

## **IMPACT OF DIVIDEND POLICY ON STOCK PRICE VOLATILITY: EVIDENCE FROM SRI LANKA**

Dewasiri N J (*jayanthadewasiri@gmail.com*)

*Faculty of Graduate Studies, University of Colombo, Sri Lanka.*

Weerakoon Banda Y K (*weerakon@sjp.ac.lk*)

*Department of Finance, University of Sri Jayewardenepura, Sri Lanka.*

### **ABSTRACT**

The purpose of this paper is to examine the relationship between dividend policy and stock price volatility. Two key variables; dividend yield and dividend payout have been taken as the independent variables after controlling for firm size and growth in assets. The stock price volatility has been taken as the dependent variable. Data collection was carried out with a sample of 40 companies listed in the Colombo Stock Exchange, for a period of ten years from 2003 to 2012. The results of cross section random effect model revealed that there is a significant negative impact from dividend payout, a significant positive impact from company size and no evidence of significant impact from dividend yield on stock price volatility. Furthermore, Granger causality tests revealed that there is no short term impact from dividend payout on stock price volatility and it showed a feedback exist between company size and stock price volatility in any lag level. It is evident that the dividend yield does granger cause stock price volatility and reported a unidirectional causality exists from dividend yield to stock price volatility in any lag level. Therefore, the findings suggest that, high dividend payout would lead to less volatile stock price, whilst higher dividend yield pave the way towards more volatility in stock price in the short run. This paper is the first to show that dividend yield has a significant impact on stock price volatility in the short run and the first to discuss the same phenomenon in the Sri Lankan context, to the best of the author's knowledge.

**Keywords:** *Cross Section Random Effect Model, Dividend Policy, Granger Causality Test and Stock Price Volatility*

### **INTRODUCTION**

Numerous studies have been carried out in the past few decades to examine the theoretical significance of unresolved dividend policy issues. The impact of dividend policy on stock returns was studied by many researchers between 1950s and 1980s (Lintner, 1956; Miller and Modigliani, 1961; Black, 1976). Black and Scholes (1973) argued that the changes in dividend policy have a significant impact on corporation's stock price.

The relationship between dividend policy and stock price volatility was examined, by many researchers after the 1980s. Baskin (1989) used the regression method and examined the association between dividend policy and stock price volatility using two dividend policy variables and four control variables. His study revealed that dividend payout and dividend yield have a negative correlation with stock price movements. The aforesaid relationship still remains an unresolved problem due to contradictory findings of various researchers in the past few decades and is yet open for further discussion and investigation.

The Sri Lankan stock market, which can be classified as a frontier market based on the market capitalization, sometimes manifests the features of an emerging market, with relatively moderate regulations compared to other emerging markets in the world. Companies

realize that investors pay attention to their dividend returns, and that the riskiness of their investments may affect the valuation of the firm's shares in the long run. This makes the volatility of stock prices, as important to firms as it is to investors. A debate has been whether the corporate dividend policy has any relationship with stock price movement. On this ground, the study advances the research problem whether dividend policy has an impact on stock price volatility. The research objectives are to examine the relationship between dividend policy and stock price movements, the long and short term impact of dividend policy on stock price volatility and to examine the impact of structural break point of elimination of war for the estimation with particular focus on the Sri Lankan stock market. This study analyses firms listed in the Colombo Stock Exchange and excludes firms in the finance sector because of their specialized regulatory nature. It concentrates more on the last decade, in which most economies have greatly evolved and discusses the theories of dividend policy as well as the causes of stock price movements.

Since both investors and management are concerned about the movements of stock price, this study has focused on discovering what moves stock price, as well as the important factors investors should consider before making investment decisions and by management in formulating dividend policies for their firms.

## **LITERATURE REVIEW**

The dividend policy is one of the most enduring issues in corporate finance. A number of researchers have provided insights, theoretical as well as empirical, into the dividend policy puzzle. However, the issues of dividend policy are unresolved as yet due to lack of unanimity among researchers. Dividend policy refers to the policy that company uses to decide how much it will pay out to the shareholder as dividend and it is of their choice whether to pay its shareholder a cash dividend or retain its earning. A number of studies have been carried out in order to examine the issues of dividend policy. This discussion was embarked from 1950s and has been tested by many researchers (Lintner, 1956; Miller and Modigliani, 1961; Black and Scholes (1973); Baskin, 1989; Allen and Rachim, 1996 and etc.). It is still open for discussion and investigation due to contradictory findings about the relationship between dividend policy and stock price movements.

### **DIVIDEND POLICY, VALUE OF THE FIRM, STOCK PRICE AND RETURN**

Lintner (1956) focused on an important research question, which is still important, i.e. what factors decide the size, shape and timing of the dividend payments. He examined some questions such as, should dividend payments be maintained at the current level or changed, would investors prefer stable dividend payouts or those that fluctuate with earnings and should dividend policy favour older or younger investors.

Miller and Modigliani (1961) proposed irrelevance theory, concluding that there is no significant relationship between dividend policy and stock prices. It is argued in their theory that the prices of shares in the market place vary irrespective of the dividends due to various other extraneous variables. However, they proposed the aforesaid relationship depending on the nature of the capital market. The dividend policy does not affect the shareholders' value in the world without taxes and market imperfections. So the scholars argued that in a perfect market, dividend policy does not affect the shareholders' return. Gordon (1963) argued that dividend policy has an impact on the value of the firm and the stock price. He concluded that investors always prefer secure and current income in the form of dividends rather than capital

gains. As a response to dividend irrelevance theory, he has developed the Bird-in-the-Hand theory. It asserts that in a world of uncertainty and information asymmetry, dividends are valued differently to retained earnings. As a result a higher payout ratio will reduce the required rate of return and hence increase the value of the firm. This argument has been widely criticized and has not received strong empirical support. Bhattacharya (1979) argued that reasoning underlying the bird-in-the-hand explanation for dividend relevance is fallacious. An increase in dividend payout today will result in an equivalent drop in the stock's ex-dividend price. Thus he argues that increasing the dividend today will not increase firm's value by reducing the riskiness of the future cash flows. The dividend relevance theory was supported by Jensen and Meckling (1976), and extended by Easterbrook in 1984 through the agency explanation. This theory derives from the conflicts of interests between agents and outside shareholders which lead to the agency costs. The tax preference theory revealed that low dividend payout ratios would cause a lower required rate of return while increasing the market valuation of firm's stocks. Owing to the relative tax disadvantage of dividends compared to capital gains, investors require a higher before-tax risk adjusted return on stocks with higher dividend yields (Brennan, 1970). Black and Scholes (1973) revealed that expected returns on high yield common stocks differ from the expected returns on low yield common stocks either before or after taxes. He concluded that a change in dividend policy may have an impact on corporation's stock price and it has supported the dividend relevance theory. Ball et al. (1979) studied the relationship between dividends and stock price in the Australian stock market from 1960 to 1969. They found a significant relationship between stock returns and dividend yield in the following year after dividend payment. Baker et al. (1985) did a survey among the 603 Chief Financial Officers (CFOs) of 562 companies which were listed on the New York Stock Exchange (NYSE). The results showed that respondents strongly agreed that stock prices will be affected by dividend policy and findings supported the dividend relevance theory.

A study conducted by Hussain (2012) revealed that the impact of dividend policy on stock returns with special reference to South Asian countries (India, Sri Lanka and Pakistan) using 40 cross sections and the results revealed that dividend policy of any company is helpful for the increase of market return and sustaining stock price. Dissabandara & Samarakoon (2002) analyzed the impact of dividend announcements by firm size and dividend growth using a sample from the Colombo Stock Exchange and the results revealed that dividends have significant information content and market reacts positively to dividend announcements. Pathirawasam (2009) investigated the information content of dividend announcements and the findings supported the signalling hypothesis. Dissabandara and Perera (2010) examined the informational content of dividend announcements and tested the semi-strong form of market efficiency in the Sri Lankan share market. The study found a considerable informational content of dividend hypothesis and results were consistent with Pathirawasam's (2009) findings. Skanthavarathar (2012) examined the stock price reactions to the dividend announcements using 40 companies listed in Colombo Stock Exchange and the results were consistent with Dissabandara & Samarakoon's findings and they suggested that on average, market reacts positively to dividend announcement. Further, the findings justified that information leakage is evident before the dividend announcement in manufacturing companies.

#### **DIVIDEND POLICY AND STOCK PRICE VOLATILITY**

A different method was used by Baskin (1989) to examine the association between dividend policy and stock price volatility rather than stock prices or returns. He advanced four basic

models which related dividends to stock price risk and called these; the duration effect, rate of return effect, arbitrage pricing effect and informational effect. He added some control variables for examining the association between stock price volatility and dividend yield. These control variables are earning volatility, firm's size, debt and growth. These control variables do not only have a clear effect on stock price volatility but they also affect dividend yield. For instance, the earning volatility has an effect on stock price volatility and it affects the optimal dividend policy for corporations. Baskin revealed that fluctuation in the discount rate has less impact on high dividend yield stocks because high dividend yield can be a signal of more near-term cash flow so the firm with high dividend yield would be expected to have less volatility in stock price. This is then named as duration effect and used the Gordon growth model for demonstrating this effect. Moreover, he explained that based on the rate of return effect, it is possible that firms with low dividend yield and low pay out to be assessed more valuable than their assets in place due to their growth opportunities. Baskin argued that managers can control the stock price volatility and stock risk by dividend policy and distribution of dividend at the time of earning announcement may be interpreted as signal about stability of firm. He concluded that dividend policy can be used as a tool for controlling the stock price volatility and reported that if dividend yield increases by 1 %, the annual standard deviation of stock price decreases by 2.5 %.

Allen and Rachim(1996) revealed that the dividend policy and stock price volatility would be suggestive of either the arbitrage or information effect even after inclusion of growth in assets as a control variable. Contrary to Baskin's (1989) findings, they observed that there is no relationship between the dividend yield and stock price movements, but it showed a positive relation between stock prices and company size, earnings and leverage while dividend payout shows a negative impact on stock price volatility. Baker and Powell (1999) conducted a survey among 603 Chief Financial Officers of US companies which were listed on the NYSE. They reported that the majority of respondents (90%) agreed that dividend policy has an impact on value of firm and affect firm's stock price volatility too. He made four explanations about the relationship between dividend policy and the value of the firm namely, bird-in-hand, signalling, tax-preference and agency explanations. Out of the four explanations on dividend relevance, the respondents generally expressed the highest level of agreement towards the signalling theory. In their study, Nel and Kruger (2001) found that stock price with higher volatility results in greater risk that the share might not performed as expected. They further revealed that if the volatility of a stock price increases, investors will perceive the share to be more risky and vice versa. Guo (2002) defined the stock price movements as the systemic risk faced by investors who possess ordinary shares investment. He argued that the investors are by nature risk averse, and the volatility of their investments is important to them because it is a measure of the level of risk they are exposed to. Al-Malkawi (2007) divided the clientele effect to: tax effects and transaction cost and, he suggested that investors on the upper tax bracket would prefer retained earnings or capital gain in the form of stock price improvements on dividend, while investors in the lower tax bracket might prefer dividend on retained earnings in the form of stock price improvements.

Nazir et al. (2010) used 73 firms listed in Karachi Stock Exchange (KSE) as the sample and studied the relationship between stock price volatility and dividend policy for five year period. In line with the Baskin's (1989) findings, they revealed that stock price volatility has significant negative association with dividend yield and dividend payout. Okafor et al. (2011) tested the impact of the dividend policy on stock price volatility with special reference to Nigerian Stock market using multiple regression analysis. The results showed statistically

significant negative effect from dividend yield on price volatility, the result of the impact of the dividend payout ratio on the price volatility showed negative effect only in some years. It is contrary to the Baskin's (1989) findings. Suleman et al. (2011) examined the association of dividend policy with stock price volatility in Pakistan. They extracted data from Karachi Stock Exchange regarding five important sectors for the period of four years. Contrary to Baskin's (1989) results, their findings showed that stock price volatility has a significant positive relationship with dividend yield. They also reported that stock price volatility has a significant negative relationship with growth. Hussainey et al. (2011) examined the relationship between stock price volatility and dividend policy in the United Kingdom. Their findings discovered that the payout ratio is the predominant determinant of the stock price volatility and size and debt have the strongest relationship with price volatility. Contrary to the findings of Allen & Rachim (1996), it shows that firm's size has significant negative impact on volatility of stock price and firm's size. The authors also reported that a debt has significant positive impact on stock price volatility. Jecheche (2012) investigated the impact of dividend policy on stock price volatility in Zimbabwe Stock Exchange. Performing the cross-sectional regression analysis for the estimation model, and two variables of the dividend policy, and controlling for firm size, earning volatility, leverage and asset growth, the study has concluded that the two proxies of the dividend policy have significant affect on the price volatility, also the study offers empirical evidence supporting the signalling and arbitrage realization effects in Zimbabwe. Hashemijoo et al. (2012) examined the impact of dividend policy on stock price volatility in Malaysia. The results of the study revealed that the price volatility is associated negatively with both variables of the dividend policy, and that the dividend yield and firm size have the highest significant impact on the stock volatility.

The authors have carried out a critical evaluation of literature, before selecting the variables. The variable selection has been justified with multiple references and two independent variables and two control variables were used for the analysis. The firm size and assets growth have been added to the model as control variables in order to eliminate spurious results. Dividend yield and payout have been taken in order to measure the dividend policy and estimated the impact of the same on stock price volatility.

## RESEARCH METHODOLOGY

The intent of this non-contrived descriptive study is to fill the gap in the knowledge of dividend policy and stock price movements in the Sri Lankan context. Table 1 explains the operational definitions of independent and dependent variables. The four regressions and the regression; stock price volatility were measured in ratio scale.

Table 1 – Generation and selection of indicators

<b>Dimension</b>	<b>Indicators</b>
Dividend Yield	Dividend Per Share / Market Price
Dividend Payout	Dividend Per Share / Earning Per Share
Company Size	Natural Log Value of the Total Assets
Assets Growth	$GA_{it} = \Delta \text{Total Assets}_{it} / \text{Total Assets}_{it}$
Stock Price Volatility	Standard Deviation of Daily Log Return * $\sqrt{\text{Number of Days}}$

Based on the literature review, it could be identified that there should be a negative relationship between both dividend yield and payout with stock price volatility. It can also be

argued that the two control variables namely, company size and assets growth should show a positive impact on the stock price volatility. The hypotheses were developed based on a rigorous literature evaluation in order to achieve the aforesaid objectives.

#### Hypotheses

H<sub>1</sub>: Dividend yield negatively affects stock price volatility.

H<sub>2</sub>: Dividend payout negatively affects stock price volatility.

H<sub>3</sub>: Size of the firm positively affects stock price volatility.

H<sub>4</sub>: Assets growth positively affects stock price volatility.

H<sub>5</sub>: There is a short and long term impact of dividend policy on stock price volatility.

H<sub>6</sub>: There is a structural break point of elimination of war (year 2009).

The data necessary for testing the hypotheses were basically secondary data and it was gathered directly from the Colombo Stock Exchange and financial reports of the respective companies. The stratified sampling technique under the probability method was employed as the sampling technique. Out of 93 firms extracted from the Colombo Stock Exchange, only 42 firms have been selected as the sample based on the data availability for all variables for 2003 to 2012 period. It was noticeable that two firms are outliers in one or more than one year in the period, resultant in dropping them from the sample. So the final sample consists of five panels and 40 firms listed in Colombo Stock Exchange which is classified under Service, Food/Beverages/Tobacco, Plantation and Manufacturing sectors. Accordingly the sample consists of 40 cross sections for 10 years with 400 observations. The principal method employed to analyze the panel data involves Cross Section Random Effect Model through Panel Least Square, estimation of a Vector Auto Regression Model (VAR) and Granger Causality Test methods. The structural breakpoint analysis was conducted using dummy variable insertion to the Panel Least Square test. This study is different and novel from the previous studies due to employment of new models in order to measure the short and long term impact of independent variables on the explained variable; stock price volatility.

#### **ECONOMETRIC MODEL**

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \xi$$

Y = Stock Price Volatility, X<sub>1</sub> = Dividend Yield, X<sub>2</sub> = Dividend Payout, X<sub>3</sub> = Firm's Size, X<sub>4</sub> = Asset Growth,  $\xi$  = Error Term

#### **DISCUSSION OF EMPIRICAL RESULTS**

The first step of the data analysis process involved a test for normality for the variables. Since the probability value of the Jarque-Bera tests was higher than 0.05 at 5% significance level for all the variables, the researcher failed to reject the null hypothesis of normal distribution. It implied that all the variables were normally distributed.

The next step involved the relevant tests for stationary; the order of integration of the variables is estimated. For this purpose, Im, Pesaran and Shin test was employed as the unit root test. Before performing the unit root, trend and intercept of each variable have been tested and based on the results; the Trend Stationary Process (TSP) was performed. The results of unit root tests revealed that all variables were in stationary in its level (I<sub>0</sub>). Therefore

I<sub>0</sub> variables have been taken into the analysis in order to have same order of integration. The Table 2.0 indicates panel unit root test results.

Table 2. Panel Unit Root Test Summary

Series	Method	Statistic	Prob.**	Significant or Insignificant
Company Size	Levin, Lin & Chu t*	-4.080	0.000	Significant
Dividend Payout		-12.225	0.000	Significant
Dividend Yield		-10.553	0.000	Significant
Assets Growth		-3.545	0.000	Significant
Stock Price Volatility		-8.617	0.000	Significant

The third step of the data analysis process involved the test for Discriminant validity. It refers to the extent to which the items are indeed novel and not simply a reflection of some other explanatory variable. According to the benchmark for correlations, the test reveals that there is no significant correlation among explanatory variables since the values are less than the minimum accepted level for correlation. It implies that there is no evidence of multicollinearity and it resultant high discriminant validity for the study. The Table 3.0 indicates the results of the correlation analysis.

Table 3.: Correlation among explanatory variables

	SIZE	DP	DY	AG
SIZE	1.000	-0.008	-0.109	-0.159
DP	-0.008	1.000	0.022	-0.073
DY	-0.109	0.022	1.000	0.035
AG	-0.159	-0.073	0.035	1.000

Hypotheses testing through appropriate models were carried out as the further step. The key objective of this study was to examine the impact of dividend determinant variables on stock price volatility. Further, in this section the findings in relation to testing the H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>& H<sub>4</sub> are presented. Based on the findings of the Hausman Test, it was recommended to go ahead with the Cross Section Random Effect Model. Before performing the regression analysis, relevant diagnostic tests were employed in order to test the PLS assumptions and to make necessary corrections if there are any violations. The variance inflation factor (VIF) tests<sup>1</sup> also revealed that there were no serious indications of multicollinearity. The ARCH test was performed with the specification of two lags in order to test the heteroscedasticity in the residuals. The results<sup>2</sup> revealed that there was no presence of heteroscedasticity for the residuals. The Breusch–Godfrey serial correlation LM test (with specification of 2 lags) revealed<sup>3</sup> that there is evidence for the serial correlation in the residuals. In order to correct the suspected serial correlation in the model, Cochrane Orcutt method was adopted. The inclusion of autoregressive (AR1) procedure for estimation as part of the exogenous variables was not applicable for the panel data. Therefore it was recommended to apply the EGLS

<sup>1</sup>See appendix 1 for the VIF test results

<sup>2</sup>See appendix 2 for the ARCH test results

<sup>3</sup>See appendix 3 for the LM test results

(estimated General Least Squares) test for the estimation. The model specification test<sup>4</sup> implied that there was no significant evidence of model miss-specification. Based on the diagnostic test results for the PLS assumptions, the Cross Section Random Effect Model was performed for the PLS estimation. Allen and Rachim (1996), Hussainey et al.(2011) and few other researchers have modified the regression equation based on the less discriminant validity. Since there was no evidence of multicollinearity occurred in this study, the researchers were not focused on modifying the regression model. But based on the literature review, regression was performed considering dividend yield and payout as independent variables and stock price volatility as the explained variable. The results did not show much deviation from the regression performed along with control variables. Table 4.0 indicates the results of the performed PLS test along with independent and controlled variables.

Since the significant value of F-Statistics of the model is significant at 5% level of confidence, it implies that the resultant regression model is significantly better prediction of stock price volatility and hence the null hypothesis is rejected. The R Square value revealed that 38.4 % of the stock price volatility variation can be explained through the model. The Durbin-Watson value; 2.13impliesthat, the errors are uncorrelated. Since the p values of dividend yield and assets growth are higher than 0.05, it revealed that there is no significant impact from those variables on stock price volatility. It is in line with the Allen and Rachiman (1996),Suleman et al. (2011) and Yasir et al. (2010) results but contradictory to Baskin (1989), Hussainey et al. (2011), Hashemijoo et al. (2012)findings. Based on the regression it is also noticeable that size of the companies shows a positive impact while dividend payout shows a negative significant impact on stock price volatility. The significant negative relationship between Stock Price volatility and dividend payout supports findings of Baskin (1989), Nazir et al. (2010), Okafor et al., (2011), Jecheche, (2012), Hussainey et al (2011) and few other authors. Finally the results revealed that if the dividend payout is increased by 1%, there will be 1.13% decrease in stock price volatility. Based on the findings, it is noticeable that there is strong evidence to reject hypotheses one and four, but the researcher failed to reject hypotheses two and three.

Table 4- Results of Cross Section Random Effect Model

<b>Dependent Variable: SV</b>				
<b>Method: Panel EGLS (Cross-section Random effects)</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	0.637	0.343	-1.858	0.023
SIZE	0.039	0.015	2.567	0.010
DP	-1.133	0.366	-3.093	0.002
DY	-0.011	0.012	-0.899	0.369
AG	-0.004	0.044	-0.107	0.914
<b>Weighted Statistics</b>				
R-squared	0.440	F-statistic		4.592
Adjusted R-squared	0.384	Prob (F-statistic)		0.001
Durbin -Watson Stat	2.132			

<sup>4</sup>See appendix 4 for the Ramsey-Reset results



The second objective of the study was to analyze the long term impact of dividend variables on stock price volatility. Since all the variables were in stationary in level I (0), they are not integrated. If they are not integrated they cannot be co-integrated. So the researcher failed to perform the unrestricted vector auto regression test in order to determine long run equilibrium between explanatory variables due to non-satisfaction of the performing conditions. The third objective of the study was to analyze the short term impact of dividend variables on stock price volatility. In order to determine the short term impact of independent variables on stock price volatility, the pair wise Granger causality test was carried out up to four lags. It is noticeable that previous studies on the same phenomenon were not focused on measuring the short term impact of independent variables on the explained variable; stock price volatility.

Table 5.0: Granger Causality test between company size and stock price volatility

<b>Pair wise Granger Causality Test</b>				
<b>Null Hypothesis:</b>	<b>Prob. Lag 1</b>	<b>Prob. Lag 2</b>	<b>Prob. Lag 3</b>	<b>Prob. Lag 4</b>
SIZE does not Granger Cause SV	0.000	0.005	0.001	0.005
SV does not Granger Cause SIZE	0.000	0.000	0.000	0.000

Table 5.0 indicates the short term relationship between stock price volatility and the company size. Since the p-values of both directions are less than 0.05 in any lag level, it revealed a feedback exit between company size and stock price volatility. So it implied that there is a positive impact from company size on stock price volatility while stock price volatility also shows a positive impact on company size in the short run.

Table: 6.0 – Granger Causality Test between DY and SV

<b>Pair wise Granger Causality Test</b>				
<b>Null Hypothesis:</b>	<b>Prob. Lag 1</b>	<b>Prob. Lag 2</b>	<b>Prob. Lag 3</b>	<b>Prob. Lag 4</b>
DY does not Granger Cause SV	0.000	0.000	0.000	0.000
SV does not Granger Cause DY	0.887	0.497	0.724	0.897

Table 6.0 indicates the pair wise Granger Causality test between dividend yield (DY) and stock price volatility (SV). The output indicates that a unidirectional causality exists from dividend yield to stock price volatility in any lag level. So it revealed that there is a positive impact from dividend yield on stock price volatility in the short run. Furthermore, granger causality findings<sup>5</sup> of asset growth and dividend payout revealed that there is no impact from asset growth and dividend payout on stock price volatility in the short run. The last objective of the study was to analyze the structural break point. A PLS estimation is carried out in order to test the strategic breakpoint and a dummy variable has been added to the estimation whereas zero encoded with above the break year while one (1) indicating below the break year.

<sup>5</sup>See Appendix 05 in page 14.

According to the results in Table 7.0, there is an evidence to prove that there is no significant different impact from strategic breakpoint for the estimation.

Table: 7.0 – Structural Break Point Analysis through PLS

<b>Method: Panel EGLS (Cross-section random effects)</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
BREAK	-0.008	0.033	-0.262	0.793

## CONCLUSION

The empirical findings revealed a negative impact from dividend payout on stock price volatility and it supports the rate of return and the information effect. Moreover based on the rate of return effect, companies which have small dividend payout are possible to be assessed more valuable than their assets in place due to their growth potential. Since forecasts of earning from growth opportunity have more error than prediction of earning from assets in place, firms with low payout may show higher volatility in their stock price. In addition, the results of this study provide experiential supporting evidence for the signalling theory, as the results are consistent with the view that high dividends are an indicator of the firm's stability, and thus, inverse association between high dividend payout is expected, which is a consistent with the result of the study. Since the dividend policy has an impact on stock price volatility, the findings of this study support the relevance theory.

Furthermore, the regression test revealed that there is no impact from dividend yield to the Stock Price volatility. But the Granger causality results revealed that dividend yield does Granger Cause stock price volatility in any lag level in the short run. It showed that a unidirectional causality exists from dividend yield to stock price volatility in any lag level. Furthermore based on the structural break point results, it is possible to conclude that there is no significant different impact from the structural breakpoint (Elimination of war – Year 2009) for the estimation.

The impact of dividend policy on the current prices of company shares is very vital, not only for policy makers, but also for investors, portfolio managers, and researchers interested in the performance of capital markets. Based on the results of this study, it is well evident that as a practical implication, managers of companies may be able to change the volatility of their stock prices by altering their dividend policy. Indeed, it may be possible for them to use dividend policy as a device for controlling their stock price volatility. They may be able to reduce their stock price volatility by increasing their dividend payout. The larger the size of the company, the greater the company needs to face the volatility of stock prices. Furthermore, findings revealed that the dividend yield does Granger cause stock price volatility in any lag level. Thus, it is possible to conclude that higher dividend yield leads to a more volatile stock price in the short run. Based on the foregoing, the results recommend adopting companies dividend policy in order to suit their target investors.

The analysis has produced some interesting results and one avenue for future research is to extend the study to all the sectors in the Colombo Stock Exchange and to other markets, especially the researchers could focus on the countries in the Asian region. Since the researchers have considered the impact of dividend yield and dividend payout, it is suggested to examine the impact of other extraneous variables on stock price movements. Therefore it is recommended to investigate other compounding factors such as agency costs, ownership

structure, signalling, growth and investment opportunities, profitability of the firm and dividend taxes.

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**APPENDICES**

## Appendix 01: Variance Inflation Factor test for Multicollinearity

<b>Variable</b>	<b>Coefficient</b>	<b>Centered</b>
	<b>Variance</b>	<b>VIF</b>
Dividend Payout	0.001	1.016
Dividend Yield	0.002	1.007
Firms Size	0.000	1.001
Assets Growth	0.000	1.012

## Appendix 02: ARCH Test for Heteroskedasticity

<b>F Statistic</b>	1.805	Prob.F (4,15)	0.235
<b>Obs*R-Squared</b>	1.823	Prob. Chi-Squire (4)	0.229

## Appendix 03: Breusch-Godfrey serial correlation LM test

<b>F Statistic</b>	1.805	Prob. F (2,15)	0.000
<b>Obs*R-Squared</b>	1.823	Prob. Chi-Squire (2)	0.000

## Appendix 04: Ramsey–Reset Test for model specification

	<b>Value</b>	<b>Probability</b>
t-statistic	1.732	0.1217
f-statistic	2.743	0.1217

## Appendix 05: Pair Wise Granger Causality Results – Lag 1 to Lag 4

<b>Null Hypothesis</b>	<b>1 Lag</b>	<b>2 Lags</b>	<b>3 Lag</b>	<b>4 Lag</b>
	<b>P val.</b>	<b>P val.</b>	<b>P val.</b>	<b>P val.</b>
Company Size does not granger cause Price Volatility	0.000	0.005	0.001	0.005
Price Volatility does not granger cause Company Size	0.000	0.000	0.000	0.000
Dividend Yield does not granger cause Price Volatility	0.000	0.000	0.000	0.000
Price Volatility does not granger cause Dividend Yield	0.886	0.497	0.724	0.897
Dividend Payout does not granger cause Price Volatility	0.383	0.173	0.297	0.307
Price Volatility does not granger cause Dividend Payout	0.416	0.901	0.848	0.911
Assets Growth does not granger cause Price Volatility	0.236	0.194	0.325	0.197
Price Volatility does not granger cause Assets Growth	0.615	0.874	0.965	0.926