Relative Importance of Dividend, Retained Earnings and Earnings per Share as the Determinants of Stock Price

Fatima Ruhani and Md. Aminul Islam

ABSTRACT

This paper reviews the previous studies on determinants of stock price and made a special focus on three determinants, dividend, retained earnings and earnings per share that were indicated by several studies as significant influential on stock prices. Various factors have emerged as determinants of share prices for different markets, in which dividend policy and earnings management were found very active contributor of share price volatility. Studies shows the evidence that dividend policy, more specifically, information contents of dividend, information asymmetry, signaling theory, dividend clientele effect and dividend yield have significant impact on market price of common stock.

INTRODUCTION

Investment in equity shares is considered as one of the major avenues of investment that has the potential of yielding considerable returns to investors. It is also a source of finance for the capital requirements of firms. Returns from such equity investments are however subject to vary, depending upon various factors such as the performance of the particular stock, the market conditions, etc. Knowledge of such factors and their possible impact on share prices is highly appreciable as it would help investors make wise investment decisions and enable firms to enhance their market value. The factors that influence share prices could either be internal factors, such as earnings, dividend, book value, etc. or external factors such as interest rate, government regulations, foreign exchange rate, etc. Several such factors have been identified by previous empirical research. The pioneering work on share price determinants by Collins [14] for US identified dividend, net profit, operating earnings and book value as the factors influencing share prices. Following Collins [14], there have been various attempts to identify the determinants of share prices for different markets. Such studies and the factors identified as share price determinants are summarized in table 1.

It is evident from table 1 that various factors have emerged as determinants of share prices for different markets, viz., dividend, retained earnings, size, earnings per share, dividend yield, leverage, payout ratio, book value per share, foreign exchange rate, gross domestic product, lending interest rate, analyst reports, availability of substitutes, Government policy, investor sentiments, lawsuits, macroeconomic fundamentals, management, market liquidity and stability, mergers and takeovers, and technical influences.

Determinants of stock prices:

The stock market is all about dynamics and that is why investors and fund managers have been time and again confronted with the problem of accurately predicting the stock prices so as to earn decent returns. Investment in shares offers the benefit of liquidity as well as the opportunity to beat the market and earn high returns. But the task of predicting share prices is far from simple. Share price movement is not independent in nature and both intrinsic as well as extrinsic factors have been established to exercise influence over stock price movements. The pioneering work on determinants of share prices by Collins [14] for US banks identified dividend, net profit, operating earnings and book value as the factors influencing share prices. Following Collins [14], there have been various attempts to identify the determinants of share prices for different markets.

Table 1: Summary of Studies Focusing on Share Price Determinants.

Corresponding Author: Fatima Ruhani, PhD Candidate, School of Business Innovation and Technopreneurship, Universiti Malaysia Perlis. E-mail: fruhani@gmail.com
In Kang and Stulz [22], they examined the determinants of firm stock-price performance from 1990 to 1993 in Japan. During that period of time, the typical firm of Tokyo Stock exchange lost more than half of its value and banks experienced severe adverse stocks shocks. They observed that firms whose debt had a higher fraction of bank loans in 1989 performed worse from 1990 to 1993. This effect is statistically as well as economically significant and holds when we control for a variety of variables that affect performance during this period of time.

Rahman [35] found a negative correlation between the beta and stock return, which is reason for inefficiency of market. The decomposition of stock price movements is very sensitive to what assumption is made about the presence of permanent changes in either real dividend growth or excess stock return. Aamir, Qayyum, Nasir, & Khan, studied the effect of dividend payment on stock prices by taking the sample of fifty five companies listed at Karachi Stock Exchange. Results from their study show that dividend yield; earnings per share, return on equity and profit after tax are positively related to stock prices while Retention Ratio has negative relation with Stock Prices.

Hussainey, Mgbame, & Chijoke-Mgbame [18] studied the impact of dividend policy on Stock prices. Results of their study show the positive relation between dividend yield and stock price changes and negative relation between dividend payout ratio and stock price changes. Their results further indicated that the firms’ Earnings, growth rate, level of debt and size also cause the change in stock price of UK. Similarly, Baker & Powell [6] used survey technique to take the opinion of Indonesian managers about the factors influencing dividend policy, dividend issues, and explanations for paying dividends. Results of their survey show that Indonesian managers consider stability of earnings and level of current and expected future earnings are the most important determinants of dividend policy.

Different studies carried over different time periods across different markets have given varying results. Therefore it is easily grasped that various factors have emerged as determinants of share prices for different markets namely dividend, retained earnings, size, earnings per share, dividend yield, leverage, payout ratio, book value per share, foreign exchange rate, gross domestic product, lending interest rate, analyst reports, availability of substitutes, Government policy, investor sentiments, lawsuits, macroeconomic fundamentals, management, market liquidity and stability, mergers and takeovers, and technical influences.

Dividend and retained earnings as the determinant of stock prices:

So many scholars conducted study on dividend policy, information contents of dividend, information asymmetry and their impact on market price of common stock.

(1) Information Contents of Dividends:

It is presumed that dividend declaration contains information about the future of the organization. In his study Watts, R. [44] tested the hypothesis ‘information content of dividends’ which states that dividends convey information about future earnings – information that enables market participants to predict future earnings more accurately. Empirical question of the study of Joy, O. M. et al., [21] was to reexamine the adjustment of stock...
prices to announcements of presumed unanticipated changes in earnings. His study presents evidence that, over the period studied, the information contained in quarterly earnings was not fully impounded into stock prices at the time of announcement. He concluded that price adjustments to the information concerning security valuations that are contained in unexpected “highly favorable” quarterly earnings reports are gradual, rather than instantaneous.

Empirical question of the study of Aharony, J. et al., [1] was whether dividend information content is useful to capital market participants. The main purpose of his study was to ascertain whether quarterly dividend changes provide information beyond that already provided by quarterly earnings numbers. Their findings of capital market reaction to dividend announcements strongly support the information content of the dividend hypothesis, namely that changes in quarterly cash dividends do provide information about changes in management’s assessment of future prospects of the firm. The results also support the semi-strong form of the efficient capital market hypothesis; that is, on the average, the stock market adjusts in an efficient manner to new quarterly dividend information.

Penman, S.H. [32] compares the properties of dividend announcements and management earnings forecasts as predictors of earnings and firm value. He also studied the effects of dividend announcements on stock prices are considered. He said that his paper compares the information content of dividends with that of management earnings forecasts. The results of his study indicate that both the direct forecast and the dividend based forecast possess information. However, there does appear to be more information in the direct forecast than in the dividend -based forecast. He concluded that the evidence indicates that both dividend announcements and management earnings forecasts possess information about management’s expectations. His results are representative of well-established firms only.

Bamber [8] investigates the relations between the volume of securities traded and magnitude of annual earnings announcements. His results show a continuous (positive) relationship between trading volume and the magnitude of unexpected earnings. On average, the greater the absolute value of the earnings surprise, the greater the volume of trading around the announcement date. He also said, if fewer information sources exist for certain types of firms, we would expect a relatively strong reaction to their annual earnings announcements.

(2) Information Asymmetry:

When in a mechanism one group of participants enjoy better or more-timely information than other groups then information asymmetry occurs Copeland and Weston [15]. Venkatesh and Chiang [43] conducted a study to test for an increase in information asymmetry before earnings and dividend announcements. Authors find a strong increase in information asymmetry only before the second announcements and virtually no increase before the joint and first announcements.

The study of Bamber and Cheon [8] investigated the frequency with which earnings announcements generate differential price and volume reactions, and then assesses whether these differential reactions are associated with announcement specific characteristics. That is they investigate differential price and volume reactions associated with earnings announcements. They concluded that price and volume reactions are independent and closely related. Furthermore, trading volume is likely to be high relative to price reaction when an earnings announcement generates differential belief revisions among investors. They also concluded that their evidence further suggests that earnings announcements that generate a high trading volume reaction relative to price reaction are associated with (i) more divergent financial analysts (pre-disclosure) earnings forecasts; (ii) a large analyst following; (iii) higher random walk-based unexpected earnings relative to analysts-based unexpected earnings; and (iv) price increases. Results of their study are broadly consistent with the notion that trading volume reaction is likely to be high (relative to price reaction) when an announcement generates differential belief revisions among individual investors.

Mitra, D. and Owens, J. E. [30] examine the information content of dividend initiation announcements in the context of the firm’s information environment. They empirically test where the magnitude and volatility of security price reaction to a dividend initiation announcement are associated with the firm’s information environment. They concluded that dividend initiation announcements are associated with highly significant abnormal returns. In their study Allen, F. and Michaely, R. [2] they said that the relationship between dividend changes and subsequent earnings changes is positive, but not significant. Given these, it is rather hard to interpret any of the evidence as supporting the information signaling hypothesis. Lobo, G.J. and Tung, S. [26] investigated the effects of earnings announcements and asymmetry information on trading volume. They concluded that their study provides empirical evidence on trading volume behavior during quarterly earnings announcements and the effect of pre-disclosure information asymmetry on that behavior. Their study also provides evidence on the relation between pre-disclosure information asymmetry and trading volume prior to and following quarterly earnings announcements.

Bae et al., [5] examined the effect of earnings releases by a chaebol firm on the market value of other firms in the same group. They found that the announcement of increased (decreased) earnings by a chaebol-affiliated firm has a positive (negative) effect on the market value of other non-announcing affiliates. Their results are
consistent with the existence and the markets ex ante valuation of intra-group propping. Valipor, Conducted a study that investigates the effect of asymmetric information on dividend policy in listed companies in Tehran Stock Exchange. Their study findings show that there is a meaningful and reverse relationship between asymmetric information and dividend policy. It mean, increasing the asymmetric information reduce the dividend between investors. Some other findings show there is a meaningful relationship between dividend policy and return on stock but there is no meaningful relationship between dividend policy with firm size and book value to market value of equity ratio.

(3) Signaling Theory:
The most important financial impact is the signaling effect of dividends arising from information asymmetries between management and outside investors Copeland and Weston, [15]. Some study provides unequivocal support of the signaling theory of dividends. Capstaff et al., [12] tested the signaling theory of dividends by investigating the stock price reaction to dividend announcements on the Oslo Stock Exchange (OSE), and subsequent changes in the cash flows of the firms involved. The results indicate significant abnormal stock returns are associated with announcements of dividend changes. The results are robust to alternative models of dividend expectations, after controlling for the impact of earnings announcements, and are consistent across sub-periods in the sample. The stock market reaction is most pronounced for large, positive dividend announcements that are followed by permanent cash flow increases. The evidence from Norway suggests that lower agency costs and greater information asymmetry do not increase the likelihood that managers will use dividends as a signaling mechanism. [11] conducted the study on payout policy of 21st century shedding more light on repurchase. Their findings indicate that management views provide little support for agency, signaling, and clientele hypotheses of payout policy and tax considerations play a secondary role.

Pettit, [33] conducted a study on 625 firms listed in NYSE to offer further evidence about the validity of the efficient market’s hypothesis by estimating the speed and accuracy with which market prices react to announcements of changes in the level of dividend payments. The results of his investigation clearly support the proposition that the market makes use of announcements of changes in dividend payments in assessing the value of a security. Management’s fear of reducing or omitting dividends seems well founded and leads to a desire to delay increasing dividends until the lever of cash flows can be estimated with little uncertainty.

(4) Dividend Cliente Effect:
Dividend clientele effect suggested by Miller and Modigliani [29] is a possible explanation for management reluctance to alter established payout ratios because such changes might cause current shareholders to incur unwanted transactions costs. According to Barclay and Smith [9], companies with few major investment opportunities can limit management’s temptation to overinvest by paying out a larger percentage of their earnings. Regulated firms have systematically higher dividend payouts and leverage ratios than unregulated firms, Barclay and Smith [9].

(5) Dividend Yield, Dividend Payout Ratio and Share Price Volatility:
Hashemijoo and Ardekani, [17] in their empirical results showed that dividend yield and dividend payout were significantly related share price volatility. Similarly, Allen and Rachim [3] reported a positive relationship between share price volatility and dividend yield. In addition, Contrary to Baskin [10]’s results, their findings showed that share price volatility has significant positive relationship with dividend yield. However, recent studies indicated negative relationship between the two dimensions of dividend policy (dividend payout ratio and dividend yield). For instance, Allen and Rachim [10] reported negative relationship between share price volatility and dividend payout. Their findings were echoed by Nazir et al [31] in the study of listed firms in Karachi Stock Exchange (KSE) who found a negative relationship between share price volatility and dividend yield and dividend payout. Sen and Ray [36] in their study in India revealed that dividend pay-out is by far the single important factor affecting stock prices.

Yasir et al., [45] in their study of the association between dividend policy and stock price volatility in Pakistan. They concluded that the stock volatility is affected by the dividend policy, as the dividend yield (dividend payout ratio) are positively (negatively) associated with price volatility. One more result is that the signaling theory effect is applicable in defining the stock price volatility in Pakistan. In his study Jecheche, [20] analyzed the effect of the dividend policy on share volatility in Zimbabwe and found that the two proxies of the dividend policy have significant effect on the price volatility, also the study offers empirical evidence supporting the signaling and arbitrage realization effects in Zimbabwe.

Earnings per share as the determinants of share price:
Earnings per share serve as an indicator of a company’s profitability. Several scholars not only from the field of finance have tried to locate the underlying reasons for which stock prices move. Many of them come out with the findings of earnings per share as a major determinant of share price movement. According to Sunde and
Sanderson [40] in Zimbabwe analyst reports, availability of substitutes, earnings, Government policy, investor sentiments, Lawsuits, macroeconomic fundamentals, management, market liquidity and stability, mergers and takeovers, technical influences determines the price that investors are willing to pay for any particular share. In Bangladesh Khan [25] and Uddin [42] ion their respective studies have identified factor such as dividend, earning per share and net asset value per share as the most influential element to cause any change share value.

Hartone [16] argues that a significantly positive impact is made on equity prices if positive earnings information occurs after negative dividend information. Also, a significantly negative impact occurs in equity pricing if positive dividend information is followed by negative earning information. In Indian capital market, Barua and Raghunathan used the Gordon’s dividend growth model to show that the prevailing P/E multiples in the Indian capital market around the second and third quarter of 1990 were on the higher side. Shinha argued that the high P/E ratio observed in March 1992 was partly attributed to abnormally low earnings during 1991-92 and partly to the high P/E ratios of MNCs. Even after adjusting for these two factors, he found the P/E ratio to be relatively high. Vaidyanathan and Goswami examined whether the price to earnings ratio (P/E) was a good criteria on which to base investment decisions. There was a general proposition that low P/E stocks on an average provide larger return than high P/E stocks. The test revealed that the average annual return of the portfolios formed on the bases of P/E ratio was not significantly different from each other. Hence, P/E ratio may not be an appropriate measure to be used for investment decisions. Obaidullah observed that low P/E stocks have out-performed the high P/E stocks in Indian capital market. Mohanty found that once the PE risk and the liquidity risk was adjusted for, the book-to- market and size of the company does not had explanatory power in so far as stock return are concerned.

**Conclusion:**

Financial scholars have been conducting studies of dividend policy for several decades; but different researchers have come to different conclusions. Financial economists have come to different conclusion about factors determining dividend policy and effect of dividend policies on common stock price. A general question may arise in the mind of the shareholders that the corporate dividend policy affects the value of their stocks. So, in addition to the theory of dividend policy, it is necessary to discuss the empirical evidence on the dividend payment practices of the corporations and their possible impacts on common stock prices. Empirical testing of dividend policy may focus on whether the determinants carry information in pricing the common stocks and whether the dividends are the only determinants serving as signals in conveying information about the current and future earnings of the corporation. Furthermore, earnings per share serve as an indicator of a company's profitability. Several financial scholars have been conducted studies on earnings per share as determinant of stock price. But the relative importance of earnings per share as the determinant of stock price is not clearly defined.

The major drawback for Dhaka stock market is the regulatory system and information transparency are not certainly proficient to get the confidence of the investors and provide the sufficient basis for analyzing the data without anomalies. Beside this, Govt. and Bangladesh Bank do not playing the desired role to create the stable market with expected outcome of investors. In addition, investors have also lack of knowledge (fundamental and technical) about capital market. As a result, they cannot cut a good figure from share market. There are some determinants which have great impact on share price. How these determinants influence share price would be shown through the research. An investor can make their investment decision by taking information from this research. Moreover, the stock market authority might find the results helpful in avoiding any unexpected catastrophe, controlling market strategies, improving the stock market industry, and assessing the degree to which the stock market may need to be reformed.

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