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MEASURES OF SHAREHOLDERS' VALUE CREATION : AN ASSESSMENT

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ABSTRACT

Different measures have been employed by different scholars for the measurement of shareholders' value creation. But none of these is free from limitations. A modest attempt has been made in the study to measure this value actually from shareholders' point of view using a new methodology. It is proposed that instead of traditionally computing MV/BV, EVA, MVA or SVA the shareholders' value creation should simply be calculated as: Market value of equity multiplied by (Shareholders' return – K_e). Here shareholders' return should be determined as the long-term return on equity on the discounted cash flow basis and K_e should be calculated as usual by estimating â from security market line, of course, after the eliminating short-term volatilities in share prices.

Empirically it is observed that this proposed conceptually sound method is totally different from other existing methods of value creation.

Introduction

In the present era of globalization companies of emerging economies are facing new challenges. Severe competition, rapid technological change, wide volatility in real and financial markets etc. have increased the burden on executives to deliver superior performance in general and value for their shareholders in particular. To generate value for shareholders value based management system has been developed, which seeks to integrate financial hypotheses with strategic and economic philosophy of the company.

But value creation process has been given emphasis exclusively by the scholars using different matrices over time. Martin and Petty (2000) have postulated that it can be best measured within the company using an economic profit metric, given the amount of total capital used to generate those profits. Ehrber (1998) observes that "by accounting correctly for the economics of the business and by subtracting the cost of all resources required to produce revenues, including the cost of capital, EVA™ accurately captures the combined productivity of all factors of production in a single measure". Morin and Jarrell(2001) opine that "traditional performance metrics such as earnings per share(EPS), book value(BV), return on equity(ROE),

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return on assets (ROA), return on invested capital(ROIC) etc. do a poor job of capturing the three fundamental determinants of value creation: the amount, timing and risk of the future cash flows of a company".

In November 1996, the Former Chairman and the Chief Executive Officer [Roberto C. Goizueta] of Coca Cola, made a lengthy statement in favour of value creation as noted below:

"At the Coca Cola Company, our publicly stated mission is to create value over time for the owners of our business. In fact, in our society, that is the mission of any business: to create value for its owners----. We live in a democratic capitalist society, and here, people create specific institutions to help meet specific needs. Governments are created to help meet civic needs. Philanthropies are created to help meet social needs. And companies are created to help meet economic needs. Business distributes the lifeblood that flows through economic system, not only in the form of goods and services, but also in the form of taxes, salaries and philanthropies. Creating value is a core principle on which our economic system is based; it is the job we owe to those who have entrusted us with their assets. We work for our share owners. That is – literally – what they have put us in business to do. Saying that we work for our share owners may sound simplistic- but we frequently see companies that have forgotten the reason they exist. They may even try in vain to be all things to all people and serve many masters in many different ways. In any event, they miss their primary calling, which is to stick to the business of creating value for their owners".

Against this backdrop, the present paper makes an attempt to give the relevant answers to the following questions :

I. Do executives really influence the creation of value or is it just the general market movement that brings stock prices up and down?

II. Does the higher growth as well as profitability or EVA lead to increased value to shareholders?

III. How can shareholders' value be created and analyzed?

IV. When can one say that a firm has added shareholders' value?

The remaining portion of the article is structured as follows:

Section-II concentrates on reviewing the literature relevant to this study. Data base and methodology of the study are included in section-III. Section-IV deals with the major computations and findings of the study and finally the last one (section-V) is devoted to draw the conclusion.

Review of Literature

For the last seventeen years, researchers, corporate professionals and consultant firms engaged in the field of finance have been paying their attention on the EVA, admitting the limitations of traditional measures of performance; but the majority of them have drawn inferences about the theoretical discussion of it and a few of them have concentrated to make the concept as a legitimate tool of corporate financial performance measurement. The present section briefly thrashes out the notable researches carried out so far by the scholars in the field.

Stern (1990) has observed that "as a performance measure EVA comes closer than any other tool to capture the true economic profit of an enterprise. It is directly linked to the creation of the shareholders' wealth over time. EVA based financial management and incentive system gives manager superior information and motivation to make decision that will create the greatest shareholder of a private enterprise". The author also argues that the best way of maximizing for shareholder return is to offer incentives to managers for making decisions that boost long term value. The managers may be guided by EVA and they can be remunerated a proportion of both the total EVA and the positive change in EVA.

Tully (1993) has postulated that there is no tricky situation about the technique through which the EVA can be augmented. It is a fundamental measure of return on capital and there are just three ways to increase it:

I. Earn more profit without using more capital;

II. Use less capital and

III. Invest capital in high return projects.

Stewart (1994) has opined that "EVA is a powerful new management tool that has gained growing international acceptance as the standard of corporate governance. It serves as the centerpiece of a completely integrated frame-work of the financial management and incentive compensation". He also argues that it can transform energies and resources to create sustainable value for companies, customers, employees, management, government and shareholders.

O'Hanlon and Peasvell (1996) consider that the ability to create wealth of shareholders is crucial for the survival of companies in the present business environment. Traditionally corporate performance has been measured in terms of earning per share (EPS). This concept is believed to encourage myopic behavior and considers that shareholders are a free source of funds. The EVA has been proposed as more sensible alternative.

Mayfield (1997) has observed that investing in all of those projects, which give a positive NPV and harvesting all those existing products and projects whose return on capital is more than the cost of capital enhance shareholder value. The traditional accounting techniques are familiar with concept of residual value, and its application in economic value measurement as a means of evaluating underlying business performance is nothing short of an overhaul of traditional accounting concepts. EVA provides an excellent tool for strategy planning, capital budgeting decision, pricing decision and also basis for incentive compensation.

KPMG-BS Study (1998) has selected top100 companies from bs-1000 list of companies and examined their data on EVA, Sales, PAT and MVA criteria for the year 1996-97.

From this study it is revealed that sixty two companies have been found to be able to create positive shareholder value where as thirty eight companies have been found to destroy it.

Banerjee and Jain (1999) carried out an empirical research in this field. Five independentvariables, namely earning per share (EPS), average return on net worth (ARONW), capital productivity (KP), labour productivity (LP) and economic value added (EVA) were chosen in the study to establish their relation with market value added which is taken as the surrogate of shareholders' wealth. Top 50 companies from Drug & Pharmaceutical industry in India were selected as the sample companies and data were collected for the period of 8 years from 1990-91 to 1997-98. The authors observed that EVA was the most important significant explanatory variable for shareholders' wealth and thus they claimed the superiority of EVA over the other explanatory variables.

Rakshit (2006) has made a study to find out the relationship between EVA and MVA of five selected multinational companies in Indian pharmaceutical industry over a time span of ten years (1993-94 to 2002-03). The author concludes that there is no relationship between EVA and MVA in almost all sample companies during the study period. A similar study was made by Chattopadhyay and Gupta (2001) to examine the relation between EVA and MC using time series data of Hindustan Liver Ltd. They also found no significant relationship between these two performance matrices.

From this brief review of literature it is evident that the scholars have given much important to EVA while measuring performance or value creation of any company. Now the business world is moving towards greater transparency and superior corporate governance. Shareholder value creation aspect is of utmost importance in the present scenario of corporate performance and management. So one cannot deny the present necessity of an exclusive study in this field in any country.

Data base and Methodology

For the purpose of the study the first moving consumer goods (FMCG) industry has been chosen purposively and from this industry two sample companies, viz Hindustan UniLever Ltd (HUL) and Colgate Palmolive (India) Ltd (CPIL) have been selected. The period of the study is last five years, from 2002-03 to 2006-07. The relevant data for the study have been collected from the secondary sources like BSE Stock Exchange Official Directory, Capita line -2000 data base package, Business newspaper, Internet etc.

The following four approaches are generally employed for measuring and analyzing the shareholders' value creation:

I. The Market value to Book value approach.

II. The Economic Value Added (EVA) approach

III. The Market Value Added (MVA) approach

IV. The Shareholder Value Added (SVA) approach.

Each of these approaches is briefly discussed below.

(I) The Market value to Book value approach.

A firm is said to create shareholders' value when its market value per share is greater than its book value. If we rely on the Fundamental Analysis, then the market value of a share may be considered as the present value of the expected stream of dividend per share (DPS). DPS depends on the firm's payout ratio (1-b) and the earnings' growth (g). But g depends on the retention ratio (b) and the return on equity (ROE). More specifically,

$$g = b \times ROE.$$

The stream of DPS is discounted at the cost of equity (K_e). For calculating K_e, the Capital Asset Pricing Model (CAPM) or Dividend Growth Model (DGM) can be used. But the advantage of the CAPM over DGM is that the former explicitly incorporates premium for risk and all its parameters are market determined while the latter uses accounting historical based data for calculating K_e. As per the CAPM, the cost of equity can be determined as follows:

$$K_e = R_f + \beta (R_m - R_f)$$

Where,

R_f is the Risk free return, R_m indicates market rate of return and β represents the systematic risk of the company's equity share.

The market value per share (MV) is then given by:

$$MV = \sum_{t=1}^{\infty} \frac{DPS_t}{(1+ K_e)^t}$$

$$= \sum_{t=1}^{\infty} \frac{EPS_t (1-b)}{(1+ K_e)^t} \longrightarrow \quad (1)$$

In Equation (1), DPS may be expected to grow at a constant rate, g. That is

$$DPS_t = DPS_{(t-1)} (1+g) = DPS_0 (1+g)^t$$

On the assumption that K_e is greater than g, for an infinite series Equation (1) can be simplified as :

$$MV = \frac{DPS_1}{K_e - g}$$

$$MV = \frac{EPS_1 (1-b)}{K_e - g} \longrightarrow \quad (2)$$

Since EPS is the product of the book value of firm's share and its return on equity (i.e., EPS = ROE X BV), Equation (2) can be written as follows.

$$MV = \frac{ROE \ X (1-b) X BV}{K_e - g} \longrightarrow \quad (3)$$

$$\frac{MV}{BV} = \frac{ROE \ X (1-b)}{K_e - g}$$

$$\frac{MV}{BV} = \frac{ROE - ROE X b}{K_e - g}$$

$$\frac{MV}{BV} = \frac{ROE - g}{K_e - g} \longrightarrow (4)$$

The Equation (4) indicates that the difference between ROE and K_e determines the MV / BV ratio. The difference must be positive to create shareholder value. g depends on the firm's retention ratio and return on equity. Given the firm's ROE, higher the retention ratio, higher will be the growth rate. However, a higher growth rate does not necessarily increase the shareholders' value because it has also negative effect on the value if the K_e is more than ROE, which is assumed to be less than g.

Economic Value Added (EVA) approach

EVA™ is actually Stern Stewart & Co's trade mark for a specific method of calculating economic profit. EVA is defined as: operating profit of a business after charging cost of capital. EVA focuses on clear surplus in contradiction to the traditionally used profit available to the shareholders. It is defined as:

$$EVA_t = NOPAT_t – WACC \times CE_t$$

Where,

$NOPAT_t$ = Net operating profit before interest after tax during period t,
WACC = Weighted average cost of capital and
CE_t = Capital employed at the end of period t.

It is free from subjective assumptions that need to be adopted while identifying profit and cost of capital. Here for calculating WACC cost of equity is derived on the basis of CAPM. For EVA analysis certain accounting policies, which Indian companies generally follow as per Companies Act and relevant Accounting Standard are not always suitable. To find out the meaningful EVA certain accounting adjustments are required. Sometimes it is alleged that EVA talks too much about the shareholders value added rather than focusing on the interest of all stakeholders. But EVA is a powerful performance measurement tool and it is also argued that if a company is able to serve its shareholders then it can also serve its all other stakeholders.

Market Value Added (MVA) approach

According to Stewart MVA is the spread between company's market capitalization and book value of capital, i.e.,

MVA = Market Capitalization – Equity

Where Equity implies Equity share capital + Reserve & Surplus – Miscellaneous Expenditure – P&L (Dr.) balance.

MVA represents only unrealized capital gain. But the empirical results observed in our study using this definition of MVA are absurd. One should define MVA as the difference between firms's closing market capitalization minus opening market capitalization. Thus MVA should be computed as:

$MVA_t = MV_t - MV_{(t-1)}$

Where MV_t = Market capitalization at period t and $MV_{(t-1)}$ = Market capitalization at period (t-1).

However, this definition is applicable if the number of outstanding shares of a company between 't' and '(t-1)' period remains same. If the number of outstanding shares changes due to issue of bonus share, right issue, buy back of share or conversion of preference share into equity shares between two points of time, stock split, etc. determination of MVA by direct comparison of market capitalization at two different time points leads to erroneous conclusions. Taking into account all these situations the actual MVA, should be computed using the following formula:

Closing market price of equity shares at time 't' multiplied by the number of outstanding shares at time 't' minus closing market price of equity shares at time (t-1) multiplied by number of outstanding shares at time 't'. However, this definition of MVA could be operationalised if one can avoid the short-term volatilities in share prices.

Shareholders' Value Added approach

SVA is the total value added to the shareholders, both realized and unrealized. SVA in any period t is measured in the following way:

$SVA = MVA_t + EDIV_t$

Where MVA_t indicates market value added at time 't' and $EDIV_t$ implies equity dividend at time 't'.

Proposed Approach of shareholders value creation

When managers try to increase the ROI, EVA, MVA or SVA, are they really creating value for the shareholders? The answer is clearly no because EVA and MVA, as per Stern Stewart recommendation are computed based on financial statement. But financial statement only

reflects the firm's history. All the items of financial statements, which explain what has happened during a certain year and also of the balance sheet, which reflects the state of a firm's assets and liabilities at a certain point of time are historic data. But conceptually a company creates value for its shareholders when the shareholders' return exceeds the equity's cost (the required return to equity). A company destroys value when the opposite situation occurs. So shareholders' value creation should simply be calculated as:

Shareholder value creation = Market value of equity x (shareholders' return – K_e)

Shareholder return is to be determined as the long-term return on equity on the discounted cash flow basis from the shareholder's point of view. As usual K_e is to be calculated using CAPM based on estimating market line.

For share-holders' value creation we have computed year-wise long-term market return in its annualized form and also year-wise value of â for each company. Instead of using single data we have computed year-wise data for these two parameters on the presumption that risk structure may not remain constant over time either in the market or in any company. Further, both these parameters should be estimated from the over time general movement of share market which is frequently characterized by short-term volatilities. To avoid short term volatilities, we have constructed first a 10% band around the changes of the Nifty and then we have taken only those values of Nifty as the general normal values which lie within the band [i.e., $-0.1<\Delta P_t<+0.1$]. Corresponding to the dates of normal values of Nifty, we have taken each company's share prices for computing β as well as market return. But, as mentioned above, both these parameters have been computed on a long-term basis (taking at least three years' past data) to iron out the short term irratic movements, if any. Accordingly we have collected share price data for the period 2000-01 to 2006-07 though our period of study is from 2002-03 to 2006-07. For instance, to compute market return for the year 2003-04 we have estimated average value of the normal Nifty returns for the years 2000-01 to 2003-04. Similarly, to compute β of any sample company for the year 2003-04, we have regressed share price return on the Nifty return taking respective normal data for the period 2000-01 to 2003-04. This analysis is based on weekly data which is free from any day-effects.

Major Computations and Findings

Table - 1

Year	2006-07		2005-06		2004-05		2003-04		2002-03	
Particulars	HUL	CPIL	HUL	CPIL	HUL	CPIL	HUL	CPIL	HULL	CPIL
Market Value to Book Value ratio (in times)	17.78	16.12	19.58	21.68	28.63	9.91	13.52	7.26	10.47	6.02
Economic Value Added (Rs.in crores)	1189.95	155.75	1088.30	100.34	971.58	83.78	1482.15	75.65	1189.67	54.75
Market Value Added (Rs.in crores	4367.42	-1355.14	11831.45	3406.55	-13471.34	697.63	5051.75	118.99	-9223.03	-263.82
Shareholder Value Added (Rs.in crores)	5692.9	-1225.94	12932.07	3508.55	-12370.72	792.83	6650.95	200.59	-8012.34	-206.02
Share holders' return (%)	1	22.03	7	25.66	-9	8.05	-5	-3.12	1	-13.06
Cost of Equity (%)	13.11	14.63	12.28	11.91	13.82	13.31	15.35	13.37	15.55	14.69
Closing Market Value (Rs in Crores)	47786.09	4520.31	43418.67	5875.45	31587.22	2468.90	45058.58	1771.27	40006.81	1652.28
Shareholders' Value Creation (Rs in Crores)	-5786.9	334.48	-2292.51	807.67	-7208.2	-129.79	-9169.42	-292.00	-582.99	-458.50

Note : Fot detailed computations see Annexures I and II

From Table-1 it is observed that for both the companies MV/BV ratios (in times) are greater than one. In the case of HUL, on an average, it is found to be 18 during the period under study, ranging from 28.63 (2004-05) to 10.47 (2002-03). On the other hand, in the case of CPIL it ranges from 21.68 (in the F.Y.2005-06) to6.02 (in the F.Y. 2002-03) and the average value is 12.20 during the study period. The Table also shows that both the companies have been always able to create shareholders' value based on market to book value approach.

EVA-based performance measurement not only provides a far more accurate report card on corporate financial performance than conventional measures, but also has considerable implications for companies on how to make strategic decisions and manage the healthier financial performance for creating shareholders' value. EVA created by the sample companies during last five years (i.e., 2002-03 to 2006-07) is also depicted in Table-1. It discloses that

EVA of HUL registered a fluctuating trend during the period under study. On an average it was Rs.1184.33 crore during the said period. On the other hand CPIL was able to improve the EVA steadily during the study period. It is observed from Table-1 that both the companies have been constantly generating the positive EVA all the way through the period of last five years.

From Table-1 it is evident that there is a mixture of positive and negative MVA & SVA for both the companies during the period under study. The highest MVA & SVA in the last five years were Rs.11831.45 crore & Rs.12932.07 crore in the F.Y.2005-06 of HUL and Rs.3406.55 Crore & Rs.3508.55 Crore in the F.Y. 2005-06 of CPIL respectively. MVA & SVA were positive in the F.Y. 2003-04, 2005-06 and 2006-07 of HUL and from 2003-04 to 2005-06 of CPIL, implying thereby that the shareholders' value was created in these years.

But the Market value to Book value ratio, EVA, MVA and SVA can not really create value for the shareholders because a company creates value it when the shareholder return exceeds the equity's cost; but in the above approaches shareholders' return is not computed.

As per the proposed method any company's performance from the shareholders' point of view is to determine the long term return on equity on the discounted cash flow (DC) basis. For instance, the CPIL's share price at the end of FY 2001-02 (i.e. 31-3-2002) was Rs.141.20 and at the end of FY 2006-07 (i.e. 31-03-2007) was Rs.332.65. Shareholders holding CPIL's share during this period also received dividends. Thus the DCF return on equity for the period 2001-02 to 2006-07 is as follows :

$$P_{(2001\text{-}02)} = \frac{DPS_{(2002\text{-}03)}}{(1+r)^1} + \frac{DPS_{(2003\text{-}04)}}{(1+r)^2} + \frac{DPS_{(2004\text{-}05)}}{(1+r)^3} + \frac{DPS_{(2005\text{-}06)}}{(1+r)^4} + \frac{DPS_{(2006\text{-}07)} + P_{(2006\text{-}07)}}{(1+r)^5}$$

i.e.,

$$141.20 = \frac{4.25}{(1+r)^1} + \frac{6}{(1+r)^2} + \frac{7}{(1+r)^3} + \frac{7.5}{(1+r)^4} + \frac{(9.5 + 332.65)}{(1+r)^5}$$

We find that during 2001-02 to 2006-07, the CPIL's shareholders earned a discounted cash flow return on equity, r, of approximately 22.03%. The net return can be computed by considering CPIL's cost of equity, which is estimated at about 14.63%. Thus the shareholders earned 7.40% net return which is in excess of the cost of equity. If we consider the period from 2000-01 to 2005-06 (instead of taking 2000-01 to 2006-07), the DCF return on equity (as per estimating CAPM) comes to 25.66%. In the same way we have also computed

return on equity of HUL. In case of CPIL the company is able to create value for shareholders only for two years (i.e., F.Y 2005-06 & 2006-07) and destroys value for the rest years. But the most noticeable point is that under this method HUL's shareholders have destroyed value for all the years during study period.

Conclusion

Empirically it is observed that the proposed definitionally sound method is total different from other existing methods of value creation. The shareholders value should depend on future cash flows and their risk. The cost of equity being accounting for the timing and risk of future cash flows should be used to determine the present value of cash flows. Shareholder value creation then actually emphasises the present value of future cash flows rather than earnings. Earnings suffer from accounting policy biases and subjectivism. They are not directly linked to value. The effective orientation of shareholders' value creation necessitates a change in the culture and mindset of the company. Shareholders' true value orientation reporting system will generate new series of management information system to aid management in making relevant decision for creating shareholders' value further.

References :

- Al Ehrbar, "EVA: The Real Key to Creating Wealth", John Wiley & Sons Inc
- Banerjee, A. (2000) "Linkage between Economic Value Added and Market Value: An Analysis", Vikalpa, Vol.25, No-3, July – September, Pp.23-36.
- Banerjee, A. and Jain, S.C (1999), "Economic Value Added and Shareholder Wealth: An Empirical Study of Relationship", Paradigm, Vol.3, No-1, January –June, Pp- 99-135
- Brealey Richard, A. and Mayers Stewart, C. (1991), "Principle of Corporate Finance", McGraw-Hill Series in Finance, McGraw-Hill Inc., New York.
- Chattopadhyay, A. and Gupta,A. (2001), "Linkage Between Market Capitalisation and EVA- A Study with Reference to H.L.L.", Indian Journal of Accounting, June, Vol. 32, Pp.1-7
- Fernandez, P. (2002), "EVA, Economic Profit and Cash Value Added do not measure Shareholder Value Creation", IESE, University of Navarra, Research paper no 453 Pp-1-22
- Ghosh, T.P.(1999), "Economic Value Added ™ : A tool for Business Planning", ICWAI Publication, July.

- KPMG-BS, (1998), "Corporate India: An Economic Value Scoreboard", The Strategy, Jan- March, PP-22-25
- Mayfield, J. (1997), "Economic Value Management", Management Accounting, Sept., Pp- 32-33
- O'ttanlon, J. and Peasvell, K. (1996), "Measure for measure", Accountancy – International edition, February , Pp-44-46
- Pandey, I.M. "Financial Management", Chapter 34, 8th Edn., Vikas Publishing India.
- Rakshit.D (2006), "Linkage between EVA and MVA: A Study of some Pharmaceutical companies in India", IMM- Marketology, October- December, Pp-60-70
- Stern, J. (1990), "One way to build value in your firm, Executive compensation", Financial Executive, Nov/Dec,Pp- 51-54
- Stewart, G. Bennett, (1994), "EVA™ Fact and Fantasy", Journal of Applied Corporate Finance, June- Pp-71-84
- Stewart, G. Bennett, (1990), "The Quest for Value: the EVA ™ Management guide", Harper Business, New York, 1990.
- Tally, Shawn (1993), "The real key to creating wealth", Fortune, September-20, 1993, p-563
- Van Horne, J.C (1995), "Financial Management & Policy", Prentice Hall of India Pvt. Ltd, New Delhi.
- http://www.few.se/1/12.html.
- http://www.Sternstewart.com.
- http://www.bham.ac.uk/EAA/eaa97/abstracts/guenther.html

Annexure - I

HINDUSTAN UNILEVER LTD.

Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Computation of Market value to Book value ratio					
Market Price per share	219.4	205	272	131.25	174
Book Value per share	12.34	10.47	9.5	9.71	16.62
Market value to Book value Ratio	17.78	19.58	28.63	13.52	10.47

Computation of Economic Value Added (EVA)					
Net profit before interest after tax	1554.01	1383.99	1345.29	1853.91	1764.71
Less Cost of capital	364.06	295.69	373.71	371.76	575.04
EVA	1189.95	1088.30	971.58	1482.15	1189.67

Computation of MVA & SVA					
Closing Market Value of Equity Shareholders' Fund	47786.09	43418.67	31587.22	45058.56	40006.81
Less Opening Market Value of Equity Shareholders' Fund	43418.67	31587.22	45058.56	40006.81	49229.84
MVA	4367.42	11831.45	-13471.34	5051.75	-9223.03
Add Dividend	1325.48	1100.62	1100.62	1599.20	1210.69
SVA	5692.90	12932.07	-12370.72	6650.95	-8012.34

Computation of Shareholders' return for one year					
Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Opening Market Price	-272	-131.95	-154.4	-148.35	-225.15
CL Market Price + Dividend	211.2	277	136.95	159.9	153.85
Closing Market price	205.2	272	131.95	154.4	148.35
Dividend	6	5	5	5.50	5.5
Shareholders' return for one year	-22%	110%	-11%	8%	-32%

Computation of Shareholders' return for Five years					
Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Opening Market Price	-225.15	-219.25	-241.24	-226.50	-159.24
Dividend -1st Year	5.5	5	3.5	2.90	2.20
Dividend -2nd Year	5.50	5.5	5	3.50	2.90
Dividend -3rd Year	5	5.50	5.5	5.00	3.50
Dividend -4th Year	5	5	5.50	5.5	5.00
Dividend -5th year+Closing Share Price	211.2	277	136.95	159.9	153.85
Shareholders' return for Five years	1%	7%	-9%	-5%	1%

Computation of WACC					
Net Shareholder Funds	2723.49	2305.62	2092.71	2138.72	3658.87
Secured Loans	37.13	24.50	1453.06	1603.70	19.62
Unsecured Loans	35.47	32.44	18.06	100.61	38.68
Total Debt	72.60	56.94	1471.12	1704.31	58.30
Capital Employed	2796.09	2362.56	3563.83	3843.03	3717.17
Equity proportion	0.97	0.98	0.59	0.56	0.98
Debt Proportion	0.03	0.02	0.41	0.44	0.02
Interest Rate	14.78	33.72	8.84	3.92	15.75
Cost of debt	9.61	21.92	5.74	2.55	10.23
Cost of Equity under CAPM	13.11	12.28	13.82	15.35	15.55
WACC	13.02	12.52	10.49	9.67	15.47

Computation of cost of equity					
Risk free rate (%)	9.00	9.00	9.00	9.00	9.00
Systematic Risk coefficient (Beta)	0.22	0.30	0.36	0.32	0.34
Expected market return (%)	27.98	20.12	22.41	28.70	28.18
Cost of Equity under CAPM (%)	13.11	12.28	13.82	15.35	15.55

Annexure-II

COLGATE PALMOLIVE (India) LTD

Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Computation of Market value to Book value ratio					
Market Price per share (Rs)	332.65	432.15	182.05	130.5	121.75
Book Value per share (Rs)	20.63	19.93	18.37	17.97	20.22
Market value to Book value Ratio	16.12	21.68	9.91	7.26	6.02
Computation of Economic Value Added (EVA)					
Net profit before interest after tax	197.43	133.02	117.77	108.69	95.31
Less cost of capital	41.68	32.68	33.99	33.04	40.56
EVA	155.75	100.34	83.78	75.65	54.75
Computation of MVA & SVA					
Closing Market Value of Equity Shareholders' Fund	4520.31	5875.45	2468.90	1771.27	1652.28
Less Opening Market Value of Equity Shareholders' Fund	5875.45	2468.90	1771.27	1652.28	1916.10
MVA	-1355.14	3406.55	697.63	118.99	-263.82
Add Dividend	129.20	102.00	95.20	81.60	57.80
SVA	-1225.94	3508.55	792.83	200.59	-206.02
Shareholders' return for one year					
Opening Market Price	-432.15	-182.05	-130.5	-121.75	-141.2
CL Market Price + Dividend	342.15	439.65	189.05	136.50	126
Closing Market price	332.65	432.15	182.05	130.50	121.75
Dividend	9.5	7.5	7	6.00	4.25
Shareholders' return for one year	-20.83%	141.50%	44.87%	12.11%	-10.76%
Shareholders' return for five years					
Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Opening Market Price	-141.20	-155.40	-146.00	-180.10	-280.15
Dividend -1st Year	4.25	8.25	3.00	3.00	3.00
Dividend -2nd Year	6.00	4.25	8.25	3.00	3.00
Dividend -3rd Year	7.00	6.00	4.25	8.25	3.00
Dividend -4th Year	7.50	7.00	6.00	4.25	8.25
Dividend -5th year + Closing Share Price	342.15	439.65	189.05	136.50	126.00
Shareholders' return for Five years	22.03%	25.66%	8.05%	-3.12%	-13.06%

Computation of WACC					
Financial Year	2006-07	2005-06	2004-05	2003-04	2002-03
Net Shareholder Funds	280.52	271.07	249.77	244.31	275.02
Secured Loans	0.00	0.00	0.00	0.00	0.00
Unsecured Loans	4.28	4.36	3.98	2.17	2.14
Total Debt	4.28	4.36	3.98	2.17	2.14
capital employed	284.80	275.43	253.75	246.48	277.16
Equity proportion	0.98	0.98	0.98	0.99	0.99
Debt Proportion	0.02	0.02	0.02	0.01	0.01
Interest Rate	22.90	13.53	29.15	27.19	11.21
Cost of debt	14.88	8.80	18.94	17.67	7.29
Cost of Equity under CAPM (%)	14.63	11.91	13.31	13.37	14.69
WACC	14.63	11.86	13.40	13.40	14.63

Computation of cost of equity					
Risk free rate (%)	9.00	9.00	9.00	9.00	9.00
Systematic Risk coefficient (Beta)	0.30	0.26	0.32	0.22	0.30
Expected market return (%)	27.98	20.12	22.41	28.70	28.18
Cost of Equity under CAPM (%)	14.63	11.91	13.31	13.37	14.69