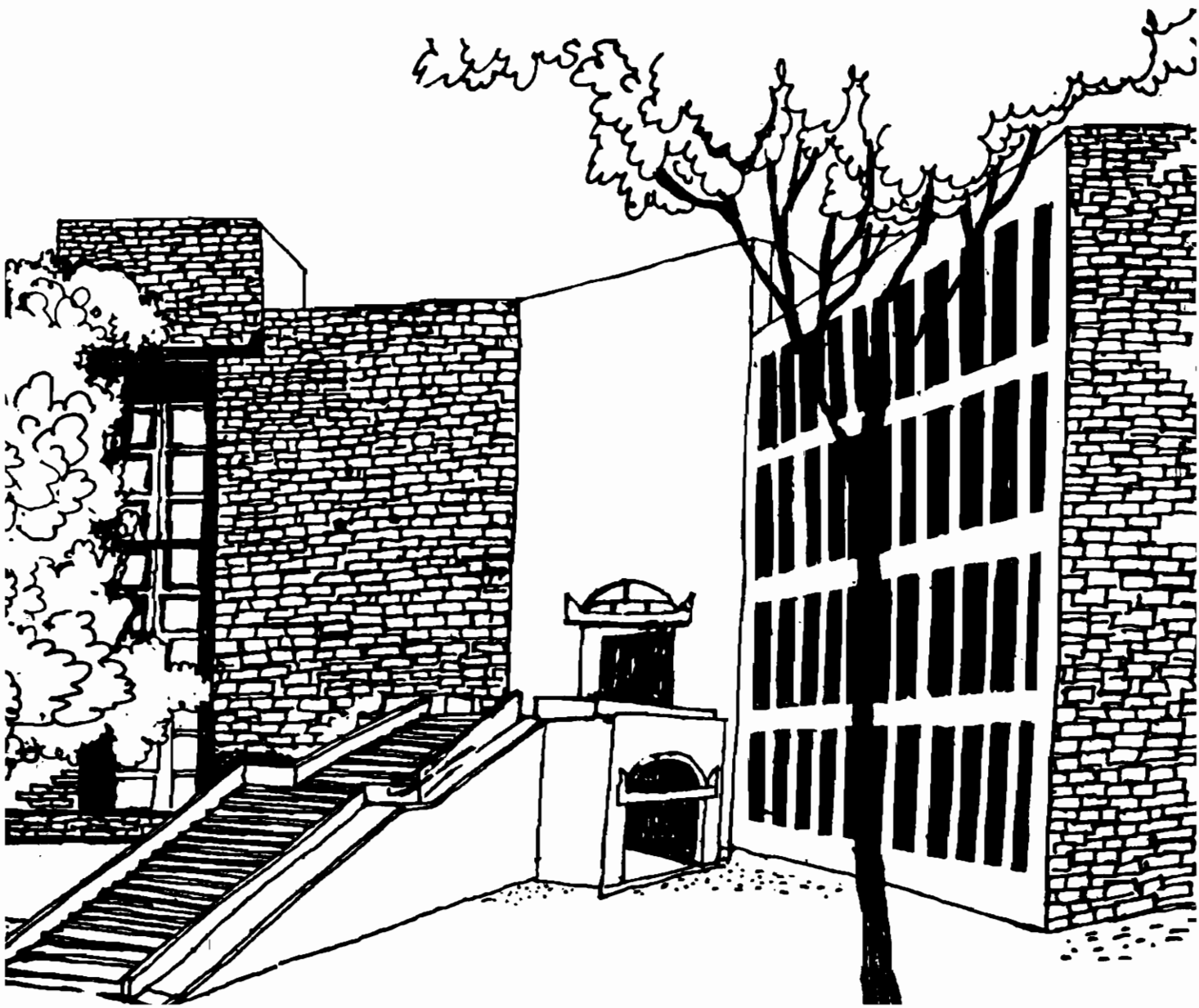
विद्याविनियोगाद्विकासः

IIM

AHMEDABAD

Working Paper



SHAREHOLDER VALUE CREATION: A STRATEGIC FINANCIAL GOAL

By

I.M. Pandey

W.P. No. 98-04-02
April 1998

INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD - 380 015
INDIA

ABSTRACT

Recently some corporate managers in India have started emphasising the need of the shareholder value creation (SVC). A few of them have explicitly stated SVC as their most important goal. Companies such as the Hindustan Lever Limited, Infosys or Balrampur Chini have reported information on the economic value added (EVA) - considered to be equivalent to SVC -in their annual reports. HLL has implemented the system of subjecting their investments, business performance and planning EVA evaluation. In this paper we argue that EVA used by HLL is not same as SVC.

The focus on SVC is expected to increase in India as the capital markets are maturing, shareholders are assuming greater power, investment regulations are being oriented towards shareholders and the threat of mergers and take-overs is increasing. The traditional financial goals pursued by companies have flaws since they are based on accounting numbers, and do not necessarily lead to value creation. If corporate management is an agent of shareholders, then they should accord highest priority to the shareholder value creation. On the basis of the available theoretical literature, we show how SVC works. SVC has the potential of being a strategic goal not only in project and business evaluation but in the overall strategic planning.

SHAREHOLDER VALUE CREATION: A STRATEGIC FINANCIAL GOAL

INTRODUCTION

Financial goals drive a company. They are the quantitative expressions of a company's mission and strategy, and are set by its long-term planning system as a trade-off among conflicting and competing interests. In a study of twelve large American companies, Donaldson[1] has identified several characteristics of a company's financial goals system:

- companies are not always governed by the maximum profit criterion;
- financial priorities in practice change according to the changes in the economic and competitive environment;
- competition sets the constraints within which a company can attain its goals;
- managing a company's financial goal system is continuous process of balancing different priorities in a manner that the demand for and supply of funds is reconciled;
- a change in any goal can not be affected without considering the effect on other goals;
- financial goals are changeable and unstable, and therefore, managers find it difficult to understand and accept the financial goal system.

In practice, the financial goal system boils down to the management of flow of funds. The objectives of growth and return can assume different priorities during the life cycle of a company. For fulfilling its desire of attaining high growth a company may have to sacrifice superior return. Similarly, it may be able to achieve maximum return by constraining its growth. For supporting its growth target, the financial goals of a company are expressed as four key variables:

- sales growth target
- return on investment (net assets) target
- dividend payout
- debt-equity ratio

Thus, there are demand-related goals - driven by the company's strategic goal of sales growth (requiring funds for investment in fixed and current assets) and supply-related goals - driven by the company's desire to earn superior return, pay dividends to shareholders and enhance funds by raising debt supported by internal funds.[2] Our research[3] shows that corporate managers in India consider the following four financial goals as the most important:

- ensuring funds availability
- maximising growth
- maximising operating profit before interest and taxes
- maximising return on investment

How are the financial policy goals of a firm related to each other? What is the trade-off between profitability and growth? Recently the corporate management in India has started talking about shareholder value creation (SVC). Companies such as the Hindustan Lever Limited (HL), perhaps under the influence of the parent company-Unilever, have implemented the system of investment and performance evaluation and corporate planning based on the principles of SVC. HLL, Infosys and Balrampur Chini are the examples of some Indian companies that provide information about economic value added (EVA) - a concept considered akin to SVC. This trend is expected to pick up further because of the maturing of the Indian capital markets, more and more company raising money from markets, the

---

[1] Donaldson, G. "Financial Goals and Strategic Consequences," *Harvard Business Review*, May-June 1985, pp. 57-66.

[2] *Ibid.*

[3] Pandey, I. M., and Bhat, R. "Fulfilling Financial Goals," *Business World*, March 29-April 11, 1989.

increasing threat of corporate take-overs of under-valued, under-managed and mismanaged companies, growing realisation that management is shareholders' agent and their remuneration and incentives should be linked to their actions in creating shareholders wealth, and the development in information technology that has enabled managers to link their decision-making to SVC framework. Traditionally the corporate managers have focused on market share, growth and ROI (return on investment). They will perhaps continue doing so. What they will have do now is to evaluate these goals within SVC framework. They will have to ask questions such as: How does SVC work? Do higher growth and profitability lead to an increase in the shareholder value? How to evaluate and choose business strategies that increase shareholder value? What generic strategies help in enhancing the shareholder value? In this article we shall show how SVC works. We shall use HLL as a case to illustrate the application of the shareholder value analysis.

DETERMINANTS OF A FIRM'S GROWTH POTENTIAL

A firm generally sets its growth objective in terms of sales growth rate. Sales growth demands funds for investment in assets (both fixed and current). If the firm does not raise external equity, the funds will be supplied from internal generation and debt supported by internal funds. What governs a firm's growth potential?

Single Business/Product Firm

A simple way of ascertaining the growth potential of a single-business/product company is to find out an interaction between the four financial goals expressed as ratios: two operating ratios - assets to sales ratio and net profit to sales ratio, and two financial policy ratios - retention (retained earnings to profit after tax) ratio and debt-equity ratio. Given a company's financial policy how much growth can it sustain? Sustainable growth may be defined as the annual percentage growth in sales that is consistent with the company's financial policies (assuming no issue of fresh equity)[4]. The following equation can be used for determining the sustainable sales growth (g_s) of a single-product firm:

$$g_s = \frac{\frac{PAT}{S} \times \frac{RE}{PAT}\left(1 + D/E\right)}{\frac{NA}{S} - \left[\frac{PAT}{S} \times \frac{RE}{PAT}\left(1 + D/E\right)\right]}$$

$$Sustainable\ growth = \frac{net\ margin\ x\ retention\ x\ leverage}{asset\ tirnover\ -\ (net\ margin\ x\ retention\ x\ leverage)}$$

$$g_s = \frac{p \times b \times l}{a - (p \times b \times l)} \qquad (1)$$

where

p = net margin = profit after tax to sales;
b = retention ratio = retained profit to profit after tax ration;
l = leverage = net assets to net worth ratio = 1 + debt-equity ratio;
a = asset-output ratio = net assets to sales ratio.

The net assets to sales ratio determines the requirements of funds to be invested in assets to support a given level of sales. The funds needed would increase with expanding sales. The net profits minus dividends (retained earnings) is an internal source of funds. Thus the product of net margin and retention ratio indicates the funds available internally. Retained earnings increase the debt raising

[4] Boston Consulting Group Staff, *Perspectives on Experience*, Boston Consulting Group, 1968.

capacity of the firm. Thus the total funds will be equal to retained earnings plus debt supported by retained earnings: [pb (1 + D/E).

Multiple Business/Product Firm

A multiple business/product firm sets its growth target at the corporate level in terms of assets growth as dictated by its over-all sales growth. Given a policy of no external equity, assets of the firm will grow by an amount equal to retained earnings multiplied by debt-equity ratio. The asset growth can be calculated by dividing this amount by the current amount of net assets:

$$Growth = \frac{Retained\ earnings}{Net\ assets}(1 + Debt / equity)$$

$$g_s = \frac{RE}{NA}(1 + D/E) \qquad (2)$$

Assuming that assets turnover remains constant, then sales will grow at the same rate as assets. Thus the firm's growth is critically based on its ability and willingness to retain profits. How much profits the firm would be able to retain depends on its operating efficiency, financial leverage and dividend policy. Operating efficiency, measured by profit before interest and tax (PBIT) to net assets ratio, is the product of assets productivity in generating sales (sales to net assets ratio) and profit margin (PBIT to sales ratio):

RONA = Assets turnover x profit margin

$$\frac{PBIT}{NA} = \frac{S}{NA} \times \frac{PBIT}{S} \qquad (3)$$

Profits generated through the interaction of assets turnover and profit margin are constrained by payment of interest, taxes and dividends. Thus retained earnings available to support growth are given by the product of RONA (return on net assets), leverage (financial and tax) factor and retention ratio as shown below:

$$\frac{RE}{NA} = \frac{PBIT}{NA} \times \frac{PAT}{PBIT} \times \frac{RE}{PAT} \qquad (4)$$

The firm's growth can be enhanced by additional borrowing equal to the target debt-equity ratio times the retained earnings. Thus the growth which a firm can sustain, given its financial goals and policies, is as given below:

Growth = turnover x gross margin x retention(1 + Debt - equity)

$$g_s = \frac{S}{NA} \times \frac{PBIT}{S} \times \frac{PAT}{PBIT} \times \frac{RE}{PAT} \times (1 + D/E) \qquad (5)$$

The above equation includes all elements of a firm's financial goals system. It is composed of:

- The firm's assets turnover.
- The firm's profit margin.
- The firm's return on investment as a product of assets turnover and profit margin.
- The firm's degree of financial and leverage (PAT/PBIT) .
- The firm's retention and borrowing [as reflected by RE/PAT{1 + D/E}].

The elements of the financial goals system are policy targets. Given the targets and without external equity financing, a firm can ascertain the growth rate which it can sustain.

An alternative formula for the sustainable growth is as follows :

$$g_s = b\left[\left\{r + (r - i)\,D/E\right\}\right](1 - T) \qquad (6)$$

$$g_s = b \times ROE$$

$$ROE = \left\{r + (r - i)\,D/E\right\}(1 - T)$$

where

g_s is sustainable growth is assets and sales,
b is the retention ratio (RE/PAT),
r is before tax RONA = PBIT/NA,
i is the interest rate on debt, D/E is debt equity ratio,
T is the corporate tax rate and
ROE is return on equity

Equation (6) [5] makes it clear that sustainable growth depends on the firm's retention ratio and ROE. ROE is influenced by the firm's over-all profitability and debt-equity ratio.

Let us take the case of Greaves Limited to illustrate the sustainable growth model.

Sustainable Growth Model Applied to Greaves Limited

Greaves Limited was started in 1922 as a trading company. In 1992, Greaves branched out to manufacturing and now it a diversified manufacturing company. Table 1 gives the summary of the financial data for the company for the period from 1993 to 1997.

TABLE 1. GREAVES LIMITED'S FINANCIAL DATA, 1993-97 (Rs in crore)

	1993	1994	1995	1996	1997	Average
Sales (S)	311.14	354.25	521.56	728.15	801.11	543.24
PBIT	34.51	39.64	42.98	65.67	82.64	53.09
Interest (INT)	19.62	17.17	21.48	28.25	27.54	22.81
Tax	0	4	7	8.6	15.8	7.08
PAT	14.89	18.47	14.5	28.82	39.3	23.20
Dividend (DIV)	4.06	7.29	8.58	12.85	14.18	9.39
Retained earnings (RE)	10.83	11.18	5.92	15.97	25.12	13.80
Net worth (NW)	119.39	200.6	206.52	219.81	243.19	197.90
Debt (D)	84.61	130.82	158.73	183.94	203.66	152.35
Net asset (NA)	204	331.42	365.25	403.75	446.85	350.25
Interest rate (i)	0.232	0.131	0.135	0.154	0.135	0.16
Tax rate (T)	0	0.178	0.326	0.230	0.287	0.20

[5] Let NA = E + D, r = RONA = PBIT/NA, i = interest rate on debt, b = retention ratio = RE/PAT, and T = corporate tax rate. ROE (return on equity) is given as follows:

$$ROE = \frac{PAT}{E} = \left[\frac{rNA - iD}{E}\right](1 - T)$$

$$ROE = \left[\frac{rD + rE - iD}{E}\right](1 - T)$$

$$ROE = \left[r + (r - i)\,D/E\right](1 - T)$$

The product of ROE and b gives the sustainable growth. Thus

$$g_s = b\left[\left\{r + (r - i)\,D/E\right\}\right](1 - T)$$

Table 2 provides the computations of Greaves' financial policy variables and its growth performance. The company has generally performed well during last five years, except for 1995. The company's (before-tax) RONA and ROE have been generally increasing over the years and are 18.5 per cent and 16.2 per cent, respectively, in 1997. Greaves' debt-equity ratio has shown some increase in the recent years. The company's retention ratios has been high, except for 1995. It has been able to sustain an average growth of 7 per cent during past five years. Growth rates have shown significant variation. For example, it was lowest at 2.9 per cent in 1995 and highest at 10.3 per cent in 1997.

TABLE 2. GREAVES' FINANCIAL PERFORMANCE AND GROWTH

	1993	1994	1995	1996	1997	Average
Asset turnover: S/NA	1.53	1.07	1.43	1.80	1.79	1.52
Margin: PBIT/S	0.111	0.112	0.082	0.090	0.103	0.10
RONA: PBIT/NA	0.169	0.120	0.118	0.163	0.185	0.15
Leverage factor: PAT/PBIT	0.431	0.466	0.337	0.439	0.476	0.43
Debt ratio: NA/NW	1.71	1.65	1.77	1.84	1.84	1.76
ROE:PAT/NW	0.125	0.092	0.070	0.131	0.162	0.12
Retention: RE/PAT	0.727	0.605	0.408	0.554	0.639	0.59
Sustainable Growth: RE/NW	0.091	0.056	0.029	0.073	0.103	0.07

It is evident that Greaves was able to achieve a growth rate of 10.3 per cent in 1997, given its financial policies (debt-equity of 0.84:1 and retention of 64 per cent) and effective tax rate of 28.5 per cent. Equation (6) can also be used to calculate Greaves' growth rate:

$$g = b\left[\{r + (r - i)D / E\}(1 - T)\right]$$

$$g = .639\left[\{.185 + (.185 - .135).84\}(1 - .285)\right]$$

$$g = .639[.1322 + .030] = .103 = 10.3\%$$

Can Greaves sustain a higher growth rate, say, 15 per cent? Let us assume that Greaves in the future would like to continue with its current financial policies; that is, it will retain about two-thirds (65 per cent) of its profits and maintain a debt equity-ratio of 0.85:1. Further, the company's marginal tax rate will be 35 per cent, and it could borrow funds at 15 per cent rate of interest. Given its financial policy and desire to grow at 15 per cent, Greaves' RONA is calculated as follows:

$$g = b\left[\{r + (r - i)D / E\}(1 - T)\right]$$

$$.15 = .65\left[\{r + (r - .15).85\}(1 - .35)\right]$$

$$.15 = .65[.65r + .5525r - .0829]$$

$$.15 = .7816r - .0539$$

$$r = .2039/.7816 = .261 = 26.1\%$$

Greaves' RONA will have to increase substantially to 26.1 per cent before-tax or 17 per cent after-tax. Table 3 gives before-tax and after-tax RONA to be earned for achieving a desired growth rate, given the company's financial policies. The growth-return relationship is also shown in Fig. 2.

Greaves' given financial goals system will be self-sustaining only if its growth and after-tax RONA targets are represented by a single point on the diagonal in Fig. 1. If Greaves did not have any debt and retained entire profits, it could grow at a rate equal to after-tax RONA. In such situation, the graph is divided equally by the diagonal having a 45^0 slope. The area to the left of the diagonal represents a deficit as the company is unable to meet funds requirement, within its policy constraints, to

support high growth rate. Similarly, the area to the right of the diagonal depicts a surplus since the company has more funds available than warranted by its growth rate. The utility of such graph lies in top management communicating the meaning and discipline of an integrated set of financial goals to subordinates and to track performance against goals. The graph shows the impact of the trade-offs constantly necessitated by competing goals and objectives.[6]

TABLE 3. RELATIONSHIP BETWEEN RONA AND GROWTH GIVEN THE FIRM'S FINANCIAL POLICIES

Growth rate (g)	Before-tax RONA (r)	After-tax RONA [(1 - T) r]
(0.05)	0.005	0.003
0.00	0.069	0.045
0.05	0.133	0.086
0.07	0.158	0.103
0.10	0.197	0.128
0.12	0.222	0.145
0.15	0.261	0.170
0.20	0.325	0.211

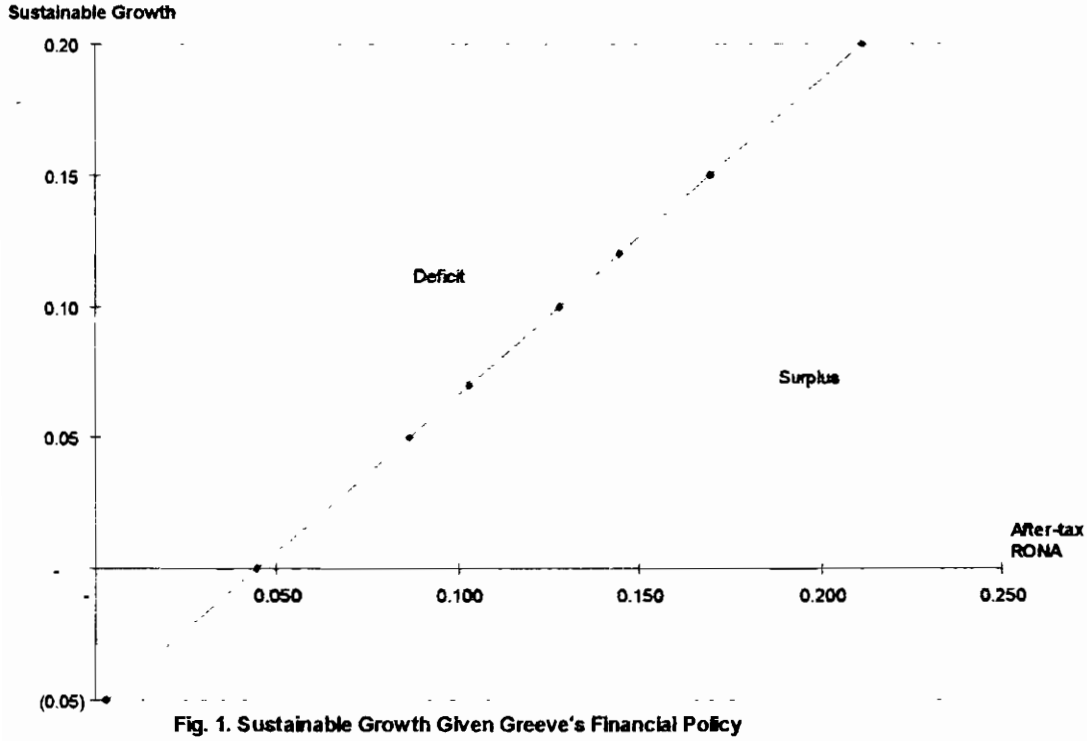


Fig. 1. Sustainable Growth Given Greeve's Financial Policy

The highest RONA for Greaves in the last five year is 18.5 per cent in 1997. Assuming that it can not earn a RONA of more than 18.5 per cent and it still wants to grow at 15 per cent. The company does not see much scope for changing its dividend policy. Under the circumstances, the company can achieve its growth if it changes its debt policy. The company's debt-equity ratio will have to be 4.86:1 as shown below:

[6] Donaldson, op.cit., 1985.

$$g = b\left[\{r + (r - i)D / E\}(1 - T)\right]$$

$$.15 = .65\left[\{.185 + (.185 - 15)D / E\}(1 - .35)\right]$$

$$.15 = .65[.12025 + .02275D / E]$$

$$.15 = .078163 + .014788D / E$$

$$D / E = .071837 / .014788 = 4.86$$

A more aggressive debt-equity goals combined with a lower dividend payout would raise the growth potential for any given rate of return (RONA) higher than the cost of debt. Thus, the factors governing the maximum, sustainable long-term sales growth rate are mainly financial in character. The sustainable growth model indicates the sales growth that can be supported by, and is consistent with the firm's financial policies. The firm will have to revise its financial policies or resort to external equity if t intends to achieve a growth rat higher than the maximum sustainable growth. The firm, on the other hand, can consider the alternatives of increasing payout, or reducing debt, or building up liquid assets when its achievable growth rate is lower.

SHAREHOLDER VALUE CREATION

Does higher growth and/or profitability lead to increased value to shareholders? Modern financial management posits that a firm must seek to maximise the shareholder value. Market value of the firm's shares is a measurement of the shareholder wealth. It is shareholders' appraisal of the firm's efficacy in employing their capital. The capital contributed by shareholders is reflected by the book value of the firm's share. In terms of market and book value of shareholder investment, shareholder value creation (SVC) may be defined as the excess of market value over book value per share. As we shall discuss below, a more appropriate and operational view of SVC is based on the notion of present value of future cash flows using the cost of capital as the discount rate.

How can the shareholder value be created and analysed? When can we say whether or not the firm has added shareholder value? We shall discuss the following three approaches used for the shareholder value creation and analysis:

- The market value-to-book value per share (MV/BV) approach
- The economic value added (EVA) approach
- The discounted cash flow (DCF) approach

Market-To-Book Value (MV/BV) Approach

A firm is said to create shareholder value when its market value per share (MV) is greater than its book value per share (BV).The market-to-book value (MV/BV) analysis implies the following:

- ***Value creation.*** If MV/BV > 1, the firm is creating value for shareholders.
- ***Value maintenance.*** If MV/BV = 1, the firm is not creating value for shareholders.
- ***Value destruction.*** If MV/BV < 1, the firm is destroying value for shareholders.

The market value of a firm's share is 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). Earnings growth depends on the retention ratio, b and return on equity, ROE (g = b x ROE). The stream of DPS is discounted at the cost of equity (k_e).For calculating k_e, the capital asset pricing model (CAPM) can be used. As per the CAPM, the cost of equity can be determined as follows:

Cost of equity = Rsk - free rate of return + Risk premium

Risk premium = Excess of market rate of return over risk - free rate times equity beta

$$k_e = r_f + \left(r_m - r_f\right)\beta_e \qquad (7)$$

where

r_f is risk-free rate of return,
r_m is market rate of return and
β_e is the company's equity beta.

β_e it is a measure of the variability of the company's equity returns vis-à-vis the stock market returns.

The market value per share (MV) is given as follows:

$$MV = \sum_{t=1}^{\infty} \frac{DPS_t}{(1+k_e)^t} = \sum_{t=1}^{\infty} \frac{EPS_t(1-b)}{(1+k_e)^t} \quad (8)$$

In Equation (6), DPS is expected to grow at a constant rate, g. That is, $DPS_t = DPS_{t-1}(1+g) = DPS_0(1+g)^t$. If we assume an infinite time period ($n = \infty$), then Equation (5) can be simplified as follows:

$$MV = \frac{DPS_1}{k_e - g} = \frac{EPS_1(1-b)}{k_e - g} \quad (9)$$

Since EPS is the product of the book value of the firm's share and its return on equity (i.e., EPS = ROE x BV), then Equation (9) can be written as follows:

$$MV = \frac{ROE(1-b)BV}{k_e - g} \quad (10)$$

Dividing both sides of Equation (10) by BV (book value per share), we obtain MV/BV equation as follows:

$$\frac{MV}{BV} = \frac{ROE - g}{k_e - g} \quad (11)$$

The time horizon, n may be assumed to be finite. Then Equation (10) becomes as follows[7]:

$$\frac{MB}{BV} = \left[\frac{ROE - g}{k_e - g}\right]\left[1 - \left(\frac{1+g}{1+k_e}\right)^n\right] + \left[\frac{1+g}{1+k_e}\right]^n \quad (12)$$

We can notice from Equation (11) or (12) that the following are the determinants of the MV/BV ratio:

- ***Economic profitability or spread.*** The magnitude of the spread between return on equity and the cost of equity (ROE - k_e) determines the MV/BV ratio. The spread, sometimes referred as economic profitability, must be positive to create the shareholder value. The higher the positive spread, the higher the MV/BV ratio.
- ***Growth.*** Growth depends on the firm's retention ratio, b and the return on equity, ROE. Given the firm's ROE, higher the retention ratio, higher the growth rate. However, a higher growth rate does not necessarily increase the shareholder value. It will accelerate the MV/BV ratio only when the return on equity is greater than the firm's cost of equity (ROE > k_e). Growth will have a negative effect on value if the cost of equity is more than the return on equity (ROE < k_e). Thus, a firm should be economically profitable (i.e., ROE > k_e) for growth to be valuable for shareholders[8]. Growth is detrimental from value perspective when the firm is economically unprofitable (i.e., ROE < k_e).
- *Investment period.* The number of years over which future investment will grow also determines the market value. In Equation (11), the time horizon, n is assumed infinite while Equation (12) assumes finite time period.

Fig. 2 shows the interaction among variables that lead to growth and the value of the firm's share. It can be seen from the figure that the connecting link between the sustainable growth model and

---

[7] Fruhan, W. E., *Financial Strategy*, Richard D. Irvin, 1979.
[8] Hax, A. C. and Majluf, N. S. *Strategic Management*, New Jersey: Prentice-Hall, Inc., 1984, p.214-15.

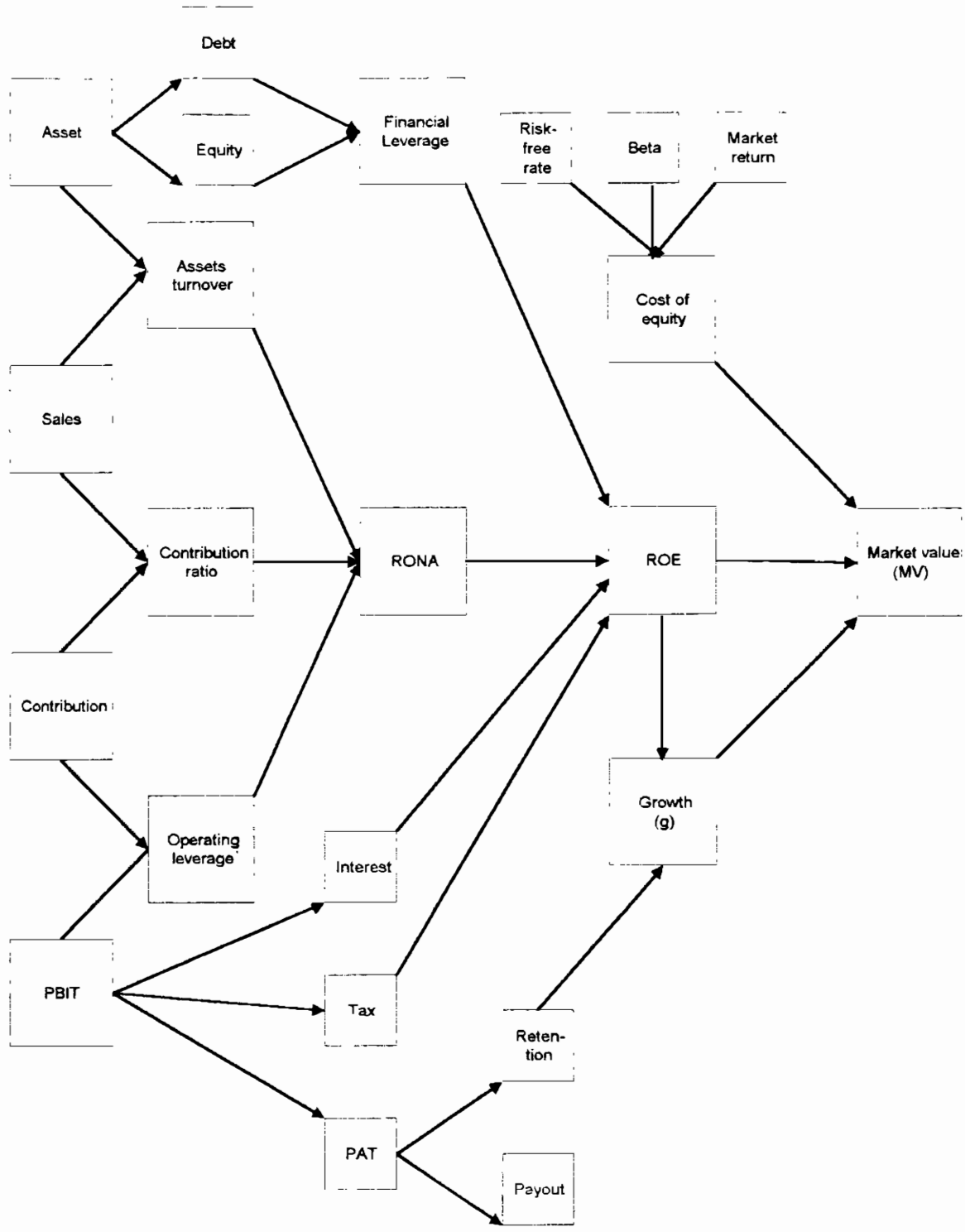


Fig. 3. Growth and Value

the shareholder (market) value is the spread between the return on equity and the cost of equity. The firm's growth objective will be consistent with the shareholder value when this spread is positive.

The Economic Value Added (EVA) Approach

Some persons define economic value as earnings in excess of charges (cost) for the capital employed (debt plus equity). The firm has earned an economic return if its after tax return on capital employed (ROCE) exceeds the cost of capital employed (COCE). Thus the EVA approach is founded on the same logic as the MV/BV approach. Both are based on the concept of economic profit as different from the accounting profit. In the MV/BV approach profitability is defined as spread between ROE and k_e (cost of equity). In EVA approach, the comparison is between ROCE and COCE. ROCE is the ratio of net profit after tax (NOPAT) and capital employed (CE). NOPAT is profit after depreciation and taxes but before interest. In other words, NOPAT is profit before interest and taxes (PBIT) minus tax. It can also be calculated as profit after tax (PAT) plus interest (INT) after tax. Thus:

$$NOPAT = PBIT\,(1 - T) = PAT + INT\,(1-T) \qquad (13)$$

It may be observed that NOPAT does adjust for interest charges and their tax shield. Thus it depicts ungeared (unlevered) profit after tax to service both lenders and shareholders. ROCE is calculated as follows:

$$Return\ on\ capital\ employed = \frac{Net\ operating\ profit\ after\ tax}{Capital\ employed}$$

$$ROCE = \frac{NOPAT}{CE} = \frac{PBIT(1-T)}{CE} \qquad (14)$$

COCE is the weighted average cost of debt and equity (WACC or k_o). It is calculated as follows:

$$Weighted\ average\ cost\ of\ capital = Cost\ of\ equity \times equity\ weight + After\ tax\ cost\ of\ debt \times debt\ weight$$

$$WACC = k_o = k_e\left(\frac{E}{V}\right) + k_d(1-T)\left(\frac{D}{V}\right) \qquad (15)$$

where

k_e is the cost of equity,
E is the market value of equity,
D is the market value of debt,
V is the sum of total values of debt and equity,
k_d is the cost of debt and
T is the tax rate.

The economic value is added to shareholders whenever ROCE is higher than WACC (i.e., ROCE > WACC). The economic value will be destroyed if WACC exceeds ROCE (i.e., WACC > ROCE). In absolute amount, EVA is calculated as follows:

$$EVA = Net\ operating\ profit\ after\ tax - Cost\ charges\ for\ capital\ employed \qquad (16)$$

EVA is net earnings in excess of the cost of capital supplied by lenders and shareholders. It represents the excess return (over and above the minimum required return) to shareholders; it is a net value added to shareholders.

Evaluation of MV/BV and EVA Approaches

Both MV/BV and EVA approaches focus on economic profitability rather accounting profitability. The MV/BV approach defines economic profitability as the spread between return on equity and cost of capital while in the EVA approach it is the spread between return on total capital and cost of total capital. The spread in both approaches is value added to shareholders. Thus they are essentially the same approaches. From the accounting perspective, a firm is profitable if its return on equity is positive. However, from an economic perspective, the firm is profitable if return on equity exceeds the cost of

equity or return on capital employed exceeds the over-all cost of total capital employed. Hax and Majluf emphasise that[9]:

> "It is economic and not accounting profitability, that determines the capability of wealth creation on the part of the firm. It is perfectly possible that a company is in the black, and yet its market value is way below its book value, which means that, from economic point of view, its resources would be more profitable if deployed in an alternative investment of similar risk".

Both approaches are an improvement over the traditional accounting measures of performance. But both do suffer from the limitation that they are partially based on accounting numbers. In MV/BV approach return on equity is an accounting numbers (profit after tax and book value of shareholders' investment) while the cost of equity is market determined Similarly, the EVA approach uses the accounting-based net operating profit after tax while the cost of capital is market determined. Both return on equity and EVA are biased because they use accounting earnings (NOPAT or PAT) which are based on arbitrary assumptions, allocations and accounting policy changes They also do not include changes in working capital and capital expenditure. Both approaches do not fully and explicitly recognise risk and time value of money. In the EVA approach a short-term perspective is taken. It is, therefore, doubtful that the application of these approaches in project/business evaluation and particularly in strategic analysis and planning will lead to increase in the shareholder value.

The Discounted Cash Flow (DCF) Approach

The true economic (present) value of a firm or a business or a project or any strategy depends on cash flows and the appropriate discount rate (commensurate with the risk of cash flows). There are several methods for calculating the present or economic value of a firm or a business/division or a project. Here we shall discuss three most commonly advocated methods.

The first method uses the weighted average cost of debt and equity (WACC) to discount the net operating cash flows (NOCF). When the value of a project with an estimated economic life or of a firm or a business over a planning horizon is calculated, then an estimate of terminal cash flows or value (TV) will also be made. The business is expected to grow at a high rate during the planning horizon and then, competition may force cash flows to remain constant or grow at a low rate. Terminal or residual value reflects the value of post-planning cash flows. Thus the economic value of a project or a business is:

Economic value = PV of net operating cash flows (NOCF) + PV of terminal value

$$EV = \sum_{t=1}^{n} \frac{NOCF_t}{(1+k_o)^t} + \frac{TV_n}{(1+k_o)^n} \qquad (17)$$

The value of a project or a business generating perpetual NOCF will be as follows:

$$Economic\ value = \frac{Net\ operating\ cash\ flows\ after\ tax}{Weighted\ average\ cost\ of\ capital}$$

$$EV = \frac{NOCF}{k_o} \qquad (18)$$

Net operating cash flows, NOCF are estimated as follows:

$$NOCF = PBIT(1-T) + DEP \pm ONCI - \Delta NWC - \Delta CAPEX \qquad (19)$$

where

PBIT = profit before interest and tax,
T = corporate tax rate,
DEP = tax depreciation,
ONCI = other non-cash items,

[9] Hax and Majluf, *op. cit.*

ΔNWC = change in net working capital (i.e., stocks plus trade debtors minus trade creditors), a
ΔCAPEX = incremental investment.

Notice that NOCF do not make any adjustment for interest charges. Thus NOCF do not include financing (leverage) effect, and therefore, they are unlevered (or ungeared) cash flows. The financing effect is incorporated in the weighted average cost of capital.

The weighted average cost of capital (WACC or k_o) is given by Equation (15):

$$k_o = k_e\left(\frac{E}{V}\right) + k_d(1-T)\left(\frac{D}{V}\right) \qquad (15)$$

It may be observed that WACC is adjusted for the financing effect. The firm's WACC may be used to evaluate projects or businesses only if no difference in risk is assumed. But, in practice, the risk of projects and businesses will have different risk. It is therefore desirable to calculate the cost of capital of projects or businesses being evaluated.

There are two approaches for calculating the cost of equity: (1) the dividend-growth approach and (2) the CAPM (capital asset pricing model) approach. According to the dividend-growth approach the cost of equity is given as follows:

Cost of equity = Expected dividend yield + Expected growth (capital gain)

$$k_e = \frac{DPS_1}{P_o} + g \qquad (20)$$

where DPS_1 is expected dividend, P_o is the current market price of share and g is expected growth in dividends (capital gains) and it is expected to remain constant.

The cost of equity, as per the CAPM approach, is given by Equation (7):

$$k_e = r_f + (r_m - r_f)\beta_e \qquad (7)$$

The advantage of the CAPM approach over the dividend-growth approach for calculating the cost of equity is that it explicitly incorporates premium for risk and all its parameters are market determined. The dividend-growth model uses firm specific and accounting based data for calculating the cost of capital. It does not provide a direct measurement of risk. It is therefore preferable to use the CAPM for calculating the cost of equity.

WACC is based on the assumptions that the firm has an optimum (or target capital structure) and debt is perpetual. These assumptions may not hold in practice and therefore, the use of WACC may not be appropriate for determining the economic value of a firm or a business or a project.

The second method of calculating the economic value explicitly incorporates the value created by financial leverage. The cash flows of a firm without debt (unlevered firm) is given by Equation (13). Therefore, the value of an unlevered firm over its planning period is:

Economic value of unlevered firm = PV of net operating cash flows + PV of terminal value

$$EV_u = \sum_{t=1}^{n} \frac{NCFO_t}{(1+k_u)^t} + \frac{TV_n}{(1+k_u)^n} \qquad (20)$$

where k_u is the cost of capital of an unlevered firm.

Following the CAPM approach, the unlevered cost of capital is given by the following equation:

$$k_u = r_f + (r_m - r_f)\beta_u \qquad (21)$$

where β_u is the beta of an unlevered firm.

Let us assume that another firm that is identical to the unlevered firm except that it has debt in its capital structure. A firm with debt is called a levered firm. Cash flows of shareholders and lenders of the levered firm will consist of interest charges and profit after tax (adjusted for change in net working capital and capital expenditure). Thus

$$\begin{aligned}\text{Levered cash flows} &= [(PBIT - INT)(1-T) + DEP \pm ONCI - \Delta NWC - \Delta CAPEX] + INT \\ &= PBIT(1-T) + DEP \pm ONCI - \Delta NWC - \Delta CAPEX - INT + T^*INT + INT \\ &= [PBIT(1-T) + DEP \pm ONCI - \Delta NWC - \Delta CAPEX] + [T^*INT] \qquad (22)\end{aligned}$$

Thus the levered cash flows are equal to unlevered cash flows (i.e., NOCF) plus interest tax shield, ITS (i.e., ITS = tax rate x interest charges = T*INT):

$$\text{Levered cash flows} = \text{Levered cash flows} + \text{Interest tax shield } NOCF + ITS \qquad (23)$$

It is not difficult to realise that the value of a levered firm is the sum of the value of the unlevered firm and the present value of the interest tax shields[10]. The levered firm's NOCF are same as that of the unlevered firm. Therefore, the unlevered cost of capital, k_u should be used to discount NCFO of the levered firm. Interest tax shield is as risky as the interest charges; therefore, the appropriate discount rate is the cost of debt, k_d. Thus:

$$\begin{aligned}\text{Economic value of levered firm} &= \text{Economic value of unlevered firm} \\ &\quad + PV \text{ of interest tax shield}\end{aligned}$$

$$EV_l = \left[\sum_{t=1}^{n} \frac{NOCF_t}{(1+k_u)^t} + \frac{TV_n}{(1+k_u)^n}\right] + \sum_{t=1}^{n} \frac{ITS_t}{(1+k_d)} \qquad (24)$$

The unlevered cost of capital is given by Equation (21). The unlevered beta, β_u for a levered firm can be obtained by adjusting its equity beta (β_e) for debt ratio (D/V = L):

$$\beta_u = \left[\frac{1-L}{1-LT}\right]\beta_e \qquad (25)$$

The market value of the levered firm's shares (E) can be calculated as the difference between the total value of the firm (V_l) and the value of debt (D):

$$E = V_l - D \qquad (26)$$

The economic value per share (EV) can be obtained by dividing the total value of shares (S) by the number of shares (N):

$$MV = \frac{E}{N} \qquad (27)$$

We can summarise the steps involved in the second method of estimation of the firm's total value and the shareholder value as follows:

1. Estimate the firm's unlevered cash flows and terminal value
2. Determine the unlevered cost of capital (k_u)
3. Discount the unlevered cash flows and the terminal value by the unlevered cost of capital
4. Calculate the present value of the interest tax shield discounting at the cost of debt
5. Add these two values to obtain the levered firm's total value
6. Subtract the value of debt from the total value to obtain the value of the firm's shares.
7. Divide the value of shares by the number of shares to obtain the economic value per share

The third method for determining the shareholder economic value is to calculate the value of equity by discounting cash flows available to shareholders by the cost of equity. The equity cash flows can be calculated as follows:

---

[10] Modigliani, F. and Miller, M. H., "Corporate Income Taxes and the Cost of Capital: A Correction." *American Economic Review*, No. 53, June 1963, pp. 433-443.

$$\begin{aligned} \text{Equity cash flows} &= (PBIT - INT)(1 - T) - DEP \pm ONCI - \Delta NWC - \Delta CAPEX \\ &= PBIT(1 - T) - INT(1 - T) - DEP \pm ONCI - \Delta NWC - \Delta CAPEX \\ &= NOCF - INT(1 - T) \end{aligned} \quad (28)$$

Equity cash flows are net of interest charges and investments, therefore, at the corporate level they coincide with dividends. Some people call them free cash flows. Equity cash flows reflect expected growth in future cash flows. At the end of planning period (the term of investment), the terminal or residual value of investment will have to be estimated. The cost of equity, k_e can be calculated either by using Equation (7) or Equation (20). The present or economic value of equity is given as follows:

$$\text{Economic value of equity} = PV \text{ of equity cash flows} + PV \text{ of terminal investment}$$

$$EV = \sum_{t=1}^{n} \frac{NOCF_t - (1-T)INT_t}{(1-k_e)^t} + \sum_{t=1}^{n} \frac{TV_n}{(1+k_e)^t} \quad (29)$$

If the life of the firm (or investment) is considered to be infinite and dividend per share are expected to grow at a constant rate, g, then the economic value per share (EVPS) is given as follows:

$$EVPS = \frac{DPS_1}{k_e - g} \quad (30)$$

The economic (or present) value per share is a function of expected dividend, growth opportunities and the cost of capital.

The total economic value of the firm will be the sum of the value of equity and the value of debt. The value of debt can be calculated by discounting interest charges by the cost of debt.

Value Creation Strategies

What generic strategies can be pursued by a firm to create shareholder value? If we assume no changes in net working capital and no incremental investment, then NCFO is the difference between revenues (cash inflows) and costs including taxes (cash outflows). The equation for calculating the economic value of a levered firm can be rewritten as follows:

$$EV_l = \sum_{t=1}^{n} \frac{(REV - COST)_t}{(1+k_u)^t} + \sum_{t=1}^{n} \frac{(INT \times T)_t}{(1+k_d)^t} \quad (31)$$

From the valuation Equation (31), it is clear that a firm can use the following strategies to enhance value[11]:

- **Revenue enhancement**. The firm can increase its revenue by improving its market share and/or increasing the price of the product. The strategies needed to do so include creating barriers like patents, product differentiation, monopoly power etc.
- **Cost reduction.** The firm can become a cost leader lowering its costs beneath that of competitors through economies of scale, vertical integration, or captive sources of material.
- **Asset utilisation**. The firm can improve its profitability by reducing its capital intensity through improved utilisation of its assets.
- **Cost of capital reduction.** The firm can design debt and equity securities that appeal to special niche of capital markets and thereby attract cheaper funds. It can reduce its business risk and design a capital structure that minimises the overall cost of capital by increasing interest tax shield without much increase in financial risk.

SHAREHOLDER VALUE ANALYSIS: CASE OF HINDUSTAN LEVER LIMITED

Hindustan Lever Limited (HLL) was set up in 1933. It is a subsidiary of Unilever. Unilever has about 500 companies in more than 100 countries. It has sales of $52 billion and employed about 3 lakh

[11] Fruhan, W. E. *Financial Strategy*, Illinois: Richard D Irwin, 1979, pp. 65-68.

employees in 1996. HLL is an important subsidiary for Unilever. HLL is one of the largest producer of soaps and detergents in India. In 1983, the company reorganised its business and transferred some of its units to Lipton India Limited. In 1993, Tata Oil Mills Company was merged with HLL, making the merged company the most dominant player in the domestic soap and detergent industry. HLL has recently diversified its activities through several other acquisitions.

How has HLL performed? Has it been able to create value for shareholders through its reorganisation, mergers and acquisitions and other operating activities? Table 4 contains traditional indicators of HLL's financial performance during 1987 to 1996. The company has grown very fast and its ROCE (before tax) and ROE are very high and they have increased over years. The company is conservatively financed (it has a low debt-equity ratio) and pays dividend liberally.

TABLE 4 . HLL'S PERFORMANCE, 1987-1996

Year	NS/CE	PBIT/NS	PAT/NS	ROCE	PAT/PBIT	CE/NW	ROE	Retention	Growth
1987	2.7	12.0	5.7	32.0	47.7	1.4	25.3	49.7	12.6
1988	2.7	11.7	5.6	31.4	48.1	1.4	23.7	38.8	9.2
1989	2.9	10.4	5.2	30.0	50.2	1.4	23.6	39.3	9.3
1990	3.0	10.5	4.8	31.1	45.5	1.4	23.0	33.3	7.7
1991	3.3	10.5	5.3	34.8	50.7	1.4	27.6	32.8	9.1
1992	3.3	11.3	5.6	37.1	49.7	1.4	29.6	40.3	11.9
1993	4.1	12.1	6.2	49.9	50.9	1.2	33.0	38.4	12.7
1994	3.3	11.8	6.7	48.5	57.2	1.2	35.3	38.6	13.6
1995	3.5	11.7	7.1	49.1	61.0	1.2	37.5	39.0	14.6
1996	4.6	10.0	6.3	52.9	62.3	1.2	41.6	39.7	16.5
Average	3.3	11.2	5.8	39.7	52.3	1.3	30.0	39.0	11.7

Has HLL been able to convert its high profitability and growth into higher value for shareholders? HLL believes in adding value to shareholders. It considers that the concept of economic value added (EVA) in more relevant in creating shareholder value rather than the conventional measures of profitability. It uses EVA concept in evaluating projects, business performance and setting targets. In its Annual Report of Accounts for 1996, it has defined EVA as follows:

EVA = Net operating profit after tax (NOPAT) - Cost of capital employed (COCE)

NOPAT is profit after depreciation and taxes but before interest cost. In other words, NOPAT is profit before interest and taxes (PBIT) minus taxes, i.e., NOPAT = PBIT (1 - T). It can also be calculated as profit after tax plus after tax interest: NOPAT = PAT + INT (1 - T).

HLL determines its cost of debt (mix of short, medium and long-term debt) as the after-tax rate of interest applicable to an "AAA" rated company. The cost of equity is calculated using the capital asset price model (CAPM). The risk-free rate is taken as the yield on long-tern government bonds. The company has estimated its cost of capital (weighted cost of debt and equity) as 16.5 percent.

In terms of EVA, the performance of the company during the period from 1987 to 1996 is given in Table 5. It may be seen that HLL's EVA performance, particularly in the last four years, has been very impressive. This is reflected in the high market value of the company's share that has increased from Rs 47.7 in 1987 to Rs 807 in 1996 - a seventeen times increase in 10 years. During the same period the shareholders' investment per share (book value) increased only about four times. Thus market value-to-book value ratio increased from 3.6 in 1987 to 16.2 in 1996. Even if adjustment for inflation is made, HLL's MV/BV ratio will be quite high.

TABLE 5. HLL'S EVA PERFORMANCE, 1987-1996

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
A. Profit after tax (Rs cr)	47	49	54	59	80	98	127	190	239	413
B. Interest after tax (s cr)	10	13	10	9	12	16	13	16	11	32
C. NOPAT=PBIT(1 - T), [A + B], (Rs cr)	57	62	64	68	92	114	140	206	250	445
D. Cost of capital (Rs cr)	50	53	59	68	75	88	82	113	131	206
E. Economic value added. [C - D]. (Rs cr)	7	9	5	0	17	26	58	93	119	239
F. Capital employed (Rs cr)	304	324	357	414	455	534	501	685	798	1252
G. ROCE, after tax, [C/F], (%)	18.7	19.2	17.9	16.4	20.2	21.4	28.0	30.1	31.3	35.5
H. Cost of capital (%)	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
I. EVA Spread, [G - H] (%)	2.1	2.7	1.4	0	3.7	4.9	11.5	13.6	14.8	19.0
J. Share price (Rs)	47.7	49.3	74.0	96.7	168	365	575	590	624	807
K. Book value (Rs)	13.1	14.7	16.3	18.2	20.8	23.8	27.6	36.9	43.8	49.8
L. MV/BV, [J/K], (times)	3.6	3.4	4.5	5.3	8.1	15.3	20.8	16.0	14.2	16.2

Note: EVA for the period 1992 to 1996 are taken from HLL's Reports and Accounts 1996. EVA for the period 1987 to 1991 has been estimated by the author from the published data. The cost of capital has been assumed constant for the period from 1987 to 1996.

HLL in its internal performance evaluation uses a more refined measure of EVA as required by its parent company - Unilever. Unilever has developed the concept of economic value added (EVA), which they refer to as trading contribution (TRACON), to evaluate the performance of business and projects. EVA or TRACON is trading result after tax minus returns to the providers of capital (i.e., the cost of gross capital employed)[12].

Trading results are calculated as the difference between net proceeds of sales (NPS) and costs. Net proceeds of sales are net of retailer and stockist margin, taxes and duties and temporary price reductions. Costs include supply chain costs, market development costs and overheads. Supply chain costs comprise of product costs such as material cost, bought-in product cost and manufacturing cost; supply costs such as buying, planning, distribution and supply support and other costs; market development costs and overheads (marketing and selling, general and corporate management service charges). Trading results are adjusted to eliminate the impact of inflation. An average inflation rate is applied to working capital (stocks plus trade debtors minus trade creditors) and charged to trading results. Depreciation is charged on current replacement cost basis rather on historical cost basis. Gross capital employed is estimated as the sum of fixed assets and working capital. Fixed assets are valued at the remainder life replacement value (RLRV). The company calculates the return on capital employed (called yield) as trading results after tax divided by gross capital employed:

$$Yield = \frac{Trading\ result\ after\ tax}{Gross\ capital\ employed} \qquad (31)$$

Trading result is a conservative estimate of PBIT. It includes adjustment for inflation charges for working capital, replacement cost basis depreciation (called statistical depreciation) and corporate management service charges (called statistical charges). Thus PBIT is calculated as follows:

Trading result
Plus: Inflation charges for working capital
Plus: Replacement cost basis depreciation
Less: Historical cost basis depreciation
Plus: Corporate management service charges
PBIT

[12] The discussion of the Unilever performance is based on a talk given by HLL executive, Mr Srikanth at IIM, Ahmedabad on 4 April 1998.

EVA or TRACON is calculated as trading result after tax minus financial charges (cost of gross capital employed):

EVA = TRACON = Trading result after tax - Financial charge (32)

As stated earlier, both EVA and MV/BV analyses are partially based on the accounting earnings, and may not truly reflect the value created by a firm. A better approach is to determine the economic (present) value per share and compare it with the actual market per share. Let us consider the period between 1991 and 1996. We can calculate the present value of HLL's shareholders dividends from 1992 to 1996 and the present value of the share price (the residual or terminal value) in 1996. The sum of these two values, which may be referred to as economic value, can be compared with the actual share price at the end of 1991. HLL's cost of equity will be used as the discount rate.

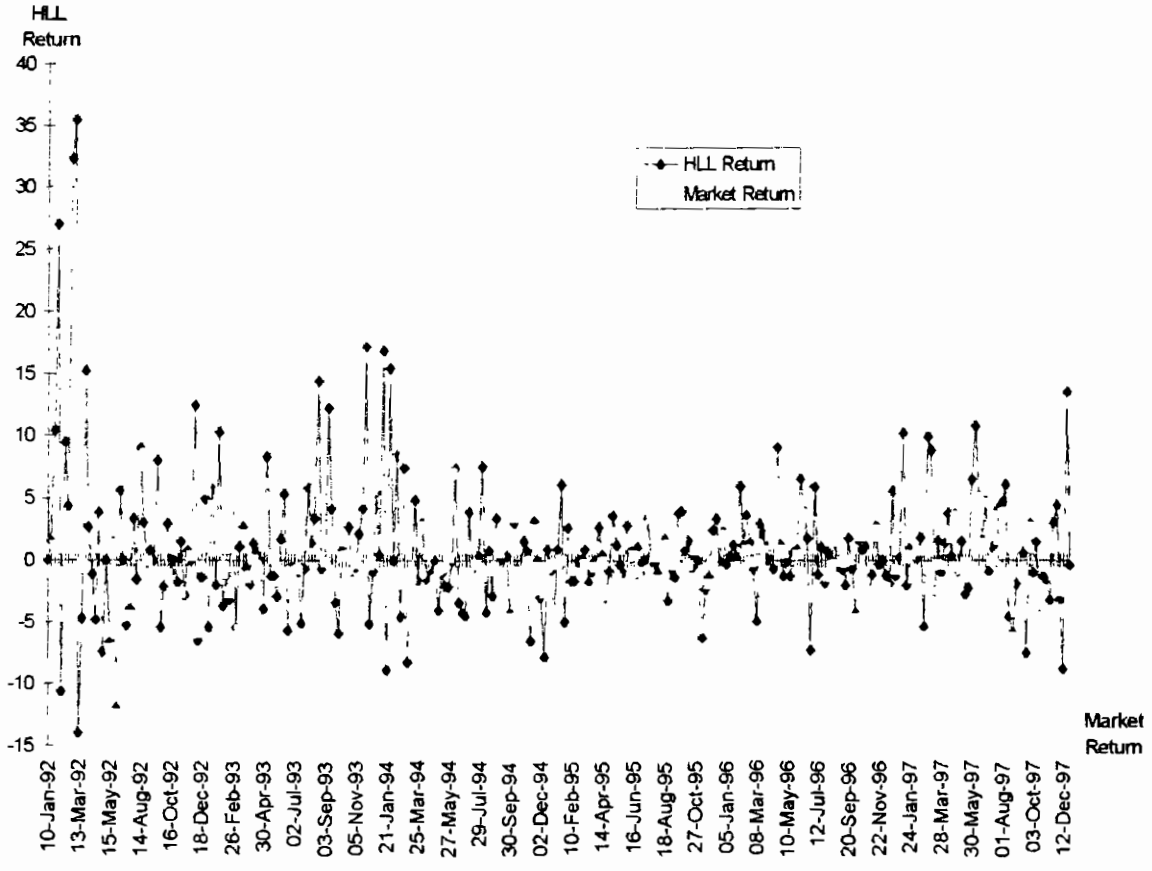


Fig. 3. HLL & Market Rates of Return (Weekly), 10 Jan. 1992 to 26 Dec. 1997

Given HLL's cost of capital of 16.5 per cent, average debt ratio of 17 percent during last five years and after tax cost of debt 7.2 per cent (average tax rate assumed 40 per cent), HLL's cost of equity works out about 18.5 per cent. HLL's cost of equity can also be calculated by using the CAPM. Figure 3 shows the variability of HLL's weekly returns vis-à-vis the market (the BSE index) returns during 1992 to 1996. It may be observed that HLL's weekly rates of return moved almost in tandem with the weekly market rates of return. Using weekly returns of HLL and of the BSE index (and employing regression technique), we find that HLL's beta is 0.90. We take risk-free rate to be equal to the yield on long-term government bonds, which is approximately 10 per cent. The market premium is assumed to be 10 per cent. HLL's cost of equity works out 19 per cent as given below:

$$HLL's\ cost\ of\ equity = r_f + (r_m - r_f)\beta$$

$$= .10 + (.20 - .10).90 = .19\ or\ 19\%$$

HLL's economic value per share (EVPS) over 5-year period (1992-96) is:

$$EVPS = \left[\frac{DPS_{1992}}{(1+k_e)^1} + \frac{DPS_{1993}}{(1+k_e)^2} + \frac{DPS_{1994}}{(1+k_e)^3} + \frac{DPS_{1995}}{(1+k_e)^4} + \frac{DPS_{1996}}{(1+k_e)^5}\right] + \frac{P_{1996}}{(1+k_e)^5}$$

$$= \left[\frac{4.20}{(1.19)^1} + \frac{5.60}{(1.19)^2} + \frac{8}{(1.19)^3} + \frac{10}{(1.19)^4} + \frac{12.50}{(1.19)^5}\right] + \frac{807}{(1.19)^5}$$

$$= [4.20 \times .840 + 5.60 \times .706 + 8 \times .593 + 10 \times .499 + 12.50 \times .419] + [807 \times .419]$$

$$= 22.5 + 338.1 = Rs\ 360.6$$

HLL's share value at the end of 1991 is Rs 168 while the economic value for the period 1992 to 1996 (i.e., the present values of dividends and share price at the end of 1996) is Rs 360.8. Thus the shareholder value created is: Rs 360.6 - Rs 168 = Rs 192.6. The economic value per share is 2.15 times of the actual market value per share in 1991 (i.e., 360.6/168 = 2.15). The present value of dividends was only 6.2 per cent and the present value of the market value in 1991 (the residual value) was 93.8 per cent of the economic value. This indicates that residual value five year hence carried more weight than dividends. When we consider the period of 1988 to 1996, the economic value per share works out Rs 186.9 which is 3.9 times of the market value per share in 1987.

Another way of analysing HLL's performance from the shareholders' point of view is to determine the long-term return on equity on the discounted cash flow (DCF) basis. The HLL share price at the end of 1991 was Rs 168 and at the end of 1996 Rs 807. Shareholders holding HLL's shares during this period also received dividends. Thus the DCF return on equity for the period 1991 to 1996 is as follows:

$$P_{1991} = \frac{DPS_{1992}}{(1+r)^1} + \frac{DPS_{1993}}{(1+r)^2} + \frac{DPS_{1994}}{(1+r)^3} + \frac{DPS_{1995}}{(1+r)^4} + \frac{DPS_{1996} + P_{1996}}{(1+r)^5}$$

$$168 = \frac{4.20}{(1+r)^1} + \frac{5.60}{(1+r)^2} + \frac{8}{(1+r)^3} + \frac{10}{(1+r)^4} + \frac{12.50 + 805}{(1+r)^5}$$

We find that during 1987 to 1996, the HLL shareholders earned a discounted cash flow return on equity, r, of approximately 39 per. This return can be compared with HLL's cost of equity, which is estimated about 19 per cent Thus the HLL shareholders earned 20 per cent return in excess of the cost of equity. If we consider the period from 1987 to 1996, the DCF return on equity works out 40 per cent.

MANAGERIAL IMPLICATIONS OF SVC

The shareholder value approach is based on the assumption that a principal-agent relationship exists between shareholders and management. As shareholders' agent, management is charged with the responsibility of creating wealth for shareholders. Therefore, all management actions and strategies should be guided by SVC. The foundation of SVC is the notion that shareholder value depends on future cash flows and their risk. The cost of capital, accounting for the timing and risk of future cash flows, is used to determine the present value of cash flows. We should note that SVC 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.

SVC takes a long-term perspective and focuses on valuation. A number of companies India use the DCF analysis to evaluate projects. They accept those projects which are expected to generate internal rate of return higher than the cost of capital, or a positive net present value of future cash flows when

discounted at the cost of capital. More and more corporate managers now realise the strong need for the extensive adoption of SVC in evaluating all management actions, projects, business strategies and overall strategic planning. SVC can be used to evaluate the consequences of strategies pursued by the company. At the business unit or division level, it is used to evaluate the alternative competitive strategies, to identify the key business factors that impact SVC and to set performance targets that are consistent with value creation. At the corporate level, it is used to evaluate the contribution of the strategies followed by business units/divisions, to form strategic combinations of businesses that will create maximum value, to identify products or businesses for divestiture and to mergers and acquisition activities.

The following steps are involved in using SVC for strategic analysis and planning:

- Evaluate the current position of each division assuming that there will not be any significant changes from the current strategy.
- Estimate the business unit's net operating cash flows from the current strategy over the planning horizon; make explicit assumption about sales growth, operating profit margin, tax rate, changes in working capital and additional capital expenditure needed to sustain the existing strategies.
- Estimate the unlevered cost of capital (k_u) of the business unit. The unlevered beta of an independent company similar to the business unit can be used for calculating the business units cost of capital.
- Estimate the terminal or the residual value of post-planning period. Make appropriate assumption about the post-planning growth of cash flows keeping in mind the nature of competition.
- Calculate the present value of net operating cash flows and terminal value at the cost of capital.
- Calculate the present value of interest tax shield at the cost of debt. If the amount of debt is not directly observable, then use the debt ratio of the similar independent firm to determine the business unit's amount of debt.
- Add the present values of net operating cash flows, terminal value and interest tax shield to obtain the total value of the business.
- Subtract the value of debt from the total value to calculate the shareholder value.
- Repeat the above mentioned steps to calculate the shareholder value of if the business unit follows a new strategy.
- The difference between the shareholder value of the current strategy and new strategy is the value created (or destroyed). Go for new strategy if positive value is created for shareholder.
- Strategic plans of all business units should be integrated into the corporate strategic plan. SVC approach should be utilised to exploit the synergy between various units. The focus should be on maximising the overall shareholder value rather than treating business units as absolutely autonomous and working at cross purposes.

The SVC approach helps to strengthen the competitive position of the firm by focusing on wealth creation. It provides an objective and consistent framework of valuation and decision making across all functions, departments and units of the firm. It can be easily implemented since cash flow data can be obtained by suitably adapting the firm's existing system of financial projection and planning. The only additional input needed is the cost of capital. The adoption of the SVC approach does require a change of the mind-set and educating managers about the shareholder value approach and its implementation.