

# Impact of Merger of Housing Development Finance Corporation Bank and Centurion Bank of Punjab on Shareholder Value Management

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## Abstract

This study analyzes the impact of merger on the shareholder's wealth through Economic Value Added (EVA) and Market Value Added (MVA) in Indian Banking Industry. The paper explains the major strategic reasons and various challenges of the high profile mergers of Indian Banking Industry. The paper has attempted to find out the impact of the merger on the acquirer bank's profitability ratio, on its different variables like EVA, MVA, etc. This study also explores the fact that there is very little impact of the sub- prime crisis on the merger outcomes.

**Key Words:** EVA (Economic Value Added), MVA (Market Value Added), Profitability Ratios, Sub Prime Crisis

## 1. Introduction

Indian banking sector is the major part of the Indian financial system. Now these days the banking industry of India itself is passing through transition phase. During this phase a lot of transformation can be seen in this industry like restructuring of the banks, entry of different private sector banks, diversity in services etc. In India it can be easily seen that public sector banks are using restructuring techniques for getting competitive advantage and private sector banks are consolidating themselves through mergers and acquisitions to stay in market and to increase their efficiency. Previous studies support the fact that mergers and acquisitions help banks to improve in different areas like economies of scale like improve the collections, service processes, distribution, infrastructure, economies of scope like to grow products and segments and an opportunity to cross sell, synergy benefits like treasury performance would be improved as the cost of funds would reduce as it would have a better credit rating. Merger and acquisitions significantly reduce the bankruptcy risk of the merged entity (Hannan & Pilloff, 2009). Another reason for Indian banks to go for mergers is to reduce bankruptcy concerns. Researchers have found that bank mergers and acquisitions are not a new phenomenon for Indian banking industry because it had been started from 1961 and there have been as many as 77 amalgamations had been accomplished between banks in India, out of which 46 took place before nationalization of banks while the remaining 31 occurred in post-nationalization period (Leeladhar, 2008).

Initially these mergers and acquisitions were viewed as a regulatory mandate from the Reserve Bank of India (RBI) wherein the central bank forced a profitable bank to embrace the sick bank to revitalize the latter. It was in 1998 when, for the first time, Narasimham Committee II suggested market-driven mergers (wherein banks merge on the basis of business considerations and strategic fit so as to gain various kinds of synergies in the post-merger period) as the only viable route to strengthen the Indian banking sector. From 1999 onwards, banks in the private sector have initiated the process of market-driven mergers, to strengthen their business operations in terms of size, scale, geographical reach and market share. It was in this year that first market-driven merger took place between two private sector banks namely, HDFC Bank and Times Bank. This was followed by the merger of Bank of Madura with Industrial Credit and Investment Corporation of India Bank (ICICI Bank) in the year 2000 and in the same year the merger of ICICI Ltd., with ICICI Bank in its quest for creating a universal bank. Further in 2005, Bank of Punjab merged with Centurion Bank that created a new entity Centurion Bank of Punjab (CBoP) and was followed by the merger of Lord Krishna Bank with CBoP.

After initiating the first market-driven merger in 1999, HDFC Bank has again taken the lead by announcing the biggest merger in Indian banking industry between two private sector banks, that is, the merger between India's best bank, HDFC Bank, and one of India's fastest growing medium-sized banks, Centurion Bank of Punjab. It was one of the largest mergers of Indian banking history and its analysis is important as it was the beginning of the consolidation wave in the Indian Banking Sector. The HDFC Bank-CBOP merger comes as no surprise. As a result of liberalization, and due to flexible WTO regulations, there would be greater accessibility for foreign banks to Indian shores and vice-versa. As a result of that increasing growth, Indian Banks would have to gear up to compete with

their global counterparts in terms of products, technology and people. The merged entity is to be named as HDFC Bank. The swap ratio has been fixed at 1:29. In terms of balance sheet size the merger will catapult HDFC Bank to 7th position from its present 10th position among all commercial banks in India. Managements of both the banks have given a big applause to the merger and have quoted that the quest to create a larger entity (in terms of technology, products, business reach and manpower) that is capable of competing and grabbing opportunities both globally as well as domestically is the major driver for the said acquisition.

The rationale for the merger, as given by media and the management, are the synergies that are going to accrue to the merged HDFC Bank (henceforth referred as merged entity). It is interesting to evaluate what these synergies are and how the stock market has reacted to the announcement of the said merger considering the anticipated synergies. Also, it is pertinent to discern how these projected synergies would add to the fundamentals and bottom-line (growth, profitability, efficiency and productivity variables) of the merged entity.

## 2. Review of Literature

Many studies have been done to find out the rationales behind the Mergers of Indian banking sectors. Basically, two main techniques have been employed by the researchers to evaluate the value creating potential of bank mergers and acquisitions: One set of studies support the fact that the impact of a merger on the shareholder's wealth is ascertained around the announcement of the merger and acquisition. At the same time the second set of studies investigates different financial and profitability variables of the merged entity to evaluate whether a bank merger has added value to the fundamentals of the merged entity or not.

Researchers have found that merging banks were able to enjoy abnormal returns due to the anticipated improvements in the operations of merged banks (Neely, 1987). It is also examined that effect of cross border mergers on shareholders' wealth. They concluded that the shareholders of merging banks experienced positive but insignificant Average Residuals (ARs) on the announcement of bank merger (Becher, 2000; Campa & Hernando, 2006; Havrylchyk, 2004; Tourani Rad & Van Beek, 1999).

Previous study examined the impact of merger on the performance of merging banks as compared to the non-merging control group on the basis of changes in 23 banking ratios selected to reflect asset structure, loan portfolio, expenses, earnings and profitability (Smith, 1971). He suggested that the main source of value creation in bank mergers was the increase in revenues of merging banks due to improved liquidity position. But significant increase in current operating expenses of the merging banks, at the same time, more than offset the higher revenues. Studies have also contended that the main sources of value creation in mergers was improved profit efficiency due to the product mix shift from securities to loans, that is, the diversified portfolios of the banks, in the post-merger period (Akhavain, Berger, & Humphrey, 1997). Study suggested that most of the estimated value gains stemmed from the opportunity to cut costs by eliminating the overlapping operations and consolidating backroom operations whereas, the projected revenue enhancements played an insignificant role (Houston, James, & Ryngaert, 2001).

Similarly researchers also found improvements in the fundamentals of the merged banks in the post-merger period (Altunbaş & Marqués, 2008; Gjirja, 2004; Gugler, Mueller, Yurtoglu, & Zulehner, 2003; Turchynska, 2005). However, others found performance deterioration for the merged entity (Piloff & Santomero, 1998; Schenk, 2000). The sources of value destruction suggested by these researchers were either the self-delusion or the quest for private benefit of control of the acquiring firm's managers, and also the post-integration problems.

Cybo-Ottone and Murgia's (2000) event study analysis of 54 mergers and acquisitions deals covering 13 European banking markets of the European Union and the Swiss market for the period 1988 to 1997. They find positive and significant increase in the shareholder value of bidder and target banks at the time of the deal's announcement (Cybo-Ottone & Murgia, 2000). Also one study examined 102 merger announcements in the European financial services industry between 1987 and 1999 and finds positive returns for target bank shareholders in different event windows (Ismail & Davidson, 2005). Sakai, et al. (2009) analyzed mergers of the shinkin bank for 1984 to 2002 study period and concluded that profitability increased due to favourable business environment and increase in market share. Khan et. al, (2012) reviewed the impact of mergers of the Japanese banks for last 20years and concluded that Japanese banking sector had not earned as much profit as expected by its shareholders.

Apart from these international studies, some Indian researches worked on mergers of banking and significantly contributed in existing literature (Kumar & Rajib, 2007; Pandey, 2001). Pandey (2001) has examined the issue of takeover announcements, open offer and its impact on shareholder value in the Indian corporate sector. Kumar and Rajib (2007) identify the characteristics of merging firms in India based on their study of 227 acquirer and 215 target firms during the period 1993-2004. In India, most of the studies conducted on bank mergers are theoretical and

presented various arguments with regard to the question, whether there should be consolidation of banks in India or not (Bagchi & Banerjee, 2005; Lakshminarayanan, 2005; Mohan, 2005). Till date, only one study (Anand & Jagandeep, 2008) empirically evaluated the impact of bank mergers on the wealth creation of both acquirer and target bank's shareholders. They analyzed five mergers and found that except for one (that of Global Trust Bank and Oriental Bank of Commerce), all others created positive wealth for the shareholders of both acquiring and target banks around the announcement period.

In this paper a methodical analysis of the merger of HDFC bank and CBoP has been done. Here an attempt has been made to analyse the impact of merger of the Indian banks on the shareholder's wealth as well as impact of the merger on the performance of the bidder (HDFC) bank. Keeping in view the above background the present study has been conducted with the following objectives:

- To analyze the immediate impact of the merger on the different fundamental variables like EVA, market capitalization, relative profitability, return on net worth, MVA etc. of the bidder bank
- To find the amount of profit generated and wealth created for the shareholders due to the merger.
- Finally, to analyze the various strategic reasons and major challenges for the merger.

### 3. Research Methodology

Secondary data set has been used for the analysis. Since the merger has been accomplished in the May 2008, so here 5 years data (2006, 2007, 2008, 2009 & 2010) has been taken to capture the major fluctuations in the fundamental variables. For attaining the cited objectives in the above paragraph, the analysis has been conducted in three parts. Firstly, merger impact on shareholders' wealth and on the different fundamental variables like EVA, market capitalization, relative profitability, return on net worth, MVA of acquiring bank has been ascertained by employing the statistical analysis of the dataset. Secondly, to know whether the different strategies are fulfilling or not, which had been considered by the Bidder bank before the merger. Finally different challenges for the current merger and impact of the market fluctuation on the different variables have been also analyzed.

#### 3.1. Major Indicators

##### 3.1.1. Economic Value Added-

Economic Value Added or EVA is an estimate of a firm's economic profit. It represents the value created in excess of the required return of the company's shareholders. EVA is the profit earned by the firm less the cost of financing the firm's capital. The idea is that shareholders gain when the return from the capital employed is greater than the cost of that capital (Savarese, 2000).

$$EVA = NOPLAT - (WACC * CAPITAL EMPLOYED) \quad (1)$$

Where, NOPLAT = Net Operating Profit after Taxes, WACC = Weighted Average Cost of Capital

##### 3.1.2. Market Value Added

Market Value Added (MVA) is the difference between the current market value of a firm and the capital contributed by investors. If MVA is positive, the firm has added value (Joseph, 2000). If it is negative, the firm has destroyed value.

$$MVA = \text{Market value of equity} + \text{Market value of debt} \quad (2)$$

#### 3.2. Major Strategic reasons for the Merger

The major strategies of this merger were the key path to achieve the growth and sustainability over the year. Some of them are described as follows-

- To get the expansion in branch network,
- To achieve the economic as well as managerial synergy,
- To access the complementary income stream and a wide range of product portfolio
- To achieve the International expansion etc

### 4. Data Analysis and Discussion

For calculation EVA and MVA different constituent of these approaches are calculated. Weighted Average Cost of Capital (Table 1) can be calculated by calculating cost of debt (Table 1.1, 1.2) and cost of equity (Table 1.3, 1.4), their weighted ratios (Table 1.5) and tax percentage (Table 1.6). After calculating WACC, EVA (Table 1.7) has been calculated (Table 2). Similarly MVA (Table 3) has been calculated by calculating its' constitutes i.e., Market Value of Equity (Table 3.1), Interest & Debt (Table 3.2) and Market Value of Debt (Table 3.3). Bnakex details (Table 4)

have been also given for weight calculation. Market impact analysis (Table 5) has been also evaluated to see the impact on share price. From Table 5, it is clear that there is very less impact of the market on the stock price of the HDFC banks after the merger. For this analysis Bankex data has been taken and by dividing it with the stock price, a ratio is obtained for each time frame. It is again multiplied with bankex to get the expected price (free from the market behavior) of the share at a given time frame. Here we are removing the impact of market trend; it means that the increase in the expected share price is only due to acquisition and not due to any recession impact. There is drop in the ratios, just after acquisition because of the merger but it increase after some time.

HDFC bank has expanded its' distribution network from 761 branches in 327 cities to 1,412 branches in 528 Indian cities as well as ATMs had been increased from 1,977 to 3,295 due to this amalgamation. The branch network is not overlapping rather it is complimentary. HDFC Bank has a strong presence in western India whereas; CBoP is strong in northern and southern India with pockets of concentration in Punjab and Kerala. The branch network in Kerala would give it access to a large NRI client base originating from the state. HDFC Bank also got access to more rural branches that in turn could be leveraged to give boost to its rural initiatives. The merger would further help HDFC Bank in broad basing its spread in non-metro and rural areas from where it is presently fetching 40% of its deposits (Adhikari, 2008a). Thus, the enhanced branch network would enable HDFC Bank to strongly position itself across the various geographies in India.

Growth was the basic rationale behind this amalgamation. Actually HDFC bank wanted a robust growth momentum that it has sustained over the years. To ramp up its scale, HDFC had selected CBoP because of its' well developed network and its' latent potential. After this Merger we can see the significant growth in different fundamental variables like EVA, market capitalization, relative profitability, and return on net worth, MVA of the bidder bank (Table 2, Table 3.4, and Table 6). The merger actually took place on the 23 May 2008. EVA has been increased just after the merger but after that it has been slightly decreased due to increase in capital employed. If we analyse the MVA trend (Table 3.4) then we find that the MVA value has been decreased just after the merger. This was happened due to decrease in market value of the equity. It is clear that subprime crisis was happened in the same year and it was occurred just after the merger. These phenomena also lead to decrease the share prices of the HDFC and other banks. On the other hand it is obvious that share price of the acquire firm is decreased after the merger. This may be happened due to the information Asymmetry. So, it is clear from the tables that EVA, MVA have been increased after the merger and the opposite trend was due to some unexpected events.

Growth momentum of HDFC can also be explained on the basis of different key ratios (Table 6) and different heads of the financial statements. From table 6 it is clear that there is a significant growth in the different heads like deposits, fixed assets, reported net profits and advances, which are showing the trend of growth after the mergers. We can also observe the growth picture in figure 1, figure2, and figure 3. Apart from this, some useful ratios also have been showing the growth in coming years after the merger. Basically after merger there was a significant increase in deposits due to clubbing the deposits accounts of both banks. This deposits impels so many heads further like due to increase in deposits advances has been increased and it enhanced the interest earning. On the other hand deposit also pushed the interest expenses up as the form of interest payments on the deposit accounts. This trend leads the growth prospects of the HDFC bank in coming years.

Merger brings a lot of opportunities in terms of economic as well as managerial growth. With this merger HDFC banks has increased volume of its' sales, thus realizing economic of scale. Due to the extension in the branch network it can also access the variety of customers for their variety of products. This will decrease the operational cost and increase the efficiency of operation. The merged entity can also increase their economies of scale due to cross selling of their products. After merger HDFC pushed its various value added product credit cards, mutual funds, general insurance, bancassurance, foreign exchange services etc., to its retail customers. Likewise various retail products like car loans, two wheeler loans, CV/CE loans etc., has been pushed to its corporate customers. This is a twofold effect on the profitability of the merged entity. In this way HDFC has brought its cost to income ratio down by providing value added services to retail customer.

It was quite interesting to know that before merger HDFC Bank and CBoP were competent in different geographical regions with various reach and scope. Like HDFC Bank's strategy is to have margin-led growth, which means unlike other private sector banks, it does not sacrifice margins in its race for market share. But in the present day scenario of hardening interest rates, it is difficult for a bank to sustain higher Net Interest Margin (NIM). While the other hand CBoP was operating with various value-added services like e-broking products in partnership with Infrastructure Leasing & Financial Services Limited (IL&FS) and also Miracle Card in collaboration with The Art of Living Foundation. Thus merged entities are maintaining their profitability amidst hardening interest rate scenario by

complementing HDFC Bank's interest income with that of growing fee-based income of CBoP. Apart from this there is a huge complementarity between HDFC Bank and CBoP's product portfolio. HDFC Bank is deriving majority of its business from its corporate clients, followed by retail customers and SME customers, whereas CBoP fetches majority of its business from retail customers followed by SME and corporate customers. In this way they are very complementary with each other's in terms of their business.

## 5. Findings

On the basis of above results and discussion, we can draw following findings:

- HDFC bank has fulfilled its network expansion strategy successfully, due to this merger.
- EVA and MVA are increased after the merger of both banks.
- Merger has provided various strategic benefits like wide network of branches across various geographies, broad range of products and experienced management team to HDFC Bank's existing operations.
- The merger has blended the physical and human resources of these two banks, which helped HDFC BANK in expanding its scale and business, reach both domestically and internationally by realizing various economies of scale and scope.
- This merger also enabled the merged entity to create better wealth for its shareholders in future.
- Merger helps in achieving diversity services and better product portfolio, which helped HDFC Bank in revenue generation and in achieving economies of scopes in their business.

Apart from the positive findings, some negative aspects also come with mergers:

- It is always associated with high cost
- It is always difficult to get the synergy between merged entities
- In this case the asset and loan quality of CBoP were very bad. CBoP had very risky profile of loan entities.
- There are always dilution issues just after the merger in the stock price of the acquire firm. Like in this case we can see the immediate drop in the share price of the HDFC after the merger.

## 6. Conclusions

From the above discussion, it can be concluded that the merger has highly impacted the merged entities. Basically the merger enabled the merged entity to enhance its deposits, size and the scale of its operations by providing a diverse range of products; and expand business reach through extensive branch network. In this study we have also seen that there is significant increment in EVA, MVA, Net profit and Share price after the merger (figure 1, figure 2 figure3). This fact supports the statement that the merger increases the shareholders' wealth. Furthermore, it has strengthened the management bandwidth. With the merging of branch network and extensive product range on one hand and expertise of management on the other, if HDFC Bank is able to realize the projected cost savings and also increase its profitability by increasing the volume of value-added services as well as banking services it would be able to derive better value for its shareholders in future. Thus, CBoP provides a perfect fit in terms of culture, strategy and approach to HDFC Bank. This paper has provided an analysis from the view point of the stakeholders of a banking firm. Currently the forced mergers may be protecting the interests of depositors but shareholders of both bidder and target banks are not, necessarily perceived as beneficiaries of the merger. So this study may help them to analyse the trend. Also the ongoing consolidation trends in Indian banking will create a platform, where this study will be highly applicable.

Further study can be done to analyse the impact of the merger announcement on the shareholders' wealth. Valuation part can be also a broad area for the future research. One can apply different valuation technique to confirm the deal that whether this merger was done by considering undervaluation or overvaluation. Relative impact analysis, among the different variables like EVA, MVA, and relative profitability can also be done.

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**Appendix**

**Table. 1 WACC calculation**

**Cost of Debt Calculation-**

Table.1.1

<b>Government Security Quotes</b>		
<b>Instrument</b>	<b>Price</b>	<b>Yield</b>
7.17% 2015	96.84	8.02
7.99% 2017	99.27	8.14

Table.1.2

<b>Corp Bond Spreads(bps)</b>			
<b>Tenor</b>	<b>AAA</b>	<b>AA+</b>	<b>AA</b>
1	194	209	234
3	121	143	173
<b>5</b>	<b>70</b>	97	127
10	79	107	137

From the above two table-

$$k_d = R_f + \text{Spread} = 7.17 + 0.7 = 7.87$$

Assumption- Here I am taking 5 years debt instrument only and from the data it is clear that HDFC's Credit rating is AAA and it will be same for the 2005-2015 (because here I am taking 5 years debt instrument and credit rating of HDFC bank is consistent over the last five years)

**Cost of Equity Calculation-**

$$k_e = R_f + (\text{beta}) (R_m - R_f)$$

Table. 1.3 Beta details

years	Beta details
2006	0.881
2007	0.9917
2008	1.0089
2009	0.7978
2010	0.8836

Where,  $R_f$  = Risk free rate and  $R_m$  = market return rate

Table 1.4 Ke calculations

Years	Rf	Rm-Rf	Beta( Rm-Rf)	ke= Rf +(beta) (Rm-Rf)
2006	7.17	6.83	6.01723	13.18723
2007	7.17	6.83	6.773311	13.943311
2008	7.17	6.83	6.890787	14.060787
2009	7.17	6.83	5.448974	12.618974
2010	7.17	6.83	6.034988	13.204988

Table 1.5 E/D+E and D/D+E calculations (in Crore)

E/D+E and D/D+E	2006	2007	2008	2009	2010
Equity= total reserve+ capital=E	5299.53	6433.15	11497.24	14646.33	21519.58
Debt=deposits+ borrowing+ other liabilities =D	68,287.34	84886.14	121753.77	168305.93	201034.4
equity+ debt=D+E	73,586.87	91,319.29	133,251.01	182,952.26	222,553.98
equity/(equity+ debt)=E/D+E	0.072017	0.070447	0.086282573	0.08005547	0.09669
debt/(equity+ debt)=D/D+E	0.927983	0.929553	0.913717427	0.91994453	0.90330

Table 1.6 Tax % calculations (in Crore)

Tax % Calculation	2010	2009	2008	2007	2006
PBT	4289.14	3299.25	2280.65	1638.75	1253.51
PAT	2948.7	2244.94	1590.2	1141.45	870.78
Taxed amount	1340.44	1054.31	690.45	497.3	382.73
tax %	0.312519526	0.319561	0.302743	0.303463005	0.305327
1-tax%	0.687480474	0.680439	0.697257	0.696536995	0.694673

Table 1.7 WACC calculations

WACC Calculation									
Years	ke	E/D+E	ke*(E/D+E)	Kd	1-tax	kd(1-tax)	D/E+D	kd(1-tax)*(D/E+D)	WACC
2006	13.187	0.0720	0.9497	7.87	0.6947	5.4671	0.9280	5.0734	6.0231
2007	13.943	0.0704	0.9823	7.87	0.6965	5.4817	0.9296	5.0956	6.0778
2008	14.061	0.0863	1.2132	7.87	0.6973	5.4874	0.9137	5.0139	6.2271
2009	12.619	0.0801	1.0102	7.87	0.6804	5.3551	0.9199	4.9264	5.9366
2010	13.205	0.0967	1.2768	7.87	0.6875	5.4105	0.9033	4.8873	6.1642



**Table.2 Economic value added calculations (in Crore)**

<b>EVA CALCULATION</b>	<b>201003</b>	<b>200903</b>	<b>200803</b>	<b>200703</b>	<b>200603</b>
Equity Paid Up	457.74	425.38	354.43	319.39	313.14
Net worth	21522.49	15052.74	11497.24	6433.15	5299.53
Capital Employed	222556.89	183358.67	133251.01	91319.29	73586.87
Gross Block	4707.98	3956.63	2386.97	1917.56	1589.47
Sales	16172.9	16332.26	10115	6647.93	4475.34
PBIDT	12469.83	12570.26	7439.47	5037.8	3361.6
PBDT	4683.53	3659.16	2552.36	1858.35	1432.1
PBIT	12075.44	12210.35	7167.76	4818.2	3183.01
PBT	4289.14	3299.25	2280.65	1638.75	1253.51
PAT	2948.7	2244.94	1590.2	1141.45	870.78
<b>NOPLAT= PBIT-(PBT-PAT)</b>	<b>10735</b>	<b>11156.04</b>	<b>6477.31</b>	<b>4320.9</b>	<b>2800.28</b>
total liabilities	222556.89	183358.67	133251.01	91319.29	73586.87
deposits	167,404.44	142,811.58	100,768.59	68,297.94	55,796.82
<b>Capital Employed</b>	<b>55,152.45</b>	<b>40,547.09</b>	<b>32,482.42</b>	<b>23,021.35</b>	<b>17,790.05</b>
WACC	0.0616	0.0593	0.0622	0.06077	0.06023
<b>EVA= NOPLAT-(WACC*CAPITAL EMPLOYED)</b>	<b>7337.60</b>	<b>8751.59</b>	<b>4456.90</b>	<b>2921.89</b>	<b>1728.78</b>

**Table .3 Market value added calculation**

Table 3.1 Market value of equity (in Rs)

<b>Time</b>	<b>No of share</b>	<b>Share Value</b>	<b>Market Value of Equity</b>
31/3/2006	313142408	773.5	242215652588.00
31/3/2007	319389608	949.4	303228493835.20
31/3/2008	354432920	1,319.95	467833732754.00
31/3/2009	425384109	967.85	411708009895.65
30/03/2010	457743272	1,932.50	884588873140.00

Table 3.2 Interest & debt calculations (in Crore)

<b>Particulars</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
PBIT	12075.44	12210.35	7167.76	4818.2	3183.01
PBT	4289.14	3299.25	2280.65	1638.75	1253.51
<b>Interest</b>	<b>7786.3</b>	<b>8911.1</b>	<b>4887.11</b>	<b>3179.45</b>	<b>1929.5</b>
<b>debt</b>	<b>201034.4</b>	<b>168305.9</b>	<b>121753.77</b>	<b>84886.14</b>	<b>68,287.34</b>

So, from the above tables –one can find out the Interest amount,  $k_d$ , and book value of debt. After this market value of debt for the five years can be calculated by the following formula-

$$\text{Market value of debt} = \text{interest amount} * ((1-I / (1+K_d)^5) / k_d) + \text{debt} / (1+K_d)^5$$

Table 3.3 Market value of debt calculations (in Crores)

Years	Market Value of Debt
2006	246.4107908
2007	405.5348629
2008	623.1858634
2009	1135.331903
2010	993.0081

Table.3.4 Market value added (in Crores)

Years	Market Value of Debt	Market Value of Equity	Capital Employed	MVA
2006	246.4107908	24221.57	17790.05	6677.93
2007	405.5348629	30322.85	23,021.35	7707.03
2008	623.1858634	46783.37	32,482.42	14924.14
2009	1135.331903	41170.80	40,547.09	1759.04
2010	993.0081	88458.89	55,152.45	34299.45

Table.4 Bankex details

Scrip Code	Company	Close Price	Full Mkt. Cap.	Free-Float Adj. Factor	Free-Float Mkt. Cap	Weight in Index
			(Rs. crore)		(Rs. crore)	(%)
532174	ICICI BANK LTD	1,078.05	123,765.30	1	123,765.30	29.57
500180	HDFC BANK LTD	2,161.45	100,115.24	0.8	80,092.19	19.13
500112	STATE BANK OF INDIA	2,696.05	171,198.67	0.45	77,039.40	18.41
532215	AXIS BANK	1,296.25	53,105.99	0.65	34,518.89	8.25
532461	PUNJAB NATIONAL BANK	1,204.35	37,973.46	0.45	17,088.06	4.08
500247	KOTAK BANK	451	33,088.69	0.5	16,544.34	3.95
532134	BANK OF BARODA	882.85	32,159.27	0.5	16,079.63	3.84
532149	BANK OF INDIA	436.1	22,902.89	0.4	9,161.16	2.19
532187	INDUS IND BK	255.65	11,879.25	0.75	8,909.44	2.13
532483	CANARA BANK	642.3	26,334.30	0.3	7,900.29	1.89
532648	YES BANK	299.7	10,366.16	0.75	7,774.62	1.86
532477	UNION BANK	326.05	16,469.37	0.45	7,411.22	1.77
500469	FEDERAL BANK	405.2	6,926.70	1	6,926.70	1.65
500116	IDBI BANK L	155.55	15,312.52	0.35	5,359.38	1.28
<b>TOTAL</b>			<b>661,597.81</b>		<b>418,570.62</b>	

**Table 5. Market's impact analysis**

Date	Closing Share Price	Banking Index	Ratio	Without Merger Expected Share Price
10/12/2010	2,220.40	13002.87	0.1708	2002.44
30/09/2010	2480.8	14025.04	0.1769	2159.86
30/06/2010	1914.65	10765.03	0.1779	1657.81
31/03/2010	1932.5	10652.35	0.1814	1640.46
31/12/2009	1700.4	10030.8	0.1695	1544.74
30/09/2009	1642.25	9855.6	0.1666	1517.76
30/06/2009	1491.75	8211.48	0.1817	1264.57
31/03/2009	967.85	4490.97	0.2155	691.61
31/12/2008	997.6	5454.54	0.1829	840.00
30/09/2008	1229	6478.85	0.1897	997.74
30/06/2008	1002.3	5915.98	<b>0.1694</b>	
31/03/2008	1319.95	7717.61	<b>0.1710</b>	
31/12/2007	1727.8	11418	<b>0.1513</b>	<i>Average= .154</i>
28/09/2007	1439.05	9469.26	<b>0.1520</b>	
29/06/2007	1144.1	8009.94	<b>0.1428</b>	
30/03/2007	949.4	6542.01	<b>0.1451</b>	
29/12/2006	1069.75	7085.73	<b>0.1510</b>	

**Table.6. Some useful key ratios**

Particulars	Mar 10	Mar 09	Mar 08	Mar 07	Mar 06
Deposits	167404.44	142811.58	100768.59	68297.94	55796.82
Borrowings	12915.69	9163.64	4594.92	2815.39	2858.48
Cash & Balances with RBI	15483.29	13527.21	12553.18	5075.25	3306.61
Advances	125830.59	98883.05	63426.9	46944.78	35061.26
Fixed Assets	2122.81	1706.73	1175.09	966.67	855.08
Other Assets	6053.47	6444.72	4477.15	3796.39	2357.57
Interest Expended / Total Funds (%)	3.84	5.63	4.35	3.86	3.08
Net Interest Income / Total Funds (%)	4.13	4.69	4.66	4.21	4.07
Operating Expenses / Total Income (%)	28.86	28.85	30.21	30.29	31.3
Interest Earned	16,172.90	16,332.26	10,115.00	6,647.93	4,475.34
Interest expended	7,786.30	8,911.10	4,887.11	3,179.45	1,929.50
Reported Net Profit	2,948.70	2,244.94	1,590.20	1,141.45	870.78

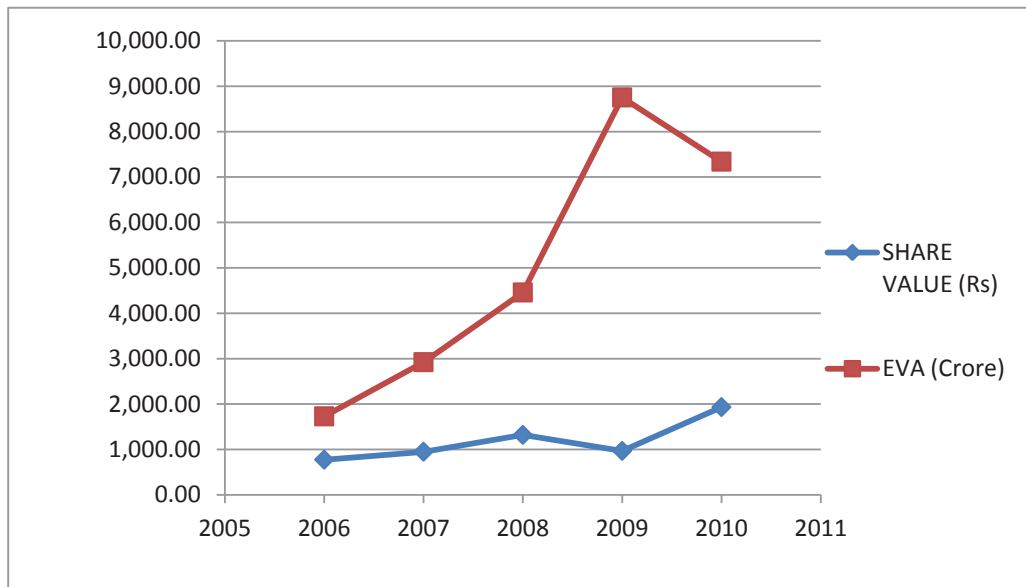


Figure 1. Trend of Share value and EVA of Parent Bank

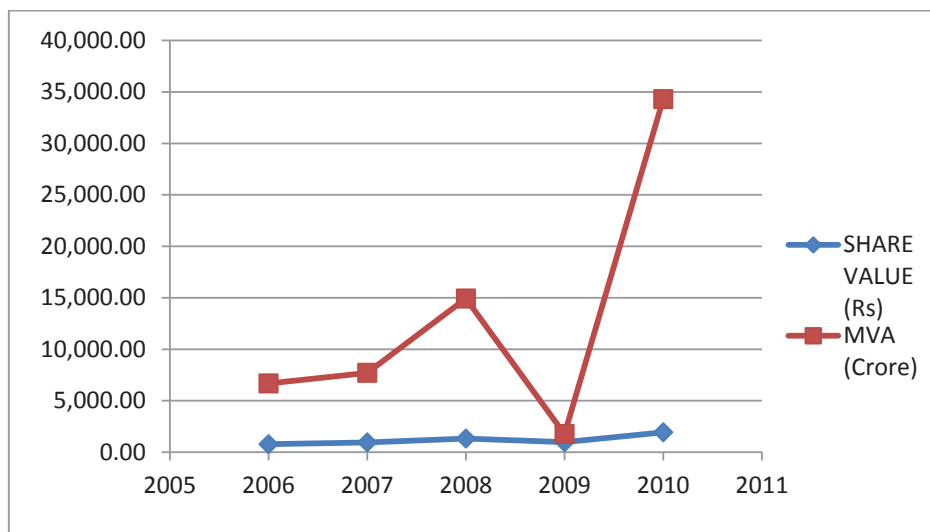


Figure 2. Trend of Share value and MVA of Parent Bank

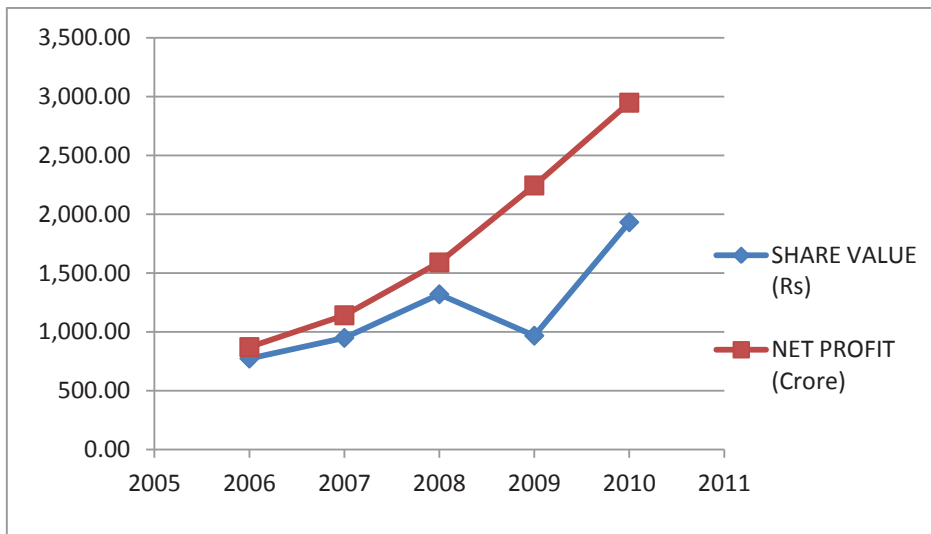


Figure 3. Trend of Share value and Net Profit of Parent Bank

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