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Title: **The Impact of the Dividend Policy on the Price Volatilization of Common Stock–Evidence from the Stock Market of Hong Kong**

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Abstract: This paper intends to examine whether a company's policy of dividend would impact or influence the price fluctuation of respective common stock in the designated stock market particularly in Hong Kong. Hence, there are 354 companies in Hong Kong which are all listed company on the Stock Exchange of Hong Kong (HKEX), were chosen as sample data for analysis with their audited financial information ranged from 2001 to 2020. Two proxies, the yield and the ratio of pay-out of dividend were widely adopted for the measurement of the effect of dividend policy and the possible influence on the volatility of respective common stock price by employing two statistical models, which are the model of fixed and random effects to provide accurate regression coefficients. With the results from the model of fixed effects, the yield and the pay-out ratio of dividend have been found statistically associated to the price volatilization of respective common stock in Hong Kong. The statical results in this study also find the yield and the ratio of pay-out of dividend are apparently and negatively associated to the price volatilization of respective common stock in Hong Kong. The research outcomes will be a reference for further study on different variables may have effects or volatilize the price of common stock price particularly in Hong Kong capital market.

Keywords: price volatilization of common stock, dividend policy, yield of dividend, pay-out ratio of dividend, Hong Kong

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Abstract

This paper intends to examine whether a company's policy of dividend would impact or influence the price fluctuation of respective common stock in the designated stock market particularly in Hong Kong. Hence, there are 354 companies in Hong Kong which are all listed company on the Stock Exchange of Hong Kong (HKEX), were chosen as sample data for analysis with their audited financial information ranged from 2001 to 2020. Two proxies, the yield and the ratio of pay-out of dividend were widely adopted for the measurement of the effect of dividend policy and the possible influence on the volatility of respective common stock price by employing two statistical models, which are the model of fixed and random effects to provide accurate regression coefficients. With the results from the model of fixed effects, the yield and the pay-out ratio of dividend have been found statistically associated to the price volatilization of respective common stock in Hong Kong.

The statical results in this study also find the yield and the ratio of pay-out of dividend are apparently and negatively associated to the price volatilization of respective common stock in Hong Kong.

Apart from these, corresponding measurements are conducted on other variables showing the price fluctuation of respective common stock is negatively correlated to the size of enterprise while the price fluctuation of respective common stock is positively correlated to the volatility of earnings. However, the results showed that in Hong Kong capital market, companies' growth rate and the ratio of leverage are not statistically correlated the price volatilization of respective common stock. The research outcomes will be a reference for further study on different variables may have effects or volatilize the price of common stock price particularly in Hong Kong capital market.

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Table of Contents

 doi:10.20944/preprints202202.0362.v1

 doi:10.20944/preprints202202.0362.v1

List of Tables and Figures

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 28 February 2022 doi:10.20944/preprints202202.0362.v1

Abbreviations

ASE - Stock Exchange of Amman
CAPM - Capital Asset Pricing Model
DPR - The Pay-out Ratio of Dividend
DSE - Stock Exchange of Dhaka
DY - The Yield of Dividend
EBIT - Profit Before Interest and Tax
EV - The Volatility of Earnings
FEM - Fixed Effects Model
GRO - Asset Growth
HKEX - Stock Exchange of Hong Kong
HNX - Stock Exchange of Hanoi
HOSE - Stock Exchange of Hochiminh
KLSE - Stock Exchange of Kuala Lumpur
KSE - Stock Exchange of Karachi
LEVE - Leverage
PVOL - The Volatility of Common Stock Price
REM - Random Effects Model
SIZE - Enterprise Size
TSE - Stock Exchange of Tehran
VIF - Variance Expansion Factor

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CHAPTER I: INTRODUCTION OF THE STUDY

1.1 Introduction and Background Information

"A dividend policy is the policy a company uses to structure its dividend" (James, 2020). Investors always take into consideration of companies' dividend policy proxied by the ratio of pay-out and the yield of dividend to be the vital determinants when deciding on stock investment. Meanwhile, these determinants are treated as the important factor to the management of the company on the estimation of future reinvestment, common stock price movement and the shareholder's wealth.

It has been a long-arguing topic concerning whether the policy of dividend would affect the fluctuation of respective common stock price since a similar study primarily carried out by Black and Scholes (1974) with the empirical results showing no relationship exists in between.

In 1989, Baskin (1989) argues that a company's price volatilization of its common stock price is apparently driven by the policy and regulation towards dividend payment which is proxied by two major factors, namely the yield and the pay-out ratio of dividend, with a negative direction in his research. The findings of researches conducted by Hashemijoo et al., (2012) later in 2012 in Malaysia is firstly found to be consistent with the Baskin (1989) regarding the possible impact that a company's policy, strategy and regulation regarding dividend payment causes the price volatilization of corresponding common stock. Later Ramadan (2013) in Jordan in 2013, both Sew et al., (2015) and Zainudin et al., (2018) in Malaysia and Shah and Noreen (2016) in Pakistan are also in unanimous agreement with Baskin (1989).

However, the results from Allen and Rachim (1996) in Australia are just partially consistent with the findings of Baskin (1989) with the observation of the fluctuation of common stock price that is driven by the pay-out ratio of dividend in a negative way. Other researchers including Nazir et al., (2010) in Pakistan, the researcher, Hussainey et al., (2011) in United Kindom, Al-Shawawreh (2014) in Jordan, two researchers, Lashgari and Ahmadi (2014) jointly found the same outcomes in Iran.

Following similar analytical framework of Baskin (1989), the empirical studies alike are conducted in various sectors, markets and geographical locations across developing and developed countries such as Malaysia, Pakistan, Iran, Jordan, Bangladesh, Vietnam, United States, United Kingdom and Australia. However, the empirical results from these studies are not consistent. The Stock Exchange of Hong Kong (HKEX), being the largest bourse worldwide regarding the size of market capitalization with 2,538 companies go public as of the fiscal year end of 2020, up to this point, there is no research particularly on how the company's policy or regulation towards dividend payment fluctuates the price of respective common stock in Hong Kong.

Our hypothesis presents the empirical results of the possible influence or impact of dividend policy may have and how it fluctuates the corresponding common stock price particularly towards the companies which are currently go public on HKEX in order to provide investors an important reference when making investment decisions.

 doi:10.20944/preprints202202.0362.v1

1.2 Problem Statement of the Study

The similar researches conducted in various sectors, markets and geographical locations across developing and developed such as Malaysia, Pakistan, Iran, Jordan, Bangladesh, Vietnam United States, United Kingdom and Australia. However, there are no unanimous findings on the impact or influence that dividend policy proxied by the yield and the pay-out ratio of dividend, may have on how it fluctuates the price of common stock, and these similar studies are concluded in the past. In addition, there is absence of similar research perform in the stock market of Hong Kong.

1.3 Research Questions of the Study

The question in this research is whether dividend policy would affect the volatility of common stock price particularly in Hong Kong stock market. To be more specifically, could the dividend policy affect or fluctuates the price of common stock? In addition, could other variables including size, leverage, the volatility of earnings and asset growth affect or fluctuate the price of common stock as well? These major questions will be examined and discussed in this hypothesis.

1.4 Aim of the Research

Our intention is to provide an importance reference to investors of listed companies in Hong Kong stock market in this study in order to have insight on the effect of the company's policy or regulation towards dividend payment and how it volatilizes or fluctuates the price of corresponding listed stock when they are necessary to marking investment decision.

1.5 Objectives of the Study

This paper is to assess and have a thorough understanding of the possible impact that the company's policy or regulation towards dividend payment on the volatilization or fluctuation of respective price of common stock particularly in Hong Kong stock market.

Even though lots of researchers conducted assessment of the how dividend policy may affect the price fluctuation of respective common stock across countries that possesses their owned stock exchange worldwide in the past. With no empirical studies conducted in the past, this research will, therefore, become the first study to especially examine how dividend policy influences the price volatilization of respective common stock particularly towards Hong Kong stock market, taking 354 listed companies that have sufficient financial data from 2001 to 2020 in HKEX to be the sample data for analysis. Specific objectives are stated as follow:

1. To inspect whether the yield of dividend is significantly correlated with the price fluctuation of common stock;
2. To inspect whether the ratio of pay-out of dividend is significantly associated to the price fluctuation of common stock;

 doi:10.20944/preprints202202.0362.v1

3. To inspect whether the size of enterprise is significantly correlated with the price fluctuation of common stock;
4. To inspect whether the leverage is significantly correlated with the price fluctuation of common stock;
5. To inspect whether the volatility of earnings is significantly correlated with the price fluctuation of common stock;
6. To inspect whether the rate of growth is significantly correlated with the price fluctuation of common stock.

1.6 Hypotheses Development of the Study

The research problem, questions, aim and objectives are clearly identified in the previous sections, hypotheses are then to set up for examination as follows:

Dividend policy is how much of earnings the company makes to pay out to shareholders as dividends or retain in the company as reinvestment. Among all previous studies, researchers conducted similar studies have different views on the possible impact or influence of relevant regulation or policy of the company concerning dividend payment that may have on the price fluctuation of respective common stock in designated stock markets. Some researches revealed the price volatility of common stock in designated stock markets is driven by the yield of dividend with the positive correlation, while some found the price of common stock in designated markets is being fluctuated by the pay-out ratio of dividend with the negative correlation. In addition, some studies revealed the yield and the pay-out ratio of dividend are significantly and negatively correlated to the volatility of common stock price. In this study, it extends the hypothesis to be tested in Hong Kong stock market as follows:

Hypothesis 1

H_{1a}: The yield of dividend is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

H_{1b}: The yield of dividend is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

Hypothesis 2

H_{2a}: The pay-out ratio of dividend is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

H_{2b}: The pay-out ratio of dividend is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

Secondly, smaller companies usually experience more volatility on common stock price compared to larger companies, which is mainly attributable to the greater uncertainty in terms of operational competitiveness and profitability of smaller companies, intensifying the fluctuations of common stock price. In this study, it extends the hypothesis to be tested in Hong Kong stock market as follows:

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Hypothesis 3
H3a: The size of enterprise is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.
H3b: The size of enterprise is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

Thirdly, due to the fact that dividends to be paid to shareholders will be after interest payment, the increase in leverage may decrease the dividends received by shareholders, and thereby the volatility of common stock price will probably be affected by the leverage. In this study, it extends the hypothesis to be tested in Hong Kong stock market as follows:

Hypothesis 4
H4a: The leverage is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.
H4b: The leverage is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

Fourthly, the more stable the price fluctuation of common stock, the more stable the company's earnings. Partial earnings will be transformed into dividends paid to shareholders. Higher earnings mean of the company could mean higher dividends possibly. In this study, it extends the hypothesis to be tested in Hong Kong stock market as follows:

Hypothesis 5
H5a: The volatility of earnings is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.
H5b: The volatility of earnings is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

Lastly, the growth of asset requires companies to invest into tangible assets continuously and the remaining cash after dividends paid to shareholders will be retained earnings as reinvestments to the company. As such, the growth of asset is supposed to have certain association existed with the price fluctuation of respective common stock. This study extends the hypothesis to be tested in Hong Kong stock market as follows:

Hypothesis 6
H6a: The growth of asset is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.
H6b: The growth of asset is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.

 doi:10.20944/preprints202202.0362.v1

1.7 Organization of Presentation and Framework of the Study

There are five major chapters and several sub-chapters are presented in our hypothesis in order to provide exhaustive discussion and understanding of how the company's policy or regulation regarding dividend payment to its stockholders may impact or influence the price fluctuation of respective common stock particular on the designated stock exchange in Hong Kong. It starts with first chapter introduces the background information, respective problem statement, the purpose, the questions, the aim, the objectives, the development of specified hypotheses, along with the organization of presentation at the end. Chapter 2 included the theoretical framework applied to this research and relevant literature reviews. The design of this research will be discussed in Chapter 3 with variables, sampling, analytical tools involved. Chapter 4 provided detailed data analysis and its outcomes and Chapter 5 consists of the conclusions and recommendations of this study.

 doi:10.20944/preprints202202.0362.v1

CHAPTER II: REVIEW OF RELEVANT LITERATURE

2.1 Review of Relevant Literature

Prior to the further discussion or knowing the specific elements or factors to be assessed, it is utmost necessary to identify the linkage that may be possibly exists between the regulation or policy of the company towards the payment of dividend, and the price volatilization of respective common stock. With this Chapter, relevant theoretical frameworks contain essential theories are explained in detailed through reviews related to our topic before moving on the next part, the design of this research.

2.2 Theoretical Frameworks Related to the Study

Relevant theorical frameworks contains a series of theories are explained in this part, namely the commonly seen theory of the irrelevance of dividend indicating no relationship is found between dividend and the price of designated common stock, along with the other popular theories within the field of financial studies including bird-in-hand, cost of being agency, signaling and the theory of stakeholder as well as clientele effect, have been dominated in this field of study and guide me through the whole research.

2.2.1 The Theory of Dividend Irrelevance

Firstly, raised out by both researchers, namely Miller and Modigliani (1961), the irrelevance of dividend policy to common stock price was pointed out, since dividends are only considered as cash payments from the earnings of the companies rewarding to its investors. The assumption in this theory is by the companies' paying 100 percent of their earnings and the existence of perfect capital markets meaning there is no fee including transaction cost and tax, all investors are assumed to be rational investors with investment in stocks according to the actual worth of the stock meaning it is based on the cash flow in the future to be discounted into currently value, as well as no single buyer or seller could affect the price of market, which is almost impossible in reality in the current situation of capital markets.

2.2.2 The Theory of Bird-in-hand

Even since the released of the theory of dividend irrelevance which demonstrated no significant influence from the company's dividend to its respective price of common stock, researchers conducted similar studies in this field have been arguing and perform test on relevant hypotheses to prove the significant influence of dividends on common stock price in imperfect capital markets. Not in agreement with the theory of dividend irrelevant, Gordon and Shapiro (1956) and Lintner (1962), pointed out that investors prefer certainty by receiving cash dividends instead of uncertain capital gains due to market uncertainty and asymmetric information, and invented the respective theory called, the theory of Bird-in-hand.

This theory revealed that companies to pay higher dividend in order to maximize the common stock price concerning the certainty of dividends brought to investors, making the company's policy or regulation towards dividend payment fluctuates and volatilize the price of respective common stock in the imperfect capital markets. In addition, dividends are expected to be a signal of future cash flows.

 doi:10.20944/preprints202202.0362.v1

2.2.3 The Theory of Cost of Being Agency

Meckling (1976) raised out the theory together with Jensen (1976) revealed that a cost exists between shareholders and management due to conflict of interest, called the theory of cost of being Agency. It argues that management tends to act in their own interest and this is considered a cost existing between management and stockholders, for instance, management would have less cash or idle funds to reinvest into the new projects after cash dividends to stockholders, making managers into dilemma in terms of new project development and arrangement required cash injection. As such, this theory supports that the ratio of pay-out of dividend apparently drives and fluctuates the value of the companies' common stock.

2.2.4 The Theory of Signaling

Signaling theory argues that due to asymmetric information, investors use dividends to be a signal reflecting as an indication of companies' future prospects. For instance, an increase in the pay-out ratio of dividend could signal a positive future development of the company. According to Petit (1972), it is observed that common stock price is affected by dividend payment to investors and dividend is considered as a vital information of companies' future prospects.

2.2.5 The Theory of Stakeholder

In consistent with signaling theory, the theory of stakeholder also suggests that dividends carry and provide information of companies' profitability and future financial competency to stockholders.

2.2.6 The Effect of Clientele

According to Lewellen et al., (1978), the effect of clientele indicated that interests are varied from different group of customers and thereby changes in dividend policy would lead to dissatisfaction on partial customers, ultimately caused negative effects on the price of stock.

In addition, Al-Malkawi (2007) pointed out a particular phenomenon that lesser dividends are expected to be distributed from the enterprise pays to its shareholders especially when the enterprise is under the stage of fast-grow period. However, the situation turned around when it goes to the stage of maturity. These two stages attract clientele desire capital gains and immediate cash income from dividends respectively. So that, the company's dividend policy would have significant influence and volatilize the price of its common stock.

 doi:10.20944/preprints202202.0362.v1

2.3 Literature Review Related to the Study

There are continuous studied on the elements moving the volatility of common stock price. Among all these studies, the results are varied as some of them are consistent with each other, while some studies are not similar due to the sample used to analysis across various sectors and countries. Although studies conducted in the same country, the identified variables that are concluded to have significant or insignificant influence on the volatility of common stock price are not reached to a mutual agreement with each other. Prior to the research methodology, a thorough review is performed on previous studies as follows:

2.3.1 Impact or Influence the Policy of Dividend may have on the Price Fluctuation of Respective Common Stock

The examination of the influence or impact that the policy or regulation of the company regarding dividend payment may have on the price fluctuation of respective common stock, were carried across various sectors including financial or non-financial companies, as well as developed or developing countries with similar variables but dynamic results.

First or all, similar researches are carried out earliest by American, Australian and British researchers, providing a primary reference and a solid ground for all later researchers studied whether the policy or regulation of the company would have on the price volatilization of respective common stock. In 1974, by taking a number of 25 chosen companies which go public in the Stock Exchange of New York, and with the application of capital asset pricing model (CAPM) during mathematical analysis, Black and Scholes (1974) concluded that the policy of the company is not significant enough to fluctuates or volatilized the price of respective common stock, with the length of 30 years during the time period from 1936 to 1966.

Later in 1989, by taking a larger sample data of selected companies totaling 2,344 in United States with the time period of 20 years from 1967 to 1986, Baskin (1989) performed the relatively similar examination on the connection between the policy of the company towards dividend payment and the price volatilization of respective common stock. Compared to the previous, the main difference is the employment of regression model to perform analysis instead of capital asset pricing model (CAPM) by Black and Scholes (1974). His research carried out by using the price fluctuation of respective common stock, the ratio of pay-out and the yield of dividend which are proxies of dividend policy, to be the dependent and independent variables respectively, and the results indicated the policy of the company towards dividend payment would volatilize and fluctuation the price of respective common stock price but with the association in negative way. Other controls variables are also appeared in this study and they are the size of enterprise, the ratio particular calculated for the long-term portion of debt, the volatilization of company's earnings as well as the growth ratio of company's asset. The study provided a crucial analytical framework for following related studied on the association or correlation that the policy of the company towards dividend payment may have, to the fluctuation the price of respective common stock price.

Later in 1996, both Australian researchers, Allen and Rachim (1996) rejected the hypothesis released by Baskin (1989) and discovered that the pay-out ratio of dividend is significantly positive correlated to the price fluctuation of respective common stock, meanwhile, the yield of dividend is not significant enough

 doi:10.20944/preprints202202.0362.v1

to have association with the price fluctuation of corresponding common stock price, taking companies totaling 173 that go public in the stock exchange of Australia with the length of time from 1972 to 1985. The measured variables included are the same variables following the same framework of Baskin (1989) to analysis.

British researcher, Hussainey et al., (2011) has the close results compared to Baskin (1989) with the research carried out in 2011 and companies in United Kingdom with a length of 10 years from 1998 to 2007. His observation revealed that the yield of dividend, in a certain extent, is associated with the price fluctuation of respective common stock with a negative direction, but statistically insignificant. Meanwhile, the ratio of pay-out of dividend is identified to drive the price volatilization of respective common stock with the observation of negative direction. Similar variables including size, debt, the volatility of earnings and asset growth are measured in this study.

In 2013, American researches, namely Profilet together with Bacon (2013) conducted studies in the same country as Baskin (1989), with samples of 599 listed companies taken from S&P 500 over the course of three years. In contrary, the findings are not supporting the results of Baskin (1989), with the ratio of pay-out of dividend is found to be statistically correlated with a positive direction, with price fluctuation of respective common stock but insignificantly. The results for the yield of dividend is the other way around, showing it would affect the price fluctuation of corresponding common stock but with the negative direction which is in alignment with the results of Baskin (1989).

In context of studies in developing countries, by taking companies totaling 73 that are not financial institution and go public in the stock exchange of Karachi (KSE) and the time period for analysis from 2003 to 2008, Nazir et al., (2010) firstly performed his research in Pakistan, the yield of dividend is concluded to affect the price volatilization of respective common stock with a positive association observed in between. It is the same to the ratio of pay-out of dividend but with a negative direction is observed. In contrast, by taking 50 non-financial listed companies across 11 industrial sectors on KSE and a length of 8 years from 2005 to 2012, Shah and Noreen (2016) observed that both the yield and the ratio of pay-out of dividend would drive the price volatilization of respective common stock with a negative association linkage is identified in between. Based on the sample data of financial related enterprises totaling 63 that go public in KSE with a time period from 2006 to 2011 accounted for 6 years, Hamid et al., (2017) raised out that the yield of dividend significant affect the price volatilization of respective common stock with a negative direction, this is the same to the ratio of pay-out of dividend but it comes with a positive correlation in between.

In 2014, both Iranian researchers, namely Lashgari and Ahmadi (2014) conducted hypothesis and came out with statistical outcomes showing possible influence that the company's policy towards dividend payment on the price fluctuation of respective common stock without consideration of the yield of dividend to be the variable in his research. A sample data contains companies totaling 51 that go public in Tehran Stock Exchange (TSE) of Iran and a length of time period of 6 years from 2007 to 2012. The findings of their research found the ratio of pay-out of dividend would drive the price fluctuation of respective common stock in a negative way.

 doi:10.20944/preprints202202.0362.v1

Malaysian researcher, Hashemijoo et al., (2012) concluded that the policy of the company regarding dividend payment was identified to affect and influence the price volatilization of respective common stock price in his research. In his study, Malaysian enterprises totaling 84 and go public in the stock exchange of Kuala Lumpur (KLSE) were chosen to the samples and a length of 6 years from 2005 to 2010 was selected. Sew et al., (2015) who selected 319 listed companies on KLSE and a length of 11 years from 2003 to 2013, and Zainudin et al., (2018) who chose 166 industrial product companies listed on KLSE with data of 10 years from 2003 to 2012, observed the consistent results that the yield and the ratio of pay-out of dividend would influence the price volatilization of respective common stock price with the negative significance being observed in the study.

With the selection of companies totaling 77 that go public in the stock exchange of Kuala Lumpur, Malaysian researcher, Zakaria et al., (2012) raised out a mixture of statistical findings, which is the yield of dividend merely drives the price volatilization of respective common stock with a negative direction, but not consistent with the results for the ratio of pay-out of dividend showing it is positively linked with the price fluctuation of respective stock in this study.

Furthermore, the findings in other countries like Jordan, Bangladesh and Vietnam are varied. In the market of Jordan, by taking enterprises totaling 77 which are in the industrial industry and go public in the stock exchange of Amman (ASE) during the period from 2000 to 2011, Ramadan (2013) proved that the company's policy regarding dividend payment would drive the price fluctuation of respective common stock in his hypothesis with a positive linkage is observed. However, Al-Shawawreh (2014) only partially supports the findings of Ramadan (2013), with only the ratio of pay-out of dividend is significant enough to affect the price fluctuation of respective common stock, by taking 53 companies on ASE with a length of 13 years from 2001 to 2013.

In the market of Bangladesh, taking the sample financial data from companies totaling 35 particularly towards the industry of manufacture in the Stock market of Dhaka (DES) and 11-year data during the time period from 2004 to 2014, Haque et al., (2019) revealed that the yield of dividend is significant enough to drive the price fluctuation of respective common stock with negative direction is observed. Meanwhile, Vietnamese researchers, Anh and Nhi (2016) found a completely different results compared to most of the results by conducting their research on 165 companies go public in Vietnam with yield and the ratio of pay-out of dividend to be associated with the price volatilization of respective common stock with a positive direction. However, in Hochiminh Stock Exchange (HOSE) in Vietnam, Nguyen et al., (2020) found a mixture of statical outcomes, that is, the yield of dividend drives the price fluctuation of respective common stock with a positive direction, but the ratio of pay-out of dividend comes with the opposite direction.

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2.3.2 Impact or Influence the Size of Enterprise may have on the Price Fluctuation of Respective Common Stock

Black (1976 a, b) firstly found that the size of enterprise size is associated to the price volatilization of common stock with the negative direction. Later in 1982 and 1992, both Christie (1982) and Cheung and Ng (1992) also observed the price fluctuation of common stock price of the company is driven by the respective size of common stock with a negative direction. Apart from these, British researcher, Hussainey et al., (2011), Malaysian researcher, Hashemijoo et al., (2012), Haque et al., (2019) who studied the similar topic in the market of Bangladesh, as well as Vietnamese researchers, Anh and Nhi (2016) together with Nguyen et al., (2020) reached the same conclusion in terms of the negative correlation that the size of enterprise has on the price fluctuation of common stock in the designated financial markets that they studied in, which are consistent with previous studies. In contrast, Nishat and Irfan (2004), Sadiq et al., (2013) and Al-Shawawreh (2014) showed that the size of enterprise is associated with the price volatilization of respective common stock in a negative way in the stock market of Pakistan, and Jordan respectively. Furthermore, Both Iranian researchers, Lashgari and Ahmadi (2014) raised out that no association is significant enough to be identified among these two observations.

2.3.3 Impact or Influence the Ratio of Leverage may have on the Price Fluctuation of Respective Common Stock

Black (1976) became the first to take priority to conduct assessment and pointed out the ratio of leverage is correlated to the price fluctuation of respective common stock, Later in 1982 and 1989, both researchers, Christie (1982) and Schwert (1989) concluded the outcomes to be in alignment with said first study. Such assessment and examination had rapidly expanded to developed and developing countries including both Australian researchers, Allen and Rachim (1996), two researchers of Pakistan, Nishat and Irfan (2004) as well as British researcher, Hussainey et al., (2011) concluded the same outcomes with the previous hypothesis. In recent years, the findings from two Vietnamese researchers, Anh and Nhi (2016) and Nguyen et al., (2020) are also in alignment with the previous studies. However, with the statical outcomes from Iranian researchers Lashgari and Ahmadi (2014), it is emphasized with the conclusion that no particular correlation is identified between the ratio of leverage and the price volatilization of respective common stock.

2.3.4 Impact or Influence the Volatilization of Earnings may have on the Price Fluctuation of Respective Common Stock

Apart from the above-mentioned statistical outcomes, American research, Baskin (1989) also raised out the price volatilization of respective common stock would be driven by the volatilization of earnings which is quite understandable. Later in 1996, both Australian researchers, Allen and Rachim (1996) agreed with that as well. Additionally, in developing country, Vietnamese researcher, Nguyen et al., (2020) conducted his similar study and also raised out the same thoughts. However, Sadiq et al., (2013) in Pakistan and Lashgari and Ahmadi (2014) in Iran found the earnings volatility does not have effects on the volatility of common stock price.

 doi:10.20944/preprints202202.0362.v1

2.3.5 Impact or Influence the Growth Ratio of Assets may have on the Price Fluctuation of Respective Common Stock

The price fluctuation of the company's common stock would not be driven by the company's growth ratio of assets, was firstly raised out by both Australian researchers, Allen and Rachim (1996), even since then, in developed country, British researcher, Hussainey et al., (2011) also confirmed and obtained the consistent results, as well as in developing country, two Malaysian researchers, Zakaria et al., (2012) and Sew et al., (2015) revealed their studied and showed there is no significant relationship exists in between. In the contrary, Sadiq et al., (2013) revealed that growth ratio of assets of the company is significant associated with the price volatilization of respective common stock with the positive direction, with 35 companies which are not financial institutions and go public on KSE of Pakistan to be the sample and a length of 11 years from 2001 to 2011. Both Iranian researchers, Lashgari and Ahmadi (2014) as well as Malaysian research, Zainudin et al., (2018) raised out the same statistical outcomes with all these previous studies. Only Profilet and Bacon (2013) in United States found a significant negative relationship between these two variables. Nguyen et al., (2020) in Vietnam also found the growth of asset is significantly correlated with the volatility of common stock price.

2.4 Conclusion of the Chapter

Concerning whether the policy or regulation of the company towards the payment of dividend would volatilize or fluctuates the price of respective common stock, among all researches conducted similar studies in the past, they have no yet reached to a mutual agreement. In addition, the statistical outcomes of these studies showed the relationship between other control variables are diverse, with some indicating positive while some showing negative. The companies across varied geographical locations and sectors are studied but the range of the types of the companies are universal. There is not particular study conducted on the companies especially in the stock market of Hong Kong.

 doi:10.20944/preprints202202.0362.v1

CHAPTER III: DESIGN AND RESPECTIVE METHODOLOGY OF THE STUDY

3.1 Research Design and Respective Methodology

This dissertation identifies what the influence or impact that dividend policy would have on the price fluctuation of respective common stock price in Stock Exchange of Hong Kong and the respective research philosophy, methodology and design will be discussed in this Chapter.

3.2 Research Philosophy and Methodological Approach

Considering the research is conducted by objective observation on listed companies in the stock market of Hong Kong and measurement of variable to conclude the results, it is considered to be positivism paradigm for the research philosophy of this study with quantitative approach to be employed as the research methodology.

A deductive approach is chosen to this study since the analysis in later chapters is based on quantitative data to observe how dividend policy influences on the volatility of common stock price which is more structured compared to indicative approach that focused on the understanding and clarification of human-constructed meanings associated with particular events.

3.3 Research Design

To identify the possible influence of impact of dividend policy on the price fluctuation of respective common stock or whether it will volatilize the price of common stock by respective dividend policy. As such, it is considered appropriate to perform analysis by taking the dependent variable, the price volatility of corresponding common stock, independent variables representing the company's policy, strategy or plan towards dividend, as well as control variables that are considered to be applicable in this study with time-series data of these variables. Panel data analysis is considered appropriate to adopt in this research since all data involved are on past-even basis and measurements over certain long period of time are involved in Panel data analysis as well as longitudinal unit of analysis.

To be consistent with the analytical framework of Baskin (1989), the degree of price fluctuation representing how volatilized the price of designated common stock is adopted as the dependent variable while two major independent variables, namely the yield and the pay-out ratio of dividend are representing as the proxies of dividend policy in this hypothesis. In addition, several control variables including enterprise size, leverage, the volatility of earnings and asset growth are adopted for analysis of correlation to see how they would volatilize the price of respective common stock.

To include sufficient information for analysis, chosen sample data covered a relatively long period for 20 years from 2001 to 2020 and totaling 354 enterprise which are not financial institutions go public in the Stock Exchange of Hong Kong were chosen for analysis.

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Correlation Analysis is performance to preliminary observe the degrees of correlation between variables in this research. Consequently, it becomes necessary to identify in case of collinearity, as well as any mutual influence may possibly exist amount adopted variables, as such, the test of Multicollinearity is considered appropriate to be performed. If the VIF (variance expansion factor) value of each variable greater than 10, meaning multicollinearity exists, and vice versa. Multi-regression analysis can be performed afterwards.

Either the model or fixed or random effects is expected to adopted for further experiment. Therefore, F-test and Hausman test are performed before panel data regression analysis, to provide judgement on the proper selection within these two statical tools. Rather than choosing the model of random effects, considering the results on model testing and by the comparison to ordinary least squares (OLS), to employ the model of fixed effects for analysis will be fitting for the later statical approach.

3.4 Variables Applied for the Measurement

Following the study blueprint of the primary study of Baskin (1989), as well as the follower research, Allen and Rachim (1996), both of them adopted almost the same variables to be in analysis but the calculation methods are adjusted and shown in the following parts. The variables used to measure in this study comprises three categories of variables including dependent, independent and control variables totaling 7 variables for analysis. These used variables will be descripted in detail and explained their importance to identify any influence that the company's regulation or policy regarding dividend payment to its shareholders may have on the price fluctuation of respective stock within the capital market of Hong Kong, so that to ensure the robustness of research analysis.

3.4.1 Dependent Variable Applied to the Study

Being the main reference for other variables, the price volatilization of common stock price is adopted to be the dependent variable for the identification of possible correlation may exist among them.

3.4.1.1 The Price Volatilization of Common Stock

The price volatilization of common stock (PVOL) is calculated by using the extreme value within the fiscal year of the common stock price. This method used highest and lowest common stock price is considered reflecting a more complete state of volatility compared to using the annual opening and closing prices since the fluctuations within the period may be omitted.

Specifically, the method is to subtract the lowest common stock price from highest common stock price each year, and subsequently divide by the average of the sum of yearly highest closing price and lowest closing price of stock. Finally, the result will then be obtained after being squared. Respective formular is as follow:

$$\mathrm{P}VOL = [(\mathrm{Hi} - \mathrm{Li}) / \frac{Hi + Li}{2}]^2$$

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Where:

PVOL means the closed price volatilization of common stock.
H_i means the closed price that is recorded the highest of i common stock in that year.
L_i means the closed price that is recorded the lowest of i common stock in that year.

3.4.2 Independent Variables

3.4.2.1 The Yield of Dividend

The yield of dividend (DY) is referred the percentage of dividend payment accounted for the annual earnings of the enterprise. More specifically, it would be taking the number of annual dividends of ordinary shareholders as the numerator and then divided by the respective market value of ordinary shares with the point of time assumed to be at the first trading day of the year. In this research, the method used to determine the yield of dividend is taking dividend per common share and then divided by the price of common stock that assumed to be the first trading day of the year. The formula of the yield of dividend is as:

$$DY_{it} = {}^{DPS_{it}}/_{PPS_{it}}$$

Where:

DY_{it} means company i's yield of dividend in t year.
DPS_{it} means company i's dividend per common share in t year.
PPS_{it} means company i's price per common stock at the beginning of t year.

3.4.2.2 The Ratio of Pay-out Ratio Dividend

The ratio of pay-out of dividend (DPR) is another main independent variable studied in this research and it refers to the percentage of dividends that the company would pay from its earnings to its shareholders yearly. In detail, it will be taking the percentage of dividend compared to its earnings, or cash dividend paid to ordinary shareholders, and subsequently divided by company's annual net profit after tax. In this study, the pay-out ratio of dividend is likewise formulated as:

$$DPR_{it} = {}^{DPS_{it}}/_{EPS_{it}}$$

Where:

DPR_{it} means company i's pay-out ratio of dividend in t year.
DPS_{it} means company i's dividend per share in t year.
EPS_{it} means company i's earnings per share in t year.

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3.4.3 Control Variables

For strengthen the correlation results of correlation among selected variables, there are control variables totaling four variables including enterprise size, leverage, the volatility of earnings and asset grow rate are employed in the study.

3.4.3.1 The Size of Enterprise

Generally, larger size of companies provide stability in terms of operational and financial status. In this study, it is simply to take the number of total assets by the year-end to denote the size of designated enterprise (SIZE). However, for better statistical assessment as well as presentation, the number of total assets is adjusted with the logarithm prior to the input in statical tools performed in later part.

3.4.3.2 The Ratio of Leverage

Leverage (LEVE) is referring to the amount of debt a company has and it indicates how much a company is using to finance its assets. Leverage generally includes all other borrowings apart from the enterprise's own source of funds, however, longer term portion of debt tends to be more stable and without significant fluctuation on the company's financials compared to shorter term portion of debt. Thus, we took the long-term portion of debt to be the numerator and the amount of total assets by the end of the year to be the denominator, representing the ration of leverage with formular stated as follow:

$$LEVE_{it} = {}^{LTD_{it}}/_{TA_{it}}$$

Where:

$LEVE_{it}$ means the leverage ratio of company i's in t year.
LTD_{it} means the long-term portion of debt by the end of fiscal year of company i in t year.
TA_{it} means the value of total assets by the end of the fiscal year of company i in t year.

3.4.3.3 The Volatilization of Earnings

The volatilization of earnings (EV) is to calculate the volatility in terms of profitability. This could be simply obtained by taking the company's earnings before interest and tax (EBIT) by the end of the fiscal year as numerator, and the subsequently divided by the denominator, namely the value of total assets by the end of fiscal year. The respective standard deviation could be thereby obtained with the said ratio after calculation. The volatility of earnings is formulated as:

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$$EV_{it} = \sqrt{\frac{(R_{it} - \bar{R}_i)^2}{n-1}}$$

Where:

EV_{it} means company i's volatilization of earnings in t year.
R_{it} means the value of earnings before interest and tax (EBIT) to the value of total assets by the end of fiscal year of company i in t year.
$\bar{R}_i$ means the average value of R_{it} of company i during the study period.

3.4.3.4 The Growth Ratio of Assets

The growth ratio of assets (GRO) in this research is referring to the growth ratio in assets, with the numerator to be discrepancy between the value of total assets on last trading day of the fiscal year and the value of total assets on the first trading day of the fiscal year of the same company, and subsequently taking the value of total assets on the first trading day of the fiscal year to be the denominator for calculation. The rate of asset growth is formulated as:

$$GRO_{it} = \frac{ASSET_{it} - ASSET_{it-1}}{ASSET_{it-1}}$$

Where:
GRO_{it} means company i's rate of asset growth in t year.
$ASSET_{it}$ means the value of total assets of company i on the last trading day in t year.
$ASSET_{it-1}$ means the value of total assets of company i on the first trading day of t year.

The measurement of variables and relevant studies are summarized in Table 3.1 below:

Table 3.1: Summary of Measurement of Adopted Variable in Research

Variable Name	Acronyms	Measurement
Dependent variable		
The price volatilization of common stock	PVOL	To subtract the lowest common stock price from highest common stock price each year, and subsequently divide by the average of the sum of yearly highest closing price and lowest closing price of stock. Finally, the result will then be obtained after being squared.
Corresponding Independent variables		
The yield of dividend	DY	Taking dividend per common share and then divided by the price of common stock that assumed to be the first trading day of the year.
The pay-out ratio of dividend	DPR	Taking the percentage of dividend compared to its earnings, or cash dividend paid to ordinary shareholders, and subsequently divided by company's annual net profit after tax
Corresponding Control variables		
The size of enterprise	SIZE	The value of total assets by the end of fiscal year after the mathematical processing method of logarithm, to denote the respective size of enterprise.
The ratio of leverage	LEVE	Taking the value of long-term portion of debt as numerator and the value of total assets as denominator with both value at the end of the fiscal year of the company.
The volatilization of Earnings	EV	Taking the standard deviation of the ratio which is calculated by taking earnings before interest and tax by the end of the fiscal year as numerator and the value of total assets by the end of the fiscal year as denominator.
The Growth Ratio of Assets	GRO	Taking the variance between the value of total assets on the last trading day of the fiscal year and the first trading day of the fiscal year.

Source: Author's Compilations (2021)

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3.5 Sampling and Sampling Size

The variables to be used in analysis are obtained from the chosen companies go public in the Stock Exchange in Hong Kong which is the largest bourse worldwide in terms of market capitalization.

There are 2,538 companies listed on HKEX as of the fiscal year end of 2020. In consideration of sufficient length of the secondary data, the data set is designed to obtain from the companies listing for at least 20 years from 2001 to 2020. After consolidation, there are 387 companies listed on HKEX possess historical financial data for 20 years are available for study. Among these companies, 354 companies are identified to be sufficiently and significantly reflected the market conditions of Hong Kong stock market, excluding financial institutions due to dissimilar format on account reporting standard and companies without long-term liabilities and missing essential data significant. Total of 6,983 effective sample points is retrieved from the data stream of WIND and the information are sourced from the audited financial statements mandatorily published on HKEX on a regular basis. In addition, these selected companies for study are across various sectors and different industries, as well as featured with different scale, financial situation and profitability.

3.5.1 Data Collection Methods and Procedures

In this study, the sources of data are outputted from the data stream in WIND, the leading financial information service provider in China, providing accurate information to financial professionals. Prior to the examine the hypothesis, the time-series of data set of chosen listed companies in HKEX are required to obtain, and it consists of dependent variable referring to the volatility of common stock price, independent variables referring to the yield and the ratio of pay-out of dividend denoting the policy or regulation of the company regarding dividend payment to its shareholders and control variables referring to the size of enterprise, the ratio of leverage, the volatility of earnings and the growth of asset. All these data are publicly accessible on the audited financial statements regularly released on HKEX exchange due to mandatory submission complying with respective laws and regulations. Following the previous studies, similarly, data are secondary data available from the local stock exchange where the research conducted at. Details of data extracted are presented in Appendix A.

3.6 Statistical Methods for Data Analysis

In order to provide a thorough and robust data analysis, a popular statistical software package for conducting data science, namely STATA (version 14) is adopted for mathematical processing to obtain the statical output for further analysis.

3.6.1 The Respective Description of Statistics

The respective description of statistics will be stated in Chapter four with the summary of necessary components for analysis including several commonly seen statistical terms including the value of mean, maximum and minimum, along with the respective mathematical standard deviation, showing the central tendency that help understanding the elements and features of all applied variables of the sample data used.

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3.6.2 The Analysis Based on Correlation

Spearman correlation was chosen to conduct analysis and generate the value of correlation coefficient for the determination of the correlation between all variables which are totaling in 7. Such analysis on statical correlation provided a significant reference in term of the directional significance among adopted variables. Prior to the conduct of regression analysis, it is utmost necessary to firstly identify whether the multicollinearity occurs between applied variables, as such, a multicollinearity test is also conducted to check whether the value of VIF is greater or lesser than 10.

3.6.3 The Analysis on Regression

For the sake of investigation on the possible influence that the company's policy may have on the price fluctuation of respective common stock effectively, the regression analysis is employed in this research to examine any relationship with casual effect exists between variables including dependent, independent and control variables. Panel data analysis is to employed to examine the hypothesis raised out in previous chapter concerning sample data chosen in this study are time-series data and estimation approaches consists of the statistical model of the effects meaning in both format of fixed and random.

3.7 Research Model Specification and Estimations

3.7.1 Research Model Specification

The model is for the investigation of the any possible influence that the company's policy and regulation regarding dividend payment which is proxied with the yield and the ratio of pay-out of dividend would have on the price fluctuation of corresponding common stock. Other control variables will also be examined. The empirical models are setup follows below:

$$PVOL_i = \alpha 0 + \alpha 1 DY_i + \alpha 2 DPR_i + \alpha 3 SIZE_i + \alpha 4 LEV_i + \alpha 5 EV_i + \alpha 6 GRO_i + \beta$$

Where:

PVOL means the price volatilization of common stock and being adopted as the dependent variable.
DY means the yield of dividend and being adopted as the independent variable.
DPR means the ratio of pay-out of dividend and being adopted as the independent variable.
SIZE means the size of enterprise and being adopted as the control variable.
LEVE means the ratio of leverage and being adopted as the control variable.
EV means the volatilization of earnings and being adopted as the control variable.
Gro means the growth ratio of company's assets and being adopted as the control variable.
$\alpha 0$ to $\alpha 6$ are coefficients, while β is the stochastic disturbance

3.7.2 Estimation Approaches

In this study, the technique of panel data analysis is employed in view of the results provide better estimates with lesser multicollinearity over cross-section as well as time-series set of data. Adopted approaches for

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estimation comprise of the statistical model of the effects in the form of fixed and random during mathematical analysis.

3.7.3 Diagnostic Test

Diagnostic test is necessary to perform in this study on the selection of fixed effects or random effects model, and thereby F-test and Hausman test are employed to judge which of these two regression models to use. The value of F-statistics and probability value from both mentioned tests will provide references on the model to be rejected or accepted.

3.8 Ethical Issues in Research

The chosen sample data are secondary data publicly accessible on Hong Kong Stock Exchange (HKEX). The information of all used variable is available on their annual or semi-annual reports that are mandatory to published on HKEX regularly, and thus, there is no approval or consent to be obtained prior to the use of data concerning ethical issue.

3.9 Limitations of Study

There are over 2,500 listed companies recorded at the end of Nov 2020, up from 1,200 in 2008 in HKEX of Hong Kong.

In spite of the sample data of this study consists of 354 listed companies, the simple data is still considered relatively small comparing to the whole. In addition, it excluded financial institutions as well as companies with no liability and missing data significantly. The study may not sufficiently represent the market conditions in Hong Kong stock market.

Moreover, the study is carried out particularly based on Hong Kong stock market, hence it could not extend the understanding to other stock market other than the stock market in Hong Kong.

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CHAPTER IV: ANALYSIS OF DATA, RESPECTIVE RESULTS AND DISCUSSION

4.1 Analysis and assessment of Data

The statistical tools are employed for assessing and analyzing the chosen sample set of data to generate the research outcomes throughout the whole chapter. Several parts including descriptive statistics, correlation analysis and regression are included in this chapter to provide the insights of the statistical outcomes.

4.2 Treatment of Outliers

In this study, all continuous variables were tailed up and down by 1% to deal with the problem of outliers to prevent the presence of outliers caused violation in the Panel data regression analysis.

4.3 Descriptive Statistics of Sample Data

A profile of 354 companies listed in HKEX are observed and total amounts of 6,983 effective sample data are involved in this study as shown in Table 4.1.

The volatility of common stock price (PVOL) has the numbers for maximum and minimum of 3.058 (305.80%) and 0.0257 (2.57%) respectively, along with the mean and the corresponding standard deviation to be 0.887 (88.70%) and 0.721 (72.10%) respectively, implying the common stock price has significant fluctuation between the companies used in this study.

The yield of dividend (DY) and the pay-out ratio of dividend (DPR) are employed to be the proxies of dividend policy. With the figures showed in Table 4.1, the yield of dividend (DY) has a number of minimum of 0 (0.00%) meaning that partial companies are not paying dividend regularly, the corresponding number of maximum and the mean are 0.390 (39.00%) and 0.0471 (4.71%) respectively, suggested the yield of dividend between companies in this research are varied but the amount of dividend paid to common shareholder are fairly good. Meanwhile, the pay-out ratio of dividend (DPR) has a number for minimum of -1 (-100.00%), a number for maximum of 2.59 (259.00%) and a number for mean of 0.326 (32.6%). These results indicated some companies paid dividends more than their earnings with sourced from other funding channels instead of earnings.

The enterprise size (SIZE) of chosen companies listed on HKEX concluded the numbers of maximum, mean and minimum are 28.65, 21.29 and 16.52 respectively, indicating corresponding scale of these companies is relatively large, mainly due to the chosen companies have been listed for more than 20 years, providing them enough time to growth and to meet the size requirement of listing.

The leverage (LEV) is referred to the long-term debt ratio. The results showed the numbers for maximum, average and minimum are 0.445 (44.50%), 0.126 (12.60%) and 0 (0.00%) respectively, and the value of average number is relatively close to the standard deviation of 0.127 (12.7%), implying the sample companies in this research generally financed with comparatively low borrowing and some companies do not even maintain any long-term debt.

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The volatility of Earnings (EV) with the numbers for maximum and minimum of 0.179 (17.90%) and 0 (0.00%) respectively, along with the number for mean standard deviation stayed low at 0.0279 (2.79%) and 0.0385 (3.85%) respectively, showing the volatility of earnings of sample companies are relatively low and some companies do not have change in earnings.

Asset Growth (GRO) with a minimum number of -0.620 (-62.00%), a maximum number of 1.123 (123.30%) and an average number of 0.106 (10.60%), indicating the chosen companies listed on HKEX have stable pace of development.

Table 4.1: Descriptive Statistics

Variables	N	Mean	Std. Dev.	Min.	P50	Max.
PVOL	6983	0.887	0.721	0.0257	0.682	3.058
DY	6983	0.0471	0.0840	0	0.0155	0.390
DPR	6983	0.326	0.567	-1	0.168	2.590
SIZE	6983	21.29	1.799	16.52	21.05	28.65
LEV	6983	0.126	0.127	0	0.0816	0.445
EV	6983	0.0279	0.0385	0	0.0139	0.179
GRO	6983	0.106	0.285	-0.620	0.0603	1.123

Source: Researchers' Computation (Stata 14) 2021
Note: Std. Dev. = Standard Deviation

4.4 Correlation Analysis of Sample Data

From the Table 4.2., apparently, the obvious association and correlation among designated variables are shown on it. It is apparently seen that most of the variables are significantly related to others and the results are a mixture of positive and negative correlation coefficients listed on the table.

The results of correlation analysis indicated the yield of dividend and the volatility of common stock price are insignificant correlated which is required to be tested by regression analysis in the following part, while the pay-out ratio of dividend is negatively associated to the volatility of common stock price at 1% level of significance, implying the higher the pay-out ratio of dividend leads to the lower price fluctuation of common stock based on the chosen sample data.

It is interesting to see the size of enterprise size has a comparatively high association but in a negative way to the price fluctuation of common stock at 1% significant level, which led to the conclusion that the company with larger size means it would have lower price fluctuation of its common stock. Likewise, leverage is significantly negatively correlated with the volatility of common stock price at the 1% significance level, indicating that the higher the leverage, the lower the volatility of common stock price.

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In addition, the volatility of earnings is found be also significantly associated to the price fluctuation of the respective common stock price but in the positive way with significance level at 1%, while assets growth and the price fluctuation of common stock are significantly negatively correlated at the 1% significance level.

Table 4.2: Spearman Correlation

	PVOL	**DY**	**DPR**	**SIZE**	**LEV**	**EV**	**GRO**
PVOL	1						
DY	-0.0120	1					
DPR	**-0.200*** **	**0.284*** **	1				
SIZE	**-0.533*** **	**0.042*** **	**0.265*** **	1			
LEV	**-0.097*** **	**-0.104*** **	**-0.027** **	**0.237*** **	1		
EV	**0.064*** **	-0.00500	**-0.121*** **	**-0.182*** **	**0.082*** **	1	
GRO	**-0.079*** **	0.00800	-0.0130	**0.165*** **	**0.137*** **	**-0.064*** **	1

*** p<0.01, ** p<0.05, * p<0.1

Dependent, Independent and Control Variables in the above table are defined as follows: The Volatility of Common Stock Price (PVOL), The Yield of Dividend (DY), The Pay-out Ratio of Dividend (DPR), Enterprise size (SIZE), Leverage (LEV), The Volatility of Earnings (EV) and Asset growth (GRO).

4.5 Multicollinearity Test

According to the table of Spearman Correlation, apparently, the correlation coefficients revealed all dependent, independent and control variables are somehow linked and associated with some others. Therefore, the study conducts a multicollinearity test on the variables to avoid the mutual influence between the variables and the collinearity. The results show in Table 4.3 with the VIF value of each variable tabulated. It is observed that none of these VIF values of variables is lesser than 10, meaning there is absence of multicollinearity between these variables. As such, the multiple regression analysis can be employed to further test the relationship between these variables.

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Table 4.3: Multicollinearity Test

Variables	VIF	1/VIF
SIZE	1.21	0.8256
DPR	1.19	0.8438
LEV	1.11	0.9018
DY	1.1	0.9078
EV	1.06	0.9423
GROWTH	1.05	0.9565
Mean VIF	1.12	

Note: VIF = Variance Inflation Factor

4.6 Panel Data Regression Analysis

To perform panel data regression analysis during data analysis or assessment, it is very often to use the model of fixed effects and random effects, to conclude the correlation that may exist among adopted variables, namely in this study, are the yield and the ratio of pay-out of dividend, the size of enterprise, leverage, the volatility of earnings, growth and the price volatility of respective common stock. Signal " * ", " ** " and " *** " represents level of significant at the value of 10%, 5% and 1% respectively.

4.6.1 F-test and Hausman Test

F-test and Hausman test are performed before panel data regression analysis, to provide judgement on proper statistical tool of regression Analysis, meaning the model of random or fixed effects should be adopted for further testing properly.

Table 4.4 shows the value of F-statistics and the corresponding Probability value are 25.93 and 0.0000 respectively. It clearly rejects the null hypothesis that there is no individual difference and suggests that employing fixed effects model (FEM) for analysis by comparison to ordinary least squares (OLS).

The statical outcome of Hausman's test is 30.33 and the number of corresponding probability is 0.0000. As such, to employ the model of fixed effects is considered the proper statical measure in the analysis of regression since the probability value of Hausman test is below 0.01, implying the null hypothesis that the estimated values is significantly rejected at the significance level of 1%.

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Table 4.4: The statical outcomes of Hausman Test and F-test

Model	F-test	Hausman Test
Statistics	25.93	30.33
Probability Value (PV)	0.0000	0.0000

4.6.2 Regression Analysis

The presentation of the respective statical outcomes is tabulated in Table 4.5, where the figures from the model of fixed effects and random effects are in column 1 and column 2 correspondingly. As mentioned earlier, it is the properly to use the model of fixed effects concerning the statical outcomes supported such measurement.

After the statical outcomes outputted from the use of the model of fixed effects, apparently, the level of significance is valued at 5% for the yield of dividend with the negative coefficient concluded, explaining the increment in the yield of dividend can significantly reduce the volatility of common stock price. Its coefficient is -0.155, indicating the increase of 1 unit in the yield of dividend reduces the price fluctuation of common stock by 0.155 unit. This shows that the yield of dividend and the price fluctuation of common stock are obviously negatively associated with each other which supports Hypothesis (H1a), that is, the increment in the yield of dividend can effectively suppress the price fluctuation of respective common stock. Therefore, the yield of dividend could be considered to be an indicator from the perspective of the cost and income of investors and it has a strong correlation with investors' investment decisions and investment behaviors. The increase or decrease in the yield of dividend has significant impacts on the investment decisions of investors and it will also affect the stability of listed companies' common stock prices to a greater extent in Hong Kong stock market.

Level of significance at 5% is obtained for the pay-out ratio of dividend with the negative coefficient concluded after statical output, explaining that an increase in the pay-out ratio of dividend can significantly reduce the volatility of common stock price. This supports Hypothesis (H2a). Its coefficient is -0.029, indicating that the pay-out ratio of dividend increases by 1 unit, the respective price of common stock fluctuates and decreases by 0.029 unit correspondingly. As such, the ratio of pay-out of dividend is apparently associated to the price fluctuation of respective common stock in the negative way, that is, any increase in the ratio of pay-out of dividend can effectively suppress the fluctuation of common stock price.

The pay-out ratio of dividend is a vital part of dividend policy and represents the distribution of dividends. The distribution of cash dividends has higher requirements for the financial competency and profitability of listed companies. High cash dividends often indicate a better company's financial status. Therefore, listed companies that distribute higher cash dividends are more likely to attract investors to invest and hold for a longer period of time, and their common stock prices are relatively more stable.

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From the outcomes of other control variables, the enterprise size (SIZE) is shown at 1% significance level while the coefficient is negative, supporting Hypothesis (H3a) and indicating that larger size of enterprise comes with lower price fluctuation of the respective common stock which is mainly attributable to the fact that larger companies receive more attention from investors, and investors can obtain more effective information from the capital market, and thereby reducing the speculative behavior in the capital market and stabilizing the common stock price of listed companies.

The volatility of Earnings (EV) is shown at 1% significance level while the coefficient is positive, supporting Hypothesis (H5a) with the indication that the greater volatility of earnings lead to lower price fluctuation of the company's common stock, mainly attributable to the greater the volatility of the company's earnings, the smaller the proportion of dividends they will use as dividend payments due to uncertainty on profitability. As such, dividend payments can be a signal implying the company's business profitability. When dividend payments are reduced, market speculation will increase, resulting in unusual volatilized price of respective common stock.

In contrast, there no association is identified significantly between two control variables, namely the leverage, the enterprise's growth rate of Asset growth and the price fluctuation of respective common stock. These two variables are considered important fundamental factors to common stock price as companies with good fundamentals are likely to attract investors to hold stocks for a longer time, which will help stabilizing the volatility of common stock price. Nevertheless, these two variables in this study are found not significant with the volatility of common stock price, which may be due to the serious speculative behavior and herd effect of investors in the Hong Kong stock market, led to lack of attention to fundamental information when investing in stocks, and thereby the company's leverage and asset growth rate mostly do not affect the price fluctuation of respective common stock.

To summarize, the yield and the pay-out ratio of dividend can reduce the price fluctuation of corresponding common stock, mainly attributable to enterprise's decision on distribution of dividend will affect the composition of investors and their investment behavior. Investors attracted by listed companies with high cash dividends are often long-term investors pursuing cash dividend returns. Such investors are willing to hold stocks of such companies for a long time and usually do not conduct frequent buying and selling transactions, which will help maintaining the stability of the company's common stock price.

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Table 4.5: Regression Analysis of Fixed Effects Model and Random Effects Model

Variables	(1) FEM PVOL	(2) REM PVOL
DY	**-0.155****	**-0.135***
	(-2.096)	(-1.842)
DPR	**-0.029****	**-0.033*****
	(-2.559)	(-2.931)
SIZE	**-0.212*****	**-0.210*****
	(-36.273)	(-38.173)
LEV	0.034	0.045
	(0.656)	(0.886)
EV	**0.567*****	**0.472****
	(2.990)	(2.545)
GRO	-0.028	-0.028
	(-1.574)	(-1.558)
Constant	**5.153*****	**5.115*****
	(40.359)	(41.769)
Observations	6,983	6,983
R-squared	0.364	0.363
Number of id	354	354

t-statistics in parentheses

Note: Significant levels "***", "**" and "*" are referred to p<0.01, p<0.05 and * p<0.1 respectively

4.6.3 Adjusted Analysis of Regression

Concerning the dividend policy from the current period will affect the price fluctuation of respective common stock in the next period, the explanatory variables are replaced to be the price fluctuation of corresponding common stock in next period, we therefor adjusted accordingly in the model of fixed effects and random effect employed in the analysis of regression with results stated as follows:

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Table 4.6: Adjusted Results of Regression Analysis

Variables	(1) FE FVOL	(2) RE FVOL
DY	**-0.598*** **	**-0.556*** **
	(-8.091)	(-7.608)
DPR	**-0.026** **	**-0.032*** **
	(-2.205)	(-2.741)
SIZE	**-0.195*** **	**-0.196*** **
	(-32.817)	(-35.097)
LEV	**0.116** **	**0.122** **
	(2.236)	(2.384)
EV	**0.600*** **	**0.502*** **
	(3.029)	(2.600)
GRO	**-0.086*** **	**-0.085*** **
	(-4.904)	(-4.832)
Constant	**4.819*** **	**4.844*** **
	(37.121)	(39.029)
Observations	6,583	6,583
R-squared	0.358	0.358
Number of id	354	354

t-statistics in parentheses

Note: Significant levels "***", "**" and "*" are referred to p<0.01, p<0.05 and * p<0.1 respectively

After the replacement of explained variables, it came to a conclusion that the respective level of correlation towards the explanatory (DY and DPR) and the explained variable did not change accordingly. Meanwhile, the significance level of the control variable also failed to show a significant change, therefore, the relevant assumptions remained valid during the research, and it can be seen that the final conclusion of this study still have corresponding robustness. In other words, we believe that the yield of dividend is negatively associated to the price fluctuation of common stock. Meanwhile, the ratio of pay-out of dividend also negatively impacts the price fluctuation of respective common stock.

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Table 4.7: Summary of Hypothesis Results

Summary of Hypothesis results			
Hypothesis	Relationship	Significant level	Result
H_{1a}: The yield of dividend is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Negative	5%	**Supported**
H_{1b}: The yield of dividend is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{2a}: The pay-out ratio of dividend is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Negative	5%	**Supported**
H_{2b}: The pay-out ratio of dividend is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{3a}: The size of enterprise is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Negative	1%	**Supported**
H_{3b}: The size of enterprise is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{4a}: The leverage is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{4b}: The leverage is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Positive	Nil	**Supported**
H_{5a}: The volatility of earnings is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Positive	1%	**Supported**
H_{5b}: The volatility of earnings is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{6a}: The growth of asset is significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	-	Nil	Unsupported
H_{6b}: The growth of asset is not significantly correlated to the price fluctuation of common stock of companies go public in HKEX.	Negative	Nil	**Supported**

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4.7 Discussion of Findings

The research question is pointed out in Chapter One: What is the influence or impact that dividend policy may have on the price fluctuation of common stock particularly for companies go public in the stock market of Hong Kong?

4.7.1 The Correlation between the Yield of Dividend and the Price Fluctuation of Respective Common Stock

As shown in Table 4.7, in alignment with the academic studies in the past, Baskin (1989), Hashemijoo et al., (2012), Profilet and Bacon (2013), Ramadan (2013), Sew et al., (2015), Shah and Noreen (2016), Hamid et al., (2017), Zainudin et al., (2018) and Haque et al., (2019), the figures obviously supported with Hypothesis (H1a), and presented the price fluctuation of common stock in HKEX is somehow driven by the respective yield of dividend but in a negative direction, revealing any increase may have on in this yield would most probably and significantly lead to lower volatized price, mainly attributable to higher the yield of dividend led to a longer holding time of the stock investment and thereby reduce the fluctuations of common stock price. With the increase of a unit in the yield of dividend, the price fluctuation of respective common stock price will be decreased correspondingly. In the contrary, the statical outcomes concluded by Black and Scholes (1974), Allen and Rachim (1996), Hussainey et al., (2011), Nazir et al., (2010), Al-Shawawreh (2014), Anh and Nhi (2016) and Nguyen et al., (2020) appeared to be in disagreement with the outcomes of this paper.

4.7.2 The Correlation between the Pay-out Ratio of Dividend and the Price Fluctuation of Respective Common Stock

The statical outcomes which is supported with Hypothesis (H2a) and are consistent with the results from Baskin (1989), Allen and Rachim (1996), Nazir et al., (2010), Hussainey et al., (2011), Hashemijoo et al., (2012), Ramadan (2013), Lashgari and Ahmadi (2014), Al-Shawawreh (2014), Sew et al., (2015), Shah and Noreen (2016), Zainudin et al., (2018) and Nguyen et al., (2020), concluded the price of common stock would be volatized and driven by the respective pay-out ratio of dividend with a significant correlation existed in between but in a negative direction in the stock market of Hong Kong. This implies that the pay-out ratio of dividend would have a significantly influence on the price fluctuation of respective common stock. Any increase in the pay-out ratio of dividend can effectively suppress the respective price of common stock, mainly due to companies pay more cash dividends are most likely to attract more investors to invest or hold the stock for a longer period of time and hence lower the common stock price accordingly.

4.7.3 The Correlation between Enterprise Size and the Price Fluctuation of Respective Common Stock

To be supported with the Hypothesis (H3a) and the statiscal outcomes from Hussainey et al., (2011), Profilet and Bacon (2013), Anh and Nhi (2016), Sew et al., (2015), Zainudin et al., (2018) and Haque et al., (2019), our statical outcomes are outputted unanimously with them, presented the size of enterprise has a significant association to the price fluctuation of corresponding common stock but with a negative direction in HKEX, which indicated that larger enterprise size led to lower volatized price of common stock, mainly due to the

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investors pay more attention larger companies and more effective information reduce the speculative behavior in the capital market, and thus more stable stock price will be.

4.7.4 The Correlation between Leverage and the Price Fluctuation of Respective Common Stock

The statical results from Baskin (1989), Allen and Rachim (1996), Hussainey et al., (2011), Zakaria et al., (2012), Profilet and Bacon (2013), Sew et al., (2015) and Anh and Nhi (2016) found the leverage has significant association to the price fluctuation of respective common stock, which are in agreement with our Hypothesis (H4b), Although this control variable is considered an important fundamental factor of companies' financials and leverage is expected to fluctuate the price of common stock, no important influence is identified that the leverage has on the price fluctuation of respective common stock in HKEX, which may be due to the serious speculative behavior and herd effect of investors in Hong Kong stock market, caused lack of attention to fundamental information while investing into the stock. But interestingly, in disagreement with statical outcomes retrieved from Hashemijoo et al., (2012), Lashgari and Ahmadi (2014), Zainudin et al., (2018) and Nguyen et al., (2020).

4.7.5 The Correlation between the Volatility of Earnings and the Price Fluctuation of Respective Common Stock

Same with the primary statical outcomes from Baskin (1989), the statical outcomes in Table 4.7 presented the volatility of earnings has significantly correlation to the price fluctuation of corresponding common stock in the positive direction in HKEX, which supports Hypothesis (H5a), implying any increase in the volatility of earnings, the more volatilized and fluctuated the price of common stock would be, mainly attributable to the greater the volatility of earnings leads to smaller dividend payments to shareholders, resulting in more volatilized and fluctuated price of respective common stock. This is also in agreement with outcomes retrieved from the former hypothesis conducted by Allen and Rachim (1996), Hashemijoo et al., (2012), Sew et al., (2015) Zainudin et al., (2018) and Nguyen et al., (2020).

4.7.6 The Correlation between Asset Growth and the Price Fluctuation of Respective Common Stock

Since the primary statical study performed by Baskin (1989), and several followers, including Allen and Rachim (1996), Hussainey et al., (2011), Hashemijoo et al., (2012), Zakaria et al., (2012) and Sew et al., (2015) conducted similar studies, they all reached to a conclusion that the growth of asset has no correlation to the price fluctuation of respective common stock or drive the movement of it. With the chosen sample data obtained from the statical tools, our findings are supporting with Hypothesis (H6b) and these researchers. In spite of asset growth requires companies' continuous investment in itself with remaining cash after dividend paid to shareholders. As same as leverage, this control variable is considered an important fundamental factor of companies' financials, however, it is observed that asset growth has no significant influence on the price fluctuation of corresponding common stock or drives the movement of the price in HKEX, which may be due to the serious speculative behavior and herd effect of investors in Hong Kong stock market, caused lack of attention to fundamental information while investing into the stock. Nevertheless, Profilet and Bacon (2013) observed the growth of asset would affect and volatilize the price of respective common stock with a negative association found, and in the contrary, the statical outcomes

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from Lashgari and Ahmadi (2014) revealed the growth of asset would fluctuate and volatilize the price of common stock in a positive direction which is also in agreement with the outcomes retrieved from Zainudin et al., (2018) and Nguyen et al., (2020).

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CHAPTER V: CONCLUSION AND RECOMMENDATION

5.1 Respective Conclusion and Recommendation

To conclude, based on the sample data and tools being utilized in the study, to discover whether dividend policy would have impact or influence on the price fluctuation of common stock, as well as the possible correlation may exist in between, the results from it are showing not unanimous in the stock market of Hong Kong. This chapter includes conclusion of results, recommendations, research limitations and direction of future research.

5.1.1 Conclusion of Results

With the conceptualization by the theory being considered necessary to adopt to create the link between the policy or regulation of the company and respective price volatilization of the common stock, the theory of irrelevance of dividend is the first to understand since it pointed no particular relationship exists in between. By the level or relevance, the theory of bird-in-hand, signaling, cost of being agency, together with the theory of stakeholder as well as clientele effect are employed to the framework of literature prior to the research design. An empirical result on how the dividend policy impact or influence on the price fluctuation of respective common stock price is explained in detail in this paper.

Even since the study carried out by Black and Scholes (1974) who provided a primary reference for all later researchers studied the possible impact or influence that dividend policy may have on the price fluctuation of common stock, as well as Baskin (1989) indicated that the dividend policy proxied by the yield and the respective ratio of pay-out of dividend, has a significantly negative association to the price fluctuation of corresponding common stock, and provided a crucial analytical framework for related studied for later followers, the similar studies are being performed towards various sectors, markets and geographical locations including both developing and developed countries such as Malaysia and United States. Nevertheless, no consistent outcomes are being identified from all these empirical studies.

Hong Kong Stock Exchange, being the largest bourse worldwide when it comes to the size of market capitalization, HKEX is an official stock exchange based in Hong Kong, with 2,538 companies listed on HKEX as of the fiscal year end of 2020. In context to Hong Kong stock market, this study is the first study in terms of how the company's regulation or policy concerning dividend payment influences the price volatilization of respective common stock particularly towards companies which go public on HKEX in order to provide investors an important reference when making investment decisions.

The empirical findings supported the hypothesis that dividend policy which are proxied by the yield and the respective ratio of pay-out of dividend, is significantly correlated but in a negative way to the price fluctuation of respective common stock in Hong Kong stock market. This implies that the higher yield or pay-out ratio of dividend may possibly lead to lower price fluctuation of common stock. Moreover, the study revealed the enterprise size has a negative association to the price fluctuation of common stock price, in a positive way, the volatility of earnings is significantly associated to the price fluctuation of common

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stock. Nevertheless, both leverage and the growth rate of asset appealed insignificant to the price fluctuation of common stock in HKEX.

Therefore, this research concluded that particularly in the stock market of Hong Kong, a significant relationship exists between the enterprise's policy or regulation regarding dividend payment to its shareholders and the price fluctuation of respective common stock, more specifically, both the yield dividend would have significant impact and drive the price fluctuation of common stock based on the sample of chosen companies, this is the same as the ratio of pay-out of dividend as well.

5.1.2 Recommendations

Due to serious speculative behavior and herd effect of investors in the advanced stock market of Hong Kong in recent years, investors pay less attention to the fundamentals of listed companies when making investment decisions. Investors with different aims and investment expectations should have thorough understanding of the investment tools they employ. Especially for long-term and elder investors, or fund managers of retirement funds, to include stocks paying higher dividends are essential and thereby understanding how the enterprise's regulation or policy regarding dividend payment to its shareholders influences the price volatilization of common stock becomes necessary when considering adding such high-dividend stocks. A significant negative relationship is observed and exists between the policy or regulation of dividend policy which is proxied by the yield of dividend and the pay-out ratio of dividend, and the price fluctuation of respective common stock particularly in Hong Kong stock market. Long-term investors are recommended to invest into the stock has higher the yield and the pay-out ratio of dividend to avoid higher potential on the volatility, while short-term investors are recommended to invest into stock with lower the yield and the pay-out ratio of dividend to maximize their potential gains in the stock market of Hong Kong. Investors with different investment goals and tenors could take advantage of this research when making investment decisions. However, the yield and the pay-out ratio of dividend may not be sufficiently representing the whole of dividend policy.

For listed companies in Hong Kong stock market, the findings of this research advise companies to sustain the dividend paid to investors at a higher level in order to maintain a lower level of the price fluctuation of common stock. In addition, the respective results also suggest the bigger enterprise size comes with lower the price fluctuation of respective common stock, while higher the volatility of earnings comes with higher volatility of common stock price. These is also to be considered during decision making of investment.

5.2 Research Limitations

In spite of that the data used in the research are deemed reliable by retrieving the data stream of WIND, the leading financial information service provider in China, providing accurate information to financial professionals, the related financial information is originally extracting from the audited financial statements mandatorily published on HKEX on a regular basis. Concerning the total sample size consists of 6,983 samples which is relatively large and the discrepancy in between is difficult to detect. This may lead to imprecise information in the analysis.

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In this research, 354 companies are identified to be sufficiently and significantly reflected the market conditions of Hong Kong stock market. However, financial institutions are excluded due to dissimilar format on account reporting standard and companies without long-term liabilities and missing essential data significant are also excluded in this study. In addition, there are 2,538 companies listed on HKEX as of the fiscal year end of 2020. The size of sample data may not reflect the whole picture of the stock market in Hong Kong.

The relevant research performed in the past concluded empirical results of how dividend policy proxied by two major independent variables, namely the dividend yield and the respective ratio of dividend pay-out, impacts or influences the price fluctuation of common stock in designated stock markets. Other qualitative factors related to the terms and conditions of dividend policy are totally omitted and they may possibly have influence on this research. This may mislead the empirical results.

5.3 Direction of Future Research

This paper serves as preliminary research to examine the relation between dividend policy proxied by two independent variables, the yield and the pay-out ratio of dividend with other control variables particularly on Hong Kong stock market. This research could be extended to the stock market of China as Shanghai Stock Exchange became the exchange with largest amount of Initial Public Offering ("IPO") in 2020 and Chinese companies listed on HKEX are accounting for a large portion with a gradually increasing trend. Also, the research coverage could be extended to other geographical locations as all researchers conducted similar studies found inconsistent empirical results on the stock market in developed and developing countries and the countries involved are concentrated to several which could not represent the whole.

Meanwhile, qualitative information is possibly involved in the research and it may provide wider scope and more significant findings. For instance, other factors such as terms and conditions of dividend policy that may also have influence on the price fluctuation of corresponding common stock to be considered and adopted as measured variables when performing data analysis.

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APPENDICES

Appendix A – 354 listed companies in Hong Kong (samples of observation)

Stock Code	Name
0001	CKH HOLDINGS
0008	PCCW
0010	HANG LUNG GROUP
0012	HENDERSON LAND
0014	HYSAN DEV
0016	SHK PPT
0017	NEW WORLD DEV
0018	ORIENTAL PRESS
0022	MEXAN
0024	BURWILL
0025	CHEVALIER INT'L
0027	GALAXY ENT
0028	TIAN AN
0030	BAN LOONG
0031	CHINA AEROSPACE
0032	CROSS-HAR
0034	KOWLOON DEV
0035	FE CONSORT INTL
0036	FE HLDGS INTL
0038	FIRST TRACTOR
0040	GOLD PEAK
0043	C.P. POKPHAND
0046	COMPUTER & TECH
0047	HOP HING GROUP
0052	FAIRWOOD HOLD
0053	GUOCO GROUP
0055	NEWAY GROUP
0057	CHEN HSONG HOLD
0058	SUNWAY INT'L
0059	SKYFAME REALTY

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0060	HK FOOD INV
0069	SHANGRI-LA ASIA
0075	Y.T. REALTY
0081	CH OVS G OCEANS
0082	CRAZY SPORTS
0083	SINO LAND
0084	STELUX HOLDINGS
0085	CE HUADA TECH
0087	SWIRE PACIFIC B
0088	TAI CHEUNG HOLD
0089	TAI SANG LAND
0092	CHAMPION TECH
0093	TERMBRAY IND
0094	GREENHEART GP
0097	HENDERSON INV
0099	WONG'S INT'L
0102	SUMMIT ASCENT
0103	SHOUGANG CENT
0104	ASIA COMM HOLD
0105	ASSO INT HOTELS
0106	LANDSEA PPT
0107	SICHUAN EXPRESS
0112	LERTHAI GROUP
0113	DICKSON CONCEPT
0116	CHOW SANG SANG
0118	COSMOS MACH
0119	POLY PROPERTY
0123	YUEXIU PROPERTY
0124	GD LAND
0125	SUN HING VISION
0126	CARRIANNA
0129	ASIA STANDARD
0135	KUNLUN ENERGY
0136	HENGTEN NET
0137	JINHUI HOLDINGS

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0138	CCT FORTIS
0141	SKYCHINAFORTUNE
0142	FIRST PACIFIC
0143	GUOAN INTL
0144	CHINA MER PORT
0147	IB SETTLEMENT
0148	KINGBOARD HLDG
0149	CH AGRI-PROD EX
0152	SHENZHEN INT'L
0158	MELBOURNE ENT
0163	EMPEROR INT'L
0167	IDT INT'L
0168	TSINGTAO BREW
0173	K. WAH INT'L
0175	GEELY AUTO
0176	SUPERACTIVE GP
0177	JIANGSU EXPRESS
0178	SA SA INT'L
0179	JOHNSON ELEC H
0180	KADER HOLDINGS
0182	CONCORD NE
0184	KECK SENG INV
0185	ZENSUN ENT
0186	NIMBLE HOLDINGS
0187	JINGCHENG MAC
0191	LAI SUN INT'L
0194	LIU CHONG HING
0199	ITC PROPERTIES
0201	MAGNIFICENT
0205	SEEC MEDIA
0207	JOY CITY PPT
0210	DAPHNE INT'L
0212	NANYANG HOLD
0213	NATIONAL ELEC H
0214	ASIA ORIENT

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0216	CHINNEY INV
0219	SHUNHO PROPERTY
0225	POKFULAM
0229	RAYMOND IND
0230	MINMETALS LAND
0232	CON AERO TECH
0234	NEW CENTURY GP
0237	SAFETY GODOWN
0239	PAK FAH YEOW
0242	SHUN TAK HOLD
0247	TST PROPERTIES
0251	SEA HOLDINGS
0255	LUNG KEE
0256	CITYCHAMP
0259	YEEBO (INT'L H)
0262	DESON DEV INT'L
0267	CITIC
0269	CRTG
0271	ASIASEC PPT
0278	WAH HA REALTY
0280	KING FOOK HOLD
0281	RIVERA (HOLD)
0286	AIDIGONG
0292	ASIA STD HOTEL
0293	CATHAY PAC AIR
0297	SINOFERT
0303	VTECH HOLDINGS
0305	WULING MOTORS
0306	KWOON CHUNG BUS
0308	CHINA TRAVEL HK
0316	OOIL
0321	TEXWINCA HOLD
0323	MAANSHAN IRON
0328	ALCO HOLDINGS
0332	YUANHENG GAS

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0333	TOP FORM INT'L
0334	CH DISPLAY OPT
0336	HUABAO INTL
0338	SHANGHAI PECHEM
0341	CAFE DE CORAL H
0342	NEWOCEAN ENERGY
0345	VITASOY INT'L
0347	ANGANG STEEL
0348	CHINAHEALTHWISE
0355	CENTURY C INT'L
0358	JIANGXI COPPER
0363	SHANGHAI IND H
0366	LUKS GROUP (VN)
0367	CHUANG'S INT'L
0369	WING TAI PPT
0371	BJ ENT WATER
0374	FOUR SEAS MER
0375	YGM TRADING
0377	CHINA HUAJUN GP
0378	FDG KINETIC
0383	CHINA MED&HCARE
0384	CHINA GAS HOLD
0385	CHINNEY ALLI
0391	MEI AH ENTER
0392	BEIJING ENT
0393	GLORIOUS SUN
0398	ORIENTAL WATCH
0403	STARLITE HOLD
0406	YAU LEE HOLD
0408	YIP'S CHEMICAL
0411	LAM SOON (HK)
0413	SC HOLDINGS
0417	TSE SUI LUEN
0419	HUAYI TENCENT
0420	FOUNTAIN SET

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 28 February 2022 doi:10.20944/preprints202202.0362.v1

0432	PCPD
0450	HUNG HING PRINT
0451	GCL NEWENERGY
0455	TIANDA PHARMA
0458	TRISTATE HOLD
0467	UNITEDENERGY GP
0472	NEW SILKROAD
0480	HKR INT'L
0485	CHINASINOSTAR
0487	SUCCESSUNIVERSE
0488	LAI SUN DEV
0493	GOME RETAIL
0497	CSI PROPERTIES
0498	BLUE RIVER HLDG
0499	QINGDAO HLDGS
0500	FRONTIER SER
0506	CHINA FOODS
0508	DINGYI GP INV
0511	TVB
0512	CHINAGRANDPHARM
0513	CONTINENTAL H
0517	COSCO SHIP INTL
0518	TUNGTEX (HOLD)
0522	ASM PACIFIC
0525	GUANGSHEN RAIL
0526	CHINA AUTO NR
0529	SIS INT'L
0532	WKK INTL (HOLD)
0533	GOLDLION HOLD
0535	GEMDALE PPT
0539	VICTORY CITY
0547	DIGITAL DOMAIN
0551	YUE YUEN IND
0554	HANS ENERGY
0559	DETAI NEWENERGY

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 28 February 2022 doi:10.20944/preprints202202.0362.v1

0563	SH IND URBAN
0570	TRAD CHI MED
0576	ZHEJIANGEXPRESS
0578	ROSAN RES
0590	LUK FOOK HOLD
0593	DREAMEAST
0603	CHINA OIL & GAS
0610	WAI KEE HOLD
0613	PLANETREE INT'L
0617	PALIBURG HOLD
0632	CHK OIL
0638	KIN YAT HOLD
0641	CHTC FONG'S INT
0660	WAI CHUN BIOTEC
0669	TECHTRONIC IND
0675	K & P INT'L
0677	GOLDEN RES DEV
0680	NAN HAI CORP
0683	KERRY PPT
0685	MEDIA CHINESE
0688	CHINA OVERSEAS
0693	TAN CHONG INT'L
0701	CNT GROUP
0710	BOE VARITRONIX
0711	ASIA ALLIED INF
0713	WORLD HOUSEWARE
0715	CHINA OCEANWIDE
0716	SINGAMAS CONT
0718	TAI UNITED HOLD
0719	SHANDONG XINHUA
0723	RELIANCE GLO HL
0725	PERENNIAL INT'L
0727	CROWNICORP
0731	SAMSON PAPER
0732	TRULY INT'L

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0738	LE SAUNDA
0747	SHENYANG PUBLIC
0752	PICO FAR EAST
0754	HOPSON DEV HOLD
0755	SHANGHAI ZENDAI
0758	MACROLINK CAP
0759	CEC INT'L HOLD
0765	PERFECTECH INTL
0769	CHINA RAREEARTH
0771	AUTOMATED SYS
0855	CHINA WATER
0862	VISION VALUES
0874	BAIYUNSHAN PH
0876	KAISA HEALTH
0878	SOUNDWILL HOLD
0882	TIANJIN DEV
0894	MAN YUE TECH
0897	WAI YUEN TONG
0898	MULTIFIELD INTL
0902	HUANENG POWER
0907	ELEGANCEOPTICAL
0910	CHINA SANDI
0914	CONCH CEMENT
0921	HISENSE HA
0922	ANXIANYUAN CH
0934	SINOPEC KANTONS
0938	MAN SANG INT'L
0941	CHINA MOBILE
0959	CENTURY ENT INT
0970	SPARKLE ROLL
0978	CHI MER LAND
0983	SOCAM DEV
0984	AEON STORES
0986	CH ENV ENERGY
0987	CH RENEW EN INV

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0988	SILKROAD LOG
0989	HUA YIN INTL H
0990	THEME INT'L
0991	DATANG POWER
0992	LENOVO GROUP
0995	ANHUIEXPRESSWAY
0996	CARNIVAL GROUP
1001	HK SH ALLIANCE
1004	C SMARTERENERGY
1005	MATRIX HOLDINGS
1033	SINOPEC SSC
1036	VANKE OVERSEAS
1037	MAXNERVA TECH
1038	CKI HOLDINGS
1043	COSLIGHT TECH
1044	HENGAN INT'L
1045	APT SATELLITE
1046	UNIVERSE ENT
1047	NGAI HING HONG
1049	CELESTIAL ASIA
1050	KARRIE INT'L
1052	YUEXIUTRANSPORT
1053	CHONGQING IRON
1055	CHINA SOUTH AIR
1059	KANTONE HOLDING
1060	ALI PICTURES
1063	SUNCORP TECH
1064	ZHONG HUA INT'L
1065	TIANJIN CAPITAL
1070	TCL ELECTRONICS
1071	HUADIAN POWER
1072	DONGFANG ELEC
1079	PINE TECH
1093	CSPC PHARMA
1097	I-CABLE COMM

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1098	ROAD KING INFRA
1104	APAC RESOURCES
1105	SING TAO
1109	CHINA RES LAND
1114	BRILLIANCE CHI
1118	GOLIK HOLDINGS
1120	ARTS OPTICAL
1122	QINGLING MOTORS
1123	CHINA-HK PHOTO
1124	COASTAL GL
1125	LAI FUNG HOLD
1131	AGRITRADE RES
1132	ORANGE SKY G H
1133	HARBIN ELECTRIC
1137	HK TECH VENTURE
1138	COSCO SHIP ENGY
1159	STARLIGHT CUL
1166	SOLARTECH INT'L
1168	SINOLINK HOLD
1170	KINGMAKER
1171	YANZHOU COAL
1172	MAGNUSCONCORDIA
1173	VEEKO INT'L
1176	ZHUGUANG HOLD
1180	PARADISE ENT
1184	S.A.S. DRAGON
1185	CHINA ENERGINE
1189	GBA DYNAMIC
1192	TITAN PETROCHEM
1193	CHINA RES GAS
1196	REALORD GROUP
1199	COSCO SHIP PORT
1200	MIDLAND HOLDING
1201	TESSON HOLDINGS
1203	GUANGNAN (HOLD)

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1205	CITIC RESOURCES
1207	SRE GROUP
1208	MMG
1218	EASYKNIT INT'L
1220	ZHIDAO INT'L
1221	SINO HOTELS
1222	WANG ON GROUP
1223	SYMPHONY HOLD
1224	C C LAND