

The Effect of Dividend Bubble on Share Price: Evidence from KSE-30 Index

Arslan Iqbal

M.Phil Fellow, Department of Commerce, University of Karachi
arslan.iqbal88@gmail.com

Farooq Ahmed

Lecturer Federal Urdu University of Arts, Science & Technology
farooqahmedkhatri@gmail.com

Ali Raza Shafi

Visiting Lecturer Federal Urdu University of Arts, Science & Technology
ali.shafi2008@yahoo.com

Abstract

This paper examines the impact of dividends on share price of Karachi Stock Exchange 30-Index companies. To achieve the purpose of research ordinary least square method is used. The secondary data for period 2002 to 2012 is considered in which share price is considered as controlled variable and another seven variables specifically return on equity, profitability ratio, dividend payout, dividend yield, price earning ratio, earning per share and price earning ratio as control variable. The study reveals that 97.16% variation in market price is explained by the model. Study reveals that all variables has significant positive impact on share price except dividend yield and price earning ration which has significant negatively influencing in the change of share price of firm. Overall conclusion indicating that model is significant and dividend irrelevance theory is not applicable in case of KSE 30-Index companies.

Keywords: Dividend, share price, dividend yield, dividend payout, return on equity

JEL Classification Codes: G1, G3

Introduction

Dividend policy can be defined as the policy which determine how much company will pay to shareholders and how much will be retained for future development. It consists of two parts distribution of returns among shareholders and reinvestment of retention for new opportunities.

Dividend policy is one of the debated topics among researchers in the field of financial management. It is crucial financing decision that what must be distributed as dividend and what must be reinvested for future prospects? There are many policies are developed regarding dividends. The best policy regarding dividends is the optimal dividend policy which maximizes the share prize and increase future development. But it's difficult to say hard and fast which should be optimal either high dividend or low dividend policy or stock dividends (bonus shares) because firms vary from size to size and financial circumstances.

In financial management relation of dividend and share price initially highlighted in 1956 by Linter. Then continuous work has been done till now in form of many dividend theories and empirical studies conducted in different region of the world. The present study deal with the impact of dividend policy on share price. The present study is distributed into three sections. Section I deal with objective & review of empirical studies. Section II deal with data collection & methodology. Section II devoted to the discussion of descriptive statistics, correlation matrix, regression results & actual fitted residual graph. Section IV concerned with conclusion and direction for further research.

1. Objective of the Study:

The aim of study is to demonstrate the effect of dividend bubble on market value of share price for listed companies in KSE (Karachi Stock Exchange) 30-index. The study also consider other explanatory variables that are responsible for fluctuation in share price for KSE 30-index.

1.2 Review of Empirical Studies:

Dividends are the essence of investment. It can be define as a portion of company's earning distributed to shareholders. According to sub-section (i) of section 248, Company Ordinance 1984 Dividends must be declared in annual general meeting and the amount of dividend should be recommended by board of directors. According to section 249, dividends must be paid out from profits or retained earnings. Further more, according to section 251 of Company Ordinance 1984 that dividends must be paid out with 45 days of declaration.

Initially aspect of dividend investigated by Linter (1956) introduced a concept focus on stylized yield of the particular features of a 'sticky of dividend'. He argues that companies are reluctant to reduce dividends because this may perceive investor to interpret bad performance and also case reduction in share price.

Miller & Modigliani(1961) in their dividend irrelevance theory indicated that dividends are irrelevant as the company pay dividend or retained it for future development both are same for investor under assumptions. They stated that risk of investment and future earnings determine the firm's value. Gordon (1963) introduced dividends relevance theory, argued that dividend has impact on market value and value of firm because investor prefer dividends on capital gain.

Nishat & Irfan (2003) used cross sectional approach for effect of dividend policy on share price volatility by taking data of 161 KSE listed companies period ranging from 1981 to 2000. Their analysis revealed that dividend yield and dividend payout has positive significant impact on market values volatility.

Kashif (2011) studied the determinants of dividend payout in case of Pakistan engineering sector. He used data 36 engineering firms over a period of 1996 to 2008 by using OLS, fixed and random effect approach. The results of study discovered that previous year dividend, earning per share, sales growth, size of firm and profitability has positive relation while negative relation with cash flows.

Ather & Kawal (2011) used the panel data approach and OLS technique to measure relationship between dividend payout and share price. They took the data of 131 dividend paying companies from 2001 to 2010. His analysis revealed that stock dividend, profit after tax, return on equity and earning per share has positive relation with share price. While, retention rate has negative impact on share prices.

KI Khan (2012) studied the relation between dividend and share price of 25 pharmaceutical companies listed in KSE-100 index by using the data of period 2001 to 2010. She used approach of fixed and random model and bi-variate model. Estimation revealed that cash dividend, retention rate and return on equity has positive relation with stock price while earning per share, liquidity of firm and stock dividend has negative and insignificant relation with market price.

Joshi (2012) studied dividends and share prices by using multivariate regression analysis, his study revealed that dividends has high impact than retained earnings in the scenario of Nepal.

Hashemijoo et al. (2012) selected 84 companies listed in Bursa Malaysian Stock Market. They studied the relationship between dependent variable share price volatility and explanatory variable dividend yield and payout, leverage, earning volatility, growth, debt and size. for the period of 2005 to 2012. They found significant negative relationship of size, dividend payout and dividend yield.

II. Data Collection & Methodology:

The study deals with the impact of dividend policy on share price in KSE-30 index. The data has been collected from annual reports of all 30 listed companies of KSE included eleven years of data ranging from 2003 to 2012. There is a limitation of some company's data that previous data of the firm is not available. The objective of this study is to analyze the impact of Dividend on share price with controlling other variables like market value, earning per share, return on equity, profitability ratio, retention ratio, dividend payout ratio and dividend yield.

Hence, it's a time series data so linear regression model is used. Examine an impact of dividends on share price on selected variables we build our model as follows:

$$MV = \beta_0 + \beta_1 EPS + \beta_2 ROE + \beta_3 PR + \beta_4 DPAY + \beta_5 DYIELD + \beta_6 PER + \beta_7 RR + \epsilon$$

Explanation of Variables used in the Model:

Market Value (MV):

Market value is a dependent variable in the model collected at closing of accounting period of the firm. Market value as a dependent variable used by Kumar and Mohan (1975)

Earning Per Share (EPS):

Earning per share calculated as Net income less preferred dividend divided by outstanding shares. This variable used by Baskin(1989), Liu & Hu(2005), Cheng, Hong Cheng(2009), Kashif (2011), Ather & Kawal (2011) and KI Khan(2012).

Return on Equity (ROE):

Return on equity derived as Net income divided by equity multiply by hundred. Return on equity as an explanatory variable used by Manandhar (1998) Liu & Hu(2005), Othman(2008) and Ather & Kawal (2011)

Profitability Ratio (PR):

We measured profitability based on net income divided by sales multiply by hundred. This variable empirically used by Pani(2008), Ahmed Javid (2009), Ather & Kawal (2011) and Kashif (2011) and Ather & Kawal (2011)

Dividend Payout (DPAY):

DPAY measured based on division dividend per share to earning per share, empirically used by, Nishat & Irfan(2003), Hashemijoo et al. (2012)

Dividend Yield (DYIELD):

DYIELD measured as dividend per share divided by market value multiply by hundred. Dividend yield as an explanatory variable used by Nishat & Irfan(2003), Swong & Matnor(2008) and Hashemijoo et al. (2012)

Price Earning Ratio (PER):

In order to drive PER, we divide market value by earning per share, used of this variable made by Friend and Puckett's (1964) and Joshi (2012) as lagged price earning ratio.

Retention Ratio:

RR relies on one minus dividend payout ratio in empirical studies it used by Kumar and Mohan (1975) Pani (2008), Khan (2009), KI Khan (2012) and Ather & Kawal (2011).

Independent variables used in the study are explained by their expected signs in *Table 1*: a, while dependent variable is market value of share.

Table 1: Expected Signs

Variables	Description	Expected Signs
MV	Market Value of Share	+
EPS	Earning Per Share	+
ROE	Return on Equity	+
PR	Profitability Ratio	+
PER	Price Earning Ratio	-
DPAY	Dividend Payout Ratio	+
DYIELD	Dividend Yield	-
RR	Retention Ratio	+/-

In order to analyze a significance of variables, following hypothesis will be tested.

- H_1 : There is a positive relation between market value and earning per share
- H_2 : There is a positive relation between market value and return on equity
- H_3 : There is a positive relation between market value and profitability ratio
- H_4 : There is a negative relation between market value and price earning ratio
- H_5 : There is a positive relation between market value and dividend payout
- H_6 : There is a positive relation between market value and dividend yield
- H_7 : There is a positive/negative relation between market value and retention ratio

III. Result Analysis:

Table 2 reveals the descriptive statistics with their mean, median and standard deviation of all variables. The mean value of market value is the highest 30.90 while next to this is mean of earning per share is 3.95. Dividend yield has minimum mean value of 0.03. Standard deviation reveals the volatility in the data. Earning per share has highest standard deviation which shows that the great volatility in market value case by earning per share in KSE-30 index.

Table 2: Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
DPAY	0.31	0.31	0.42	0.22	0.06
DPS	3.07	1.91	6.83	0.85	2.05
DYIELD	0.03	0.03	0.06	0.02	0.02
EPS	7.96	6.61	14.31	3.41	3.95
PER	6.56	6.80	10.13	1.59	2.76
MV	65.38	80.45	105.25	14.53	30.90
PR	0.13	0.14	0.17	0.04	0.04
ROE	0.16	0.17	0.21	0.09	0.04

Table 3: Correlation Matrix

Variable	DPAY	DYIELD	EPS	MV	PER	PR	ROE	RR
DPAY	1.000							
DYIELD	0.751	1.000						
EPS	0.648	0.821	1.000					
MV	0.585	0.780	0.827	1.000				
PER	0.806	0.827	0.751	0.862	1.000			
PR	0.435	-0.130	-0.122	-0.167	-0.022	1.000		
ROE	0.297	0.129	0.562	0.285	0.219	0.365	1.000	
RR	0.486	0.880	0.765	0.894	0.804	-0.348	0.073	1.000

Correlation among variables mentioned in *Table 3*. Correlation matrix shows that Dividend payout has moderate positive relationship with DYIELD, EPS, MV and strong relationship with PER while dividend payout has weak positive relationship with PR, ROE and RR that shows that here is no problem of multicollinearity with these three variables.

Dividend yield has strong positive relation with EPS, MV, PER and RR. Earning per share contain moderate positive relation with MV, PER, ROE, RR while it has no relation with PR.

Market value has strong positive relation with PER and RR while there is no multicollinearity problem in relation of market value with ROE and PR. Price earning ratio has strong positive relation with RR and has no relation with ROE and PR.

Relationship of profitability ratio with ROE is week positive while it has negative relationship with RR.

Table 4: Regression Results

Dependent Variable: Market value

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.102	0.448	-0.228	0.841
RR	15.562*	2.074	7.504	0.017
LOG(EPS)	1.924*	0.265	7.256	0.019
DLOG(ROE)	0.913**	0.235	3.887	0.060
LOG(PR)	0.845*	0.157	5.370	0.033
DLOG(PER)	-0.969*	0.193	-5.022	0.037
DLOG(DPAY)	5.089*	0.709	7.176	0.019
DYIELD	-131.923*	17.768	-7.425	0.018

*(**) - denotes significance at five and ten percent levels, respectively.

R-squared	0.994	Mean dependent var	4.162
Adjusted R-square	0.972	S.E. of regression	0.084
F-statistic	45.020	Sum squared resid	0.014
Prob(F-statistic)	0.022	Durbin-Watson stat	2.761

Table 4 showing the regression results of the different explanatory variables with dependent variable i.e. Market Value. The regression coefficient results indicating that RR, EPS, DPAY is highly elastic because 1% change in these variable case 15.56%, 5.08% and 1.93% change in share price respectively. While ROE, PR, PER and DYIELD is showing inelastic effect. The regression analysis for KSE-30 index companies are accorded in Table 2.3 reveals the result of regression analysis between market price as dependent variable and independent variables RR, EPS, ROE, PR, PER, DPAY and DYIELD. Explanatory variables RR, EPS, PR and DPAY are significant at 5 percent level of significance showing that they are positively influencing the share price, while ROE is also positively significant at 10% level of significance. However, DYIELD and PER is negatively significant at 5% level of significance. These results indicated that if organizations declared dividends, it will positively affect the market value of share.

Result of RR is positively significant and same as result of Pani(2008) stock price and retention ratio has positive relation. Results of profitability ratio has significant impact on share price is consistent with the result of Pani(2008) and Ather & Kawal(2011). Nishat & Irfan (2003) also used dividend yield and dividend payout as an explanatory variable and found significant relationship with share price. Result of dividend yield are consistent with findings of Hashemijoo et al. (2012), that the dividend yield has influenced market value significantly in negative direction. Results of Earning per share, is similar to prior studies of Ather & Kawal (2011) and Baskin (1989). So, the overall results of the model are in contrast with those of prior studies.

Adjusted R-square showing overall fitness of the model 97.16 %, it indicated that explanatory power of this model is very high and sufficient variables are included in the model. The F-statistics of the econometric model is significant at 5% level of significance demonstrating that overall econometric model is statistically significant.

IV. Conclusion:

The study examines the impact of dividend on share price in KSE-30 Index companies. For this study, impact of dividend payout and dividend yield is analyzed on share price volatility by using multiple ordinary least square method on sample of a period ranging from 2002 to 2012. Model was enlarged by including independent variables like earning per share, profitability ratio, return on equity, retention ratio and price earning ratio. The results of the study are line with those of prior studies. For conclusion of this study we can states that

- I. Overall model is significant
- II. Retention ratio, earning per share, return on equity, profitability ratio, dividend payout and return on equity has significant positive impact on market value
- III. Dividend yield and price earning ratio has significant negative effect on market value.
- IV. Econometric model has very high explanatory power 97.61 percent indicating that model is good fit.
- V. Overall study demonstrates that dividends have positive impact on market value.
- VI. The study also indicating that dividend irrelevance policy not applicable in KSE-30 index.

3.2 Directions for Further Research:

During research work we realized that there are further directions of research for researchers in this area. Such as

one opinion is to increase the number of sample, another is to make research on a particular sector of companies, it is also possible to use fixed & random effect model by distribution the listed companies into different sectors.

References

- [1] AA Khan. (2011). 'Dividend Policy and Stock Prices – A Case of KSE-100 Index Companies'.
- [2] Ahmed, H., & Javid, A. (2009). 'Dynamics and Determinants of Dividend Policy in Pakistan (Evidence from Karachi Stock Exchange Non Financial Firms)'. 'International Journal of Finance and Economics'. Vol. (25), pp. 148-171.
- [3] Annual Reports of all KSE-30 index companies (2002 to 2012)
- [4] Ather Azim Khan and Kawal Iqbal Khan (2011). 'Dividend Policy and Stock Prices – A Case of KSE-100 Index Companies'.
- [5] Chen, D.-H., Huang, H.-H. L., & Cheng, T. (2009). 'The Announcement Effect of Cash Dividend Changes on Share Prices: An Empirical Analysis of China'. 'The Chinese Economy', Vol. 42(1), pp. 62-85.
- [6] 'Company Ordinance 1984'. Link www.secp.gov.pk/corporatelaws/pdf/Comp_Ord1984.pdf
- [7] Friend, I., & Puckett, M. 1964. 'Dividend and Stock Prices'. 'American Economic Review', Vol. 54, pp. 656-682.
- [8] Gordon, M. J. (1963). 'Optimal Investment and Financing Policy'. 'The Journal of Finance', Vol.18 (2), pp. 264-272.
- [9] Hashemijoo M., Ardekani M. M. & Younesi N. (2012). 'The impact of dividend policy on share price volatility in the Malaysian Stock Market'. 'Journal of Business Studies Quarterly', Vol. 4(1), pp. 111-129.
- [10] Jonathan Baskin . (1989). Dividend policy and the volatility of common stock. The Journal of Portfolio Management, Vol. 15, No. 3, pp. 19-25.
- [11] Kawal Iqbal Khan. (2012). 'Effect of Dividends on Stock Prices– A Case of Chemical and Pharmaceutical Industry of Pakistan'.
- [12] Kumar, S. and Man Mohan (July-September 1975). 'Share Prices in India'. 'Indian Economic Journal', Vol.23, pp. 23-27.
- [13] John Linter (1956). 'Distribution of Incomes of Corporations among Dividend, Retained Earnings, and Taxes'. 'America Economic Review', Vol. 46, pp. 97-113.
- [14] Shulian Liu, Yanhong Hu. (2005). 'Empirical Analysis of Cash Dividend Payment in Chinese Listed Companies'. 'Nature and Science', Vol. 1(3), pp. 65-70.
- [15] Miller, M. H., & Modigliani, F. (1961). 'Dividend Policy, Growth and Valuation of shares. Journal of Business', Vol. 4(34), pp. 411-433.
- [16] Manandhar, K. D. 1998. "A Study of Dividend Policy and Value of the Firm in Small Stock Market: A Case of Nepal". Management Dynamics, 8(1), 15-20.
- [17] M. Nishat, & C.M Irfan. (2003). 'Dividend Policy and Stock Price Volatility in Pakistan'. 11th Pacific Basin Finance, 'Economics and Accounting Conference'.
- [18] Upananda Pani. (2008, August 11). 'Dividend Policy and Stock Price Behavior in Indian Corporate Sector: A panel data approach. Retrieved from Indian Institute of Technology': <http://ssrn.com/abstract=1216171>
- [19] Rabindra Joshi (2012). 'Effects of Dividends on Stock Prices in Nepal'. 'NRB Economic Review'.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

