

Impact of Dividend Policy on Stock Price Volatility: Evidence from Sri Lanka

By

DEWASIRI NARAYANAGE JAYANTHA

M.Sc in Applied Finance

2013

**Impact of Dividend Policy on Stock Price
Volatility: Evidence from Sri Lanka**

By

DEWASIRI NARAYANAGE JAYANTHA

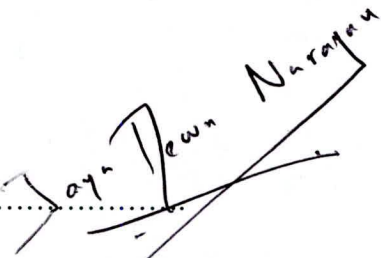
GS/PGD/APF/042

**This Research is submitted to the University of Sri
Jayewardenepura, Sri Lanka in partial fulfillment of the
requirement of the Master of Science in Applied Finance on**

July 23rd 2014

CANDIDATE'S DECLARATION

"I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any university, and so the best of my knowledge and belief it does not contain any material previously published or written by any another person or myself except where due reference is made in the text"


.....
Dewasiri Narayanage Jayantha

23/07/2014
.....

Date

(GS/PGD/APF/042)

SUPERVISOR CERTIFICATION

I approve the thesis titled "Impact of Dividend Policy on Stock Price volatility: Evidence from Sri Lanka" by Mr. D.N.Jayantha (GS/PGD/APF/042) for submission to the Faculty of Graduate Studies, University of Sri Jayewardenepura, Sri Lanka, in partial fulfillment of the requirement of the Master of Science in Applied Finance Degree.


.....

Professor Y.K. Weerakoon Banda


.....

Date

The Supervisor

Department of Finance

University of Sri Jayewardenepura

CONTENTS

CANDIDATE'S DECLARATION.....	3
SUPERVISOR CERTIFICATION	4
LIST OF TABLES	8
LIST OF FIGURES.....	9
LIST OF ACRONYMS AND ABBREVIATIONS.....	10
ACKNOWLEDGEMENT.....	11
ABSTRACT.....	12
CHAPTER ONE.....	14
INTRODUCTION.....	14
1.1 Background of the study.....	14
1.2 Problem Statement	17
1.3 Research Questions	17
1.4 Objectives of the Study	17
1.5 Scope of the Study.....	18
1.6 Significance of the study	18
1.7 Limitations of the Study.....	18
1.8 Chapterization	19
CHAPTER TWO.....	21
LITERATURE REVIEW.....	21
2.1 Introduction.....	21
2.2 Impact of Dividend policy on Stock Price volatility.....	22
2.2.1. Dividend Irrelevance theory.....	28
2.2.2. Relevance of Dividend policy	30
2.2.3. Clientele effects of dividends theories	35
2.2.4. Bird-in-hand theory	36
2.2.5 Signaling Hypothesis.....	36
2.3 Summary.....	37
CHAPTER THREE.....	39
CONCEPTUALIZATION AND OPERATIONALIZATION	39
3.1 Introduction	39
3.2 Variables	39
3.2.1 Dividend Yield	39
3.2.2 Payout Ratio	40
3.2.3 Size of the firms	41
3.2.4 Growth in assets (GA).....	42
3.2.5 Dependent Variable - Stock Price volatility.....	43
3.3 Conceptual Model.....	43
3.4 Operation of Independent and Dependent Variables.....	44
3.5 Research Hypotheses.....	44
3.6 Summary	45

CHAPTER FOUR.....	47
RESEARCH METHODOLOGY	47
4.1 Introduction.....	47
4.2 Research Design	47
4.2.1 Type of the Study	48
4.2.2 Purpose of the Study.....	48
4.2.3 Study Setting	48
4.2.4 Time Horizon of the Study.....	48
4.2.5 Data Sources Used for the Study.....	49
4.3 Sample and Sampling Procedure	49
4.3.1 Research Approach.....	49
4.4 Econometric Model	50
4.5 Analysis of Data	51
4.6 Summary	51
 CHAPTER FIVE.....	 53
DATA PRESENTATION AND ANALYSIS.....	53
5.1 Introduction.....	53
5.1.1 Sample Profile and Descriptive Statistics	54
5.2 Test for Trend and Stationary of the variables	57
5.2.1. Trend Function for Size of the companies.	58
5.2.2. Trend Function for Dividend Payout Ratio.....	59
5.2.3. Trend Function for Dividend Yield.....	59
5.2.4. Trend Function for Growth in Assets.....	60
5.2.5. Trend Function for Stock Price Volatility.....	60
5.2.6. Unit Root Test for Company Size	60
5.2.7. Unit Root Test for Dividend Payout Ratio.....	61
5.2.8. Unit Root Test for Dividend Yield.....	62
5.2.9. Unit Root Test for Asset Growth	63
5.2.10. Unit Root Test for Stock Price Volatility.....	63
5.2.11 Order of Integration.....	64
5.2.12 Correlation among variables	64
5.3 Impact of dividend variables on Stock Price Volatility (PLS analysis).....	65
5.3.1. Pooled Regression Model.....	66
5.3.2. Fixed effect or LSDV (Least Square Dummy Variable) Model.....	66
5.3.3. Random effect Model.....	67
5.3.4. Selection of the best model - Housman test	67
5.4 Long Term impacts of independent variables on the dependent variable.....	71
5.5 Short Term Relationships (Granger Causality Test).....	71
5.5.1 Short Term relationship between Stock price Volatility and Company Size.....	72
5.5.2 Short Term relationship between Stock price Volatility and Dividend Yield	73
5.5.3 Short Term relationship between Stock price Volatility and Dividend Payout	74
5.5.3 Short Term relationship between Stock price Volatility and Assets Growth.....	75
5.6 Structural Break Point Analysis	76
5.7 Summary	77

CHAPTER SIX	79
DISCUSSION OF FINDINGS.....	79
6.1. Introduction	79
6.2 Discussion of Findings	79
6.3 Summary	84
 CHAPTER SEVEN	 86
CONCLUSION AND IMPLICATIONS	86
7.1 Introduction	86
7.2 Conclusion.....	86
7.3 Implication to practice.....	87
7.4. Further Discussion of the Research.....	89
 LIST OF REFERENCES	 90
APPENDICES.....	96
Appendix 01 : Sample Profile of the study	96

LIST OF TABLES

Table Number	Description	Page Number
Table 1.0	Operation of Variables	46
Table 2.0	Trend Function for Size	58
Table 3.0	Trend Function for Dividend Payout	59
Table 4.0	Trend Function for Dividend Yield	59
Table 5.0	Trend Function for Growth in Assets	60
Table 6.0	Trend Function for Stock price Volatility	60
Table 7.0	Unit Root test for Size	60
Table 8.0	Unit Root test for Dividend Payout	61
Table 9.0	Unit Root test for Dividend Yield	62
Table 10.0	Unit Root test for Growth in Assets	63
Table 11.0	Unit Root test for stock price Volatility	63
Table 12.0	Correlation among variables	65
Table 14.0	Random Effect Model	67
Table 15.0	Hausman Test	68
Table 16.0	Cross Section Random Effect Model	69
Table 17.0	Granger Causality - SV and Size (Lag1, 2, 3 &4)	72
Table 18.0	Granger Causality - SV and DY (Lag 1, 2, 3 & 4)	73
Table 19.0	Granger Causality - SV and DP (Lag1, 2, 3 & 4)	74
Table 20.0	Granger Causality - SV and AG (Lag1, 2, 3 & 4)	75
Table 21.0	Structural Break Point Analysis through PLS	76

LIST OF FIGURES

Figure Number	Description	Page Number
Figure 1.0	Conceptual Model	45
Figure 2.0	The Histogram - Size	56
Figure 3.0	The Histogram - DP	57

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym /Abbreviation	Definition
ADF	: Augmented Dickey Fuller Test
CRPS	: Centre for Research in Security Prices
CSE	: Colombo Stock Exchange
DY	: Dividend Yield
DP	: Dividend Payout
DPS	: Dividend per Share
DSE	: Dhaka Stock Exchange
DSP	: Difference Stationary Process
EPS	: Earning per Share
GA	: Growth in Assets
GCT	: Granger Causality Test
I_0	: Level
OLS	: Ordinary Least Squire
PV	: Price Volatility
PLS	: Panel Least Squire
SL	: Sri Lanka
TSP	: Trend Stationary Process
VAR	: Vector Auto Regression

ACKNOWLEDGEMENT

At the very outset, I wish to express my heartfelt gratitude to Professor Weerakoon Banda, the Supervisor of this research for providing me with valuable guidance and advices in carrying out this research successfully. In spite of his busy work schedule, he was so generous and supportive to spare time in supervising the dissertation.

My sincere appreciation goes to Dr. P.D. Nimal, Head of the Department of Finance for the guidance and assistance provided to me. I must also be grateful to Dr. Pivithuru Kumarasinghe, Senior Lecturer, Department of Business Economics for guiding me in the right direction in doing the study.

My sincere appreciation goes to Dr. Wasantha Perera, the coordinator of M.Sc in Applied Finance Program University of Sri Jayewardenepura, for providing me the opportunity to carrying out this research. Further, I must not forget the generous support and cooperation extended to me by the lecturers of M.Sc program in making this effort a success. This work would not have been possible without the sincerer support and the enthusiasm given to me by my friend Brandon Angelo. To conclude, my never ending love and gratitude goes to my family for sacrifices they made and creating an environment which was supportive for my studies to a greater extent.

“Impact of Dividend Policy on Stock Price Volatility: Evidence from Sri Lanka”

Dewasiri Narayanage Jayantha

ABSTRACT

This study examined the relation between “Dividend Policy and Stock Price Volatility in Sri Lankan stock market. Stock Price Volatility is regressed against the four independent variables namely Dividend Yield (DY), Dividend payout (DP), Size and Growth in assets (GA). To achieve this objective, a sample of 40 companies listed in Colombo Stock Exchange was selected for a period of ten years from 2003 to 2012. In order to explore the association between stock price and independent variables, seven hypotheses have been developed and tested.

The analysis was conducted in two stages. As the first step of this analysis, the researcher estimated the order of integration of all variables. For this purpose, the Im, Pesaran and Shin tests for unit roots was employed. Since all variables were in stationary in its level (I_0), the researcher has taken the level variables in order to have same order of integration. The second step of the analysis involved the test of hypotheses and the Cross Section Random Effect model through Panel Least Square (PLS) was employed in order to test the hypotheses. The results revealed that there is a significant negative impact from dividend payout on stock return volatility. It is also noticeable that there is a positive impact from the company size on the stock price volatility.

The significant negative linkage between Stock Price volatility and dividend payout supports the rate of return and the information effect. Moreover based on the rate of return effect, companies which have small dividend yield and 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 pay out and low dividend yield may show higher volatility in their Stock Price. Hence, it is expected that Stock Price volatility and dividend payout, is associated inversely which is consistent with this study's results. The Vector Auto Regression (VAR) was not performed due to non – satisfaction of performing conditions.

The Granger Causality Test has been performed in order to test the short term relation among dependent and independent variables. The results revealed a feedback exit between market value and the stock price volatility in any lag level. Besides dividend yield does Granger cause Stock price Volatility and shows a unidirectional causality exists from dividend yield to stock price volatility in any lag level. Thus, this finding suggests that, higher dividend yield will lead to a more volatile Stock Prices in short run. According to the manual estimation to test the strategic breakpoint, a dummy variable has been added to the estimation. The results implied that there is no significant different effect from the structural break point (2009) for the estimation.

Key Words: Dividend Payout, Dividend Policy, Dividend Yield, Granger Causality Test, Growth in Assets, Panel Least Square, Stock Price Volatility, Vector Auto regression

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Issues of dividend policy range from its irrelevance by Miller and Modigliani (1961), to its puzzle by Black (1976) to its relevance by DeAngelo et al. (1996) and so on. Other issues include theories on dividend payment, such as stakeholders' theory, pecking order theory, agency cost, signaling theory, bird-in-hand fallacy and clientele effect. The information asymmetry between managers and shareholders, along with the separation of ownership and control, formed the base for another explanation of why dividend policy has been so popular. Also in line with this subject area, Al-Malkawi (2007), Al-Najjar and Hussainey (2009) established that there is a negative relationship between dividend payout and outside directorship.

The stock price movements, on the other hand, are the systemic risk faced by investors who possess ordinary shares investment (Guo, 2002). 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. The Sri Lankan (SL) stock market, which cannot be classified as an emerging one, manifests the features of a matured market, with relatively moderate regulations compared to those of emerging markets in the world. Companies realize, also, that investors pay close 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. The debate has been whether corporate dividend policy has any relationship with stock price movement. In this connection, this study is aimed at establishing a relationship between dividend policy and Stock Price, with particular focus on the SL stock market. The research is premised on the theoretical framework created by Baskin (1989) and Allen and Rachim (1996). Dividend policy is also related to capital structure indirectly and different dividend policies may require different capital structures. Since both of capital structure and dividend policy can have impact on the wealth of shareholders and dividend policy can affect capital structure too, decision about dividend policy is complex.

In preliminary corporate finance, dividend policy was just concerned with selecting between payments of earnings to shareholder as cash dividend or retaining the profit in firm. It only determined the incidence of dividend payments and the amount dividends. However, in today's corporate finance, dividend policy addresses more issues such as how firms can attract investors in different tax brackets and how firms can increase the market value of firm and share repurchase instead of cash dividends and etc. Nevertheless, the current critical questions concerned with dividend policy have many similarities to those questions asked by managers in the 1950s. These questions were determined by Lintner in 1956. It was imperative to determine whether to keep dividend payments at the present amount or alter it. Whether shareholders want to have fixed dividend payments, or they prefer dividend payments updated with earnings and what kind of (Younger or older) investor dividend policy should attract.