

## **EVALUATION OF MERGER OF HDFC BANK AND CENTURION BANK OF PUNJAB EVA ANALYSIS**

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### **ABSTRACT**

The liberalization of the Indian business has witnessed several business entities increasing their size through expansion, diversification and merger and acquisitions. The expectation of this exercise is that the large entity will bring in improved efficiency and profitability. The banking industry in India also has witnessed a few mergers like the Times Bank merging with HDFC bank, Bank of Madura with ICICI Bank etc. Since the merger is done with a view to improve the business performance metrics, it is imperative to evaluate whether the merger of the entities has created value to the shareholders. Hence this study of the merger of Centurion Bank of Punjab with HDFC bank.

**Keywords:** Banks, Merger and Acquisition, EVA.

**INTRODUCTION**

The merger between HDFC Bank and Centurion Bank of Punjab (CBOP) was billed as one of the biggest mergers in the banking history of India in 2008. The talk at the time of merger revolved around leveraging the strengths of HDFC bank and CBOP in terms of branches, serving different segments of the market and the general synergy brought about by mergers.

It is interesting to note that citigroup was the single largest shareholder of HDFC, the parent company of HDFC bank. Also, all the top executives of HDFC and CBOP like Aditya Puri, Rana Talwar and Shailendra Bandari were ex citi bankers.

It is about four years since the merger was completed and hence the synergy effect that was envisaged at the time of merger would have played out its part. It is in this context that this exercise of evaluating the merger was taken up.

The merger of CBOP and HDFC bank was initiated in 2007 and completed 2008 with the requisite approvals.

**LITERATURE REVIEW:**

Kazushi Kan and Tara Ohno(2012) have studied the merger of banks using EVA. They researched the individual banks and the banking industry in Japan. They concluded that “the banking sector has not earned as much profit as expected by their shareholders up to this point. Also, although many major banks implemented mergers around the year 2000, not all the mergers have achieved successful result so far from the perspectives of EVA improvement. Based also on the result of empirical analysis, one of the important factors which contributed to the positive impact of merger is increase in loan market share, and it was proven that the higher loan market share the bank has acquired after the merger, the higher EVA it has achieved”.

Fogelberg and Grifith (2000) had used EVA to examine the relation between management ownership and firm performance of 100 largest banks in US. Their results have shown that “a significantly positive nonlinear relation between management ownership and performance. Performance rises until the management’s holdings reach approximately 12% and then declines until ownership reaches 67% of the firm. This differs from the results of Pi and Timme (1993), and suggests that management entrenchment, or some other mitigating factor, may be influencing our results. While Pi and Timme do not use a market-based measure of performance, our study is based on such a measure”.

Verma (2002?) had studied the economic value added by banks in India during the period 1996-2001. He had concluded that the “role of a traditional banker has been replaced with financial services provider for the clients. Most of the PSU and private sector banks in our country have already started looking at their portfolio of services offered and what they should do in the future for remaining competitive in the industry. As public sector banks are likely to undergo major consolidation, suddenly for many Indian banks things have changed. The merger of Timesbank with the HDFC Bank and that of ICICI Bank with Bank of Madura points at the possibility of further consolidation in the industry for adding values. While in both these cases market immediately reacted sharply by increasing their capitalization and shareholders of both these banks saw appreciable increase in their wealth. This just goes on to prove that among other factors, bankers now will have to constantly seek to invest in technology and also be open to strategic alliances, M&A, restructuring and other exercises for adding EVA to shareholders wealth all the time”.

**METHODOLOGY:**

This study evaluates the merger of CBOP with HDFC Bank using the Economic Value Added (EVA) approach. EVA® is a tool used by bankers to measure the performance of their banks<sup>4</sup>.

EVA is “ the difference between NOPAT and the Capital Charge for both debt and equity”<sup>5</sup>. Mathematically,  

$$EVA = NOPAT - WACC * Capital\ invested \dots\dots\dots (1)$$

NOPAT = Net Adjusted Operating Profit , WACC = Weighted Average Cost of Capital

Based on (1) , EVA has 3 components which need to be computed.

**NOPAT:**

Stewart (1991)<sup>6</sup> defines NOPAT as” the profits derived from the company’s operations after taxes but before financing costs and non cash book keeping entries”. NOPAT as originally suggested by Stern Stewart &Co, had a huge number of adjustments to be made to the reported profit based on accounting norms. These adjustments may be possible only when there is access to detailed data, which may not be the case for outside analysts. In

the case of banking entities in India, RBI has put in place rigorous accounting norms in the interest of banks' health and also transparency. Therefore, in this paper, interest expended and the net provision for non performing loans is added to the reported Profit After Tax. Provision for non performing loans is added since it is a only a book entry and may change its status subsequently. Depreciation is considered as an economic cost following Ritesh Patel etal (2012)<sup>7</sup> while computing the profit.

**COST OF DEBT:**

The exact debt used and the period of its usage during the year under review will not be available to outsiders. Hence the average of opening and closing debt as reported in the balance sheet as of 31/03 for each year is taken. The interest outgo for the year is divided by this average and the resulting cost of debt is adjusted for the tax @ 33%.

**COST OF EQUITY:**

Cost of equity is the expected rate of return that equity investors require to purchase the common stock in a company. Estimating the cost of equity is a complex task with differing methods and assumptions. But “The CAPM method remains as one of the most commonly used by practitioners and financial advisors to estimate the cost of equity”<sup>8</sup>.

The Capital Asset Pricing Model (CAPM) is given by

$$E(r) = R_f + \beta*(R_m - R_f).$$

This model consists of two parts. One part is the risk free rate  $R_f$  and the other part is the company specific risk premium  $\beta*(R_m - R_f)$ . The equity  $\beta$  is “the risk that the investment adds to a market portfolio”<sup>9</sup>. The term  $(R_m - R_f)$  is the additional return that the investors expect to invest in equities compared to a riskless investment.

In this paper, the risk premium is computed using historical values. For the purpose of calculating the historical  $\beta$ , the bankex, as given out by the Bombay Stock Exchange (BSE), is taken as the market index. This is done since the more popular Sensex is a general index comprising of several sectors of the economy. Therefore the choice of bankex which would be more representative since this is a sectoral index pertaining to the banking stocks only. The market return and the individual scrip return is taken on a monthly basis for the purpose of computing  $\beta$ .

The yield on 10 year Government of India bonds have been sourced and the arithmetical average over an one year period has been taken as the Risk free rate ( $R_f$ ) for that particular year.

The weighted average cost of capital is computed using the relative proportion of equity and debt.

**ADJUSTMENTS:**

In July 2011, the face value of shares of HDFC Bank were split from Rs.10/- to Rs.2/-. The split became effective 14/07/2011. Hence the market prices were adjusted by multiplying the prices by 5 for the rest of the period of study

The data required for the study has been obtained from the websites of Reserve Bank of India, BSE, HDFC bank annual reports of HDFC bank and other reputed sites.

**DATA ANALYSIS AND RESULT:**

The data has been analyzed from the acquiring company’s perspective only. The data is analyzed for the period financial year 2004-05 to 2012-13. This time period is divided into two parts of 4 years before the merger i.e. 2004-05, 2006, 2007, 2008 and 4 years after the merger i.e. 2010,2011,2012,2013. The year 2009 has been left out because the merger took place in the year 2008-09. Four years time is considered reasonable for the merger effect play out.

The NOPAT and Cost of debt computed are given in Table 1 below

**Table 1. NOPAT and cost of debt**

	NOPAT (Rs. Lacs)	Cost of debt
<b>Before Merger</b>		
2005	215734	3.51%
2006	328004	3.85%
2007	518191	4.90%

2008	769334	5.54%
<b>After Merger</b>		
2010	1267393	4.78%
2011	1407450	4.65%
2012	2105215	6.07%
2013	2739016	6.42%

The cost of debt is showing a cyclical trend in line with the monetary policies of the Reserve Bank of India. The NOPAT has been increasing at a healthy rate.

The Beta and cost of equity of HDFC bank over the years 2005-2013 is given below in Table 2

**Table 2. Beta and cost of equity**

Year	Beta	cost of Equity
<b>Before Merger</b>		
2005	0.468616	25.91%
2006	0.632092	36.86%
2007	0.64367	17.00%
2008	0.788716	16.23%
<b>After Merger</b>		
2010	0.641519	22.17%
2011	1.09156	34.38%
2012	0.579217	27.71%
2013	0.601879	3.17%

The Beta of HDFC Bank has been around 0.6 for the study period except during the year 2011. The cost of equity has been in line with stock market performance. During the year 2013, the cost of equity has decreased drastically from around 28% during the previous year to 3.17%. This could be possibly due to the low expectations of the equity investors due to lackluster performance of the stock markets during a major part of the year.

The Economic Value Added for the period 2005-2013 is given below in Table 3

**Table 3: EVA**

Year	EVA
<b>Before Merger</b>	
2005	705
2006	-18562
2007	175373
2008	191709
<b>After Merger</b>	
2010	212950
2011	-160417
2012	175032
2013	1207893

The EVA has exhibited cyclical trend after the merger. The bank had destroyed value during the year 2011 possibly due to the very high cost of equity (34.38%). Since 2011, the bank has increased the EVA and the year 2013 has been exceptionally good in terms of EVA for the bank. Probably the merger effect has started paying its role.

**CONCLUSION:**

The future of the merged entity seems to be good going by the trends but one has to wait and see if the same level performance can be continued. The sudden spurt in the EVA during the year 2013 could possibly also be due to the very low cost of equity. This may not be the case in future. If the cost of equity is taken at a more reasonable 25%, the EVA would be Rs. 417414 rather than Rs.1207893.

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