

Dynamics of Earnings, Dividends, and Stock Prices: A Study on Dhaka Stock Exchange

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***Abstract:** The corporate dividend policy should have a relatively direct bearing on cyclical fluctuations and longer term growth trends in the economy. Investors more frequently use dividends plus retained earnings than dividends plus capital gains approximating future expected income for portfolio selection. Since corporate earnings paid out to common shareholders are not available for financing new investments, the corporate dividend decision is intertwined with corporate financial policy. This paper critically investigates the effects of dividend signalling and smoothing on the corporate dividends, earnings, and common stock prices and explores whether there is any relationship among the corporate earnings, dividends and the stock prices of the companies associated with Dhaka Stock Exchange (henceforth DSE), an emerging capital market of Bangladesh. As dividends, earnings, and prices data series are not co-integrated, a vector autoregressive model and is applied to show the relationship among dividends, earnings, and stock prices and their implications for dividend policy. The results of the empirical analysis evidence that there exists dynamic relationship among earnings, dividends, and common stock prices of DSE listed firms.*

***Keywords:** Dividends, Earnings, Stock Price, Dividend signalling and smoothing, Vector autoregressive model, Cointegration tests.*

Introduction

Corporate dividend policy and practice raise the question of how much of its earnings a firm should pay to the shareholders. Alternatively, retained earnings, in case of growth potentiality of the firm, may be reinvested for the future earnings prospects of the firm. By reducing their dividends, firms may raise the level of investment and therefore, depress the rate of return on investment. A general question may arise in the mind of the shareholders that the corporate dividend policy affects the value of

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their stocks. If an increase in dividends increases the value of the firm, the shareholders will prefer to take earnings as dividends and new investments should be financed through the sale of new securities. But financial theorists find that dividend policy does not impact on share value although it affects the firm's willingness to undertake its investment opportunities and thus impacts the firm's value. However, the corporate owners want a share of the profits their firms earn. Considering the shareholders' demand a firm may take dividend decision recognizing the impact of the same on the shareholders' wealth. For sure, theoretically, shareholders are indifferent between receiving corporate earnings as dividends and having a capital appreciation.

Retention ratio is a percentage of net profit undistributed or retained by a firm. A firm retaining more may command higher share price because high growth in earnings. Shareholders of high growth firms may obtain their return in the form of capital gains. But there is uncertainty regarding capital gains. Payment of dividends helps to resolve this uncertainty. Market price of slower growth firms' shares, on the other hand, may be lower. However, dividends may be the direct and most objective way of communicating to shareholders that their company is doing well although this does not make much sense in terms of growth. In this connection, a firm should accept all profitable projects implying that shareholders will reinvest their dividends in the share of the firm. However, firm's dividend policies should be applied by considering some specific rules viz., net profit rule implying that dividends must be paid from past and current earnings, the capital impairment rule prohibiting payment of dividends from the capital account so that the shareholders and creditors are protected and the insolvency rule stating that the corporation may not pay dividends when insolvent.

The efficiency of capital markets depends on the extent to which capital asset prices fully reflect information that affect their values. Announcements of dividends of a firm provide just enough pieces of the firm's sources and uses the statement for the market to deduce the unobserved piece, to wit, the firm's current earnings. Management of the firm should regard their shareholders as having a proprietary interest in earnings and urge the shareholders' special interest in getting earnings in dividends, subject to their interest in regularity of payment. Unless there are other compelling reasons to the contrary, fiduciary responsibilities of the management require them to distribute part of any substantial increase in earnings to the shareholders as dividends. Similarly, management believes that it is both fair and prudent for dividends to the shareholders to reflect any part of substantial or continuous decline in earnings and that under these circumstances shareholders should understand and accept the cut. Firms tends to increase dividends only when there is a high probability that cash flows in the future would be sufficient to support the higher rate of payment and dividends are decreased only when management is assumed that

cash flows are insufficient to support the present dividend rate. The transfer of capital between markets would raise the interest rates that affect the securities prices in two ways: i) high rate of interest lessens the firm's profits ii) interest rates affect the economic activities that affect the corporate profits. Interest rates obviously affect the securities prices because of their effects on profits. They have also an effect due to the competition in the stocks and bonds markets. The higher rate of interest causes the investors to sell stocks and transfer funds to bond market. Thus, higher rate of interest depresses securities prices. Inflationary pressures are strongest during business boom, and that also exerts upward pressure on rates. Slack business reduces the demand for credit; rate of inflation falls and the result is a drop in interest rates. This paper shall also analyze the effects of such factors on share prices. The most important determinant of both corporate leverage ratios and dividend yields is the nature and extent of a company's investment opportunities. Firms, the value of which consists largely of intangible growth options have significantly lower leverage ratios and dividend yields, on average, than firms whose value is represented primarily by tangible assets. For high-growth firms, the underinvestment problem caused by heavy debt financing and the flotation costs associated with high dividends make both policies potentially very costly.

According to the efficient market hypothesis, publicly available information is accessible to all investors at zero cost. Therefore, the security prices might adjust to information as soon as it becomes publicly available. It is difficult to trace the influence of ideas because their effects range from the direct and concrete to the more subtle and abstract. Ordinarily we view the market's reaction to information through the lens of chronological time. From the release of financial press, we might observe the market's response at a single point in time to what is often a bewildering variety of events and circumstances affecting company's value. There are announcements of earnings and dividends, new debt and equity issues, management changes, asset write-offs, bond rating changes, changes in interest rate. Stock market reaction to dividend announcements introduced the concept of event time, which may well have been the single most important breakthrough in our understanding of how stock prices respond to financing information. One surprising and illuminating example: announcement of new public stock offerings are associated with an immediate stock price reaction. The reason for the negative market response is: investors recognize that managers, as representative of the existing shareholders, are most likely to issue new stock when they think the company is overvalued; hence announcement of new stock offerings are interpreted, at least in the case, as conveying managers' private assessment of the firm's prospects relative to its current valuation. The new theory and evidence on market efficiency demonstrated to economists for the first time that share price behavior might be viewed as a rational economic phenomenon. Two other broad areas

of financial economic enquiry were launched around the same time as efficient market theory. First were the dividend and capital structure irrelevance propositions formulated by Miller and Modigliani happened to be pioneers in the field of financial economics. Soon after came the capital asset pricing model (CAPM) developed by Sharpe (1963, 1964) and Lintner (1956). Development of CAPM is particularly important for subsequent research on market efficiency because it might be able to provide researchers with a method of estimating investors' expected returns- the returns passive investors would otherwise have earned in the absence of the information being tested. Stock prices are viewed as highly unreliable guides to corporate resource allocation and other important decisions. In the semi-strong efficient market, the stock prices adjust rapidly to the release of all public information. In addition to stock prices, rate of returns, trading volume public information also includes all nonmarket information such as earnings and dividend announcements, price-to-earnings ratio, dividend-yield ratio, book value-market value ratio, and other events. Event studies might be carried out to investigate just to what extent stock prices actually react to the release of price sensitive information such as announcement of earnings and dividends. The present study is devoted to investigate how stock prices react to the announcement of dividends of firms associated Dhaka Stock Exchange (DSE), a pioneer capital market of Bangladesh.

Literature Review

It is obvious to argue that there should be a positive relation between dividend payments and share prices. Investors may have a preferred consumption pattern and the existence of transaction costs makes a particular dividend pattern a more desirable way to achieve their preferences than by selling securities. The market's estimate of current earnings contributes in turn to the estimate of the expected future earnings on which the firm's market value largely hinges. Lintner (1956) develops the theory that a dispute over the dependence of a firm's market value on the rate at which dividends is paid out of earnings. On the other hand, Miller and Modigliani (1958) argue, under the assumption of perfect capital market, that rational behavior and zero taxes that the value of the firm does not depend on the firm's dividend payout rate. But Durand (1959) finds a strong positive cross-sectional correlation of price with dividends and the current earnings. Furthermore, Miller and Modigliani (1959) hypothesize that a firm's market value depends on its expected future earnings and not on current earnings. An empirical study by Friend and Puckett (1964) shows the relationship between the dividend payout rate and the market value of the firm and their possible biases. Lintner (1956) argues that investment outlays are quite consistently and highly correlated with current profits, sales volume and internal fund flows. These relationships have been built into the dividend policies of corporations in such a way

that corporation can pay dividends implied by those policies with considerable consistency over long periods of time.

The impact of dividend policy on the market value of a firm is a subject of long-standing controversy. Black (1976) opines the lack of consensus by saying “the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don’t fit together.” Lintner’s (1956) finds that the major changes in earnings with existing dividend rates are the most important determinant of the firm’s dividend decisions. As the management believes that the shareholders prefer a steady stream of dividends, firms tend to make periodic partial adjustments toward a target payout ratio rather than dramatic changes in payout. Subsequently, Fama and Blahnik (1968) examine several alternative models for explaining dividend behavior in support of the Lintner’s proposition that managers increase dividends only after they are reasonably sure that they can permanently maintain them. A major controversy in the literature involves the relationship between dividends and values. In this regard, Miller and Modigliani (1961) suggest that dividend policy has no effect on the value of the firm in a world without taxes, transactions costs, or other market imperfections. However, dividend may be relevant to the extent that market imperfections do exist. Some of the explanations for dividend relevance include signaling and clientele effects. Financial economists argue that both capital structure and dividends are largely irrelevant. They have no important predictable effects on the prices of the stocks. The conventional view of capital structure says that firms attempt to balance the tax advantages of increased debt financing against the higher expected bankruptcy costs. Dividends convey information enabling the market participants to predict future earnings of the respective firm more accurately. Lintner (1956) suggests that current dividends depend on future as well as current and past earnings. More specifically, current and past dividends provide a better prediction of future earnings of a firm than is possible with current and past earnings alone. Under the assumptions of perfect capital markets, rational behavior and without both corporate and personal taxes, dividends may not affect the value of the firm. Watts (1973) hypothesizes that dividends convey information in addition to the information conveyed by earnings. This additional information is to be reflected in the difference between actual current dividends and the conditional expectation of current dividends. In an efficient capital market, security prices depend on expected future earnings. Under this circumstance, any better prediction of future earnings that is possible with dividends should be reflected in security prices at or before the time the dividends become known. A prudent management, however, partially adjust each year’s actual dividends to the difference between desired dividends and the previous year’s actual dividends. Desired dividends may be equal to management’s estimate of future earnings multiplied by firm’s target payout rate. Estimate of future earnings includes information not possessed by capital

market participants. Because of the involvement of risk, the effect of that information on the estimate of future earnings is, of course, much larger than its effect on dividends. Such effect on dividends equals to the effect on the estimate of future earnings multiplied by both the target payout rate and the rate of adjustment of desired dividends to actual dividends. If dividends are adjusted to annual earnings, one might expect most changes in dividends to occur around the time of determination of annual earnings. More specifically, annual dividends, however, may be expressed as a function of annual earnings although the final annual earnings of a year sometimes are not determined in the same year. Under the purview of dividend discount model (DDM) an implied rate of return from analysts' forecasts of dividends along with the current share price may be compared with the required rate of return of a firm and thus dividends may be predicted directly from the predicted earnings and pay-out ratios. Rees (1995) argues that the disaggregation of dividends into earnings and payout may be helpful for the analysts as it allows for the return based on the firm's market position to be examined separately from the payout ratio, which may be a function of the demands placed on internal finance by the rate of growth. The directors of the corporation have only the right to take dividend decisions. Neither preferred stockholders nor common stockholders have any contractual right to receive dividends..

Information Costs and Signalling Effects

Insiders have always better information about the value of their companies than outside investors. Managers spend enough time in analyzing the firm's products, markets, strategies, and investment opportunities. Insiders also have more timely information about current operating performance and better access to firm-specific information useful in forecasting short-run earnings. Thus, managers tend to earn higher than average returns by buying and selling their own company's stock. It is not surprising that the stock market reacts when managers announce major corporate decisions. If a company announces dividends, changes in its capital expenditures, investors will draw some inference from this announcement about the profitability of the firm's investment opportunities and adjust the stock price accordingly. Managers are likely to face circumstances if they like to communicate this information to the market. As all managers would like their stock prices to be higher than they are, simply announcing that their firms are undervalued is likely to carry much weight. Thus, managers wishing to convey positive information to the market must identify a credible mechanism to signal this information. Although there are many potentially effective signaling devices available to managers, changes in dividends are notable candidates.

Debt and equity differ in a number of ways that are important for signaling purposes. Although shareholders expect cash dividends to be maintained from year to year, managers have more discretion over these payments, and can choose to cut them in times of financial distress. By committing the firm to make future interest payments to bondholders, managers communicate their confidence that the firm will have sufficient cash flows to meet these obligations. As the promised payments to the bondholders are fixed, stock prices are much more sensitive to changes in firm value than bond prices. Although the average market reaction to new securities offerings is negative in general, it is considerably less negative to new debt offerings than to new common stock offerings. So we can draw inference that companies that feel that they are undervalued can be expected to use more debt in their capital structures than overvalued firms. This signaling

theory also seems to have more to say about the choice of debt or equity securities at the time of issuance than about a company's target capital structure over time. When managers announce an increase in dividends, they obviously express their confidence about the future profitability of their company. The credibility of the signal lies in the fact that if management increases its regular dividend payments without the expectation of higher future cash flows, the firm will have difficulty sustaining these higher payouts. Eventually, the management will suffer the embarrassment of having to cut the dividend, and the market will respond by reducing the stock prices.

No investor can make abnormal profit by using publicly available information. Pettit (1972) argues that firms with abnormal returns, existing over a period of time after the dividend announcement imply either that it takes considerable time for the information to be disseminated across the market or there is a tendency to the effects of such information on the price of the security under the purview of inefficient capital market. The market is said to be efficient with regard to an information event if the information causes no portfolio changes. Investors may disagree about the implications of a piece of information so that some buy an asset and others sell in such a way that the market price is unaffected. In this regard, Fama (1976) argues that if the information does not change prices, then the market is said to be efficient with regard to the information. Rubinstein (1975) adds that an efficient market requires not only that there be no price change but also that there be no transactions. A positive relation between dividend and performance of the securities market is possible when there is a pent-up demand for firms with an early dividend payment pattern. Gordon (1963) argues that an investor being risk averter and associating a higher degree of risk with dividend received further in future need not be indifferent to the distribution of returns between dividends and capital gains. Investors, however, may averse greater risk to dividends to be received further in future will be irrelevant to the distribution of the one period gain on a share between the dividend and price

appreciation as long as the appropriate cost of capital is used in making investment decisions.

Objectives of the Study

To gain an understanding of what determines the prices of a stock in addition to the dividends, this paper is devoted to consider and analyze the factors affecting the price of individual stock. The prices of stock will be determined by trading among individuals. Even if these stocks themselves are not directly traded, we can merely infer their prices in a competitive market from the prices of the stocks that are traded. To understand the stock market accurately, any one will find some determinants that affect the securities prices. It is logical to expect a relationship between corporate profits and securities prices. So, expected earnings and interest rates are the ultimate determinants of securities prices. However, the followings are objectives of study:

- i. To develop hypotheses on the causal relations of the dividends retained earnings and common stock prices of the sample of DSE during the Period.
- ii. To investigate the effects of dividend signaling and smoothing on the corporate dividends, earnings, and common stock prices of the listed companies of DSE.
- iii. To explore whether there is any relationship among the corporate earnings, dividends and the stock prices of the companies associated with DSE.

Methodology

To develop an appropriate measure of performance, the study uses empirical model called *market model* that argues that return on security i is linearly related to return on a market portfolio. Sharpe (1963) developed and used the following model to measure the price change of security:

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it}$$

where,

R_{it} = the return on investment in security i at time t ,

R_{mt} = the return on market investment at time t ,

e_{it} = random error term affecting the return on security i but not the market,

β_i = coefficient measuring expected return of security i response per unit of market expected return and

α_i = constant representing the unique return of security i .

The market model says that the expected return (R_{it}) of security i at time t equals some constant (α_i) plus the expected return on the market (R_{mt}) multiplied by the sensitivity (β_i) of security i with the market return plus the error term (ε_{it}). It assumes that the slope and intercept are constant over the time period during which the model is fit to the available data. The first two terms of the right hand side of the equation present a conditional expected return on security i . The difference between the actual return and the conditional expected return assumed to be abnormal return at time t is:

$$\delta_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

The time period for which δ_{it} may be calculated is somewhat different from the time period used to develop estimates of the constants α_i and β_i . In an efficient market, the value of δ_{it} (risk-adjusted abnormal performance of the security i) may be determined by information coming into the market that is unique to the firm i . However, Joy et al. (1977) used δ_{it} to measure the effect of dividend announcements and the efficiency with which the effect is impounded into the price of the security.

It is eventually necessary to analyze the capital asset pricing theory in estimating the security performance. The capital asset pricing model (CAPM) requires the intercept term to be equal to the risk-free rate or the rate of return on the minimum variance (zero-beta) portfolio both of which change over time (Sharpe 1963, 1964 and Lintner 1965). The model is described as follows:

$$R_{it} = R_{ft} + [R_{mt} - R_{ft}] \beta_i + \varepsilon_{it}$$

The systematic risk is assumed to remain over the interval of estimation. Any deviation from the expected return is interpreted as an abnormal return (ε_{it}) and can be taken as evidence of market efficiency if the CAPM is correct. Finally, empirical market line is expressed as:

$$R_{it} = \gamma_{0t} + \gamma_{1t} \beta_{it} + \varepsilon_{it}$$

It provides an adequate model of security returns. The intercept term does not necessarily equate the risk-free rate. Both intercept (γ_{0t}) and the slope (γ_{1t}) are the best linear estimates taken from cross-section data each time period. No parameters are assumed here to be constant over time. By using this equation, one can estimate the security's required rate of return with its beta for a given period by knowing the parameters. The study is devoted to estimate three basic relations of the variables name as: dividend-earnings; dividend-price and earnings-price by applying a multiple hypotheses testing procedure. Dividend decision is taken in the board the meeting of the board of directors and is subsequently declared in the annual general meeting of the company. Such type of financing decision taken by the board is immediately furnished to the respective stock exchange for the maintenance of proper records and

conveying information to the investors, and the concerns. The declaration date and the amount of dividends used in this paper are taken from the record book of Dhaka Stock Exchange. The same information is to be kept by the declaring firms. The earnings of the dividend-declaring firms were taken from the annual reports of the respective firms whereas share price per share of the dividend-declaring firms were obtained from the daily price quotation of DSE. The dividend data used in this study are collected from the record kept by DSE during the period from January 2000 to December 2016. A total of 125 firms associated with DSE are taken as sample as they agree with the desired criterias.

Empirical Analysis of Data

Dividend changes imply the manager's forecast of subsequent corporate earnings. Thus, dividends convey the manager's superior information about corporate future earnings conditions where in the extreme case the manager may have a perfect foresight of future earnings. Current dividends reflect the expectations of future earnings whereas dividend changes signal unexpected changes in future earnings. The signalling hypothesis predicts that dividends lead both prices and earnings. However, the casual relationship implied by signalling hypothesis may be more complex in an inter-temporal setting. A firm may pay dividends and issue new shares to finance growth opportunities. Consequently, the smoothing hypothesis links current dividends to past and current earnings of the corporation (Lintner, 1956; Fama and Babiak, 1968; Watts, 1973). Under information asymmetry the difference between actual dividend (D_t) at time t and expected dividends $E(D_t)$, conditional at time $t-1$, convey information about corporate unexpected earnings. However, the unexpected current dividends may, therefore, reflect unexpected future earnings for more than single period. Before dividend announcements, there are concurrent relation between unexpected dividends and unexpected earnings, dividends and expected earnings and the direction of causality between unexpected dividends and unexpected earnings. Unexpected dividends predict unexpected future earnings because of the information asymmetry between manager and investors. In contrast, dividends are contemporaneously associated with earnings expectations.

The earnings data used in this study imply income before extraordinary items and discontinued operations. Earnings and price per share are obtained from the reports of the companies declaring and paying dividends during the study period. I eliminate the firms with missing price and earnings information. As dividends, earnings, and prices data series are not co-integrated, it seems to be appropriate to consider a vector autoregressive model to show the relationship among dividends, earnings, and stock prices and their implications for dividend policy. However, it should be assumed here that dividends and earnings are conditional on stock prices. To set the relationship

among the variables, the testing procedure is based on the assumption that a maintained hypothesis should not be rejected unless there is sufficient evidence against it. In literature, most tests intend to discriminate between independency and alternative hypothesis. This procedure as addressed by Chen and Wu (1999) consists of four testing consequences performing a total of five tests as shown in Table-1.

Table-1: Hypotheses on the Causal Relations of the Dividend, Retained Earnings, and Common stock Prices of the Sample of DSE during the Period

Hypo-1: Variables are independent.
Hypo-2: Variables are contemporaneous relation.
Hypo-3: There exists a negative unidirectional relation between the variables.
Hypo-4: There exists feedback relation between the variables.
Hypo-5: There exists a strong negative unidirectional relation between the variables.

Table-2 documents the mean likelihood ratio test statistics for the hypothesis forming the basis for examining the relation of the level of series. The mean likelihood statistics are all significant suggesting that dynamic relations exist for the variables.

Table-2: The Mean Likelihood Ratio Statistics of the Variables on the Basis of Data of the Sample Firms During the Study Period

Hypothesis	Price-earnings	Price-dividends	Dividend-earnings
1 vs. 2	4.79	3.98	11.23
2 vs. 3	26.28	14.33	41.56
2 vs. 4	50.68	39.53	73.87
2 vs. 5	21.56	25.12	41.37
3 vs. 4	25.65	26.75	35.63
5 vs. 4	31.94	16.43	33.78

Data Source: i) Annual reports of the sample firms for the period under study,
ii) Dividend declaration record, DSE,
iii) Daily price quotation, DSE.

Table-3 reveals the results for test of the hypotheses on the relation as developed in Table 1. Panel-A in Table-3 shows the results for the level series. The unidirectional relation for dividends to earnings as depicted in Table-3 is 20.26 per cent whereas it is 28.25 per cent for earnings to dividends for the sample firms. The feedback relation between dividends and earnings, earnings and price are 34.63 per cent and 42.91 per cent respectively implying that current dividends are related to past and future earnings. The feedback relation implies that dividends and earnings information affect

each other in a manner that each reported series provides information for future movement of another series. Under these circumstances, uncertainty may prevail in the market where the investors may not have perfect information for the firm's future performance. So the statistical inference in this regard is that dividend changes perhaps reflect past and future earnings of the firm. Panel-B of Table-3 portrays the results of the relation of differenced variables. Percentage of the firms showing independency increases when the variables are differenced as compared to Panel-A. There exists a strong relation between dividends and earnings. Bivariate system for dividends and earnings shows that earnings lead dividends (which are only 13.58 per cent) by 30.78 per cent of the sample firms. The feedback relation is documented 18.84 per cent of the sample firms. The independency relationship between dividend and prices is recorded as 45.02 per cent followed by that between price and earnings and dividend and earnings, which are recorded as 40.04 per cent and 30.85 per cent respectively during the period under study.

Table-3: The Detected Dynamic Relation among Dividends, Retained Earnings, and Common Stock Prices

Relation of variables	D and E	D and P	P and E
Panel A: (based on level series)			
Independency	12.45	21.39	14.05
Concurrent	4.41	5.68	5.32
Direction of causality	20.26	25.28	12.18
Co-existence	28.25	19.97	25.54
Feedback	34.63	27.68	42.91
Panel B: (based on differenced series)			
Independency	30.85	45.02	40.04
Concurrent	5.95	6.98	9.86
Direction of causality	13.58	17.85	19.25
Co-existence	30.78	20.01	18.59
Feedback	18.84	10.14	12.26
Panel C: (based on differenced and detrended series)			
Independency	30.25	49.32	36.56
Concurrent	5.23	6.36	8.95
Direction of causality	14.58	17.83	18.65
Co-existence	29.12	16.91	24.12
Feedback	20.82	9.58	11.72
Panel D: Relation between D and E based on P: (Level/Differenced series)			
Independency	14.42 /17.21		
Concurrent	6.31 /5.95		
Direction of causality	17.18 /13.25		
Co-existence	24.80 /28.54		
Feedback	37.29 /35.05		

Data Source: i) Annual reports of the sample firms for the period under study,
 ii) Dividend declaration record, DSE,
 iii) Daily price quotation, DSE.

Notes: D stands for corporate dividends, E stands for corporate earnings and P stands for corporate stock prices.

Panel-C of Table-3 shows the results of detrended and differenced data, the result of which shows almost similar to the results as shown in the differenced series. As depicted in the table, the relation of direction of causality for dividends and earnings series documents for 29.12 per cent followed by feedback relation for 20.82 per cent of the sample firms. Finally the study is devoted to document the relations between earnings and dividends conditional on the information of stock price. In this connection, Panel-C of Table-3 reports the results of the conditional relations with the level and differenced data. A causality relation from earnings to dividends for level and differenced data are found 24.80 per cent and 28.54 per cent respectively, for the sample firms. The feedback relations for level and differenced series are respectively, 37.29 per cent and 35.05 per cent of the sample firms. From the aforesaid discussion, it may be evidenced that there exist predictive relations among dividends, earnings and stock prices. The results also document the relation between dividends and earnings of the sample firms conditional on the prices of the same. Once again, from the underlying results and the hypotheses developed, it may be inferred here that dividends convey the message for future earnings of the firms.

Conclusion

The present paper is entirely descriptive and analytical presentation concentrating on dividends and net savings of corporate earnings over time. Under the condition of market equilibrium, firms maximizing the value of the shares may pay dividends though the amount could instead be retained and subsequently distributed to the shareholders such a way allowing them to be taxed more favorably as capital gains tax. This paper provides an assumption that both corporations and portfolio investors may borrow and earn risk-free return. This indicates that the treatments of taxes may distort the corporate dividend policies and may cause a misallocation of total investment of the economy. The effect of taxes on the volume of net corporate savings results from their impact on the magnitude of net earnings, which is a primary determinant of the volume of dividends. From the underlying discussion, it may be reiterated that investment outlays have been consistently and highly correlated with current profits and internal fund flows and the allowance for these relationships should be built into the dividend policies of corporations. Tax treatments affecting dividend policies of a firm should be used as a key variable in the analysis. Dividends create

personal tax liability for the shareholders and the firm will pay cash dividends to signal the future investment prospects of the firm in the capital market. The size of dividend to be declared is an increasing function of the firm's expected cash flow and the higher the uncertainty in cash flow the lower will be the dividend payout ratio. Furthermore, the conditional tests document that there exists a dynamic relation between dividends and earnings. Stock price may also play a vital role in determining investors' returns by affecting the relation between dividends and earnings.

The impact of the amount of dividend and dividend policy on the market value of the shares is a subject of long-standing controversy. There are some non-response biases and although steps are taken to ensure a high response rate, the survey is no exception. Another limiting factor is that the views about different aspects of dividend issues are obtained from chief financial officers, financial analysts associated with the companies listed with DSE. The respondents also include some major shareholders like insiders, high officials and analysts of DSE, SEC, financial practitioners, and academicians. The respondents seem to believe that announcements of dividends affect market price of the shares traded surrounding such announcements as evidenced by the importance attached to dividend policy in maintaining or increasing stock prices. Although the survey does not uncover the exact reasons for their belief in dividend relevance, it merely provides evidence that the respondents are generally aware of announcement and clientele effects.

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