%)	7.72	7.06	5.47	-7.88	-15.66	-20.15	-5.06	-19.63	5.43	9.12
Net Interest Margin (X)	2.48	1.91	1.96	2.32	2.18	1.72	1.88	1.92	1.83	1.88
Cost to Income (%)	42.65	40.33	40.69	50.8	53.02	50.87	43.75	47.23	29.09	29.36
Interest Income/Total Assets (%)	5.84	5.18	5.59	6.44	6.52	6.24	6.27	6.85	7.01	6.61
Non-Interest Income/Total Assets										
(%)	0.87	1.07	1.02	1.02	0.82	0.94	1.08	0.59	0.68	0.74

Operating Profit/Total Assets (%)	-0.37	-0.6	-0.72	-1.47	-1.70	-1.93	-1.33	-1.59	-0.40	-0.27
Operating Expenses/Total Assets										
(%)	1.71	1.62	1.49	1.59	1.71	1.49	1.41	1.53	1.30	1.16
Interest Expenses/Total Assets (%)	3.35	3.26	3.62	4.12	4.33	4.52	4.38	4.93	5.18	4.72

