Impact of Dividend Policy on Market Price of Share: A Study of Engineering and Steel Industry

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Abstract

The present paper is aimed at analyzing the impact of dividend policy and retained earnings on market price of share in Engineering and Steel industry in India during 2000 –2010. To measure the impact of dividend policy on Market Price of Share multiple regression method are used by taking DPS (Dividend per Share), RE (Retained Earnings per Share), as independent variable, and MPS (Market Price per Share) as dependent variables. To determine the proportion of explained variation in the dependent variable, the co-efficient of determination (R^2) has been tested with the help of F value. The study shows a predominant influence of dividends and an absence of retained earning effect on share price. Dividends are found relatively more attractive among the shareholders. Therefore, shareholders are not indifferent towards dividend and retained earnings because they seems to be believing more in current returns than to the future unprecedented uncertainties.

Keywords: DPS (Dividend per Share), RE (Retained Earnings per Share), MPS (Market Price per Share), investors, multiple regression model.

Introduction

Dividend policy is related to taking a decision regarding paying cash dividend/stock dividends/property dividend in the present or paying an increased dividend at a later stage. Rationale behind a policy structure could be to ensure capital gains to the stockholders or future re-investment plans etc. The expectations of dividends by shareholders helps them to determine the share value, therefore, dividend policy is a significant decision taken by the financial managers of any

company. The dividend policy of a firm becomes the choice of financial strategy when investment decisions are taken as given. It is also imperative to know whether the firm will go for internal or external source of financing for its investment in projects. There are a number of factors affecting the dividend policy decisions of a firm such as investor's preference, earnings, investment opportunities, annual vs. target capital structure, flotation costs, signaling, Government policies, taxation etc.

In the presence of asymmetric information, signaling is one of the crucial factors that influence the market. Dividends may convey information about the company, so it suggests the possibility of its influence on the stock market. Paying large dividends reduces risk and thus influences stock price as viewed by **Gordon (1963)** and **Baskin (1989)** takes a slightly different approach and examines the influence of dividend policy on stock price volatility, as opposed to that on stock returns.

REVIEW OF LITERATURE

S.P Dobrovolsky (1951) analyzed the factors influencing retained earnings by using regression analysis. The results of the study showed that the amount of retained income of large manufacturing corporations depended to, a large extent, on current profitability, continuity of dividend policies and rate of operating asset expansion. **Linter (1956)** tested the dividend pattern of 28 companies for the period from 1947 – 1953 with the help of regression analysis. He pointed out that the firms do follow a fixed target payout ratio. Also, current year's earnings and previous year's dividend were found to be associated with current year's dividend.

Miller and Modigliani (1961) advanced the view that the value of a firm depended solely on its earnings' power and was not influenced by the manner in which its earnings were split between dividends and retained earnings.

Bhatia and Singh (1978) evaluated the dividend policy of Indian enterprises over the period 1966-68 by selecting a sample of 50 companies. They concluded that

regularity of dividend payment and the uniformity of its rate are the two basic guides for the distribution of dividends.

Panday and Singh (1990) evaluated the extent of financing through retained earnings and the impact of taxation and dividend policies on retained earnings in the public and private corporate sector in India. They concluded that the magnitude of retained earnings depended on a number of factors i.e. the level of earnings of an enterprise, the government's taxation policy and corporate dividend policy. **Baker et al. (2001)** examined the factors that have a bearing on dividend policy decision of corporate firms traded on NASDAQ. The authors found that pattern of past dividends, stability of earnings and level of current and future earnings had a significant impact on the dividend decision. **Pradhan (2003)** attempted to explain the effect of dividend payment and retained earnings on market price of share in the context of Nepalese companies. Dividends were found relatively more attractive among the Nepalese stockholders. They were therefore not indifferent toward dividend and retained earnings.

Kostyuk (2006) discussed impact of dividend payment on value of firm. The findings showed that enterprises which distributed dividend carried higher value. **Zhou and Ruland (2006)** studied the relationship between current dividend payment and future growth in earnings at the individual company level. They found a strong positive association between current dividend payout and future earnings growth. Another study by **Foong et. al (2007)** indicated that growth firms had significantly lower dividend yields than non growth firms. It indicated that changes in dividend policy played a role in explaining firm stock returns especially of the growth firms. **Azhagaiah and Sabari (2008)** analyzed the impact of dividend policy on shareholders' wealth in Organic and Inorganic Chemical Companies in India during 1996 –97 to 2005-06. The study proved that the wealth of the shareholders is greatly influenced mainly by five variables viz., growth in sales, improvement of profit margin, capital investment decisions (both working capital and fixed capital), capital

structure decisions and cost of capital etc. **Rajshree Deeptee and Roshan (2009)** studied to find out the signaling effects of dividend. They suggested that changes in dividend payout conveyed information to the market about future profits. It gave the information on the future strategies of the firm and signaling of dividend payout helped the investors and stake holders in making their investment decision. **Fairchild (2010)** developed a dividend signaling model that explored the complex relationship between the dividends, managerial incentives and firm value. The author considered a dual role for dividends i.e. Dividends provided a signal of current income and also affected the firm's ability to invest in a new project.

RELATIVE IMPACT OF DIVIDEND AND RETAINED EARNINGS ON MARKET PRICE OF SHARE

The attempt has been made to show the affect of dividend and retained earnings on the market price of the share. It is evident from the review of the financial literature and in pursuance of this study that a slow and steady appreciation of stock prices is one of the basic objectives of the corporate financial management as this provides increased wealth to the share holders as well as cheaper capital to the company which enhanced the bargaining power.

The reported earnings of the companies are utilized in either of the two ways i.e. it can be paid as dividend or retained by the company for meeting expansion or diversification requirements. This assumption and application determines the movement of share prices considerably. Various attempts and studies have been made to examine the relative impact of dividend and retained earnings on the market price of the share. While some of the studies reported that dividend is a more powerful variable in determining share prices, some others advocated unlike views to the former who claimed that retained earnings shape the prices of share in a much better way.

In view of bringing some clarity of thought into this contentious issue, an attempt has been made to examine relationship and impact of retained earnings on the

market price of shares by using variables like **retained earnings per share, dividend per share, market price of the share** etc., in our study.

DIVIDEND PER SHARE

Generally Dividend per Share (DPS) is the amount of the dividend that shareholders have or will receive for each share they own. DPS is calculated as follows:

$$\text{Dividend per share} = \frac{\text{Total dividend to equity shareholders}}{\text{Total number of outstanding shares}}$$

This is calculated separately for each class of shares (ordinary shares, preferences etc.). Dividends are paid to holders of shares on the record date which will be announced beforehand by the company. More important from an investor's point of view is the ex-dividend date, on and after which shares bought or sold on a stock exchange under normal terms will be sold without the dividend (so that the seller will get the dividend). Companies may pay interim dividends during the year as well as a final dividend. Worth noting that *these should all be added together to get the total annual amount in order to calculate DPS, dividend yield and other ratios.*

RETAINED EARNINGS PER SHARE

Retained earnings as explained above enunciates that these are surplus reserves with the company that can be disbursed among the share holders in terms of cash dividend payouts, stock dividends etc. For Retained earnings per share which is the most important dependent variable for this study has been calculated as follows:

Retained Earnings = Net Earnings - Dividends

$$\text{Retained Earnings per Share} = \frac{\text{Retained Earnings of the Firm}}{\text{Total number of Outstanding Equity Share}}$$

MARKET PRICE OF SHARES

The market price per share and the current price at which the stock is being traded are not necessarily the same. *The market price per share is also called the intrinsic value of a share of stock or the actual value based on the actual variables*

taken from the company's financial statements. The current trading price is based on investor buying and selling behaviour. If investors are paying more than the intrinsic value, then the stock is overvalued. If investors are paying less than the intrinsic value, then the stock is considered to be undervalued.

REGRESSION RESULTS

The impact of Dividend Payout i.e. (D_t) and Retained Earnings (RE_t) on market price of share has been analyzed by using multiple regression analysis. The period of study is spread over a span of 10 years i.e. 2001 to 2010. The market price per share (MPS_t) has been used as dependent variable and other variables (D_t and RE_t) as explanatory or independent variables so as to find out whether dividend policy of companies from Engineering and Steel industries is affected by these variables, which in turn influence the creation of shareholders' wealth.

For this purpose, multiple linear regression equation was developed as follows:

$$MPS_t = a + b_1 D_t + b_2 RE_t + U_t$$

MPS_t	=	Market Price of Share at a given time 't';
D_t	=	Dividend per share at a given time 't';
RE_t	=	Retained Earnings per share at a given time 't';
a	=	the constant term,
b_1 and b_2	=	the slope coefficients to be estimated &
U_t	=	the error term.

Explicitly, the regression coefficient (b_1 and b_2) indicates the amount of change in the value of dependent variable for a unit change in independent variable. The coefficient of determination (R^2) provides an estimate of the proportion of variance of dependent variable accounted for by the independent variable. It is statistically evident that higher the value of R^2, closer the relationship between the variables.

Statistically, from the equation developed for the analysis, it is inferred that $b_1 > b_2$ indicates that the market price of the share is more affected by the dividends than the retained earnings as b_1 indicates dividend and b_2 indicates retained earnings as independent variables under study. This connotation will also suggest that any subsequent increase in the payment of dividend will increase the market price of the share. Conversely $b_1 < b_2$ suggests that the investors put a higher premium on retained earnings, thereby indicating that any subsequent rise in retention ratio will leave a positive effect on stock prices. However, $b_1 = b_2$ implies an indifferent attitude of shareholders towards dividend and retained earnings and appropriation of earnings in no way affect the market price of the shares.

REGRESSION RESULTS: ENGINEERING INDUSTRY

Table 1: Regression results: Engineering Industry

Company name	a	b_1	b_2	R^2	F	D. W. test
Alfa Laval (India) Ltd.	-637.228	48.847**	17.918*	0.852	20.149**	1.567
B E M L Ltd.	-32.726	88.675	-2.847	0.603	5.314*	2.793
Bharat Forge Ltd.	-40.678	72.136	9.004	0.82	15.994**	0.879
Cummins India Ltd.	-1.896	25.62	13.159	0.654	6.629*	2.53
Electrosteel Castings Ltd.	-16.642	41.799**	-3.988	0.909	34.884**	1.569
Engineers India Ltd.	234.472	19.250**	1.594	0.894	29.648**	1.936
Graphite India Ltd.	-184.599	82.768**	-1.856	0.928	45.354**	2.176
Greaves Cotton Ltd.	30.91	28.986*	1.739	0.811	12.858**	2.251
H E G Ltd.	8.884	45.172	-6.821	0.768	11.566**	1.543
Larsen & Toubro Ltd.	-133.763	18.537	32.454	0.627	5.871*	2.336

*Significant at 5% level, **Significant at 1% level

The multiple regression results of the model in respect of engineering industry have been shown in the table 1. From the table it is evident that the values of b_1 are greater than b_2 for majority of the companies under study. This clearly indicates that the investors like dividend more than retained earnings in most of the cases except the Larsen & Toubro Company where the value of b_1 is less than b_2. Larsen & Toubro case may be exceptional one where investors like retained earnings more than the dividend. It is also evident from the table that the value of R^2 clusters around .70 to .91. The maximum value of R^2 (0.91) clearly enunciated that 90% of the variations in the market price of share are explained by independent variable i.e. dividends. The value of R^2 is more than 72% for majority of companies which implies a greater degree of explanatory behaviour of variables considered in this model. F-values for all the companies under study from engineering industry are highly significant which shows dependent variable i.e. MPS is considerably affected by the independent variable b_1. Since, the values of D.W test happen to be less than 2 among 50% of the companies under study; it indicates that the variables are positively auto correlated.

REGRESSION RESULTS: STEEL INDUSTRY

Table 2: Regression results: Steel Industry

Company name	a	b_1	b_2	R^2	F	D.W. test
Bhushan Steel Ltd.	-35.406	-60.843**	8.993	0.954	72.847**	2.291
J S W Steel Ltd.	-31.308	-34.522	15.961**	0.942	56.896**	1.597
Jindal Saw Ltd.	27.642	29.257**	5.103	0.87	23.424**	2.247
Jindal Steel & Power Ltd.	118.387	-173.092*	25.002**	0.694	7.938*	1.637
Maharashtra Seamless Ltd.	-168.376	131.228	-6.183	0.791	13.271**	1.134
Monnet Ispat & Energy Ltd.	-15.829	61.43	-7.435	0.645	6.365*	2.717

Steel Authority Of India Ltd.	9.932	34.729	1.737	0.669	7.088*	1.809
Tata Steel Ltd.	130.395	-18.921	12.358	0.581	4.857*	3.245
Usha Martin Ltd.	11.957	120.416*	-17.148	0.73	9.440*	1.32
Welspun Corp Ltd.	-0.692	-31.671	16.691	0.796	13.648**	2.286

*Significant at 5% level, **Significant at 1% level

The regression results of steel industry have been shown in the table 2. It is evident from the table that in 70% of the companies under study, the values of b_1 are greater than b_2 for all the companies from steel industry that clearly indicates that the investors like dividend more than retained earnings. The value of R^2 ranges between 0.60 and 0.95. The maximum value of R^2 at 0.95 implies that 95% of the variations in the market price of share have been explained by independent variable i.e. dividend payment and retained earnings. F-values among 100% of the companies under study in steel industry are highly significant which shows dependent variable i.e. MPS is grossly affected by the explanatory independent variable b_1. Since the values of D.W test happen to be less than 2 among 50% of the companies under study, it indicates that the variables are positively auto regressed. For remaining 50% of the companies, the values of D.W. test cluster around two, which suggests the absence of auto regressiveness in the variable.

Conclusions

The objective of the present study was to test the Impact of Dividend and Retained Earnings on Market Price of Share with special reference to Engineering and Steel Industry. It can be concluded from the above data analysis that *dividend payouts* was preferred by majority of the companies baring exceptions of one to two companies from two industries under study where investors seem to be indifferent towards retained earnings in comparison to dividends. It can also be inferred from the data analysis that investors seem to prefer dividends due to the perpetual intentions or contributory attributable theory i.e. "bird in hand is better than two in the bushes" as

opined by Lintner and Gordon. The other attributable variables that the investors seem to prefer dividend over retained earnings may be that the dividend is received after tax obligations borne by the companies itself and investors seem to be believing more in current returns than to the future unprecedented uncertainties.

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