

# Insights on Shareholder Value Addition from India's Wealth Club: A Study of Selected Companies

Mandeep Kaur\* and Sweety Narang\*\*

*'Managing for shareholder value' and 'shareholder value creation' have become the widely accepted corporate objectives since the last decade. Most of the companies in India are still in the dark about what exactly they are supposed to do for managing shareholder value, though virtually they all say that they are doing it. For the real key to create wealth, a business enterprise has to earn economic returns to its owners for its economic survival. In a market-driven economy, there are a number of firms that create wealth, whereas others certainly destroy it. Economic Value Added (EVA), being a value-based measure, assists investors with wealth discovery and company-selection processes. In the present study, an attempt has been made to explain the application of EVA principles for the evaluation of companies and industries. It highlights and explains all the elements that find place in EVA computations like calculations of Return on Invested Capital (ROIC), Weighted Average Cost of Capital (WACC), cost of debt, cost of equity as per Capital Asset Pricing Model (CAPM), cost of preference capital, and finally of EVA. Taking a sample from India's most valuable companies, the study shows that on an average, about 48% of the companies are actually wealth destroyers. It is quite shocking that of the 12 years study period, from 1996-2007, the sample registered negative EVA for eight years consecutively (1996-2002). Hence, the study raises a question as to whether this is a sufficient achievement for India's so-called most valuable companies or not. Finally, the study provides the implications of the findings on corporate business strategies of Indian companies and advocates a few suggestions.*

## Introduction

The common misconception in today's corporate world is that most owners and managers believe that shareholder wealth increases with an increase in a company's standard accounting measures like profits, Earnings Per Share (EPS), Dividend Per Share (DPS), etc. But, these Generally Accepted Accounting Practices (GAAP)-based accounting measures just reflect accounting numbers which can be easily manipulated to reflect the company as more profitable than what it actually is in reality. This may present at first, misleading information to the company's shareholders, and secondly, may create a sense of complacency among managers

\* Reader, Department of Commerce and Business Management, Guru Nanak Dev University, Amritsar, India. E-mail: mkaur02@yahoo.co.in

\*\* Senior Research Fellow, Department of Commerce and Business Management, Guru Nanak Dev University, Amritsar, India. E-mail: sweety\_narang2001@yahoo.co.in

that keep them away from looking for further opportunities to add value. Hence, the true reality of a company's success or failure is not exhibited by its accounting reality, but rather through its economic reality that deals with the intrinsic values being added or destroyed by the company.

Economic Value Added (EVA) is the financial measure developed by Stern Stewart & Co. that emphasizes on the economic profits and values being created or eroded by a company. EVA is similar to the conventional accounting measures of profits, but with two important differences—it considers the cost of 'all' capital and is not constrained by GAAP. The net income figures reported in the profit and loss accounts consider only the most visible type of capital cost, i.e., interest, while completely ignoring the cost of equity capital as reflected by shareholders' required return on common stock. Proponents of EVA argue that measures of performance that overlook such costs cannot reveal the actual view of a company's value creation/addition. Further, to measure real economic profits, EVA proponents have also recommended a series of adjustments to eliminate distortions arising from GAAP. These have been discussed later in this paper.

### **EVA: Concept and Calculation**

EVA is based on the Residual Income (RI) concept which states that wealth is created when revenues are sufficient to cover a firm's operating costs and cost of capital. "As a concept, EVA starts simple, but in practice can be made as comprehensive as needed to accommodate management's needs and preferences" (Stewart, 1994). The concept of EVA is measured as:

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - \text{Capital Charge} \\ &= \text{NOPAT} - \text{WACC} \times \text{Economic Capital} \end{aligned} \quad \dots(1)$$

Hence, in its unadjusted form, EVA is nothing but equivalent to Marshall's RI, i.e., Net Operating Profit After Tax (NOPAT) minus capital charge. EVA is one step ahead of the RI concept because it also incorporates the GAAP-based accounting adjustments that are required to be made in a firm's NOPAT and invested capital to convert these accounting numbers into economic numbers. Actually, Stewart identified a number of potential distortions present in GAAP-based accounting and developed around 164 adjustments to be made in the financial statements to reflect economic profits and economic capital. In practice, however, most EVA proponents have found 8-10 adjustments, also known as 'equity equivalents', as truly significant from the viewpoint of Indian companies. The logic is to strike a balance between simplicity, precision, consistency and materiality of the adjustments being made. For the purpose of the study, NOPAT has been defined as net operating profits after adjusting for non-operating items, non-recurring events and other economic adjustments, to compute economic profits from accounting profits. In other words,

$$\begin{aligned} \text{NOPAT} &= (\text{PAT} + \text{Non-Recurring Expenses} + \text{Revenue Expenditure on R\&D} + \text{Interest} \\ &\quad \text{Expense} + \text{Goodwill Written Off} + \text{Provision for Taxes}) - \text{Non-Recurring} \\ &\quad \text{Income} - \text{R\&D Amortization} - \text{Cash Operating Taxes} \end{aligned}$$

Further, economic capital has been calculated as:

$$\text{Economic Capital} = \text{Net Fixed Assets} + \text{Investments} + \text{Current Assets} - [\text{Non-Interest Bearing Current Liabilities (NIBCLs)} + \text{Miscellaneous Expenditure Not Written Off} + \text{Intangible Assets}] + (\text{Cumulative Non-Recurring Losses} + \text{Capitalized Expenditure on R\&D} + \text{Gross Goodwill}) - \text{Revaluation Reserve} - \text{Cumulative Non-Recurring Gains}$$

The present study is based on the following specific objectives:

- To discuss in detail the major issues involved in the computation of EVA, i.e.
  - Calculation of NOPAT,
  - Calculation of Weighted Average Cost of Capital (WACC) with special reference to cost of equity as per Capital Asset Pricing Model (CAPM), and
  - Calculation of EVA;
- To apply the theory of EVA principles in practice to reflect the true economic performance of the selected Indian companies; and
- To discuss the implications of the results on the strategies of Indian companies.

This paper discusses the database and methodology; gives an overview of the Return on Invested Capital (ROIC) computations as per the theory of EVA, as well as the ROIC earned by sample companies; discusses the WACC in detail where cost of equity capital is computed as per CAPM; depicts the computed WACC of sample companies; reflects the true EVA calculations and the computed economic profitability of the selected Indian companies; discusses the implications of the findings on the corporate business strategies; and finally, summarizes the findings.

## Database and Methodology

For the underlying objectives of the research work, a sample of top 205 companies has been selected from BT-500 India's most valuable companies. The rationale behind selecting BT-500 (year 2006 rankings), as the sample base is that these companies are ranked on the basis of market capitalization in the Indian securities market. The performance of these companies may be observed as broadly summing the performance of the entire corporate sector in the country. Thus, this sample may be projected to be a true representative of the EVA domino effects of the corporate sector in the country. Further, of the 205 companies, banks, financial institutions and Non-Banking Financial Companies (NBFCs) are excluded from the list to prevent distortions in the comparisons. Companies for which complete financial information is not available have also been excluded, resulting in a final sample of 104 companies. The study is based on secondary data and covers a period of 12 years ranging from 1995-1996 to 2006-2007. All the financial information required for the study has been sourced from the Centre for Monitoring Indian Economy (CMIE)'s corporate database 'Prowess' and the data regarding share prices has been taken from the 'Capitacharts' of Capital Market Publishers of

India Ltd. The risk-free rates are obtained from RBI's annual reports. Further, Mumbai-based Stern Stewart & Co. emphasized eight accounting adjustments as significant from the perspective of Indian companies, while conducting *Business-Today's* survey for EVA analysis in June 1999. The present study carries out all these adjustments in the financial statements of the sampled companies in order to convert the book profits and book capital into operating profits and economic capital. Such accounting adjustments provided by Dubey (2000) are briefly explained as follows:

- **Non-Recurring Income and Expenditure:** Non-recurring items are excluded from NOPAT, and are capitalized after tax. Non-recurring losses or expenditures are taken as additions to capital while non-recurring incomes or gains are deemed to be reductions from it. For instance, Tata Motors' net non-recurring transactions amounting to Rs. -5.82 cr (excess of non-recurring expenditure over non-recurring income) for the year 2003 was at first added to its profit after taxes amounting to Rs. 300.11 cr and were capitalized over a five-year period ranging from 2003 to 2007.
- **R&D:** R&D expenditure can make up a large portion of the total expenditure of certain companies, for instance, high-tech organizations or pharmaceutical companies. GAAP generally requires most R&D expenditures to be expensed immediately, causing earnings of that particular company to be understated in the year when such R&D efforts are made. EVA capitalizes successful R&D efforts and amortizes the amount over the period benefiting the successful R&D efforts. Thus, in EVA methodology, revenue expenditure on R&D was charged to the profits in the year in which it was spent. However, R&D is a strategic investment. So, the after tax R&D expenditure is included in the capital and added back to NOPAT. The amount included in the capital is amortized over five years. For example, Astrazeneca Pharma India Ltd.'s R&D on current account for the year 2003 at Rs. 2.33 cr was at first added back to its Profit After Tax (PAT). Then, its R&D expenditure on capital account, amounting to Rs. 0.44 cr, was amortized over the five-year period, i.e., Rs. 0.088 cr each year till 2007. Finally, the amount deducted from PAT as R&D amortization in the year 2003 was Rs. 3.562 cr (Rs. 2.33 cr of R&D on current account, plus Rs. .088 cr as amortized part of R&D on capital account for the year 2003, plus Rs. 1.144 cr as the portion of R&D on capital account amortized for the years 1999 to 2003).
- **Goodwill:** Goodwill is a permanent investment in businesses on which shareholders expect returns, and should not be amortized. Thus, goodwill amortization is excluded from the calculation of NOPAT and gross goodwill is included in capital. For instance, in case of ACC Ltd., goodwill amortization of Rs. 7.21 cr was added back to profits and gross goodwill at Rs. 7.59 cr was included in the capital.
- **Interest:** All interest expenses are added back to profits because interest amounts are considered as capital charges rather than as operating expenses. The tax benefits of interests are also removed and the cash operating taxes for a company are adjusted accordingly. This is done as the tax benefits of interests are considered in the cost of capital. This adjustment separates the financing and investing activities of businesses.

For example, Hindustan Unilever's interest expenditure amounting to Rs. 10.73 cr was added to profits at first. Further, after tax, the cost of debt was considered for calculating WACC.

- **Non-Interest Bearing Current Liabilities (NIBCLs):** The financing costs associated with paying supplies and employees with some delay are already included in the costs of the goods sold. Hence, these costs are excluded from capital. Moreover, capital charge is the charge for equity and debt. That is why the study excludes 'free capital', i.e., non-interest bearing current liabilities. In Hindustan Unilever Ltd., NIBCLs were found to vary from a low of Rs. 764.28 cr in 1996 to a high of Rs. 3,201.63 cr in 2007. Thus, while calculating economic capital for each year, NIBCLs were excluded from the capital.
- **Investments in Marketable Securities:** These are included in capital and the income from these securities, as shown in the books of accounts, is included in NOPAT. For instance, the marketable securities of ABB Ltd. for the year 2007 at Rs. 346 cr were included in the capital and the income from these securities was added to the profits.
- **Cash Operating Taxes:** Cash taxes actually paid to the tax department are used in the calculation of NOPAT, rather than in the income tax expenses. Hence, tax adjustment starts with the provision for taxes, which is restated to reflect taxes paid on operations. For that purpose, the tax effects of financing and non-recurring items are eliminated. For the purpose of this study, this figure is taken as such from the database.
- **Revaluation Reserve:** Revaluation reserve is excluded from capital as this is not the capital that is contributed by shareholders; its inclusion muddies up the picture of the returns that a business is achieving on its capital base. For instance, Bombay Dyeing's revaluation reserve was as much as Rs. 83.28 cr that was excluded from capital while calculating economic capital of the company.

## Computation of ROIC of the Sample Companies

In the present study, ROIC has been calculated on the basis of economic capital (as discussed above) instead of invested capital, as disclosed in the financial reports of the companies. Thus, Equation (1) can be rewritten as:

$$EVA = (ROIC - WACC) \times \text{Economic Capital}$$

where  $ROIC = NOPAT / \text{Economic Capital}$ .

Here, it is worth mentioning that rates of return of the sample companies are calculated after providing for all the equity equivalents discussed above. These calculated rates of return are shown in Table 1. Colgate-Palmolive (India) Ltd. yielded the highest average rate of return of 71.43% per annum over the period under study. Nestle India Ltd. ranked second with 47.76% average rate of return per annum. Overall, the sample registered a 19.23% average rate of return on total economic capital, ranging from a high of 24.85% in the year 2007 to a low of 15.83% in the year 1999.

**Table 1: ROIC of the Sample Companies for the Period 1996 Through 2007** (in %)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
3MINDIA	19.27	13.82	12.44	15.34	11.91	20.15	21.99	26.27	25.81	22.79	25.43	37.52	21.06	35
ABB	33.12	19.08	19.64	11.02	11.58	15.43	17.40	19.53	21.09	32.71	37.77	43.14	23.46	28
ACC	20.41	10.13	5.86	6.92	4.11	9.86	12.08	7.76	11.90	14.07	6.76	27.99	11.49	83
ABAN	17.10	22.36	-32.16	11.65	9.02	2.66	12.26	16.31	23.14	10.56	17.29	11.02	10.10	91
ABIRLANUVO	14.23	13.88	12.09	9.64	7.43	8.84	6.72	10.14	10.51	8.68	8.77	8.09	9.92	92
ALFALAVAL	15.34	-14.21	2.37	8.82	16.87	20.88	36.69	34.08	38.53	41.54	34.30	35.74	22.58	31
AMBUJACEM	9.07	14.43	11.86	11.82	13.73	10.71	11.33	11.38	10.94	11.93	15.59	39.86	14.39	66
ANANTRAJ	25.48	14.90	1.90	28.52	17.43	2.38	8.94	6.44	5.61	4.43	-7.07	-7.99	8.41	100
ANSALINFRA	36.21	43.95	26.63	14.62	12.51	17.21	21.20	15.18	13.68	20.93	111.89	33.64	30.64	11
APOLLOHOSP	19.48	16.10	14.92	16.07	13.78	14.98	12.50	14.43	16.16	17.15	11.50	14.39	15.12	62
Areva T&D India Ltd.	10.85	13.20	0.66	0.12	1.21	2.69	5.22	9.24	4.66	19.20	23.84	52.24	11.93	77
ASAHINDIA	11.74	16.27	13.14	14.73	23.38	16.25	15.60	9.48	18.58	14.03	7.53	4.83	13.80	70
ASHOKLEY	11.61	12.51	7.47	7.38	10.56	10.75	11.22	12.63	18.09	13.07	15.00	16.68	12.25	75
ASIANPAINT	22.86	23.25	18.80	17.38	26.22	22.89	30.81	34.04	34.14	36.55	43.11	47.31	29.78	14
ASTRAZEN	26.94	31.85	36.51	30.28	29.52	31.87	4.29	18.04	31.80	30.50	39.08	40.80	29.29	15
Atlas Copco India Ltd.	29.71	30.84	16.70	-14.63	22.06	14.85	21.53	12.45	33.86	37.97	36.65	40.86	23.57	27
AVENTIS	15.24	19.25	11.45	7.70	19.27	18.04	28.62	32.13	42.75	45.56	38.42	36.74	26.26	19
BAJAJHLDNG	31.83	27.39	21.45	18.73	14.25	6.50	11.63	13.96	13.86	11.98	15.86	13.97	16.78	51

Table 1 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
BERGEPAIN	33.69	25.40	24.21	17.07	16.25	16.76	18.26	22.05	25.08	21.89	30.02	26.40	23.09	29
BHARATFORG	16.10	17.70	13.95	11.44	15.60	14.46	13.13	24.54	28.12	23.52	13.66	13.69	17.16	48
BIRLAJUTE	20.16	6.44	-2.87	-2.21	2.22	3.48	5.17	4.51	11.54	18.61	22.95	41.63	10.97	87
BOMDYEING	13.76	6.92	3.13	6.50	8.03	0.75	-5.03	5.51	0.56	1.32	2.85	6.07	4.20	102
BOSCHLTD	33.46	27.97	26.31	18.10	26.25	24.49	14.98	24.52	33.72	34.94	23.99	18.17	25.57	20
BRITANNIA	18.00	19.51	19.46	19.95	25.26	24.36	20.89	23.00	30.53	28.05	26.80	15.81	22.63	30
CESC	7.22	5.22	3.45	7.54	10.19	5.61	10.98	11.85	12.54	13.02	12.35	11.24	9.27	94
CASTROL	44.06	43.13	48.82	47.44	44.84	33.37	30.58	47.02	46.04	40.83	41.96	39.06	42.26	5
CENTURYTEX	10.51	5.85	3.36	4.03	6.80	9.77	7.71	9.63	6.39	8.70	7.68	21.67	8.51	99
CHAMBLFERT	20.16	17.87	15.88	11.21	10.81	12.13	13.68	11.68	11.64	10.56	11.03	8.18	12.90	74
CIPLA	15.91	33.73	29.38	25.33	24.06	26.27	25.94	20.66	21.99	21.26	18.95	20.17	23.64	25
COLPAL	107.86	91.04	55.18	27.41	31.53	37.72	51.80	81.24	81.56	86.91	113.19	91.72	71.43	1
CROMPGREAV	16.68	12.19	8.68	9.07	-2.90	-12.71	3.04	12.91	14.39	19.66	23.63	27.34	11.00	86
CUMMINSIND	36.84	33.81	27.23	22.76	24.26	21.89	14.92	15.06	17.98	23.22	27.84	33.59	24.95	22
DABUR	17.72	16.73	13.96	12.86	14.71	21.20	14.91	19.39	30.82	35.83	44.16	59.74	25.17	21
DRREDDY	18.73	14.57	21.28	16.01	15.84	25.75	36.65	21.36	14.42	0.71	8.26	32.40	18.83	43
EID Parry India Ltd.	8.21	9.59	10.43	12.14	12.69	11.94	12.65	7.73	4.69	13.20	10.41	-4.65	9.09	96
EIH Ltd.	27.20	23.31	19.07	12.10	8.54	9.53	4.17	3.15	5.44	8.19	6.26	13.41	11.70	81
EXIDEIND	16.08	17.22	11.13	14.32	14.92	12.07	11.28	16.67	20.51	14.30	18.06	24.08	15.89	57



Table 1 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
GHCL	20.37	20.82	19.08	17.00	10.92	14.83	17.74	17.41	12.28	12.39	13.65	18.55	16.26	54
GAMMONIND	26.64	16.52	17.23	16.95	17.99	16.85	17.36	17.68	21.31	12.75	15.70	15.00	17.67	46
GSKCONS	58.92	62.51	57.94	50.06	43.40	48.26	46.01	31.30	18.59	20.93	17.66	19.03	39.55	6
GLAXO	-12.53	30.53	23.10	23.37	16.81	17.66	15.87	18.03	19.48	15.28	10.90	12.92	15.95	56
GODREJIND	5.31	5.61	3.38	3.79	14.10	15.13	13.21	15.15	15.88	9.08	2.15	5.61	9.03	97
GRASIM	14.15	11.89	10.71	8.45	9.80	12.38	11.15	15.34	18.51	20.08	16.10	23.64	14.35	67
GUJFLUORO	50.50	52.03	36.22	33.73	26.79	17.62	12.85	11.52	12.79	10.00	6.95	27.18	24.85	23
GUJRATGAS	29.04	27.25	15.51	19.98	18.25	27.08	23.76	19.49	19.82	18.36	17.19	15.25	20.91	36
GULFOILCOR	15.72	22.55	20.53	15.31	13.53	-8.01	8.58	8.48	-10.20	-3.80	4.86	12.14	8.31	101
HCL-INSYS	25.50	13.70	15.90	12.40	26.22	18.25	17.84	14.48	23.46	23.53	23.02	18.79	19.42	40
HEROHONDA	33.49	32.40	40.07	44.97	49.56	51.53	59.39	54.91	58.87	50.27	48.98	37.74	46.85	3
HINDALCO	32.52	20.44	19.27	21.16	23.80	21.03	18.18	12.88	13.07	14.65	13.09	17.16	18.94	42
HCC	20.59	13.66	8.74	8.80	11.44	16.36	8.59	13.77	14.34	13.06	4.59	7.79	11.81	79
HINDUNILVR	35.24	32.76	46.52	49.21	50.72	54.63	51.95	47.93	47.77	35.48	51.42	42.36	45.50	4
HINDZINC	10.96	9.49	19.88	14.33	19.11	21.95	24.41	29.23	34.40	32.17	51.99	79.65	28.96	16
HOTELEELA	24.79	16.36	9.29	7.16	5.50	4.48	1.84	4.82	5.57	7.94	8.69	10.64	8.92	98
ITC	28.19	32.73	29.73	30.01	34.14	40.62	37.93	34.98	34.74	40.11	31.33	32.14	33.89	9
INDIACEM	16.82	13.33	9.73	12.67	8.84	10.76	3.01	-4.54	1.60	3.73	10.79	22.58	9.11	95
INDHOTEL	35.71	29.62	23.51	20.10	16.90	13.45	-1.20	5.97	3.37	11.20	17.90	21.99	16.54	52
INFOSYSTCH	34.81	35.17	35.55	26.69	36.52	53.58	45.74	42.04	36.96	39.58	34.93	35.27	38.07	7



Table 1 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
ISPATIND	8.27	5.76	4.22	2.71	1.72	0.31	-3.52	2.86	5.33	12.53	-7.42	10.92	3.64	104
JINDALSAW	17.60	21.16	21.71	13.71	17.67	11.13	18.27	21.57	22.99	11.43	11.70	15.64	17.05	49
JUBILANT	21.16	17.75	17.18	15.69	8.58	12.24	10.41	17.31	17.47	15.15	9.98	10.06	14.42	64
KANSAINER	26.97	28.98	22.97	17.96	18.45	13.76	14.43	16.57	21.50	26.01	23.71	22.81	21.18	34
KBL	11.29	14.61	12.22	13.89	11.33	3.56	9.74	9.38	20.33	20.66	21.24	47.93	16.35	53
KIRLOSOIL	17.76	12.89	2.51	11.01	10.23	10.43	8.84	7.66	22.35	27.91	24.32	17.02	14.41	65
LAXMIMACH	21.72	15.56	11.39	6.51	10.76	14.15	10.31	13.82	22.37	31.97	42.00	45.94	20.54	37
LT	12.72	12.55	8.00	8.49	8.89	8.60	9.67	9.39	19.27	15.99	19.92	23.39	13.07	73
LUPIN	11.46	13.74	17.30	18.39	8.38	12.90	14.16	12.63	23.44	9.11	14.53	15.92	14.33	68
MADRASCHEM	25.39	14.62	13.56	14.09	10.97	10.86	9.87	7.72	9.28	7.75	11.83	28.38	13.69	71
MAHSEAMLES	15.16	11.95	11.40	14.97	19.71	23.81	31.65	29.87	25.91	25.69	21.54	32.79	22.04	32
M&M	30.51	19.93	16.53	15.05	17.68	8.04	6.94	9.03	16.97	20.30	17.87	24.07	16.91	50
MOSERBAER	21.89	14.88	15.45	15.71	11.74	15.62	15.21	12.56	12.13	1.80	2.25	6.05	12.11	76
MOTHERSUMI	18.29	22.12	19.33	18.15	21.83	27.64	19.75	22.14	26.67	25.30	14.28	21.06	21.38	33
NAGARCONST	28.28	10.05	6.69	6.50	5.83	6.92	12.89	13.76	14.30	14.41	10.69	10.07	11.70	80
Nestle India Ltd.	20.36	19.59	28.00	31.04	39.59	45.07	53.62	71.35	71.79	62.62	71.84	58.29	47.76	2
NICOLASPIR	13.95	17.77	12.06	18.05	16.82	22.23	30.27	31.84	31.51	13.68	16.52	18.45	20.26	38
Novartis India Ltd.	16.88	15.39	25.09	33.26	27.61	23.28	23.05	16.31	22.53	40.65	35.22	98.30	31.46	10
PFIZER	30.66	30.90	29.08	26.85	43.66	43.58	40.69	38.77	20.20	21.96	19.50	13.86	29.98	13

Table 1 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
PIDILITIND	19.22	21.66	25.11	29.99	31.58	29.65	29.36	27.64	26.17	26.58	26.14	24.88	26.50	18
PGHH	27.44	30.96	21.03	26.20	49.62	43.54	34.48	58.09	48.14	44.63	36.36	33.80	37.86	8
RANBAXY	13.53	13.51	14.88	9.34	15.86	14.05	14.88	29.29	30.33	17.98	1.40	6.63	15.14	61
RAYMOND	13.86	9.58	11.68	14.43	10.81	8.40	8.46	9.08	10.01	4.69	7.97	3.94	9.41	93
RELIANCE	10.44	9.03	11.66	11.43	16.29	20.44	13.41	15.52	14.88	17.63	16.61	17.54	14.57	63
REL	8.74	10.80	13.08	13.83	13.55	11.48	12.20	6.47	5.14	7.04	8.20	13.07	10.30	89
SKFINDIA	22.01	22.61	8.61	8.26	6.84	3.72	7.93	9.59	10.15	25.45	27.68	31.48	15.36	60
SRF	16.39	17.87	16.41	15.46	21.53	10.21	7.82	14.01	12.74	8.84	13.35	31.37	15.50	58
SATYAMCOMP	22.21	19.40	16.95	25.38	29.47	35.55	27.31	15.48	23.53	25.45	25.76	25.79	24.36	24
SESAGO	7.51	13.99	16.33	16.21	4.36	11.47	10.02	8.00	37.90	77.97	63.04	53.26	26.67	17
SIMPLEXINF	22.53	20.51	17.06	12.85	13.05	12.66	12.33	13.82	8.75	13.19	12.86	11.49	14.26	69
SINTEX	14.32	14.44	10.86	6.69	8.20	10.39	7.74	10.12	11.78	10.59	12.05	14.43	10.97	88
STERLINBIO	12.51	10.62	10.12	12.88	13.39	15.09	8.94	11.32	15.11	13.32	6.88	8.42	11.55	82
STER	11.23	10.07	7.06	8.39	10.72	15.77	7.70	10.74	8.11	6.41	11.89	13.40	10.12	90
SUNPHARMA	25.83	27.70	23.51	20.28	31.55	30.95	33.42	30.23	19.61	10.50	14.27	15.75	23.63	26
SUNDRMCLAY	23.95	24.75	10.47	14.70	14.13	11.16	13.70	19.77	21.39	19.35	19.95	21.97	17.94	45
SUNDRMFAST	25.93	23.08	19.11	17.81	19.98	17.44	16.96	20.93	19.52	17.61	14.50	16.75	19.13	41
TATACHEM	22.88	17.33	17.44	12.30	11.69	7.02	7.89	11.92	10.81	9.10	15.97	18.41	13.56	72
TATAMOTORS	25.67	21.21	12.46	6.60	5.85	1.21	6.18	16.24	28.24	26.86	32.22	29.23	17.66	47
TATAPOWER	20.07	12.89	11.64	11.70	11.89	10.97	11.88	13.56	15.73	7.00	7.67	6.93	11.83	78

Table 1 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
TATASTEEL	13.87	13.09	10.00	7.89	8.31	13.50	7.04	15.60	27.06	45.51	37.40	26.37	18.80	44
TATATEA	17.61	18.44	24.44	29.95	16.22	13.23	8.53	10.05	11.07	13.95	12.07	10.32	15.49	59
TITAN	13.15	13.57	12.95	13.47	11.60	11.62	12.92	15.02	15.78	19.37	26.16	27.78	16.12	55
TUBEINVEST	13.24	9.54	8.55	6.29	9.68	11.25	11.97	10.79	14.16	13.77	12.62	11.59	11.12	84
UNITECH	23.56	23.07	15.44	14.54	13.46	9.99	4.57	10.56	13.07	17.28	50.10	42.13	19.81	39
VTL	9.46	13.47	15.09	13.51	13.32	11.99	7.89	8.74	10.66	10.72	10.11	8.09	11.09	85
VOLTAS	12.30	2.92	8.29	-7.71	14.80	1.11	-37.19	7.01	-4.33	11.37	6.35	34.14	4.09	103
WIPRO	19.04	22.08	23.38	26.23	48.36	39.87	41.30	26.66	24.01	32.43	31.02	32.63	30.58	12
<b>Average (Year-Wise)</b>	<b>21.33</b>	<b>19.66</b>	<b>16.58</b>	<b>15.83</b>	<b>17.47</b>	<b>16.94</b>	<b>16.50</b>	<b>18.44</b>	<b>20.30</b>	<b>20.81</b>	<b>22.02</b>	<b>24.85</b>	<b>19.23</b>	-

## Computation of WACC

WACC normally constitutes four components—cost of equity, cost of preference shares, cost of debt, and cost of retained earnings. In this study, retained earnings form part of the equity capital. Hence, cost is not calculated separately for retained earnings.

WACC is defined as the total returns demanded by debt, preference and equity investors, weighted against the proportion of their share in the target capital structure of the company (Ooi and Liow, 2002). Each of these components are discussed in some detail below.

## Cost of Equity ( $k_e$ )

There are several methods to calculate this component, including the dividend discount model, the premium over long-term debt model, CAPM, etc. Of these, CAPM uses the market as a benchmark for estimating  $k_e$ . It assumes that cost of equity is simply a risk-free rate of return plus a premium that investors require to take an additional market risk (Abdeen, 2000). Moreover, Stewart also preferred CAPM for the calculation of  $k_e$ . As per CAPM,  $k_e$  is calculated as:

$$R_j = R_f + (R_m - R_f) * \beta_j$$

where,  $R_j$  = Expected return on security  $j$ ;

$R_f$  = Risk-free rate;

$R_m$  = Market rate of return; and

$\beta_j$  = Beta, i.e., sensitivity of the return on scrip  $j$  to the changes in the market index.

CAPM states that shareholders require a return equal to the return on a risk-free

security (like treasury bills), plus a premium, to compensate them for the additional risk associated with stock market investing. The risk premium for a given company equals the market risk premium (the return equity that shareholders expect from investing in the overall stock market) times a beta coefficient that represents the volatility of that company's stock relative to the stock market index (such as BSE Sensex) (Young, 1997). The components of  $k_e$  have been discussed below in detail.

### **Risk-Free Rate ( $R_f$ )**

In the present study, weighted average of the interest rates on 364 days' treasury bills (for a period ranging from 1993 to 2007) has been taken as a proxy for the risk-free rate. For example, weighted average annual yield on 364 days' treasury bills has been noticed to be 11.23% in 1993, 11.67% in 1997, 9.76% in 2001, and 7.07% in 2007. By taking the average of these rates for the period 1993-2007, a single average rate is calculated which comes out to be 8.6323%. This has been taken as a single common risk-free rate for the whole period under study. Here, it is worth mentioning that treasury bills are issued by the RBI and are considered as risk-free securities. Misra and Kanwal (2004) also used simple average of returns on the same security for the period 1993-2003 as a risk-free rate.

### **Market Return ( $R_m$ )**

$R_m$  is the average return of the market as a whole, which is normally the return of the security exchange on which the shares are traded. Damodaran (2000) used the data for the period 1926-1990 for the computation of average premium of US stocks. Further, Misra and Kanwal (2004) used the simple average of daily return on BSE Sensex for the period January 1, 1990 to March 31, 2003, for the computation of  $R_m$ . The rationale for using such long periods of measurements is justified on the ground that the various business cycles and stock market cycles get covered by having a long-term basis of estimation of trend, if any (Misra and Kanwal, 2004). Hence, in the present study,  $R_m$  has been calculated as the simple average of daily return on BSE Sensex for the period April 1990 to March 2007. The formula to calculate  $R_m$  is:

$$R_m = \frac{\text{Closing Value of Sensex on Day } t - \text{Closing Value of Sensex on Day } t - 1}{\text{Closing Value of Sensex on Day } t - 1}$$

The average daily return for the said period is 0.0887. To identify  $R_m$ , this average daily return of 0.0887% is multiplied by 252, i.e., the average number of transaction days on BSE, which comes out to be 22.359%. This  $R_m$  of 22.359% has been used as a single common rate representing market return for all the years, in calculating  $k_e$ .

### **Risk Premium**

The market return minus the risk-free rate is the so-called market risk premium that represents the expectations of the shareholders over and above the  $R_f$ . This market premium is then multiplied by the beta factor and added to  $R_f$  to determine  $k_e$ . In the present study, market risk premium is calculated as,

$$\text{Market Risk Premium} = R_m - R_f, \text{ i.e., } 22.3587 - 8.6323 = 13.7264$$

This market risk premium of 13.7264% remains same for all the sample companies for the entire study period.

### **Beta ( $\beta$ )**

Beta, being a systematic risk factor, measures the returns of a company's shares relative to the returns of the market. If the returns of a company move in harmony with the market and show exactly the same volatility as the returns of the market, it is regarded as an average risk company with  $\beta = 1$ , as market beta is always equal to one. A company falls in the above-average risk category if its returns are more volatile than those of the market, i.e., its beta is greater than one ( $\beta > 1$ ). On the contrary, a company is said to be a below-average risk company with beta less than one ( $\beta < 1$ ) if its returns are less volatile than that of the market. Moreover, negative beta ( $\beta < 1$ ) is also possible but not likely. It indicates that stock is moving in the opposite direction from the market.

For the purpose of the study, beta values have been calculated on the basis of daily returns of both the individual security and the BSE Sensex.  $R_m$  is the same as has been discussed above. The daily returns of individual security on the BSE Sensex has been calculated as:

$$R_i = \frac{\text{Closing Prices of Security on Day } t - \text{Closing Prices of Security on Day } t - 1}{\text{Closing Prices of Security on Day } t - 1}$$

where  $R_i$  is the return on security  $i$  on day  $t$ .

To arrive at the beta of sample companies, the statistical technique of regression has been used, where  $R_i$  has been taken as the dependent variable and  $R_m$  as the independent variable. Beta, being the  $x$ -coefficient in the standard regression equation, has been determined for each year separately for all the sample companies. The beta coefficient has been calculated as:

$$\beta_i = \text{Cov}_{jm} / \sigma_m^2$$

where,

$\text{Cov}_{jm}$  is the covariance between security return and market return; and

$\sigma_m^2$  is the variance of market return.

### **Cost of Debt ( $k_d$ )**

The after-tax cost of debt is simply a bond's yield to maturity times one minus the firm's marginal tax rate. Since interest on debt is tax deductible, this adjustment must be made to properly reflect the true cost of the debt component (Abdeen, 2000). Hence, cost of debt has been calculated as:

$$k_d = \frac{\text{Total Interest Expenses} \times (1 - \text{Effective Tax Rate})}{\text{Average Total Borrowings}} \times 100$$

It is worth mentioning here that in the above formula, Effective Tax Rate (ETR) has been taken instead of Marginal Corporate Tax Rate (MTR). Actually, the Income Tax Act, 1961

provides a number of exemptions and disallowances to specific industries and companies which usually results in much difference between the company's MTR (as prescribed under the Act), and its ETR. Hence, computation of such ETR makes the financial information more revealing. Further, total borrowings include both long-term and short-term borrowings.

### Cost of Preference Share Capital ( $k_p$ )

Unlike debt, preference dividend is not deductible for tax purpose but is subject to the appropriation from profits. Therefore, in this case, no tax adjustment is required. The cost of preference capital is calculated by the simple formula:

$$k_p = \frac{\text{Preference Dividend}}{\text{Average Preference Capital}} \times 100$$

After calculating all the cost components, finally, the overall cost of capital is calculated by the formula:

$$\text{Overall Cost of Capital} = \text{WACC} \times \text{Economic Capital}$$

$$\text{Further, WACC} = (k_e \times W_e) + (k_d \times W_d) + (k_p \times W_p)$$

$$= k_e \times \left( \frac{E}{E + D + P} \right) + k_d \times \left( \frac{D}{E + D + P} \right) + k_p \times \left( \frac{P}{E + D + P} \right)$$

where,

$k_e$  = Cost of equity shareholders' funds;

$W_e$  = Percentage of equity shareholders' funds;

$k_d$  = Cost of debt;

$W_d$  = Percentage of debt;

$k_p$  = Cost of preference capital;

$W_p$  = Percentage of preference capital;

$E$  = Book value proportion of average shareholders' funds;

$D$  = Book value proportion of average total borrowings; and

$P$  = Book value proportion of average preference capital.

For the purpose of this study, equity shareholders' funds are calculated as: Average Equity Capital + Reserves and Surplus – Accumulated Losses – Miscellaneous Expenditure. The logic behind taking the average of all capitals (i.e., equity, preference capital and debt) is to account for all additional financing or debt repayments made during the year.

## WACC of the Sample Companies

The overall cost of capital weighted on the basis of companies' capital structure is tabulated in Table 2. Ispat Industries Ltd. ranked first with lowest WACC of 8.50%, whereas Asahi India Glass Ltd. ranked second with WACC of 8.86%. Further, HCL Infosystems Ltd. reported highest WACC of 41.06%, and hence got the least rank. WACC of all the sample companies averaged 17.83% over the study period ranging between a low of 16.86% in 2005 and a high of 19.36% in 1997.

## EVA of the Sample Companies

The EVA of a company has been computed by deducting the overall cost of capital from its adjusted NOPAT figure (as per the formulae given before). If such adjusted profits of a company are more than its overall cost of capital employed ( $r > c$ ), the company is said to be successful in creating shareholders' wealth (i.e., positive EVA company). On the other hand, a company is regarded as a wealth destroyer (i.e., negative EVA company) if its overall cost of capital is more than its adjusted profits ( $r < c$ ). Though rare, but, if the EVA of a company is zero, it must be considered as a sufficient achievement as the company has earned a return that is at least sufficient to cover up its overall cost of capital.

Table 3 depicts the average EVA created/eroded by the sample as a whole during the entire study period. It also shows the average EVA of each company along with the trend being followed by each of them during the study period. Further, it also signals the years where EVA was being created or eroded by the sample as a whole. Since the average rate of return of 19.23% per annum on the economic capital (as per Table 1), is more than the average WACC of 17.83% per annum (as per Table 2), it is apparent that the sample as a whole registered a positive EVA of Rs. 9.07 cr (as per Table 3) over the entire period under study.

Table 3 depicts that on an average, only 53 out of the 104 companies have reported a positive EVA, that too only for four out of the 12 years of the study period. The sample as a whole reported a positive EVA (from March, 2004 to March, 2007), ranging between Rs. 34.96 cr in 2004 and Rs. 185.80 cr in 2007. Otherwise, from 1996 to 2003, the sample registered a negative EVA on an average, ranging between a high of Rs. -49.56 cr in 1996 and a low of Rs. -2.62 cr in 2003.

## Preview of the Wealth Creators and the Wealth Destroyers

The EVA trends of top-five wealth creators, including Hindustan Unilever Ltd., Tata Steel Ltd., ITC Ltd., Wipro Ltd., and Hindalco Industries Ltd., for the 12 years period covering 1996 to 2007, are shown in Figure 1. Except Tata Steel Ltd., all the four companies registered a positive EVA in each year of the study period but with fluctuations in their trend lines. Figure 2 depicts the EVA experiences of the top-five wealth destroyers, including Reliance Infrastructure Ltd., CESC Ltd., Reliance Industries Ltd., Ispat Industries Ltd., and Moser Baer India Ltd. These large wealth creators had 10 to 12 years of negative EVA, which collectively destroyed wealth upto Rs. 2107.82 cr per annum during the period under study.



**Table 2: WACC of the Sample Companies for the Period 1996 Through 2007** (in %)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
3MINDIA	25.19	22.88	19.57	20.17	17.86	18.95	20.26	23.96	27.00	27.48	27.85	27.85	23.25	94
ABAN	22.42	27.48	22.11	21.05	21.06	20.01	18.28	8.99	10.94	8.03	8.77	7.79	16.41	48
ABB	22.47	23.33	22.63	23.75	23.16	22.13	23.30	22.24	22.76	23.00	23.73	23.28	22.98	92
ABIRLANUVO	14.64	14.46	14.46	16.67	16.35	15.87	14.75	15.34	15.20	14.22	13.04	12.51	14.79	31
ACC	19.77	20.61	18.64	18.18	18.74	18.02	15.40	15.51	15.12	15.89	17.26	21.03	17.85	64
ALFALAVAL	17.21	19.28	18.30	17.06	17.87	17.96	17.64	17.04	17.39	17.58	17.66	17.80	17.73	62
AMBUJACEM	13.94	18.86	19.42	19.26	20.31	19.70	18.65	16.64	15.67	17.64	19.30	23.12	18.54	67
ANANTRAJ	9.76	10.99	15.06	3.58	7.06	6.71	14.59	9.93	10.64	10.46	11.86	10.50	10.09	4
ANSALINFRA	31.64	35.58	32.71	30.47	28.46	26.33	24.65	22.65	21.33	20.76	25.37	34.14	27.84	100
APOLLOHOSP	21.57	20.80	21.27	19.45	21.32	20.77	19.15	18.34	17.76	18.96	21.45	22.92	20.31	76
Areva T&D India Ltd	22.30	19.19	28.43	27.01	9.51	13.83	13.15	8.54	16.47	18.61	35.45	36.46	20.75	81
ASAHINDIA	12.95	12.10	11.79	11.04	10.34	9.19	7.71	6.99	5.90	6.67	5.96	5.70	8.86	2
ASHOKLEY	15.63	14.88	15.86	15.46	15.92	15.99	14.05	13.08	13.81	12.47	12.88	14.18	14.52	28
ASIANPAINT	9.76	10.63	9.64	9.89	10.17	10.15	9.90	10.73	10.90	11.04	11.34	11.45	10.47	5
ASTRAZEN	19.07	19.00	20.20	20.73	21.53	20.09	20.34	20.53	20.78	20.71	20.70	20.81	20.37	78
Atlas Copco India Ltd.	14.19	15.34	14.88	17.93	19.16	19.64	18.56	17.54	18.51	15.15	14.44	16.09	16.78	54
AVENTIS	10.02	10.91	11.30	11.33	10.65	10.72	11.93	13.43	14.52	15.00	15.22	15.40	12.54	12
BAJAJHLDNG	15.39	15.56	15.82	13.58	13.33	13.81	13.03	12.76	12.55	12.39	12.46	12.61	13.61	22

Table 2 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
BERGEPAIN	16.90	16.67	16.33	17.31	15.29	15.22	15.50	15.90	16.98	16.59	17.45	17.39	16.46	49
BHARATFORG	15.41	14.35	13.22	13.36	13.48	14.42	9.08	9.64	10.66	11.35	11.46	11.08	12.29	10
BIRLAJUTE	17.54	20.00	19.05	18.67	19.51	19.45	18.80	15.65	19.40	19.51	18.69	19.76	18.84	72
BOMDYEING	17.05	18.26	16.05	12.83	16.72	16.62	14.20	13.12	12.66	12.47	13.41	12.57	14.66	29
BOSCHLTD	15.04	16.36	16.08	16.13	16.67	17.33	16.60	16.53	16.89	16.63	16.88	16.70	16.49	50
BRITANNIA	14.21	14.68	13.89	13.27	13.12	13.14	14.00	14.36	16.02	17.65	18.05	19.05	15.12	34
CASTROL	19.08	20.48	19.69	20.14	20.18	21.15	20.79	21.00	20.12	20.24	20.15	20.33	20.28	75
CENTURYTEX	12.97	15.53	15.28	15.25	15.16	14.47	13.96	12.38	11.51	10.92	10.77	11.74	13.33	18
CESC	21.25	20.41	20.47	22.34	22.13	18.64	18.55	16.30	20.86	20.85	23.90	26.92	21.05	82
CHAMBLFERT	29.42	30.93	31.10	25.92	22.55	21.87	18.18	17.75	13.98	15.22	14.84	13.73	21.29	85
CIPLA	13.03	13.81	14.28	13.88	13.71	14.58	14.96	15.17	14.60	14.29	14.06	14.79	14.26	27
COLPAL	17.17	16.88	16.86	17.24	17.20	16.38	16.34	16.65	16.74	16.77	17.04	17.14	16.87	57
CROMPGREAV	15.13	17.67	15.62	14.26	16.10	13.97	10.87	12.20	11.84	11.64	13.14	13.48	13.83	24
CUMMINSIND	14.54	14.59	14.72	15.14	15.34	15.67	15.93	16.19	16.14	15.76	16.24	16.58	15.57	39
DABUR	20.39	21.91	19.97	16.88	16.52	18.95	19.37	21.22	22.58	23.57	25.36	26.55	21.10	83
DRREDDY	18.33	18.36	17.39	16.47	15.50	14.76	15.84	18.66	17.83	17.22	14.84	16.21	16.78	55
EID Parry India Ltd.	15.17	14.87	15.68	16.72	16.68	16.66	13.52	13.88	13.17	14.28	15.60	14.61	15.07	33
EIH Ltd.	14.65	15.05	15.72	15.08	13.78	12.25	11.94	10.84	11.06	11.22	12.01	12.26	12.99	15
EXIDEIND	17.14	15.29	13.54	13.68	13.96	13.22	12.33	12.19	12.5	12.6	13.19	13.95	13.63	23

Table 2 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
GAMMONIND	18.65	19.62	18.03	19.08	18.84	17.67	15.86	15.47	15.86	16.14	20.91	18.07	17.85	65
GHCL	19.36	19.22	17.81	18.56	17.75	18.67	17.56	17.10	14.63	12.71	8.84	8.80	15.92	44
GLAXO	16.12	15.17	15.07	14.67	15.51	15.34	15.05	15.51	15.42	15.40	15.60	15.60	15.37	36
GODREJIND	38.29	34.45	32.36	29.40	27.47	18.08	16.17	13.88	20.23	22.21	25.00	24.17	25.14	98
GRASIM	14.01	15.09	14.70	15.93	15.29	15.44	13.87	13.16	14.25	14.63	14.91	14.79	14.67	30
GSKCONS	13.55	14.65	12.70	12.70	13.34	13.09	12.76	13.46	14.11	13.95	14.24	13.75	13.53	19
GUJFLUORO	18.38	20.40	20.44	19.61	19.87	18.60	18.84	18.43	17.47	17.32	17.34	14.54	18.44	66
GUJRATGAS	12.52	12.15	7.54	5.53	9.27	10.37	9.23	8.74	8.24	9.71	10.11	9.98	9.45	3
GUJFOILCOR	20.34	17.52	19.30	17.36	17.00	18.11	14.77	15.47	14.63	15.16	14.95	13.75	16.53	52
HCC	13.46	12.89	11.67	12.75	13.13	12.88	9.62	10.94	9.67	13.40	12.42	9.39	11.85	7
HCL-INSYS	47.04	48.67	50.39	33.00	31.40	37.51	41.06	42.41	42.06	45.21	38.82	35.12	41.06	104
HEROHONDA	20.21	20.52	19.75	20.91	22.47	23.58	22.11	22.39	22.56	22.86	23.11	23.74	22.02	90
HINDALCO	11.94	12.31	12.47	12.97	12.84	12.95	12.72	12.43	11.96	11.46	11.15	10.98	12.18	9
HINDUNILVR	16.42	17.84	16.47	16.46	16.47	16.89	17.21	17.90	14.18	12.82	13.94	17.88	16.21	45
HINDZINC	35.78	37.24	40.69	44.83	45.21	39.57	46.63	40.14	37.24	35.11	38.54	42.70	40.31	103
HOTELEELA	15.14	14.77	10.13	10.80	11.15	11.18	9.26	12.04	13.02	14.40	12.11	12.06	12.17	8
INDHOTEL	17.47	18.75	17.71	18.92	18.36	16.74	14.94	13.70	11.27	11.42	14.96	16.72	15.91	43
INDIACEM	22.65	20.17	17.18	18.06	16.47	16.22	15.51	16.72	17.05	15.23	18.41	20.47	17.84	63
INFOSYSTCH	41.18	42.36	43.22	39.52	42.26	48.85	50.09	50.50	33.61	33.48	26.96	26.82	39.90	102
ISPATIND	9.73	8.24	6.64	6.52	6.93	9.72	8.61	8.21	6.21	9.72	9.71	11.80	8.50	1

Table 2 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
ITC	19.48	21.35	19.14	19.48	21.00	21.15	22.35	23.79	23.82	23.84	23.62	23.78	21.90	88
JINDALSAW	18.21	22.24	23.62	21.87	22.75	22.10	21.89	25.54	21.03	17.06	14.84	15.15	20.52	80
JUBILANT	14.61	15.52	15.65	16.25	15.54	14.17	14.10	8.94	10.50	11.84	11.86	8.88	13.15	16
KANSAINER	17.12	17.32	19.21	19.74	19.71	19.11	18.04	18.01	18.48	18.63	18.47	19.03	18.57	68
KBL	21.52	23.71	20.69	18.88	17.54	18.86	18.44	17.24	18.29	19.96	24.48	24.15	20.31	77
KIRLOSOIL	22.17	22.28	18.49	20.48	20.28	20.37	18.40	19.09	20.62	20.58	21.13	20.95	20.40	79
LAXMIMACH	20.55	19.73	18.91	17.51	20.60	21.35	20.56	21.64	23.72	22.49	24.42	24.42	21.32	87
LT	18.35	17.08	14.24	14.55	15.39	15.47	14.39	13.23	13.49	15.30	16.78	16.85	15.43	37
LUPIN	18.30	19.28	21.27	20.58	15.24	19.29	12.72	12.56	17.18	19.12	14.99	14.89	17.12	58
M&M	11.73	11.10	10.85	11.44	12.10	14.13	13.46	11.81	13.21	12.29	13.04	12.80	12.33	11
MADRASCEM	19.10	18.33	20.53	19.89	18.33	15.50	13.30	11.23	11.55	12.32	12.31	13.84	15.52	38
MAHSEAMLES	24.16	25.18	24.69	25.07	25.08	24.04	23.79	22.55	20.16	20.55	15.97	19.86	22.59	91
MOSERBAER	30.77	23.74	22.04	24.15	21.22	28.29	27.76	24.61	22.62	24.91	19.99	20.35	24.20	95
MOTHERSUMI	25.06	28.13	27.54	25.84	25.06	19.12	19.59	16.48	21.08	21.90	13.78	11.90	21.29	86
NAGARCONST	17.25	14.22	10.18	18.80	11.95	16.02	17.12	16.73	16.59	16.71	18.37	16.06	15.83	42
Nestle India Ltd.	14.71	16.06	14.01	12.89	12.74	13.04	11.91	11.68	13.35	14.29	14.22	14.21	13.59	20
NICOLASPIR	18.96	22.85	14.15	17.65	22.97	23.08	20.21	17.36	17.53	15.22	18.31	19.82	19.01	73
Novartis India Ltd.	14.24	15.07	16.22	15.91	15.83	17.05	14.83	17.30	17.81	17.98	18.10	17.75	16.51	51
PFIZER	14.68	17.53	16.15	16.96	18.04	17.54	17.74	18.16	18.05	17.83	17.74	18.14	17.38	59

Table 2 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
PGHH	16.45	16.26	16.67	15.36	15.31	17.04	16.59	17.02	17.20	17.17	17.36	17.47	16.66	53
PIDILITIND	25.19	26.35	25.54	24.74	23.02	26.85	28.56	27.97	21.03	20.83	21.20	20.74	24.33	96
RANBAXY	15.85	17.81	19.55	18.76	20.71	20.85	20.87	20.83	20.41	20.02	16.91	11.56	18.68	70
RAYMOND	15.77	17.30	15.91	14.87	14.74	14.90	13.19	12.57	12.72	12.97	12.85	13.20	14.25	26
REL	36.39	42.53	28.84	31.25	32.34	24.76	25.98	25.50	26.32	21.84	17.77	19.15	27.72	99
RELIANCE	16.71	14.26	15.37	15.68	16.12	17.19	17.10	16.16	16.04	16.83	16.70	16.85	16.25	46
SATYAMCOMP	20.41	17.78	18.77	18.81	21.09	27.65	31.76	34.64	27.97	27.52	25.23	24.96	24.72	97
SESAGOA	23.66	22.96	21.66	20.27	19.45	18.29	17.11	17.31	21.10	25.99	27.49	27.62	21.91	89
SIMPLEXINF	21.37	22.81	21.20	21.68	19.86	24.53	19.92	18.98	17.69	15.99	17.48	18.66	20.01	74
SINTEX	20.83	18.68	19.42	17.89	16.01	17.79	17.97	17.45	17.53	16.39	15.50	14.71	17.52	60
SKFINDIA	11.20	11.41	11.53	12.36	11.00	12.87	12.70	13.26	14.86	16.68	17.43	17.73	13.59	21
SRF	20.99	19.72	19.05	18.05	18.23	17.65	14.51	13.97	14.05	13.22	12.22	13.32	16.25	47
STER	9.44	12.37	11.40	11.28	13.02	16.32	12.50	13.21	10.78	12.21	13.87	14.85	12.60	13
STERLINBIO	31.55	31.25	28.75	26.96	25.26	22.99	17.38	17.13	17.71	14.57	10.75	10.60	21.24	84
SUNDRMCLAY	18.91	19.28	19.28	19.33	18.22	19.69	19.94	20.62	19.58	17.36	16.23	16.20	18.72	71
SUNDRMFAST	13.29	15.56	14.74	14.15	13.25	14.28	13.87	12.76	11.34	9.72	9.51	10.02	12.71	14
SUNPHARMA	35.01	35.19	44.55	34.22	35.11	40.30	43.45	45.74	28.18	16.67	12.76	17.33	32.38	101
TATACHEM	17.09	16.65	16.18	16.36	16.05	16.72	14.73	14.50	14.81	13.35	12.33	13.38	15.18	35
TATAMOTORS	15.31	15.72	16.43	16.56	17.61	18.34	17.23	13.72	14.84	14.14	13.96	14.38	15.69	41
TATAPOWER	12.16	13.18	13.34	13.13	13.43	15.12	14.32	14.72	15.79	14.73	13.82	14.05	13.98	25

Table 2 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
TATASTEEL	15.79	16.14	15.22	15.12	15.25	14.82	14.08	12.90	12.80	15.33	17.12	14.83	14.95	32
TATATEA	14.65	14.72	13.72	14.44	15.92	16.65	17.09	16.46	16.20	16.21	16.30	15.24	15.63	40
TITAN	16.43	17.04	15.69	15.10	14.25	13.86	11.18	9.25	8.97	11.39	12.64	13.65	13.29	17
TUBEINVEST	21.76	21.79	21.22	20.95	19.65	18.44	17.57	15.73	15.37	16.56	16.64	17.78	18.62	69
UNITECH	11.81	11.63	11.28	11.24	11.67	10.60	10.72	10.78	10.60	10.03	8.16	8.25	10.56	6
VOLTAS	18.03	19.09	17.97	17.03	17.87	16.28	15.38	15.16	15.43	15.29	16.50	18.35	16.86	56
VTL	26.87	25.75	25.30	25.93	25.85	24.76	23.28	21.56	21.16	21.99	19.59	16.70	23.23	93
WIPRO	17.31	19.39	15.66	13.93	15.34	18.35	18.55	19.29	18.31	18.48	18.28	18.28	17.60	61
<b>Average Year-Wise</b>	<b>18.90</b>	<b>19.36</b>	<b>18.68</b>	<b>18.19</b>	<b>18.02</b>	<b>18.25</b>	<b>17.56</b>	<b>17.11</b>	<b>16.87</b>	<b>16.86</b>	<b>16.95</b>	<b>17.23</b>	<b>17.83</b>	<b>-</b>

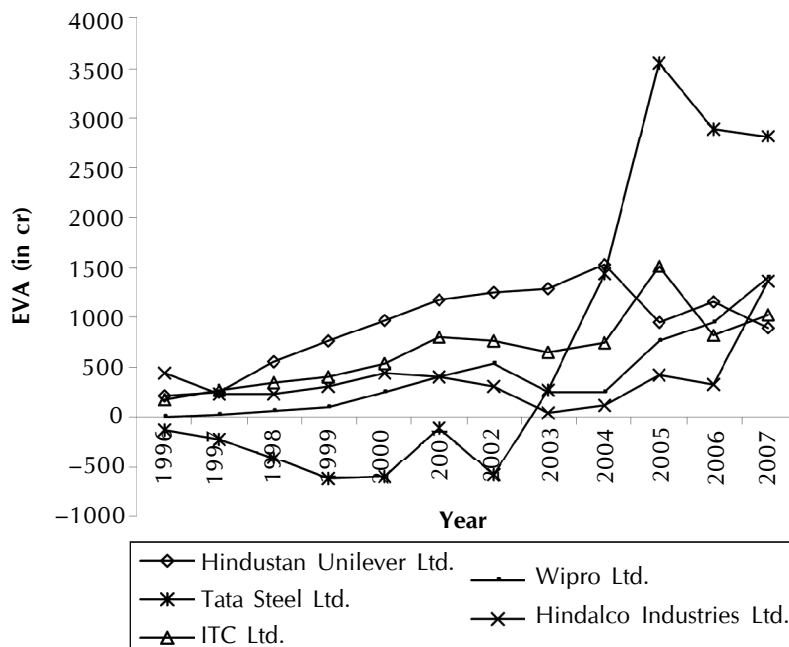
## Implications on the Corporate Strategies of Indian Companies

While promising trends in liquidity, profitability and leverage of the corporate sector emerged in the early 1990s, the sector experienced a reversal after 1996. This resulted in much variation in the performance of Indian companies and the gap between the best and worst performers started growing. As evidenced in the Asian crisis of 1997-1998, the deterioration in creditworthiness of large segments of the corporate sector sharply increased Non-Performing Loans (NPLs), curtailed new investment, and contributed to capital flight, all of which adversely affected economic activity as a whole (Topalova, 2004).

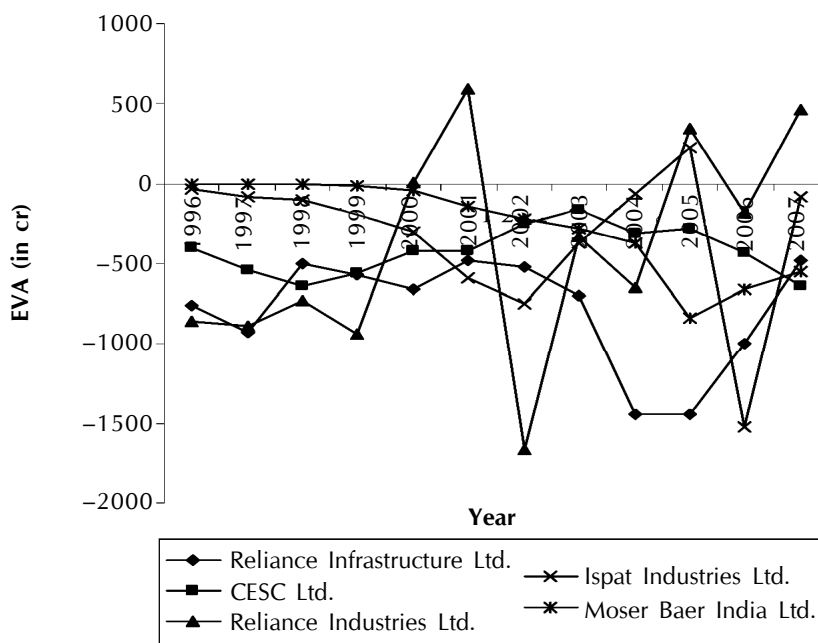
Mohan (2007) highlighted the period 1997-2002 as the period of significant slowdown in industrial growth, leading to investment slowdown, loss in investors' confidence, high real exchange rate depreciation, high real interest rates and the period of widespread restructuring. The situation improved after 2003, resulting in a boom in corporate profitability, accompanied by industrial growth, regained domestic confidence, emergence of international confidence, and increased mergers and acquisition.

On the same lines, the present study also depicts that it is only after 2003 that India's top-most valuable companies started registering positive EVA, a measure of shareholder value creation (Table 3). During the entire study period of 12 years, only about 51% of the sample companies on an average have generated positive

**Figure 1: EVA of Top-Five Wealth Creators in Performance Universe, 1996-2007**



**Figure 2: EVA of Bottom-Five Wealth Destroyers in Performance Universe, 1996-2007**





**Table 3: EVA of the Sample Companies for the Period 1996 Through 2007** (in %)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
3MINDIA	-2.19	-4.38	-5.34	-3.99	-5.02	1.44	2.30	3.05	-1.93	-9.54	-6.18	21.91	-0.82	55
ABAN	-6.83	-7.88	-100.56	-17.28	-22.77	-34.47	-25.87	33.01	55.12	25.37	97.59	57.52	4.41	52
ABB	34.63	-19.92	-14.16	-60.79	-47.16	-27.38	-26.85	-14.25	-10.20	70.12	126.86	238.21	20.76	31
ABIRLANUVO	-8.71	-14.27	-62.12	-147.20	-135.14	-103.91	-121.74	-72.95	-77.24	-101.31	-151.55	-259.63	-104.65	92
ACC	11.37	-206.45	-308.29	-272.05	-354.41	-221.65	-92.53	-216.27	-98.13	-64.06	-391.99	330.78	-156.97	96
ALFALAVAL	-3.91	-52.05	-21.59	-11.90	-1.60	4.88	35.05	33.64	41.59	57.26	43.65	52.05	14.76	37
AMBUJACEM	-58.76	-64.70	-135.67	-160.43	-129.21	-239.91	-236.36	-180.71	-157.10	-210.29	-139.59	804.97	-75.65	85
ANANTRAJ	3.82	1.16	-4.09	0.64	-0.61	-0.60	-0.86	-0.84	-1.63	-1.90	-50.27	-234.85	-24.17	68
ANSALINFRA	4.79	8.82	-9.38	-33.16	-36.21	-19.78	-6.06	-15.92	-16.18	0.30	69.83	-3.34	-4.69	56
APOLLOHOSP	-1.85	-5.50	-8.02	-4.53	-28.83	-22.89	-28.89	-17.50	-7.55	-10.03	-82.72	-87.54	-25.49	70
Areva T&D India Ltd.	-18.03	-10.57	-61.11	-53.50	-17.82	-20.62	-15.64	1.25	-21.52	1.11	-28.01	66.92	-14.80	63
ASAHINDIA	-1.03	4.13	1.25	3.33	12.09	8.21	10.84	10.88	53.30	46.01	17.55	-13.26	12.78	39
ASHOKLEY	-78.27	-54.84	-196.05	-167.34	-115.81	-112.66	-61.39	-8.53	76.66	14.25	54.27	70.56	-48.26	80
ASIANPAINT	53.49	56.86	50.09	44.68	99.36	95.50	130.23	160.81	162.38	184.36	244.70	312.04	132.88	10
ASTRAZEN	2.84	5.07	7.77	5.18	5.02	8.73	-12.50	-2.11	12.60	13.24	27.15	36.21	9.10	44
Atlas Copco India Ltd.	7.59	8.61	1.13	-18.56	1.69	-6.37	2.81	-7.39	23.23	55.12	59.10	77.70	17.05	35
AVENTIS	10.73	18.19	0.45	-6.04	15.44	12.46	35.55	51.42	88.77	138.48	129.27	144.01	53.23	22
BAJAJHLDNG	303.19	284.31	163.59	189.17	43.11	-275.29	-64.10	66.54	84.63	-31.12	295.34	137.76	99.76	18

Table 3 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
BERGEPAINT	12.87	10.46	10.17	-0.48	2.06	3.83	6.50	13.76	20.75	16.20	40.58	38.10	14.57	38
BHARATFORG	3.99	21.01	4.85	-12.87	14.89	0.24	22.18	88.71	125.50	141.15	56.10	80.45	45.52	24
BIRLAJUTE	13.54	-73.91	-118.43	-103.51	-69.11	-75.17	-62.26	-48.16	-33.24	-4.84	28.98	250.04	-24.67	69
BOMDYEING	-51.33	-141.23	-164.69	-73.27	-94.88	-168.29	-130.28	-62.12	-98.05	-80.23	-97.32	-84.57	-103.86	90
BOSCHLTD	66.05	48.90	53.14	10.95	59.45	54.91	-12.48	67.83	187.52	274.05	129.76	33.89	81.16	19
BRITANNIA	6.71	8.63	13.21	19.19	36.81	45.02	35.54	42.43	61.46	52.04	54.03	-20.76	29.53	29
CASTROL	83.01	85.61	124.83	126.44	139.26	59.44	52.71	135.75	113.63	96.43	105.86	96.46	101.62	16
CENTURYTEX	-57.22	-252.05	-317.69	-282.56	-193.69	-110.23	-120.66	-53.20	-105.20	-41.40	-62.08	228.53	-113.96	93
CESC	-394.80	-526.61	-633.48	-550.51	-418.94	-417.76	-251.24	-156.07	-302.25	-272.75	-418.18	-629.01	-414.30	103
CHAMBIFERT	-129.46	-194.00	-255.65	-357.39	-314.71	-263.20	-113.07	-157.51	-58.17	-115.01	-91.24	-192.75	-186.85	98
CIPLA	9.43	66.56	69.97	70.37	73.58	101.40	126.94	79.54	135.82	147.63	139.17	210.90	102.61	15
COLPAL	121.25	117.17	88.48	24.65	41.34	55.08	76.32	115.93	137.37	157.84	194.26	172.59	108.52	13
CROMPGREAV	12.55	-55.34	-80.84	-62.65	-215.98	-217.27	-55.90	4.77	17.85	58.56	89.33	158.89	-28.84	72
CUMMINSIND	69.56	74.75	54.59	36.24	50.76	39.87	-7.06	-8.84	14.04	59.09	99.21	173.75	54.66	21
DABUR	-9.47	-21.83	-29.73	-21.78	-10.07	12.19	-26.98	-10.25	30.26	56.04	91.70	150.27	17.53	34
DRREDDY	1.19	-12.04	12.91	-1.96	1.61	84.27	334.24	53.82	-77.93	-410.09	-154.33	676.61	42.36	25
EID Parry India Ltd.	-40.55	-36.46	-41.42	-38.12	-35.07	-46.35	-7.73	-52.36	-56.09	-8.04	-48.23	-213.31	-51.98	82
EIH Ltd.	72.47	59.04	25.77	-30.22	-62.29	-34.06	-106.96	-113.17	-86.06	-47.10	-96.25	23.11	-32.98	74
EXIDEIND	-2.31	6.50	-12.70	4.25	6.98	-8.66	-7.25	29.49	51.02	14.13	44.38	109.95	19.65	32

Table 3 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
GAMMONIND	5.77	-2.41	-0.69	-2.40	-1.35	-1.63	4.32	8.04	23.50	-22.22	-55.87	-37.20	-6.84	58
GHCL	3.51	5.79	4.95	-6.52	-32.93	-16.76	0.76	1.27	-10.22	-1.65	39.47	140.14	10.65	41
GLAXO	-107.45	46.45	28.01	33.05	5.43	9.78	4.32	27.35	55.92	-2.37	-106.07	-73.67	-6.60	57
GODREJIND	-192.44	-177.89	-188.93	-166.49	-73.39	-15.59	-14.55	6.11	-22.63	-82.11	-161.20	-160.41	-104.13	91
GRASIM	5.24	-137.26	-180.19	-386.21	-279.24	-155.20	-147.47	123.11	271.05	374.63	87.90	844.19	35.04	27
GSKCONS	47.23	62.62	72.67	83.61	90.56	111.32	145.22	73.11	21.19	35.69	29.24	52.68	68.76	20
GUJFLUORO	16.97	18.11	13.32	16.96	11.72	-1.92	-15.49	-20.17	-18.11	-28.57	-60.43	146.99	6.61	50
GUJRATGAS	16.34	18.10	18.16	34.54	21.32	48.28	61.79	51.62	54.78	49.45	53.30	45.01	39.39	26
GUIFOILCOR	-3.11	3.87	1.11	-1.86	-3.07	-29.19	-11.84	-15.27	-46.57	-41.73	-24.71	-5.96	-14.86	64
HCC	9.93	1.76	-8.75	-12.13	-6.84	14.28	-5.37	17.43	32.79	-3.04	-170.40	-41.52	-14.32	62
HCL-INSYS	-47.22	-98.23	-94.46	-63.85	-19.10	-79.92	-102.35	-129.70	-80.43	-115.02	-95.65	-115.94	-86.82	87
HEROHONDA	19.09	26.93	59.29	96.43	153.17	206.69	418.46	485.08	590.78	611.17	690.08	422.29	314.96	6
HINDALCO	440.54	217.80	228.28	302.29	432.49	400.78	309.77	40.81	114.01	422.94	317.89	1353.80	381.78	5
HINDUNILVR	201.46	246.59	549.14	751.40	967.29	1163.30	1249.60	1278.50	1528.20	947.23	1147.70	877.50	908.99	1
HINDZINC	-277.55	-328.43	-245.49	-344.76	-261.34	-197.98	-193.70	-89.40	-61.15	-79.49	577.02	2951.40	120.76	12
HOTELEELA	22.49	5.55	-4.80	-23.42	-41.13	-56.39	-68.54	-76.35	-80.82	-80.90	-58.02	-23.75	-40.51	78
INDHOTEL	112.94	82.76	45.40	10.31	-14.72	-41.12	-242.03	-96.92	-158.03	-3.20	50.62	137.02	-9.75	60
INDIACEM	-41.57	-66.40	-105.37	-86.00	-161.44	-121.07	-315.84	-259.25	-268.76	-180.23	-121.76	58.16	-139.13	95
INFOSYSTCH	-5.13	-8.20	-14.02	-77.83	-51.10	62.67	-89.55	-236.59	133.72	336.69	619.98	990.64	138.44	9
ISPATIND	-35.48	-78.70	-102.86	-189.16	-294.29	-584.09	-749.64	-367.42	-63.61	226.38	-1526.00	-80.21	-320.42	101

Table 3 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
ITC	169.90	258.47	345.19	394.49	531.01	801.54	754.13	639.05	738.64	1501.80	808.24	10.12	662.87	3
JINDALSAW	-2.16	-4.22	-7.38	-36.33	-24.01	-52.82	-18.12	-20.82	11.64	-55.02	-59.70	12.50	-21.37	67
JUBILANT	14.90	5.99	5.45	-2.16	-33.42	-9.46	-17.85	51.88	50.42	33.70	-31.49	34.55	8.54	46
KANSAINER	12.97	18.28	8.08	-4.40	-3.30	-14.73	-9.79	-4.60	11.75	35.01	30.70	24.99	8.75	45
KBL	-19.21	-19.59	-21.22	-13.31	-18.39	-45.67	-25.99	-23.62	5.08	1.97	-11.99	184.85	-0.59	54
KIRLOSOIL	-15.86	-47.69	-346.54	-52.64	-52.80	-49.88	-47.55	-52.26	9.25	55.52	31.34	-47.75	-51.40	81
LAXMIMACH	2.95	-12.45	-28.06	-36.24	-35.54	-26.67	-35.49	-26.08	-5.54	36.41	90.50	157.66	6.79	49
LT	-232.17	-233.07	-394.67	-431.75	-506.19	-559.94	-353.17	-283.03	253.87	37.81	206.66	549.94	-162.14	97
LUPIN	-5.87	-5.30	-4.25	-2.99	-10.07	-63.06	15.86	0.83	63.23	-108.37	-7.89	19.91	-9.00	59
M&M	205.08	177.64	147.80	97.25	151.21	-169.87	-201.42	-79.82	105.17	279.07	204.12	621.33	128.13	11
MADRASCEN	27.01	-26.90	-57.15	-45.33	-68.66	-52.82	-40.38	-40.54	-25.01	-55.82	-5.90	250.53	-11.75	61
MAHSEAMLES	-8.96	-14.06	-14.36	-11.26	-6.91	-0.40	17.83	19.86	21.92	24.27	53.90	139.58	18.45	33
MOSERBAER	-4.04	-7.88	-7.79	-15.00	-41.65	-133.70	-219.80	-279.12	-362.74	-827.95	-646.02	-536.66	-256.86	100
MOTHERSUMI	-4.09	-4.38	-7.22	-7.18	-3.51	12.81	0.36	12.17	14.77	11.51	2.86	64.83	7.74	47
NAGARCONST	6.91	-5.93	-6.48	-24.33	-9.37	-15.85	-7.84	-6.51	-7.79	-13.31	-107.02	-130.62	-27.35	71
Nestle India Ltd.	28.85	20.09	91.37	112.99	148.64	177.97	227.83	321.07	342.63	323.80	390.24	340.80	210.52	7
NICOLASPIR	-14.90	-26.49	-14.80	1.77	-29.20	-3.78	52.75	92.15	102.18	-13.04	-18.68	-16.70	9.27	43
Novartis India Ltd.	8.64	1.02	27.91	61.05	57.93	19.70	23.13	-2.62	12.20	52.22	38.96	104.64	33.73	28
PFIZER	12.43	8.75	9.61	7.32	30.14	36.83	45.92	49.52	4.58	11.53	6.28	-40.39	15.21	36

Table 3 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
PGHH	12.86	23.39	9.85	24.96	49.65	54.42	34.27	64.67	63.02	80.23	64.81	65.56	45.64	23
PIDILITIND	-10.16	-8.30	-0.82	10.49	20.28	6.81	2.25	-1.01	18.89	23.80	23.40	26.07	9.31	42
RANBAXY	-31.29	-73.94	-83.25	-172.53	-84.99	-118.33	-96.15	189.01	288.46	-66.30	-613.94	-305.17	-97.37	88
RAYMOND	-24.95	-108.18	-66.77	-6.80	-60.70	-85.92	-68.75	-51.49	-42.98	-142.53	-97.63	-197.60	-79.52	86
REL	-745.39	-906.68	-483.79	-556.00	-643.06	-472.92	-512.20	-689.88	-1425.20	-1414.20	-973.54	-466.90	-774.15	104
RELIANCE	-830.72	-860.03	-702.82	-911.12	35.79	617.45	-1593.90	-270.17	-577.26	431.18	-61.57	618.13	-342.09	102
SATYAMCOMP	1.45	2.12	-4.25	26.90	51.70	81.78	-85.55	-434.14	-121.68	-70.18	24.35	51.35	-39.68	77
SESAGOA	-35.69	-20.56	-14.10	-11.85	-46.52	-21.25	-22.78	-29.48	65.72	460.12	454.57	432.66	100.90	17
SIMPLEXINF	0.91	-2.60	-5.97	-14.20	-11.41	-21.15	-16.30	-12.95	-27.52	-13.15	-33.79	-75.83	-19.50	65
SINTEX	-6.53	-4.95	-15.42	-29.11	-23.29	-30.75	-57.56	-45.82	-39.90	-52.58	-38.11	-3.89	-28.99	73
SKFINDIA	36.93	44.40	-11.87	-16.57	-16.12	-34.10	-16.32	-16.52	-21.30	30.47	40.67	65.53	7.10	48
SRF	-28.40	-12.80	-19.28	-18.58	20.74	-52.73	-47.57	0.27	-9.52	-43.58	14.61	267.97	5.93	51
STER	22.37	-38.65	-98.98	-74.97	-57.42	-15.05	-136.95	-78.48	-105.39	-368.64	-131.43	-106.99	-99.22	89
STERLINBIO	-12.17	-19.96	-25.23	-23.49	-26.40	-25.37	-37.26	-35.23	-20.33	-15.07	-104.55	-59.72	-33.73	76
SUNDRMCLAY	5.24	6.53	-11.49	-6.71	-8.03	-17.76	-13.01	-1.92	5.40	7.98	18.95	36.27	1.79	53
SUNDRMFAST	24.99	18.44	10.88	9.69	22.24	10.70	10.53	28.93	39.77	49.76	39.14	55.22	26.69	30
SUNPHARMA	-14.06	-14.86	-57.02	-47.78	-10.56	-43.76	-55.17	-119.29	-114.47	-172.01	47.25	-57.50	-54.94	84
TATACHEM	170.72	21.47	40.93	-137.69	-136.69	-303.08	-226.88	-73.27	-130.80	-165.48	112.87	178.62	-54.11	83
TATAMOTORS	383.85	325.31	-242.88	-497.82	-590.46	-769.75	-521.58	108.31	673.25	781.65	1070.20	1220.80	161.74	8
TATAPOWER	153.28	-6.24	-47.32	-40.86	-45.92	-264.74	-160.92	-78.66	-3.68	-638.20	-523.19	-709.30	-197.15	99

Table 3 (Cont.)

Company Code	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	Average	Rank
TATASTEEL	-139.41	-230.86	-412.99	-622.76	-597.55	-113.41	-593.03	269.05	1443.30	3539.30	2883.70	2814.80	686.67	2
TATATEA	16.04	23.91	77.34	111.23	3.49	-38.41	-100.18	-70.55	-61.17	-27.70	-58.40	-117.33	-20.14	66
TITAN	-15.65	-19.68	-15.58	-9.28	-15.04	-13.08	9.52	27.08	29.99	31.11	58.82	81.00	12.43	40
TUBEINVEST	-36.40	-58.94	-60.43	-69.21	-55.60	-39.40	-32.52	-32.34	-8.68	-24.44	-39.75	-68.15	-43.82	79
UNITECH	15.74	17.06	8.16	7.25	4.07	-1.63	-15.77	-0.58	5.72	25.10	117.90	1113.70	108.06	14
VOLTAS	-26.56	-73.24	-44.81	-81.44	-6.45	-22.81	-100.01	-21.14	-64.35	-14.19	-38.19	94.73	-33.21	75
VTL	-99.79	-79.45	-72.47	-93.28	-103.59	-114.32	-142.14	-133.17	-123.01	-204.85	-226.80	-272.67	-138.79	94
WIPRO	8.58	14.71	50.90	94.76	253.82	402.53	523.93	252.89	252.71	746.95	947.21	1399.80	412.40	4
<b>Average Year-Wise</b>	<b>-7.60</b>	<b>-28.75</b>	<b>-42.29</b>	<b>-49.56</b>	<b>-31.40</b>	<b>-26.14</b>	<b>-42.28</b>	<b>-2.62</b>	<b>34.96</b>	<b>64.81</b>	<b>53.91</b>	<b>185.80</b>	<b>9.07</b>	<b>-</b>

EVA. Is this a sufficient achievement for India's most valuable companies? If so, what will be the situation of the companies that are low rankers in the most valuable companies' list or which have not found any place in that list at all? The need of the hour is to improve the practices prevalent in the corporate sector of India today.

Basically, the theory of EVA rests on two principal assertions: first, a company is not truly profitable unless it earns a return on invested capital that exceeds the opportunity cost of capital; and second, that wealth is created when a firm's managers make positive Net Present Value (NPV) investment decisions for the shareholders (Grant, 2003).

To increase EVA, thereby increasing shareholders' wealth, Stewart (1994) has given four ways on which corporate business strategies should depend. First, companies must utilize their existing resources more efficiently to improve their operating performance, resulting in higher rates of interest on existing capitals. Second, companies should invest additional capital in only those projects where return is more than the cost of capital. Third, to withdraw or shrink capital from unprofitable projects yielding negative NPV. Last, but not the least, to employ an optimal capital structure to drive down the cost of capital.

One major cause that leads to wealth destruction is corporate officials' adverse attitude that fails to see the importance of EVA. If a management's compensation

is linked to economic performance of a company, it can have a significant impact on the business strategies of the corporate sector (Ooi and Liow, 2002). Bonuses and incentive pay schemes should be built around the managers' ability (or lack thereof) to generate positive EVA within their own areas of responsibility. Positive payments should be accrued to managers whose divisional profits are more than the divisional costs, whereas negative incentive plans should be used if long-term divisional profits fall short of divisional costs. Thus, in this way, EVA can provide an incentive to corporate managers to act like shareholders, and investment decisions would be made on the basis of whether they would yield positive EVA or not.

## Conclusion

Since creating shareholder value has become the widely accepted corporate objective nowadays, EVA deals with accounting for the cost of capital and determines the sufficiency or insufficiency of earnings generated by a firm to cover the cost of capital, i.e., whether a firm is a value generator or a value diluter. But, despite being touted as 'today's hottest financial idea and getting hotter', it is being ignored by the corporates, professionals and government bodies in India. Annual published reports still lack transparency and adequate disclosures. Investors' hard-earned money is still being misused in unprofitable projects, resulting in shareholders' wealth destruction. This is the reason why more than 48% of the most valuable companies in the Indian corporate sector are actually registering negative economic profitability. Singh (2004) stated that no enterprise survives or grows if it fails to generate wealth for the ultimate stakeholders. An enterprise can exist without making profits but it cannot survive without adding value. An enterprise not making profits shall turn into poor health (like several companies in the public sector), but not adding up value may cause its termination over a period of time. Hence, EVA should be taken as a challenge thrown on the Indian corporate sector and corporate leaders should respond in a way so as to develop confidence among all the stakeholders. Companies must try hard to maximize shareholder value without which their stocks can never be fancied by the market. Moreover, EVA statements should form part of the audited annual published accounts of the Indian companies so as to bring more transparency and better disclosure practices to catch the faith of the world business community on the Indian stock market in the long run.■

## References

1. Abdeen Haight (2002), "A Fresh Look at Economic Value Added: Empirical Study of the Fortune Five-Hundred Companies", *The Journal of Applied Business Research*, Vol. 18, No. 2, pp. 27-36.
2. *Business Today* (2000), "Just How Much Wealth Does Your Company Create?", BT-Stern Stewart Research Project, *Business Today*, February 22-March 6, pp. 81-140.
3. *Business Today* (2006), "BT-500 India's Most Valuable Companies", Special Issue, *Business Today*, November 19, pp. 118-138.



4. Damodaran A (2002), *Corporate Finance: Theory and Practice*, John Wiley and Sons, New York, USA.
5. Dubey R (2000), "Understanding the Real Measure of Performance: EVA", *Business Today*, February 22-March 6, pp. 94-98.
6. Grant J L (2003), *Foundations of Economic Value Added*, John Wiley and Sons, New Jersey, USA.
7. Misra A and Kanwal (2004), "Linkages Between Economic Value Added and Share Prices: An Empirical Study of Indian Corporate Sector", available at <http://www.iiml.ac.in/conference/abstracts/16.pdf>
8. Mohan R (2007), "Economic Reforms and Corporate Performance in India", Special Talk at FICCI-IBA Conference on 'Global Banking: Paradigm Shift', September 14, available at [http://www.rbi.org.in/scripts/BS\\_SpeechesView.aspx?Id=352](http://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=352)
9. Ooi Joseph T L and Liow K H (2002), "Real Estate Corporations: The Quest for Value", *Journal of Property Investment and Finance*, Vol. 20, No. 1, pp. 23-35.
10. Singh K P (2004), "Appearance of EVA in Indian Corporates: An Empirical Study", *The Business Review*, Vol. 11, No. 1, pp. 4-19.
11. Stewart G B (1994), "EVA: Fact and Fantasy", *Journal of Applied Corporate Finance*, Vol. 7, No. 2, pp. 71-84.
12. Topalova P (2004), "Overview of the Indian Corporate Sector: 1989-2002", IMF Working Paper No. WP/04/64, Asia and Pacific Department.
13. Young D (1997), "Economic Value Added: A Primer for European Managers", *European Management Journal*, Vol. 15, No. 4, pp. 335-343.

## Annexure 1

List of the Sample Companies			
3M India Ltd.	Century Textiles & Inds. Ltd.	Hotel Leelaventure Ltd.	Ranbaxy Laboratories Ltd.
ABB Ltd.	Chambal Fertilisers & Chemicals Ltd.	ITC Ltd.	Raymond Ltd.
ACC Ltd.	Cipla	India Cements Ltd.	Reliance Industries Ltd.
Aban Offshore Ltd.	Colgate-Palmolive (India) Ltd.	Indian Hotels Co. Ltd.	Reliance Infrastructure Ltd.
Aditya Birla Nuvo Ltd.	Crompton Greaves Ltd.	Infosys Technologies Ltd.	SKF India Ltd.
Alfa Laval (India) Ltd.	Cummins India Ltd.	Ispat Industries Ltd.	SRF Ltd.
Ambuja Cements Ltd.	Dabur India Ltd.	Jindal Saw Ltd.	Satyam Computer Services Ltd.
Anant Raj Inds. Ltd.	Dr. Reddy'S Laboratories Ltd.	Jubilant Organosys Ltd.	Sesa Goa Ltd.
Ansal Properties & Infrastructure Ltd.	EID Parry (India) Ltd.	Kansai Nerolac Paints Ltd.	Simplex Infrastructures Ltd.
Apollo Hospitals Enterprise Ltd.	EIH Ltd.	Kirloskar Brothers Ltd.	Sintex Industries Ltd.
Areva T&D India Ltd.	Exide Industries Ltd.	Kirloskar Oil Engines Ltd.	Sterling Biotech Ltd.
Asahi India Glass Ltd.	GHCL Ltd.	Lakshmi Machine Works Ltd.	Sterlite Industries (India) Ltd.
Ashok Leyland Ltd.	Gammon India Ltd.	Larsen & Toubro Ltd.	Sun Pharmaceutical Inds. Ltd.
Asian Paints Ltd.	Glaxosmithkline Consumer Healthcare Ltd.	Lupin Ltd.	Sundaram-Clayton Ltd.
Astrazeneca Pharma India Ltd.	Glaxosmithkline Pharmaceuticals Ltd.	Madras Cements Ltd.	Sundram Fasteners Ltd.
Atlas Copco (India) Ltd.	Godrej Industries Ltd.	Maharashtra Seamless Ltd.	Tata Chemicals Ltd.
Aventis Pharma Ltd.	Grasim Industries Ltd.	Mahindra & Mahindra Ltd.	Tata Motors Ltd.
Bajaj Holdings & Invst. Ltd.	Gujarat Fluorochemicals Ltd.	Moser Baer India Ltd.	Tata Power Co. Ltd.
Berger Paints India Ltd.	Gujarat Gas Co. Ltd.	Motherson Sumi Systems Ltd.	Tata Steel Ltd.
Bharat Forge Ltd.	Gulf Oil Corpn. Ltd.	Nagarjuna Construction Co. Ltd.	Tata Tea Ltd.
Birla Corporation Ltd.	HCL Infosystems Ltd.	Nestle India Ltd.	Titan Industries Ltd.
Bombay Dyeing & Mfg. Co. Ltd.	Hero Honda Motors Ltd.	Nicholas Piramal India Ltd.	Tube Investments of India Ltd.
Bosch Ltd.	Hindalco Industries Ltd.	Novartis India Ltd.	Unitech Ltd.
Britannia Industries Ltd.	Hindustan Construction Co. Ltd.	Pfizer Ltd.	Vardhman Textiles Ltd.
CESC Ltd.	Hindustan Unilever Ltd.	Pidilite Industries Ltd.	Voltas Ltd.
Castrol India Ltd.	Hindustan Zinc Ltd.	P&G Hygiene & Health Care Ltd.	Wipro Ltd.

## Annexure 2

Cost of Equity ( $k_e$ ) and Beta Calculations (1995-96 to 2006-07) for Hindustan Zinc										
Year	$R_m$	$R_f$	$R_m - R_f$	Beta	Beta ( $R_m - R_f$ )	$R_f + \text{Beta} (R_m - R_f)$				
1990-91	22.3587	8.6323	13.7264	-	-	-				
1991-92	22.3587	8.6323	13.7264	-	-	-				
1992-93	22.3587	8.6323	13.7264	-	-	-				
1993-94	22.3587	8.6323	13.7264	-	-	-				
1994-95	22.3587	8.6323	13.7264	-	-	-				
1995-96	22.3587	8.6323	13.7264	2.77	38.0221	46.654				
1996-97	22.3587	8.6323	13.7264	2.90	39.8066	48.439				
1997-98	22.3587	8.6323	13.7264	2.89	39.6693	48.302				
1998-99	22.3587	8.6323	13.7264	2.89	39.6693	48.302				
1999-00	22.3587	8.6323	13.7264	2.80	38.4339	47.066				
2000-01	22.3587	8.6323	13.7264	2.27	31.1589	39.791				
2001-02	22.3587	8.6323	13.7264	2.25	30.8844	39.517				
2002-03	22.3587	8.6323	13.7264	2.30	31.5707	40.203				
2003-04	22.3587	8.6323	13.7264	2.63	36.1004	44.733				
2004-05	22.3587	8.6323	13.7264	2.65	36.3750	45.007				
2005-06	22.3587	8.6323	13.7264	2.59	35.5514	44.184				
2006-07	22.3587	8.6323	13.7264	2.58	35.4141	44.046				

Reference # 09-2009-07/10-02-01

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.