THE FINANCIAL CRITIQUE OF BANKING BUSINESS IN INDIA

A Comparative Study of Bank of Baroda and HDFC Bank

Dr. Sandeep Goel

ABSTRACT

Banking sector is the undoubtedly a crucial sector for any economy. Therefore, keeping in view what world economy has been experiencing over the last couple of years, it becomes imperative to look into the financial soundness of banking sector. The present article aims at evaluating the financial strength of the said sector in India on a comparative basis of Bank of Baroda and HDFC Bank. These two units have been deliberately chosen to appreciate better the financial performance in a public sector bank vis-à-vis private sector bank. In addition to the relevant issues of profitability and solvency, banking specific aspects of NPAs and CASA have been specially analyzed to highlight the trade-off that exists between economic efficiency and stability in the banking system. It is observed that a competitive banking system is important to growth of the country, but market strength is necessary for stability in the banking system.

Keywords: *Banking, capital, deposits, loans, interest*

1. INTRODUCTION

The banking and financial sector in India has undergone a significant change post liberalization and specialty during the last 15 years it has evolved at a tremendous pace. Commercial banks have become more financially sound with respect to their capital adequacy, profitability, asset quality and risk management. Deregulation policy has enabled these banks to increase their revenues by diversifying into activities like investment banking, insurance, depository services, securitization, etc.

1.1 Bank of Baroda

Bank of Baroda is the sixth largest bank in India with total assets over Rs. 1,780 bn. Presently, it has as large as 46.19% of public shareholding, which is held by Retail Investors, Employees, Banks and Financial Institutions, Insurance Companies and Others.

1.2 HDFC Bank

The Housing Development Finance Corporation Limited (HDFC) was the first institution to get an approval from the Reserve Bank of India (RBI) to set up a bank in the private sector. The bank was incorporated in August 1994 in the name of 'HDFC Bank Limited', with its registered office in Mumbai.

2. REVIEW OF LITERATURE

The role of banks in an economy has been stressed upon ever since the 18th century (see for example Smith (1776), Bagehot (1873) and Schumpeter (1912, 1934)). More recent works include Rousseau and Wachtel (1998), Beck et.al. (2000) and Levine (2003). Therefore, soundness of the banking sector is undoubtedly one of the most important parameters for the growth and development of any economy. In this context, La Porta et.al. (1998, 2000) examined the legal determinants of financial development namely shareholder and creditor rights indices for 49 countries. They concluded that better protection of creditor rights has a positive and significant effect on the financial development of the banks.

The banking sector globally, particularly the retail sector has to face huge competition from various sources. Customers have become more demanding (Accenture, 2008). Banking services are seen as commodities (Onufrey & Moskowitz, 2008; Genesys, 2008). This is the reason why there is a strong focus on financial efficiency of these banks.

The financial performance of banks and other financial institutions has been measured using financial ratios, performance budgeting or a combination of these methodologies. There have been numerous studies which have analyzed the efficiency of financial institutions. Among these, (Rangan N. and Grabowski, 1988) use data envelopment analysis to analyze technical efficiency in US banking. (Aly H., and Rangan 1990) extend this analysis to contain analysis of allocative efficiency, and (Field, 1990), (Dark, 1992), (Chu-Meiliu, 2001) have also conducted some studies into banking efficiency.

Many researchers have focused too much on asset and liability management in the banking sector, some of these studies are: (Richard, B., and Moloney, J., 2003), (Ruth, F., 2001), and (Ian Canddy, 2000).

Assistant Professor, Finance, MDI, Gurgaon

Based on the above literature, it can be easily inferred that there is a requirement to have an in depth study in Indian banking sector because of its increasing contribution to the Indian economy, and its growing impact on the global economy. The present research paper is an attempt to analyze the financial performance of HDFC Bank and Bank of Baroda on select basis, using the financial performance indicators in the banking industry.

3. OBJECTIVE OF THE STUDY

The present article analyzes the financing performance of two leading banking companies in the sector, viz. HDFC Bank and Bank of Baroda with regard to the impact on shareholders' return.

4. METHODOLGY OF THE STUDY

4.1 Data

The main data used in the study is secondary in nature. It has been gathered from the banks' published financial statements.

4.2 Sample of the Study

- 'Purposive Sampling' has been used to choose HDFC Bank and Bank of Baroda for the present study on comparative basis.
- They come from different sectors- public vs. private which is the ultimate objective of this study, i.e. to analyze the financials on comparative basis for shareholders' return.

4.3 Period of the Study

The time period chosen for the study is 2003-04 to 2007-08; the reason being is that during this period there have been significant changes in the financial performance of the units under study. 2007-08 has been the period of global recession. Therefore, it becomes altogether relevant to reveal the short-term and long-term fluctuations and permit the valid conclusions thereof.

4.4 Tools used

- *'Ratio analysis'* has been used to analyze the financial performance of the banks on the said parameters.
- *'Correlation analysis'* has been applied for finding out the relationship between return generation and market performance of the banks under study.

5. ANALYSIS AND DISCUSSION

1. Income Growth

Following is the Total Income of Bank of Baroda and HDFC Bank, for the last five years.

Table 1

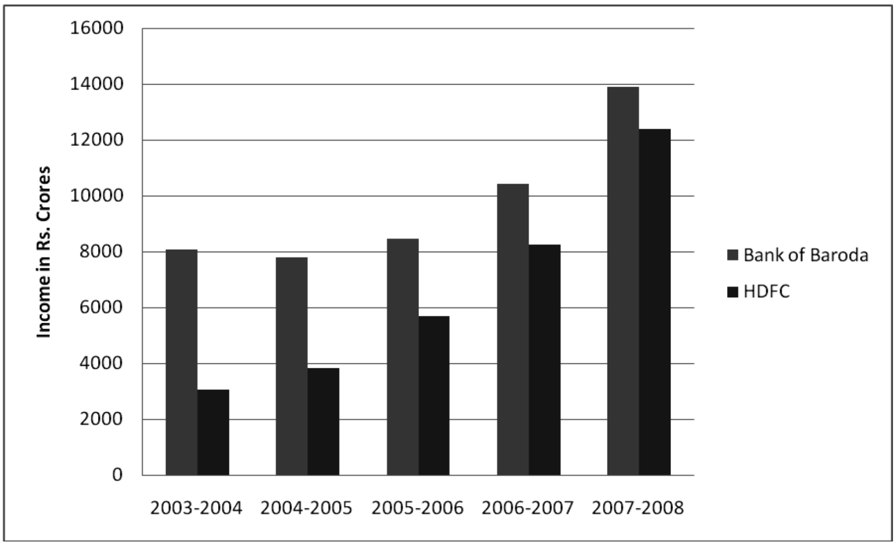
Income Performance (Rs. in cr.)

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Bank of Baroda	8,074.28	7,775.81	8,444	10,438.12	13,892.18
HDFC Bank	3,040.32	3,824.57	5,688.98	8,242.52	12,398.15

Source: **Compiled from Banks' Financial statements**

Figure 1

Income Trend



Both the banks have shown an increasing trend of income over the last few years, except Bank of Baroda which faced a slowdown in 2004-2005 where the total income has declined on account of decrease in other income (mainly in the gain from sale of investments).

2. Expenditure outlay

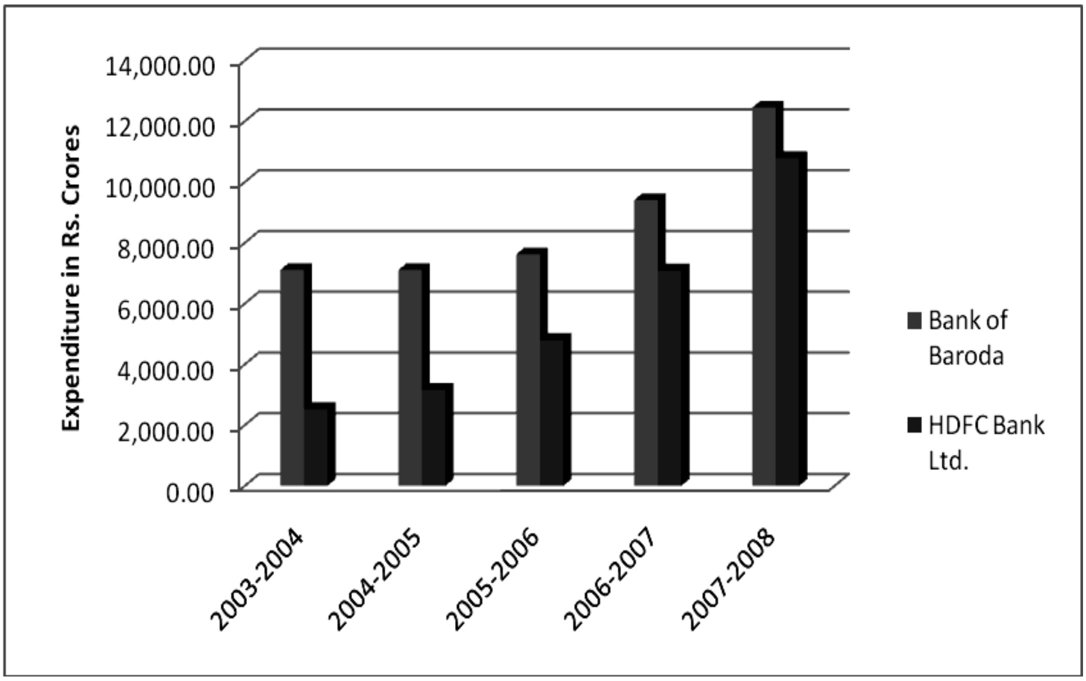
The expenditure of both Bank of Baroda and HDFC Bank has been on a continuous rise increasing during all the five years. The following table shows the expenditures in past 5 years.

Table 2
Expense Outlay (Rs. in cr.)

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Bank of Baroda	7,107.28	7,098.97	7,617.04	9,404.16	12,445.66
HDFC Bank	2,530.82	3,159.01	4,807.20	7,089.07	10,791.19

Source: **Compiled from Banks' Financial statements**

Figure 2
Expense Trend



The major increase in expenses is due to the increase in the interests paid by the bank to the account holders.

3. Profitability analysis

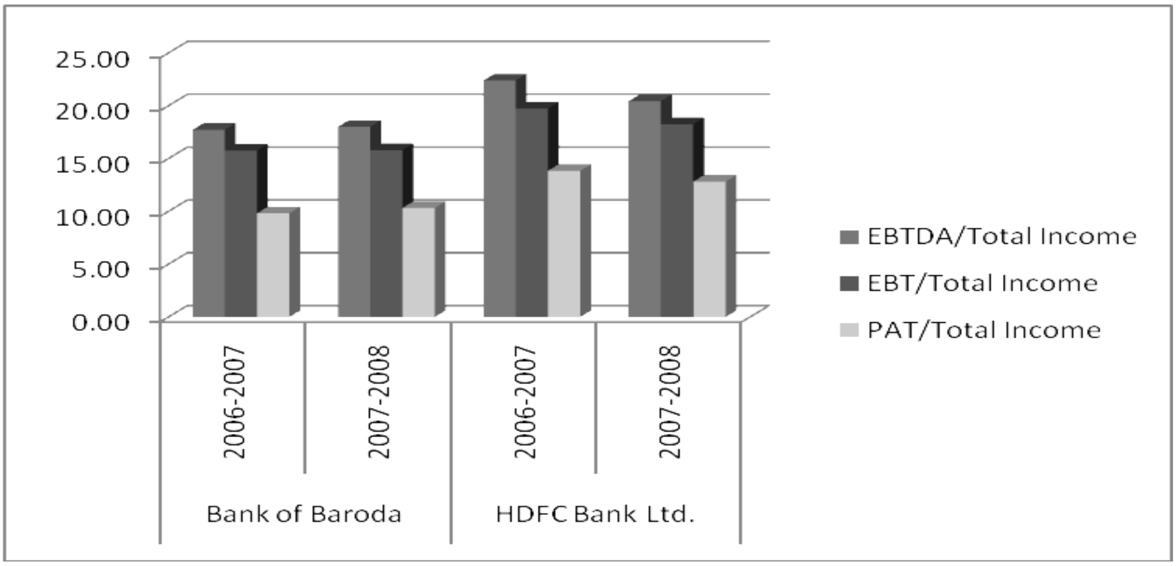
Profitability picture of the banks is analyzed as under:

Table 3
Profitability Growth

	Bank of Baroda		HDFC Bank	
	2006-2007	2007-2008	2006-2007	2007-2008
EBTDA/Total Income	17.74	18.02	22.40	20.45
EBT/Total Income	15.78	15.81	19.74	18.26
PAT/Total Income	9.83	10.33	13.85	12.83

Source: **Compiled and Computed from Banks' Financial statements**

Figure 3
Profit Trend



Though the total income of HDFC Bank has been lower than Bank of Baroda, but it's EBTDA and PAT performance has been slightly higher. The reason is that the interest paid by HDFC Bank has been lower than that of Bank of Baroda. Total deposits in Bank of Baroda are much more than that in HDFC Bank which implies that HDFC Bank manages to give more advances and loans despite lesser Deposits.

4. Return generation

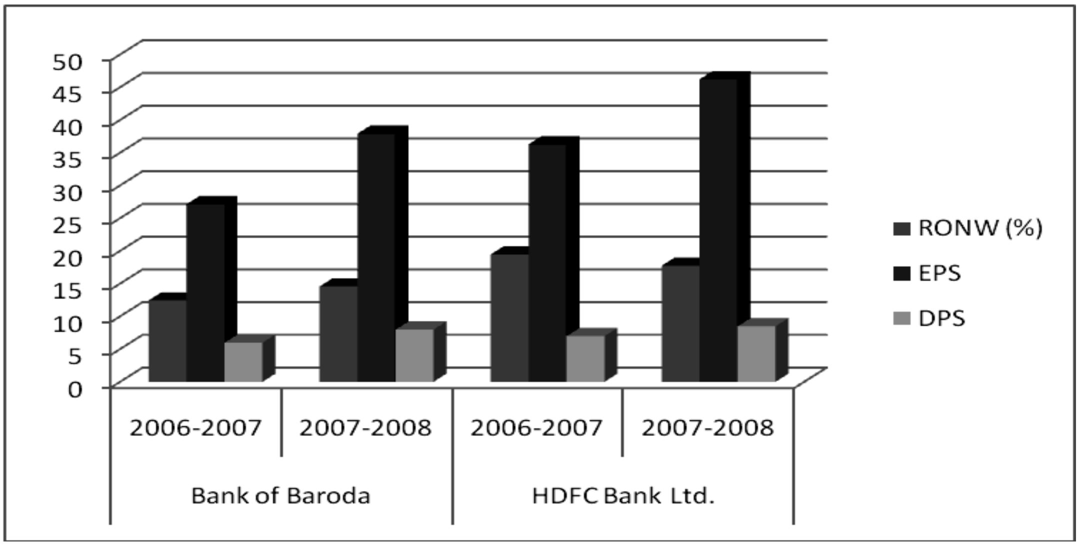
Following is the return generation by the banks under study. Return generation here has been expressed by Return on Net Worth, Earning per Share, and Dividend per Share ratios.

Table 4
Return scenario

	Bank of Baroda		HDFC Bank	
	2006-2007	**2007-2008**	**2006-2007**	**2007-2008**
RONW (%)	12.45	14.58	19.46	17.74
EPS	27.15	37.92	36.29	46.22
DPS	6.00	8.00	7.00	8.50
No. of Equity Shares	364266000	364266400	319389608	354432920

Source: **Compiled and computed from Banks' Financial statements**

Figure 4
Return Generated



Both EPS and DPS have increased for both the banks during the period except RONW which has shown a declining trend in HDFC Bank.

5. Market performance

Market performance of the banks has been analyzed using P/E ratio.

Table 5

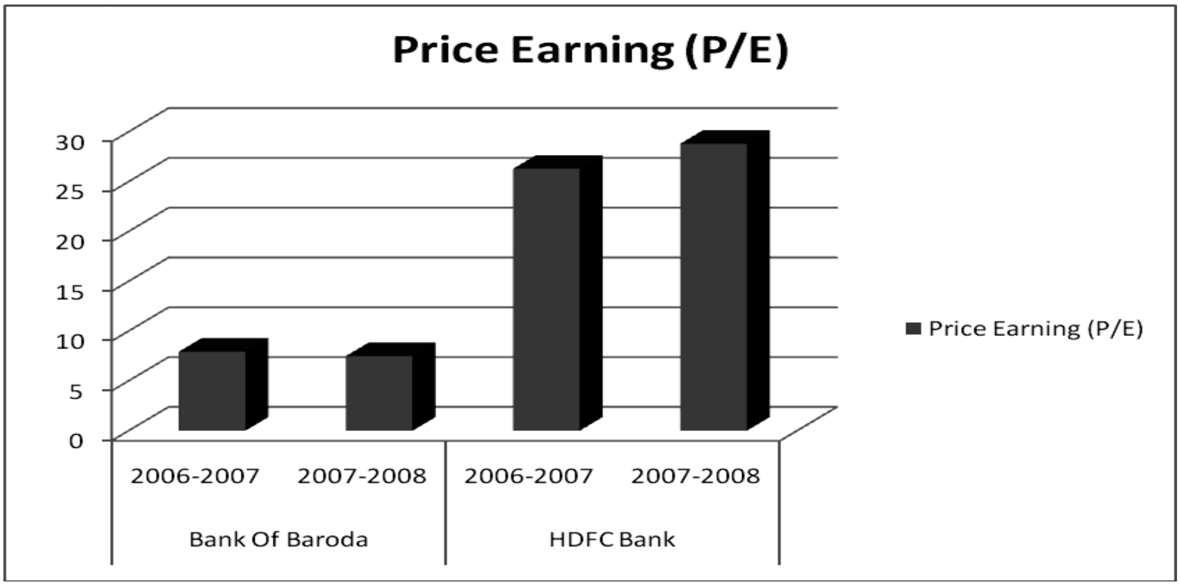
Market Scenario

	Bank of Baroda		HDFC Bank	
	2006-2007	2007-2008	2006-2007	2007-2008
Price Earning (P/E)	7.93	7.49	26.29	28.8

Source: **Compiled and computed from Banks' Financial statements**

Figure 5

Price-Earnings Ratio



The price to earnings ratio has increased for HDFC Bank as their Market price has gone up from Rs. 954.15 in last year to Rs. 1,331.25 in the present year, while the changes in the price of Bank of Baroda equity are marginal.

6. Banking performance

In this section, analysis has been done of the banks with respect to banking parameters. The relevant banking ratios and other parameters for banking sector have been given in the following Table.

Table 6

Banking Financial Highlights

	Bank of Baroda		HDFC Bank	
	2006-2007	**2007-2008**	**2006-2007**	**2007-2008**
Investment / Deposit (%)	32.05	28.46	47.51	47.29
Interest Expended / Interest Earned (%)	60.27	66.89	47.83	48.32
Interest Income / Total Funds (%)	7.02	7.32	8.06	9.01
Interest Expended / Total Funds (%)	4.23	4.9	3.86	4.35
Non Interest Income / Total Funds (%)	1.12	1.29	1.93	2.03
Net Profit / Total funds (%)	0.8	0.89	1.38	1.42

Source: **Compiled and computed from Banks' Financial statements**

The investements to deposits ratio shows how much part of deposits received by a bank is used in investing and earning interest. This ratio is higher for HDFC Bank as they are using almost half of their deposits in investing as compared to Bank of Baroda, which uses most of its deposits in giving advances.

Interest expended by interest earned shows how much interst the bank has to pay on deposits vis-à-vis how much interst bank is earning through advances and investments. This ratio is higher in Bank of baroda as they have high deposits on which they have to pay intersts. The interst income for both the banks is almost similar. The Net Profit/total Funds ratio depicts the net profit as compared to the total funds of the Bank. The ratio is higher for HDFC Bank as their PAT is more as compared to Bank of Baroda and their total funds are less.

Table 7
Deposit Position flow

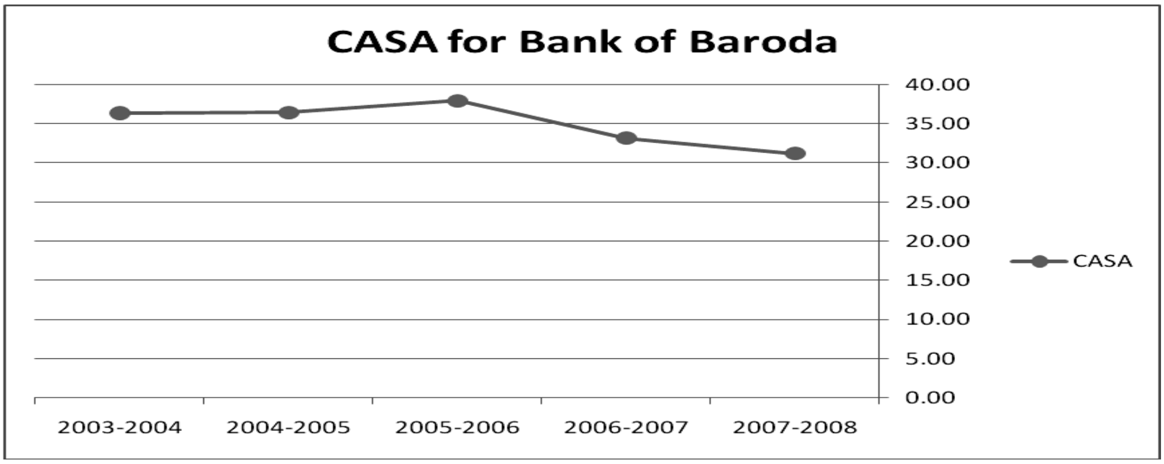
	Bank of Baroda		HDFC Bank	
	2007-2008	**2006-2007**	**2007-2008**	**2006-2007**
Demand Deposits	11,696.01	9,874.80	28,759.70	19,811.84
Savings Deposit	35,776.38	31,577.28	26,153.94	19,584.82
Term Deposits	104,561.74	83,463.90	45,854.96	28,901.28
Total Deposits	152,034.13	124,915.98	100,768.60	68,297.94

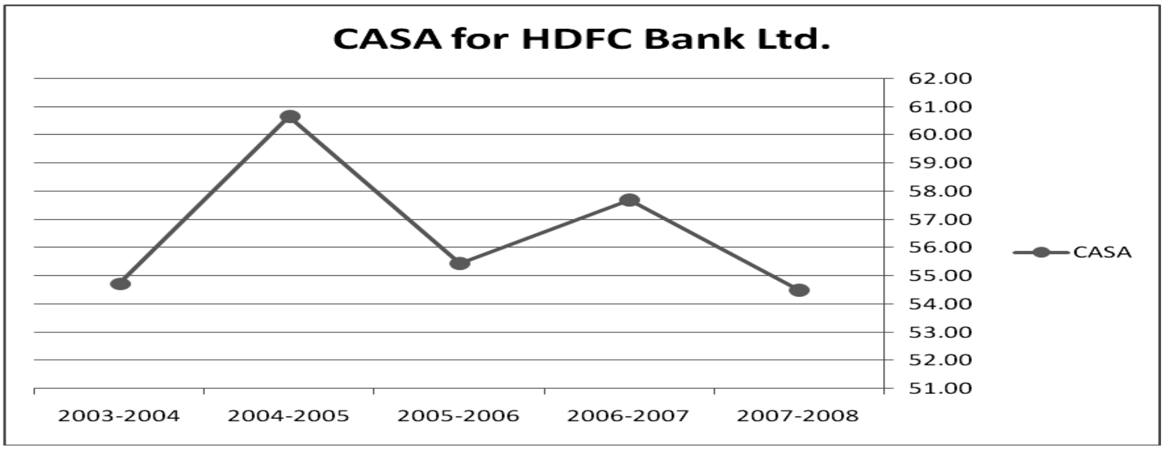
Source: **Compiled from Banks' Financial statements**

CASA

Deposits form a major part of the sources of funds. Here we can see that the deposits have increased for both the banks. But what we can see is that the major portion of the deposits of Bank of Baroda is term deposits, thus lowering the CASA (Current Accounts, Saving Accounts) ratio. Following are the CASA trends s for Bank of Baroda and HDFC Bank.

Figure 6
CASA Trend





As we can see that the CASA ratio for the HDFC Bank is much higher than that of Bank of Baroda as HDFC Bank has higher amount of deposits in savings and demand deposits than in the term deposits.

Capital Adequacy

Here, we have analyzed very relevant ratio for the banking sector, here, i.e. Capital Adequacy Ratio (CAR).

Table 8
Capital Adequacy Ratio

	Bank of Baroda		HDFC Bank	
	2006-2007	**2007-2008**	**2006-2007**	**2007-2008**
Tier 1	8.74%	7.63%	8.57%	10.30%
Tier 2	3.06%	5.28%	4.51%	3.30%
Total	11.80%	12.91%	13.08%	13.60%

Source: **Compiled and computed from Banks' Financial statements**

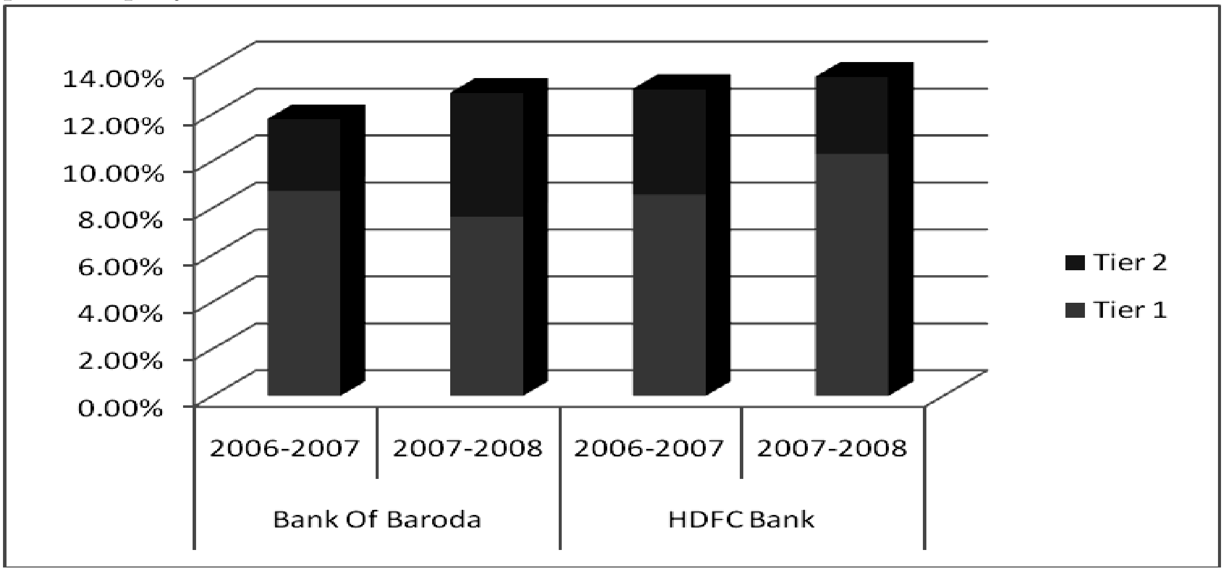
For Bank of Baroda

Capital Adequacy Ratio (CAR) as per Basel I stood at 12.91% & as per Basel II at 12.94%. During the year, the Bank strengthened its capital-base by raising Rs 2,703.62 crore through Tier –II bonds out of which Rs 1,203.62 crore were raised overseas. As per the Basel-II, Capital Adequacy Ratio works out to 12.94%.

For HDFC Bank

Bank's total Capital Adequacy Ratio (CAR) stood at a healthy 13.6%, well above the regulatory minimum of 9.0%. Of this, Tier I CAR was 10.3%.

Figure 7
Capital Adequacy trend



NPA (Non performing assets)

Howsoever, banks are efficient in their business operations, some NPAs are going to arise. A nonperforming asset (NPA) is a loan or an advance where interest and/ or installment of principal remain overdue for a period of more than 90 days in respect of a term loan, The margin of NPAs indicate future growth prospects. In this section, this said issue has been highlighted.

Table 9
NPAs picture (Rs. in cr.)

	Bank Of Baroda		HDFC Bank	
	2006-2007	**2007-2008**	**2006-2007**	**2007-2008**
Gross NPA	2092.14	1981.38	906.97	657.76
Provisions	991.45	894.22	608.45	454.87
Net NPA	501.67	493.55	298.52	202.89
Net NPAs to Net Advances (%)	0.6	0.47	0.47	0.43

Source: **Compiled and computed from Banks' Financial statements**

As evident above, the non performing assets have been going down for both Bank of Baroda and HDFC Bank

7. Relationship with market performance

Market is the ultimate determinant for publicly-held companies. In this section, correlation between return generation and market performance has been discussed. Return generated has been expressed as 'RONW' and 'Dividend Yield.'

Table 10

Market performance – HDFC Bank

Year	RONW	Market Price	ROMP
2002	20.81	236.6	3.61
2003	18.51	234.55	-0.87
2004	20.64	378.75	61.48
2005	18.46	573.64	51.46
2006	17.74	774.25	34.97
2007	19.46	954.15	23.24
2008	17.74	1,331.25	39.52

Source: **Complied and computed from Banks' Financial statements & BSE**

Return over Market Price = (Market Price of current year – Market price of last year)/ Market price of last year

The following result is found while doing the correlation analysis

	RONW	*ROMP*
RONW	1	
ROMP	0.143528	1

This shows that the relation between RONW and ROMP is not much, as RONW is not affecting the market price much.

Table 11

Market performance – Bank of Baroda

Year	RONW	Market Price	ROMP
2002	15.2	47.95	
2003	18.81	85.9	79.14
2004	20.32	242.7	182.54
2005	12.58	218.05	-10.16
2006	12.28	230.3	5.62
2007	12.45	215.4	-6.47
2008	14.58	283.9	31.80

Source: **Complied and computed from Banks' Financial statements & BSE**

The following result is found while doing the correlation analysis

	RONW	*ROMP*
RONW	1	
ROMP	0.943461	1

The correlation test shows that there is high correlation between ROMP and RONW.

6. CONCLUSION

It can be concluded that both the banks have performed more or less same on both income and expenditure front but the profitability of HDFC Bank has been slightly higher than Bank of Baroda. The CASA ratio for HDFC bank is much higher than that of Bank of Baroda as HDFC Bank has higher amount of deposits in savings and demand deposits than in the term deposits. Both have shown efficiency in managing their NPAs. Regarding market efficiency, which is the ultimate factor for any public company, HDFC Bank does not show much relationship between return generation and market price. But in case of Bank of Baroda, there is a high correlation between ROMP and RONW.

7. POLICY IMPLICATIONS: LESSONS FOR INDIAN BANKING SECTOR

The health of the banking sector is vital for the growth of an economy. The discussion in the preceding section showed that there is a wide gap in the key drivers for the soundness of the banking sector between two players, what to talk about two economies?. To increase the soundness of the banking sector, following strategies can be considered:

- Speeding up the electronic delivery systems in the financial sector;
- Streamlining the flow of information across all the stake-holders in the financial sector;
- Upgrading the legal architecture to meet the needs of the new economy;
- Strengthening the governance framework in the banking sector to stem out market failures and corruption; and
- Strategic linkages and partnerships within the banking sector to increase the soundness of the sector and to prevent market failures.

REFERENCES

- Accenture (2008). UK Banks' Customer Service: Winning the Battle for Hearts and Minds. UK Banking, Point of View, Winter, 5.
- Allen N. Berger & Loretta J. Mester. (1997), Inside the black box: what explains differences in the efficiencies of financial institutions?, *Finance and Economics Discussion Series* 1997-10, Board of Governors of the Federal Reserve System (U.S.).
- Aly, H.Y. and Rangan, N.(1990), Technical Scale and A locative efficiencies in US banking : An empirical investigation, *Review of Economics and Statistics*, Vol. 72 pp.211-218.
- Annual Reports – HDFC Bank
- Annual Reports– Bank of Baroda
- Bagehot, W. (1873), Lombard Street. Irwin, R.D., Homewood, IL.
- Beck, Thorsten., Levine, Ross and Loayza, Norman.(2000), Finance and the Sources of Growth. *Journal of Financial Economics 58*(1/2): 261-300.
- Bierman Harold Jr., etal. (1986), Financial Management for Decision Making, New York: Macmillan Publishing Company.
- Chu Mei liu (2001), An assessment of banking operation strategies of private banking institutions in the Philippines", Asia Pacific Journal of Marketing and Logistics, Vol. 13, No.1 pp.57-71.
- Dark, L.(1992), Economies of Scale and Scope in UK Building Societies: An application of the Tanslog Multi product cost function, *Applied Financial Economics*, Vol. 2, No. 2, pp.211-219.
- Field, K.,(1990), Production efficiency of British Building Societies, *Applied Economics*, Vol. 22, pp. 415-426.
- Genesys (2008). Customer service strategies for the retail banking industry, industry strategy guide. Retrieved August 21, 2009, from http://www.genesyslab.com/resources/download/verticals/retail%20banking%20strategy%20guide%20(north%20america).pdf
- Hempel, G., Coleman, A., and Smon, D.(1986), Bank management text and cases, Wiley, New York.
- Ian Caddy (2000), Intellectual capital: recognizing both assets and liabilities, *Journal* of Intellectual Capital, Vol.1, No. 2, PP.129-146.
- La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, and Vishny, Robert W. (1998), Law and Finance. *Journal of Political Economy,* Vol 106(6).

- La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, and Vishny, Robert W. (2000), Investor protection and Corporate Governance. *Journal of Financial Economics* 58(1-2): 3-27.
- Levine, Ross. (2003), More on Finance and Growth: More Finance, More Growth? Federal Reserve Bank of St.Louis Review, 85 (4): 31-46.
- Onufrey, S. & Moskowitz, H. (2008). Rethinking Segmentation. *ABA Banking Journal,* October, 26-51.
- Rangan, N., and Grabowski, R.(1988), The technical efficiency of US banks, Economic Letters, 28, pp. 169-175.
- Richard B., and James M. (2003), Asset and liability management: What does the future have in store? *Journal of Intellectual Capital*, Vol. 6, No. 2, pp. 135-149.
- Rousseau, Peter L. and Wachtel, Paul. (1998), Financial Intermediation and Economic Performance : Historical Evidence from Five Industrialized Countries. *Journal of Money Credit and Banking*, 30(4): 657-678.
- Ruth F., (2001), Asset and liability management for banks: A lawyers perspective, Balance Sheet, Vol. 9, No. 3, pp. 20-23.
- Saez. L. (2001),Banking reforms in India and China, *International Journal of fianance and Economics.*
- Schumpeter, Joseph A. (1912), Theorie der Wirtschaftlichen Entwicklung, Leipzig : Dunker & Humblot, 1912.[The Theory of Economic Development, 1912, translated by Redvers Opie. Cambridge, MA : Harvard University Press, 1934.]
- Smith, Adam. (1960), The Wealth of Nations, Introduction by Seliqman, E.R.A. Dent, London, 1776.