The Relation Between Earnings, Earnings Distributed, Earnings Retained and Common Share Prices

Dr. Ravi Thirumalaisamy*
Department of Business and Economics, Modern College of Business & Science,
PB Number: 100, Al-Khuwair 133, Sultanate of Oman

Mr. Farid Ramdhani Al Baloushi,
MBA Graduate, Modern College of Business and Science,
PB Number: 100, Al-Khuwair 133, Sultanate of Oman

Abstract
Dividend policy of a firm determines the portion of net income be distributed to investors and the left-over amount is retained and reinvested by the firm in such projects that can enhance the shareholder value in the long-run. Thus, dividend policy is one of the foremost financing decisions to be wisely taken as it has a significant impact on share price appreciation in short-run and long-run due to dividend disbursements and earnings retained respectively. Investors prefer capital gains over dividends for taxes on capital gain can be deferred into the future and are taxed at a relatively lower rate while taxes on dividends must be paid as soon as they are received and are taxed at a higher rate. Whenever there is an increase in personal income tax rate, shareholders would allow their companies to retain and reinvest the earnings. Thus, retained earnings constitute a vital source of finance for companies. However, retained earnings, when not invested profitably, are not able to increase the wealth of shareholders. When firms do not have positive net present value projects, retention of profits will not yield shareholders a better rate of return. In such cases, earnings are had better to be distributed to shareholders. The present study explores the impact of earnings after taxes, dividends and retained earnings on share prices. The data, secondary in nature, are collected for 10 years [2006-2015] from financial statements of manufacturing companies listed in Muscat Securities Market[MSM]. Correlation and regression results exhibit that dividends and earnings have significant positive influence on the market price of shares and the impact is instantaneous. Retained earnings show a significant positive influence on the market price of shares in the long-run.

Keywords: Earnings Per Share, Dividends to Earnings Ratio, Retained Earnings to Earnings Ratio, Market Price Per Share, Short-run, Long-run etc.

Introduction
The purpose of this paper is to examine the short-run and long-run effect of dividends and retained earnings on stock prices. Dividend policy is one of the most researchable subjects in the field of finance. Many studies have attempted to explore as to whether corporations should pay dividends to its investors or not? Numerous of them have developed different models to clarify this issue. Dividend policy determines a portion of net income that should be paid to the investors and the remaining profit is retained by corporations to reinvest in such projects that would enhance the shareholder value in the long-run. Thus, dividend policy is one of the main financing functions to be wisely decided as it has a significant impact on share price appreciation in short-run and in long-run through retained earnings.

Retained earnings constitute an important source of finance for companies. Investors prefer capital gains over dividends because capital gain taxes can be deferred into the future and are taxed at a minimum rate while taxes on dividends must be paid as soon as they are received and are taxed at a relatively higher rate. Whenever there is an increase in personal income tax rate, shareholders would allow their companies to retain and reinvest the earnings. However, retained earnings, when not invested profitably, are not able to increase the wealth of shareholders.

Conceptual Argument
Retained earnings serve mainly two purposes. One is for stabilizing the dividend payments and the other one is for physical expansion of the companies. Both the purposes favor long-run interests of the company and shareholders. It is understood that shareholders gain by allowing firms to reinvest more profits than distributing them as dividends. Dividend distribution will increase the cost of capital when firms have huge investment opportunities. Earnings retained will help firms increase the market value of shares outstanding in the long-run. This must be true if managers act in the interest of the shareholders. The conflict of interest between shareholders and managers would lead to inefficient use of retained earnings. This contrary evidence raise several arguments. Do the proportions of earnings retained annually affect the market price? Do retained earnings have any time-bound effect on stock prices? Do dividend payments have an impact on the market price of shares? What are the comparative effects of dividends and retained earnings on market price of shares? The study attempts to answer
these issues.

The dividend policy in GCC countries is different from the one practiced in western countries. There is no tax on dividend income and capital gain in the hands of individual shareholders in Oman. This will encourage the potential investors to prefer equity investment as it has relatively higher return than the investment in any other financial assets.

**Literature Review**

In corporate finance research, the dividend policy establishes relationship between the retained earnings, dividends, and share prices of corporations, both in short and long-run. In the GCC countries, each corporation has their own individual dividend policy with some resorting to retaining earnings for reinvestment and some with paying the investors cash dividends.

Oscar Harkavy (1953) examines the comparative effect of earnings retained and earnings distributed on the market value of shares. He has tested the hypothesis that stocks of companies retaining a large proportion of earnings tend to experience greater long-term appreciation than stocks of companies retaining a smaller proportion. Data used are from the Cowles all-Stock Index for the period 1871 – 1937 and from the Standard and Poor's Industrials, Rails, and Composite Indexes for the period 1934 – 50. Simple regression equations are framed to test the proposition. The study empirically demonstrates that as of a given time, there is a tendency for stock prices to vary directly in proportion to earnings distributed. Over a period of years, the stocks of those corporations retaining a greater proportion of earnings tend to exhibit greater price appreciation. The study concludes that the mere fact of low dividend payout does not guarantee outstanding price appreciation. He further asserts that increase in earning power must accompany the increase in book value arising from undistributed profits if price appreciation is to be enjoyed.

Lintner (1956) by his primary investigations on American Corporations, concludes that dividends represent the primary and active decision variable. The savings are determined residually. The impact of taxation on corporate savings is also due to the availability of the volume of net earnings and dividend decisions. Investment requirements of the corporations under study do not have any significant direct impact on the amount of dividend to be distributed. According to him, the firms decide a payout ratio for a given level of profit. Any discrepancy between the target payout ratio and the past dividend rates would be the most significant factor influencing any change from presently pursued dividend level. He concludes that the determination of target payout ratio and the speed of adjustment are influenced by some factors from internal and external situations. Most important among them are growth and earnings prospects of firms, shareholder preferences for dividends, the possible impact of dividend stability on stock market valuation, the access of the firms towards external finance and the payout ratios of other competing firms.

Howe, Charles W. (1960) has investigated the effect of earnings, dividends, retained earnings and leverage on the share price. He formulates a hypothesis to determine how capital market conditions affect corporations' selection of financing patterns. The scope is restricted primarily to the relationship between common stock price determination and the volume of retained earnings. The empirical investigation utilizes financial data for 120 firms, 20 from every six industries – paper and allied products, heavy chemicals, petroleum, machine tools, electrical machinery, and basic textiles. Regression equations are fitted to annual data. The major findings of the study are that the earnings and dividends have a positive effect on equity value in five industries. The dividend has a significant negative effect on stock price among heavy chemical producers. Leverage, where its effect is statistically significant, has a positive effect on equity values. The greater the weight placed on dividends as a determinant of equity value, the lower the marginal propensity to save out of profits. Savings out of given profits tend to increase and then decrease with the amount being spent on plant and machinery. The effect of the firms' liquidity position on saving appears to be negative when the size of the firm is explicitly brought into the analysis. It is also found from the analysis that the Lintner's hypothesis of dividend stability produces a very good explanation on savings of the sample firms.

Desai (1965) tests the relationship between stock price and dividend. Fourteen textile companies are studied for the year 1960. Regression coefficients are worked out on the data collected from Kothari's guide. To neutralize the size effect, variables are calculated in percentage terms. He examines four relationships between stock price as the dependent variable and current dividend, an average of two years dividend, dividends, and retained earnings, and earnings as explanatory variables individually. Of these explanatory variables, current dividend is found the most significant. The effects of earnings and retained earnings are not significant.

Raj Ojha (1976) analyses the relative influence of earnings, retained earnings and dividend on market price of shares in respect of 14 big-sized cotton textile companies in India. Correlation and regression analysis worked out for 1960 and 1961 evidence that the role of retained earnings in increasing the share prices is not significant. The dividend is identified as the most important among the three variables in influencing the share prices as it is noticed that decreased earnings associated with increased or maintained dividend has resulted in appreciated share prices and increased earnings associated with decreased dividend has resulted in decreased share prices.
Bhole (1980), in his article 'Retention of Profits and Stock Markets', replies to the claims made by Chitale on activation of the stock market in India. He reiterates that retention of net profits would lead to the growth of the companies and in turn shareholder wealth can be maximized. He supports his views by quoting that the Japanese Industrial sector has attained the stage of development nevertheless the stock market remained very much underdeveloped.

Chawla and Srinivasan (1987) have tested the impact of dividend and retention on the share price. They have estimated a model to explain share price, dividend and retained earnings relationship. They attempt to test the dividend, retained earnings hypothesis and examine the structural changes in the estimated relations over time. The required data are obtained from the Official Directory of Bombay Stock Exchange. Eighteen companies in the chemical industry and 13 in sugar industry constitute sample size covering a period of 1969 – 1973. The results of two-stage least square estimation indicate that in case of the chemical industry both dividend and retained earnings significantly explain the variations in share price. The impact of dividend, however, is much more pronounced than that of the retained earnings. But the market has started the shifting towards more weight for retained earnings. The structure of sugar industry is not captured well by the model.

Ben C Ball, Jr (1987) examines the relationship between shareholder enrichment and company performance by studying fifty mature publicly held U. S Companies for the period from 1970 – 1984. Regression coefficients suggest that there is no correlation between the popular financial metrics measuring the company performance and the three measures of shareholder value. While earnings growth and return on equity are found to be statistically significant in explaining variations in the three measures of shareholder interest, the coefficient of determination is low which indicates that these two most widely used financial metrics do not really convey the shareholder enrichment. Therefore, the popular financial metrics are not at all useful in assisting the probable investors in selecting a better investment option in shares, therefore, these measures, according to them, cannot be used as a basis for share investment strategy.

Mohammed Nishat, (1992) has studied the stock price behavior and its relationship with dividend and retained earnings among the firms in Pakistan. Data are collected for the period from 1981 to 1986 from Balance Sheets of select listed companies in Karachi Stock Market. All the companies in ten major industries constitute the sample. The findings suggest that the effect of the dividend and retained earnings on share prices are better explained. In all types of industries whether growth or non-growth industries both dividend and retained earnings effects are strongly felt on share prices. However, in most of the cases, the dividend effect is comparatively stronger than retained earnings.

Dr. Mohammed Nishat and Chaudhary Mohammad Irfan (2003) tested 160 listed companies in Karachi Stock Exchange for period 1981 to 2000 and 1991 to 2000 for different sectors to determine the influence of dividend policy on share price volatility. The study finds that the dividend policy significantly influences share price volatility.

Azhagaiah and Sabari Priya (2008) have analyzed the impact of dividend policy of shareholder wealth in chemical companies in India. The data are collected form Centre for Monitoring Indian Economy (CMIE) prowess package for the period 1997-2006. A sample of 28 companies in the chemical industry, from 114 listed companies in the Bombay Stock Exchange (BSE), is selected using Multi-Stage Random Sampling Technique. The effect is examined dividing the sample companies into dividend paying and non-paying companies. Multiple regression and stepwise regression are employed to measure the impact of independent variables which include dividend per share, retained earnings per share, lagged price earnings ratio and lagged market price on market price per share which is used as dependent variable. The results reveal that higher dividends increase the market price of the shares which is used as the proxy for shareholder wealth. Shareholders prefer the current dividend to future income. So, the dividend is found to be the most important variable determining the shareholder wealth. The wealth of the shareholders is influenced by growth in sales, improvement of profit margin, capital investment decisions, capital structure decisions and cost of capital. There is a significant impact of dividend policy on shareholder wealth in dividend-paying organic companies. But in dividend-paying inorganic companies, the shareholder wealth is not influenced by the payment of dividend.

Pani and Upananda (2008) investigated the association between dividend policy and stock price behavior in Indian corporate sector. A sample of 500 listed companies from six major industries was considered. The results indicate that the dividend policy is found to be highly influential on share price movements.

Rashid, Afzalur and Rahman, Anisur (2008) used a sample of 104 non-financial firms listed on Dhaka Stock Exchange (DSE) to examine the relationship between dividend policy and stock price volatility in the Bangladesh. The study period was from 1999 to 2006. The results find an evidence of a positive, but not significant association between share price volatility and dividend yield. The stock price response to the returns announcement is not like the one found in other advanced countries.

Sharma, Sanjeet (2011) examined the association between share price and the common financial metrics such as dividend per share, earning per share, price earnings ratio, book value per share, dividend payout, dividend yield, net worth and size in terms of sales. The study period was from 1993 – 1994 to 2008 – 2009. The data were
collected from BSE annual reports for the top 500 companies in India. Correlation regression were worked out. The results show that the strongest determinants of the market price were dividend per share and earnings per share.

Al Zomaia, Turki SF and Al Khadhiri, Ahmed (2013) examined the impact of dividend payments on market price per share for the sample firms listed on the Saudi Stock Exchange or Tadawul. The data are collected for the period from 2004 to 2010 for 105 non-financial companies. Regression models were framed. The results demonstrate that the current earnings and lagged dividends strongly influences the market price of shares.

In Jordan, Al Troudi and Milhem (2013) empirically tested the association between cash dividends, retained earnings and share prices. They examined all industrial companies listed on the Amman Stock Exchange (ASE) for the period from 2005 to 2010. The results of correlation and regression analyses reiterate that the dividend payments are positively associated with share prices.

Ramadan, Imad Zeyad (2013) studied the impact of the dividend policy on share price volatility. A sample of 77 Jordanian industrial companies listed on the Amman Stock Exchange for 12 years from 2000 to 2011 was considered. The study concludes that the dividend announcements have the capability to move the stock price up. The dividend signaling theory is influential in determining the stock price volatility in the Jordanian stock market.

From the above empirical pieces of evidence, it is observed that the results are not in complete agreement in all countries, for all sectors. Review of these studies also confirm that there are differences in approaches, sample selection and the size, methodology, the period and time. Given these inconsistencies, a study to investigate the influence of earnings, dividends and retained earnings on market price of shares in Oman was felt desirable.

Objectives
The empirical issues raised above are taken up for examination setting the following as objectives.

- To find out the impact of dividends on market price of shares in the short-run.
- To examine the association between retained earnings and market share price of shares in the long-run.
- To identify the impact of earnings on market price of shares.
- To study the comparative effect of earnings, dividends and retained earnings on market price of shares.

Research Methodology
The research methodology follows.

i. Sample and Data
The sample has been drawn using purposive sampling procedure from the listed companies in Muscat Securities Market. Only profit-making firms were selected. Secondary data used for the study are drawn from the financial statements of the companies constituting the sample. The study period covers 10 years from 2006-2015.

ii. Variables used
The financial metrics used to denote earnings, dividends, retained earnings and share value are earnings per share [EPS], dividends to earnings ratio [DER], retained earnings to earnings ratio [REER] and market price per share [MPPS] respectively.

Statistical Analysis
Correlation and regression analyses were performed to identify the impact of earnings, dividends and retained earnings on market price of shares. The results of correlation analysis calculated between the average annual dividends to earnings ratio and the average price to earnings ratio as reported in Table One indicate a close association between the two metrics as the coefficient of determination is statistically significant.

The regression coefficient of 12.636 which is statistically significant at one percent level, calculated between dividends to earnings ratio and market price to earnings ratio as reported in the Table Two, gives statistical evidence that higher the proportion of earnings distributed, the greater the market price of the stock. Another observation found in the analysis that even the growth-oriented companies have distributed dividends which have positively influenced the market price of shares. The R² value explains that the model is fit enough at five percent level.

The correlation and regression results shown in Table Three and Four explain the association between retained earnings and market price of shares. An attempt has been made to identify the instantaneous effect of earnings retained on market price if shares.

Table Three presents the correlation analysis worked out between retained earnings to earnings ratio and market price-earnings ratio. The coefficient of determination is statistically insignificant which explains that the amount of earnings retained does not have a significant impact on the market price of shares instantaneously. The same result is arrived at even in the regression results between the two metrics as shown in Table Four. To reassure the results known above in Tables 1,2,3 and 4, multiple regression analysis has been carried out between the two independent variables viz., dividend to earnings ratio and retained earnings to earnings ratio upon market price to earnings ratio. The results are depicted in Table Five.
Table Five clearly shows that as of a given time frame, it's the earnings distributed rather than earnings retained which affects the market price of shares. In short-run, market price of shares would vary directly with the proportion of earnings distributed. When the ratio of dividends to earnings increase by one unit, market price to earnings would increase by the rate of 12.635. The ratio of retained earnings to earnings negatively influences the price to earnings ratio. However, the regression coefficient is not statistically significant.

The third part of the analysis comprises the correlation and regression analyses performed between the independent variables and the dependent variable in absolute values. Besides, to examine the impact of the long-run effect of retained earnings on market price of shares, the five-year rolling average has been computed for retained earnings. The five-year period is chosen on the basis that the impact of earnings retained if anything could well be reflected in the long-run say for five years on the market price of the shares (Ben C. Ball (1987).

The coefficients of determination as shown in Table Six shows a close association between all these independent variables viz., current dividends, five-year rolling-averaged retained earnings and current earnings individually and the market price of shares as the coefficients of determination are statistically significant explaining a strong association of these variables to the market price of shares.

Table Six brings about the multiple regression results carried out to examine the impact of the three absolute independent variables viz., current dividends, five-year rolling averaged retained earnings and current earnings upon the market price of shares. The regression coefficients confirm that all the three variables significantly influence the market price of shares. R² value suggests that the model is a perfect fit for the examination of the relationship.

Conclusion
The results evidence that the dividends and earnings have significant positive impact on the market price of shares and the impact is instantaneous. Retained earnings have a significant impact on the market price of shares in the long-run. In the short-run, retained earnings do not effect significant changes on market price of shares. Firms having growth opportunities will retain more. For those firms, a higher portion of earnings retained is associated with higher price appreciation in the long-run. Earnings distributed have a greater impact on the market price of shares in the short-run, compared to the earnings. In the long-run, retained earnings have a significant impact on the market price of shares.

REFERENCES
Appendix

Table 1
Correlation Analysis

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<tr>
<th>Variable</th>
<th>r</th>
<th>r²</th>
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<tbody>
<tr>
<td>Dividends to Earnings Ratio</td>
<td>0.794**</td>
<td>0.630</td>
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**Significant at one per cent level  
*Significant at five per cent level

Table 2
Regression Analysis

<table>
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<th>Variables</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
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<tr>
<td>Dividends to earnings Ratio</td>
<td>12.636**</td>
<td>0.603</td>
<td>20.956</td>
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**Significant at one per cent level  
*Significant at five per cent level

Constant : 9.195  
Std. Error of Estimate : 3.934  
R² : 0.628  
R² : 0.630**
## Table 3
Correlation Analysis

<table>
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<tr>
<td>Retained Earnings to Earnings Ratio</td>
<td>-0.009</td>
<td>0.000</td>
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**Significant at one per cent level  *Significant at five per cent level

## Table 4
Regression Analysis

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<th>Regression Coefficient</th>
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Constant : 15.449
Std. Error of Estimate : 6.656
R² : -0.004
R² : 0.000

**Significant at one per cent level  *Significant at five per cent level

## Table 5
Regression Analysis

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<th>Variables</th>
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<th>Standard Error</th>
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<td>Dividends to Earnings Ratio</td>
<td>12.635**</td>
<td>0.604</td>
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<td>Retained Earnings to Earnings Ratio</td>
<td>-0.031</td>
<td>0.926</td>
<td>-0.034</td>
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Constant : 9.229
Std. Error of Estimate : 4.068
R² : 0.627
R² : 0.630**

**Significant at one per cent level  *Significant at five per cent level

## Table 6
Correlation Analysis

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<th>Variable</th>
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<th>r²</th>
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<tr>
<td>Dividends Per Share</td>
<td>0.377**</td>
<td>0.142</td>
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<tr>
<td>Rolling-averaged Retained Earnings</td>
<td>0.262**</td>
<td>0.069</td>
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<tr>
<td>Earnings Per Share</td>
<td>0.369**</td>
<td>0.136</td>
</tr>
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**Significant at one per cent level  *Significant at five per cent level

## Table 7
Regression Analysis

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<th>Variables</th>
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<td>Dividends per share</td>
<td>5.560**</td>
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<td>Rolling-averaged retained earnings</td>
<td>3.456**</td>
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<td>2.878</td>
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<td>EPS</td>
<td>2.239*</td>
<td>0.868</td>
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Constant : 0.928
Std. Error of Estimate : 0.221
R² : 0.157
R² : 0.164**

**Significant at one per cent level  *Significant at five per cent level

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