

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE EFFECT OF FOREIGN OWNERSHIP ON DIVIDEND POLICY:  
EVIDENCE FROM CHINA**



**UUM**

Uni **YAN XIAOFANG** ra Malaysia

**MASTER OF SCIENCE (FINANCE)**

**UNIVERSITI UTARA MALAYSIA**

**MAY 2018**

**THE EFFECT OF FOREIGN OWNERSHIP ON DIVIDEND POLICY:  
EVIDENCE FROM CHINA**



**UUM**  
BY  
**YAN XIAOFANG**  
Universiti Utara Malaysia

**Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
Universiti Utara Malaysia,  
in Partial Fulfillment of the Requirement for the Master of Sciences (Finance)**

## PERMISSION TO USE

In presenting this dissertation/project paper in partial fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this dissertation/project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation/project paper. It is understood that any copying or publication or use of this dissertation/project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my dissertation/project paper.

Request for permission to copy or to make other use of materials in this dissertation/project paper in whole or in part should be addressed to:



Dean of Othman Yeop Abdullah Graduate School of Business  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman

UUM  
Universiti Utara Malaysia

## ABSTRACT

This study examined the relationship between foreign ownership and dividend policy in the Chinese market. Panel logistic regression was employed to explain the effect of foreign ownership on the choice "to pay" or "not to pay" dividends. Panel model used in this study is constructed by 142 companies' data with 1988 observations involving foreign ownership listed on the Shenzhen Stock Exchange from 2003 to 2016. Findings indicate that a higher level of foreign ownership is associated with a significantly higher probability of paying dividend. This finding is consistent to agency theory and clientele effect theory. The significant positive result for retained earnings to total equity provides support to the implication stated in the life cycle theory. However, the signaling theory is not supported as the results show an insignificant relationship between cash flow and dividend payment, and between investment opportunities and dividend payment. The findings of this study indicates that foreign shareholders in the Chinese market have high preference for dividend paying companies, especially for large companies with low leverage. Hence for investors who prefer dividends, they should invest in companies with foreign ownership as the likelihood of these companies to pay dividend is higher.

**Keywords:** foreign ownership, dividend policies, panel logistic regression



## ABSTRAK

Kajian ini mengkaji hubungan antara pemilikan asing dan polisi dividen di pasaran China. Regresi logistik panel digunakan untuk menjelaskan kesan pemilikan asing ke atas pilihan untuk 'membayar' atau 'tidak membayar' dividen. Model panel yang digunakan dalam kajian ini dibina dengan menggunakan data daripada 142 syarikat dengan jumlah 1988 pemerhatian yang melibatkan pemilikan asing yang tersenarai di Bursa Saham Shenzhen dari tahun 2003 hingga 2016. Keputusan kajian menunjukkan bahawa tahap pemilikan asing yang tinggi berkait rapat secara signifikan dengan kebarangkalian yang tinggi untuk membayar dividen. Penemuan ini adalah konsisten dengan teori agensi dan teori kesan pelanggan. Keputusan signifikan positif bagi perolehan tertahan kepada jumlah ekuiti menyokong implikasi yang dinyatakan dalam teori kitaran hayat. Walau bagaimanapun, teori isyarat tidak disokong kerana keputusan menunjukkan hubungan yang tidak signifikan antara aliran tunai dan pembayaran dividen, dan antara peluang pelaburan dan pembayaran dividen. Keputusan kajian ini menunjukkan bahawa pemegang saham asing di pasaran China lebih mengutamakan syarikat-syarikat yang membayar dividen terutamanya syarikat besar yang mempunyai leveraj yang rendah. Oleh itu, bagi pelabur yang mengutamakan dividen, mereka perlu melabur dalam syarikat yang mempunyai pemilikan asing kerana kemungkinan syarikat ini membayar dividen adalah lebih tinggi.

**Kata Kunci:** pemilikan asing, polisi dividen, regresi panel logistik

## ACKNOWLEDGEMENT

I would like to extend my deepest gratitude and appreciation to my supervisor Prof. Dr. Nur Adiana Hiau Binti Abdullah, a kind and knowledgeable Professor of Universiti Utara Malaysia, for the valuable guidance and constructive comments that led to the completion of this research. I appreciate all your efforts and I consider it a great privilege to do my master program under your guidance.

My deepest gratitude and thanks to my beloved father Yan Pingyu and mother Wang yun, for their love, support and encouragement on my education. It is impossible for me to study oversea without the support of my beloved parents. Your sacrifice is very much appreciated.

Finally, I am highly indebted to all my dear friends who have given me the support in both life and study. Special thanks goes to my roommate: Zhai Runjia, Wang Chen, Pan Jingrui, Pan Ying, Sabirah Sulaiman and all others for their invaluable support, encouragement and real friendship that I needed in UUM and who were there for me all the time. You are more than just friends.

## TABLE OF CONTENTS

PERMISSION TO USE .....	i
ABSTRACT .....	ii
ABSTRAK .....	iii
ACKNOWLEDGEMENT .....	iv
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
LIST OF ABBREVIATIONS .....	ix
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.1 Background of the Study .....	1
1.2 Problem Statement .....	7
1.3 Research Objective and Research Question .....	10
1.4 Significance of Study .....	11
1.6 Organization of Study .....	11
CHAPTER TWO .....	13
LITERATURE REVIEW .....	13
2.0 Introduction .....	13
2.1 Underlying Theories .....	13
2.1.1. The Clientele Effect Theory .....	14
2.1.2. The Signaling Theory .....	16
2.1.3 Agency Theory of Dividends .....	19
2.1.4. Life Cycle Theory of Dividends .....	24
2.2 Empirical Evidence on Factors Affecting Payout Policies .....	25
2.2.1 Foreign Ownership and Dividend Payout Decisions .....	25
2.2.2 Empirical Evidence on Factors Affecting Payout Policy .....	29
2.3 Summary of Chapter .....	33
CHAPTER THREE .....	34
RESEARCH METHODOLOGY .....	34
3.0 Introduction .....	34



3.1 Research Framework.....	34
3.2 Hypothesis Development .....	35
3.3 Measurement of Variables.....	36
3.3.1 Dependent variable .....	36
3.3.2 Independent variable .....	36
3.3.3 control variables .....	37
3.4 Research Design.....	40
3.4.1 Data.....	40
3.5 Method.....	42
3.6 Chapter Summary .....	43
CHAPTER FOUR .....	44
FINDINGS AND DISCUSSION .....	44
4.0 Introduction .....	44
4.1 Descriptive Statistics of Variables.....	44
4.2 Multicollinearity Analysis.....	47
4.3 Test for Model Fit .....	49
4.4 Test for Model Specification .....	50
4.5 Panel Logistic Regression Analysis.....	51
4.6. Odds Ratio for Decision to Pay or Not to Pay Dividends .....	56
4.7 Robustness Check for Panel Logistic Regression Model.....	57
4.8 Summary of Chapter .....	59
CHAPTER FIVE .....	60
5.0 Introduction .....	60
5.1 Summary of Findings.....	60
5.2 Implications of the Study .....	61
5.3 Limitation and Suggestion for Future Research .....	61
REFERENCES .....	63

## LIST OF TABLES

Table		Page
Table 3.1	Summary of Variables and Measurement.....	38
Table 4.1	Variable Definition and Descriptive Statistics.....	44
Table 4.2	Pairwise Correlation Coefficients.....	48
Table 4.3	Variable Inflation Factors.....	47
Table 4.4	Test for Goodness of Fit (Binomial Model.....	49
Table 4.5	Model Specification Test.....	50
Table 4.6	Determinants of Dividend Payout Decision (Fixed Effect Logistic Regression) .....	51
Table 4.7	Odds Ratio of Decision "To Pay" or "Not to Pay".....	56
Table 4.8	Determinants of Dividend Payout Decision (Fixed Effect Regression).....	57



**UUM**  
Universiti Utara Malaysia

## LIST OF FIGURES

Figure		Page
Figure 1.1	Market Capitalization, Number of Listed Companies and GDP in 2006-2015.....	2
Figure 1.2	Foreign Investment (USD 100 million).....	4
Figure 1.3	Foreign Investors and Foreign Investment in Shenzhen Stock Exchange.....	4
Figure 1.4	Foreign Institutional Investors.....	6
Figure 3.1	Research Framework.....	34



**UUM**  
Universiti Utara Malaysia

## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Description of Abbreviation</b>
CSMAR	China Stock Market Accounting Research
CSRC	China Securities Regulatory Commission
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
MM	Miller and Modigliani
OLS	Ordinary Least Square
PCP	Percentage of Correct Predictions
SME	Small and Medium Board
SSE	Shanghai Stock Exchange
ST	Special Treatment
SZSE	Shenzhen Stock Exchange
UK	United Kingdom
US	United States
USD	US Dollar
VIF	Variance Inflation Factor
WTO	World Trade Organization



## CHAPTER ONE

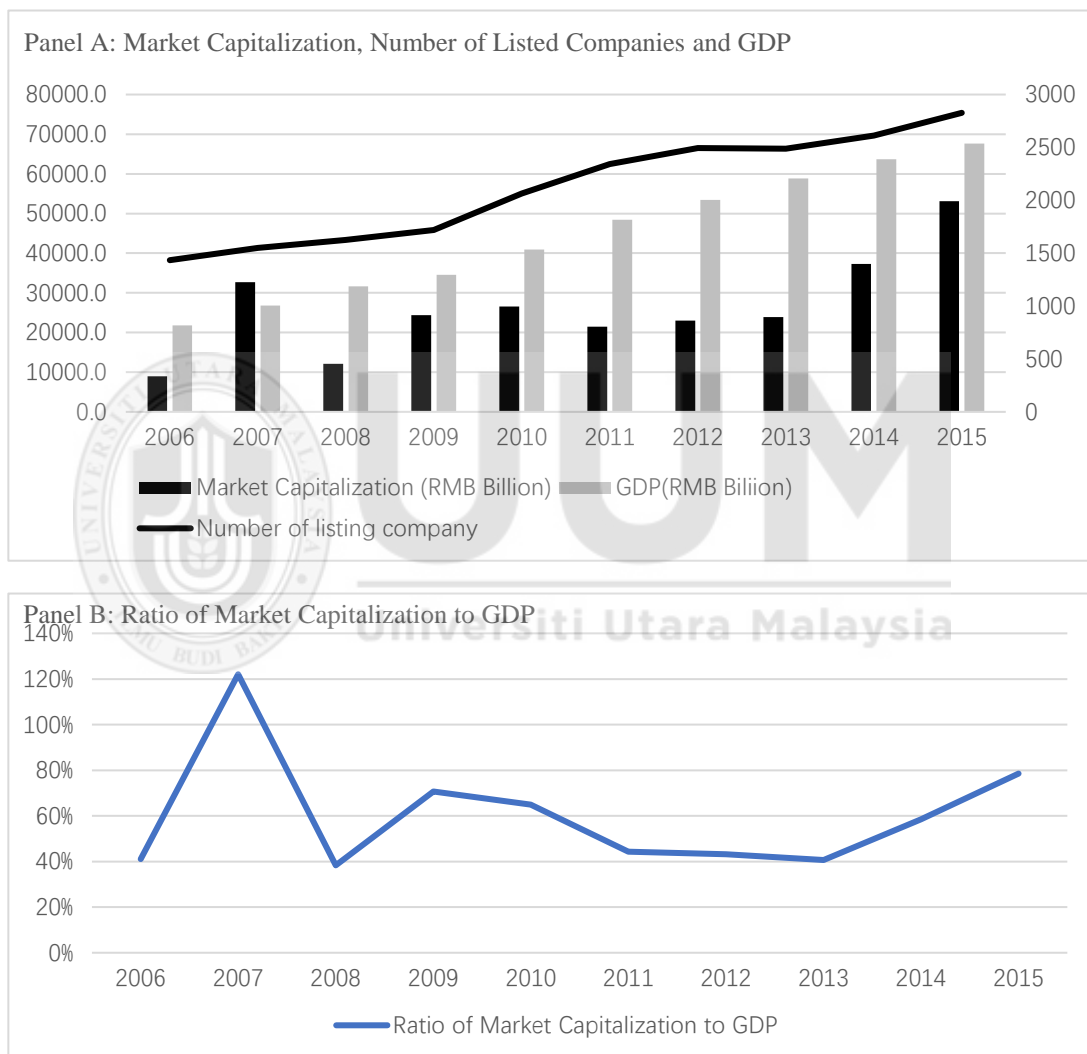
### INTRODUCTION

#### 1.1 Background of the Study

In recent years, rapid development of China's economy has allowed the global population to see the potential of the Chinese market. Stock market plays a critical role in mobilizing savings and investment and this makes it an agent of economic growth and development in any economy. The importance of the stock market in any economy cannot be over emphasized. Compared with other developed countries, China's securities market started relatively late. Since the establishment of the Shanghai Stock Exchange and the Shenzhen Stock Exchange in 1990, after more than 20 years of development, until September 2017, the market capitalization of Shanghai Stock Exchange (SSE) and the Shenzhen Stock Exchange (SZSE) is US\$4924 billion and US\$3627.4 billion respectively. In terms of world ranking, the Shanghai Stock Exchange and the Shenzhen Stock Exchange ranked fourth and eight places (Shenzhen Stock Exchange Fact Book, 2016).

The development of the securities market over the past ten years is shown in Figure 1.1. The black bar in Panel A of Figure 1.1 shows the aggregate market capitalization of the stock exchanges in China during the period 2006-2015. It increases from RMB8.94billion in 2006 to RMB53.1billion, which is an increase of six times. The gray color bar illustrates the gross domestic product (GDP). GDP presents a year-on-year

growth trend throughout 2006 to 2015 where there is an increase from RMB21.8billion to RMB67.8billion in 2015. The thick line in Panel A shows the number of listed companies in both the Shanghai Stock Exchange and Shenzhen Stock Exchange. The number of listed companies increases from 1434 companies in 2006 to 2827 companies in 2015, which is a growth of 97% during the ten years.



**Figure 1.1:**  
*Market Capitalization, Number of Listed Companies, GDP and Ratio of Market Capitalization to GDP in 2006-2015*

Source: SEC Fact Book (2016), China Statistical Yearbook (2016)

Panel B shows that in 2006, the market value of securities market as a share of GDP is 41%. This figure increases to 122% in 2007. During the financial crisis, this value

decreased sharply to 38% in 2008. A year after the crisis, the percentage of security market capitalization to GDP increased significantly to 71% in 2009, which was almost double than 2008. By 2015, the percentage reached 79%. Overall, the average percentage of security market capitalization to GDP throughout the period is 60%. The gradual increase of the percentage of market capitalization to the GDP shows the importance of security market to the Chinese economy.

Since joining the (WTO) in 2001, China has opened the door to foreign investors. Many foreign investors are optimistic about the great potential of the Chinese market. Investment Report issued by the United Nations Trade and Development Organization Trade and Development World Investment Prospects Survey 2010-2012, stated that among the 15 most attractive investment destinations in the world, China ranks first and is the preferred investment destination of multinational corporations and institutional investors. This is further supported by Zhan (2016) where he reinforced that China continues to be one of the most attractive investment destinations in “The Global Foreign Investment Prospects and World Investment Report 2016-2018”. In addition, the Chinese government has also tried its best to attract foreign investors to enter China, gradually opening up the Chinese stock market to foreign investors. On November 10, 2017, in order to implement the 19th National Congress of the Communist Party of China to further expand the opening-up to the outside world, China’s government relaxed the restrictions of investment ratio of single or multiple foreign investors investing directly or indirectly in securities, funds, and futures to 51%. After three years of implementation of the above measures, the restriction on investment ratio will be

lifted. For financial companies such as banks and securities companies, foreign investors follow the same rules as domestic investors. The limit of a single (total) foreign shareholding of no more than 20% (25%) is no longer applied. Due to the rapid development of the Chinese market and the gradual opening of the stock market to foreign investors, it is expected that more and more foreign investors will enter China. The detail of foreign investment during 2002-2016 is presented in Figure 1.2. The total amount of investment is on the rise, from US\$52.7 billion in 2002 to US\$126 billion in 2016.

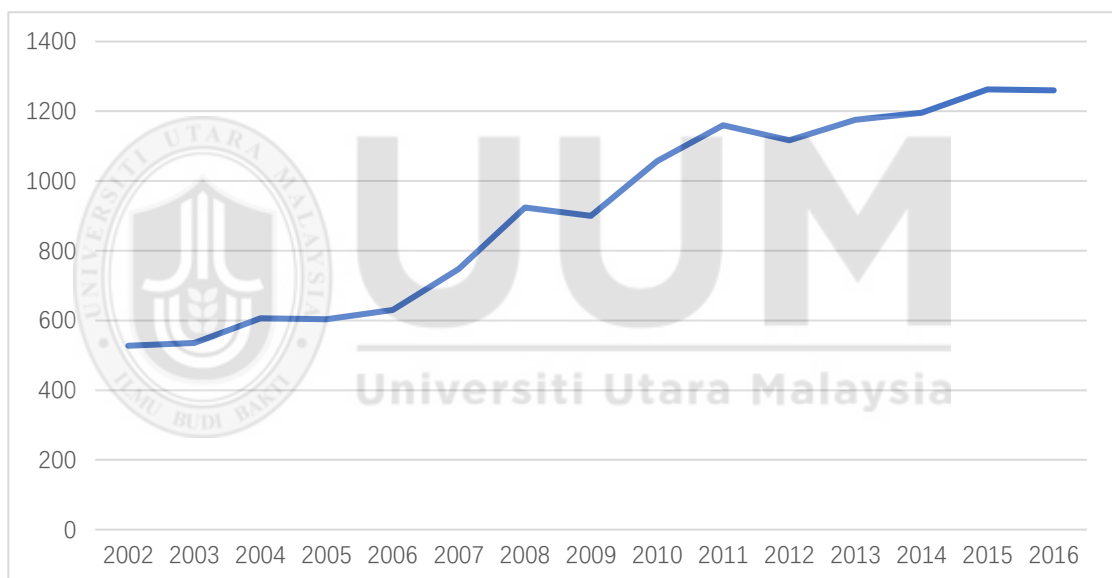


Figure 1.2:  
*Foreign Investment (USD 100 million) in China*  
 Source: China Statistical Yearbook (CSY) (2016), CSY(2012)

Foreign investment in companies listed on Shenzhen Stock Exchange and foreign investors registered in Shenzhen Stock Exchange is shown in Figure 1.3.

The investment in stock market ( the line with triangle) showed an increase trend from 2003 to 2016. In 2003, the investment is RMB349 million. After three years, the investment increased gradually to RMB721 million in 2006. In 2007 there was a sharp



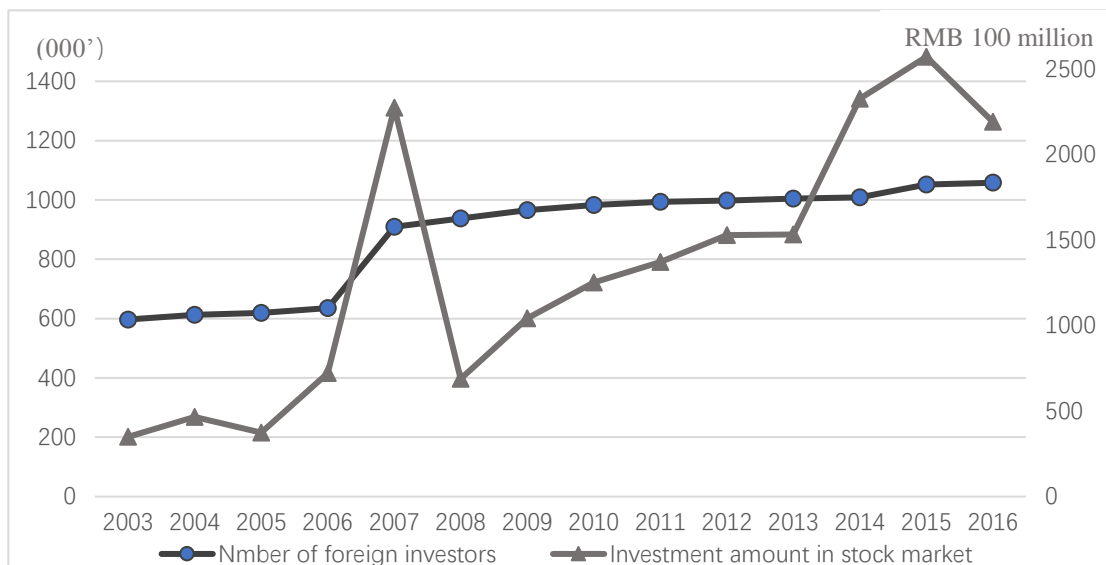


Figure 1.3:

*Foreign Investors (000') and Foreign Investment (RMB 100 million) in Shenzhen Stock Exchange*  
 Sources: SEC Fact Book (2016), SEC Fact Book (2013)

increase to RMB2272 million and a sharp decrease in 2008 (RMB688 million) during the subprime crisis. After 2008, the investment of foreign investors into companies listed on the Shenzhen Stock Exchange (SZSE) showed an increase trend from 2008 to 2015. In 2016, there was a slight decrease investment in SZSE as compared to 2015. The line with dot showed the number of foreign investor in B-share<sup>1</sup> of Shenzhen Stock Exchange. The number of investors keep increasing from 2003 to 2016. There was a significant increase in 2007 (910,000) which is consistent to the sharp increase of investment amount. However, unlike the investment amount, the number of investors kept increasing in 2008 (938,000) rather than decline and this figure continued to increase. By 2016, the number of foreign investors reached 1,058,000 as compared to 1,052,000 in 2015. The average growth rate of foreign investors is 77% from 2003 to 2016.

<sup>1</sup> B-shares refer to the RMB-denominated special shares with their par values marked in RMB in their circulation and to be subscribed and traded in Hong Kong Dollars. The trading of B-shares was launched in 1992, giving foreign investors the access to China's equity market.

Most of the foreign investment in SZSE comes from institutional investors (Jeon, Lee and Moffett, (2010); Kim, Sul and Kang, 2010; Ferreira, Massa and Matos, 2010). Figure 1.4 shows the number of foreign institutional investors<sup>2</sup> of B-share from 2003 to 2016. In the past fourteen years, the number of both foreign companies and funds which invested in China's stock market show an increasing trend. A closer examination shows that foreign funds were more interested in China's stock market than foreign companies. Before 2006, the number of foreign companies that invested in the China's stock market is higher than the number of foreign funds. Starting 2006, the number of foreign funds shows a rapid growth where supersedes the number of foreign companies. In 2016, there were 6216 foreign companies invested in the Shenzhen Stock Exchange, which is an increase 51% as compared to 4129 companies in 2003. During the same period, the number of foreign funds increased 133% from 4084 in 2003 to 9533 in 2016.

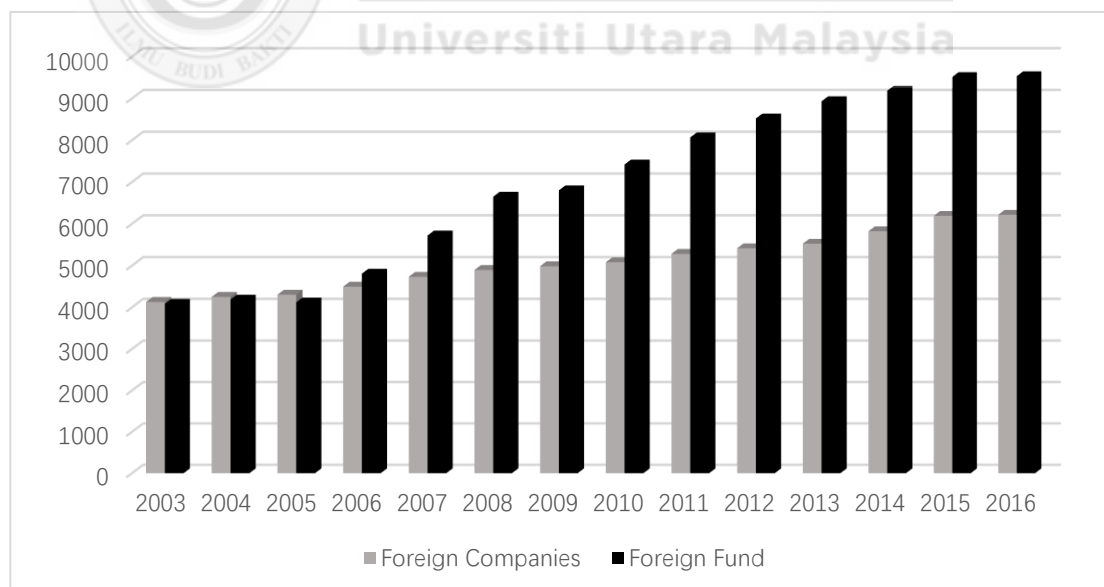


Figure 1.4:

*Foreign Institutional Investors*

Sources: SEC Fact Book (2016), SEC Fact Book (2013)

<sup>2</sup> Foreign company investors and funds make up institutional investors. Fund specifically refers to mutual funds and investment funds.

## 1.2 Problem Statement

Listed companies in China do not show a consistent dividend payment where companies could switch from paying dividend to discontinue dividend payment or lower their dividend. A few examples of the inconsistency of dividend payment among Chinese companies are as follows. Meiling Electric Appliance Co., Ltd has been paying a dividend of RMB 1 (inclusive of tax) for every 10 shares since 1998; but starting from 2002, it has not distributed dividends for 11 consecutive years. Another company that shows a particular pattern is Jiujiu Liquor. Since 2000, Jiujiu Liquor paid RMB 2 (inclusive of tax) for every 10 shares. However, by 2012, it has not paid dividends for 10 consecutive years. According to the statistics of Wind data in 2011, there were 173 listed companies that have been listed for 10 years with no cash dividend distribution ever since they were listed on the exchange. Among these companies, some have substantial retained profits, such as Yuanxing Energy, Huaye Real Estate, Zhenghe Shares and Luoni Mountain, where the cumulative net profits in 10 years were RMB 1.074 billion, RMB 656 million, RMB 477 million and RMB 475 million, respectively. Wind data also shows that in 2001 the total undistributed profit of listed companies was RMB 48.3 billion, whereas the annual cash dividend was RMB 43 billion, accounting for 88.96% of total undistributed profit. In 2011, the listed companies' undistributed profits reached RMB 3065.5 billion whereas the annual dividend was RMB 499.4 billion. Although cash dividend distributed by Chinese listed companies has improved but there is still a higher percentage of companies that shun away from paying dividends. In order to improve dividend payment among listed companies in China, various

policies have been introduced by the Chinese government. In October 2008, the China Securities Regulatory Commission (CSRC) passed a bill on "Decision on Revising Several Provisions on Cash Dividends of Listed Companies". The bill stipulates that "the cumulative profits distributed in the last three years in cash or stocks shall not be less than 30 percent of the profit realized in the last three years. Previously, the requirement was only 20 percent. Companies are required to declare the cash dividend policy in the charter and to ensure a continuous and stable the profit distribution. In May 2012, the "Notice on Relevant Matters Concerning Further Implementation of Cash Dividends for Listed Companies" promulgated by the China Securities Regulatory Commission re-emphasized the importance of cash dividends. The notice requires that companies which do not pay dividend have to disclose the company's cash requirements in detail. On November 30, 2013, the "No. 3 Guidance on the Supervision of Listed Companies - Listed Company Cash Dividends" was introduced by the (CSRC) put forward that when the company's development is at the maturity stage and there are no major capital expenditure arrangements, the proportion of dividends in its profit distribution should be at least 80%. All the actions taken by the CSRC show that cash dividends have become one of the main agenda of the government.

Apart from the question of why do some firms pay dividends while others do not, there is also a burgeoning literature that investigates how ownership structure affects dividend payout policy. There are varying types of ownership structures ranging from family, state, government, institutional, retail, foreign and domestic ownership. The basic premise underpinning these studies is that each of the different categories of

owners has different preferences for dividend payout (Arshad, Akram & Amjad, 2013, Huda & Abdullah, 2013, Adam & Javid, 2010). For instance, foreign shareholders may press for more dividends due to the high information costs they face and their inability to exert efficient monitoring as compared to domestic investors who are familiar with local market conditions (Bena & Hanousek, 2008). Prior research on how ownership structure affects dividend payout policy have mainly focused on the US, UK, and a few European countries (Moscu, 2012; Bena, Elston, Hofler & Lee, 2011; Fons-Rosen & Hanousek, 2008; Kowalewski, Stetsyuk & Talavera, 2008; Mancinelli & Ozkan, 2006). The impact of foreign shareholders ownership in dividend policy has not received much attention in the literature of the Chinese markets.

As observed in the background of the study, the stock market capitalization in the Chinese economy is huge. The Shanghai Stock Exchange and Shenzhen Stock Exchange reached in the fourth and eight places in the world ranking. The stock market plays a crucial role for the future development of the Chinese economy where it has attract the attention of foreign investors as can be seen in the increase of foreign investment and foreign investors' ownership shown in Figure 3 and Figure 4. The opening up of China to the outside world together with preferential tax policy have assist in attracting more foreign investors. However most of the studies of foreign investment focus on the effect of foreign direct investment on the Chinese economy. For example, Wei (2002) examined the effects of foreign direct investment (FDI) on regional economic growth in China between 1985 and 1999; Jiang (2004) and Song, Tao and Wang (2015) studied the impact of foreign direct investment (FDI) on China's

economic growth; Zhao and Yu (2012) studied the influence of FDI on the growth mode of China's industrial economy from 2000 to 2010 and Dai and Bei (2006) researched on the impact of FDI on China's economic growth and employment. The impact of foreign ownership in dividend policy has not received much attention as FDI.

Perusal of existing research that looked into the effect of foreign investors on companies' dividend policies is mixed. Black and Scholes (1974) believed that the characteristics of rational foreign shareholders lead them to favor dividends. Investors will increase their shareholding in high dividend-paying companies and this has been proven in Baba's (2009) study of the Japanese market. However, a study by Dahlquist and Robertsson (2001) in Sweden shows a contradictory result. They found that foreign investors prefer cash-rich companies that pay less dividends. Nevertheless, studies from the stock market in India (Kumar, 2006) and Pakistan (Adam & Javid, 2010) show that there is no clear positive correlation between foreign shareholders and dividend payments. The lack of attention on foreign ownership and contradictory results on the relationship between foreign investors ownership and dividend policy instigate for this study to be implemented. Specifically, this study examine the impact of foreign ownership on dividend policy of listed companies in China.

### **1.3 Research Objective and Research Question**

Based on the information provided in the background of study and problem statement, the research objective and research question are as follows:

Does foreign ownership affect company's decision to pay dividend?

To examine whether or not foreign ownership affects the decision to pay or not to pay dividend.

#### **1.4 Significance of Study**

This study would provide evidence about the effect of foreign ownership on dividend policy in the Chinese market. The findings of this study would be useful for managers and stockholders. For investors, findings of this study would enable them to understand the relationship between foreign ownership and dividend payment so as it could help them to make better investment decision. For companies that want to attract foreign investors, this study would provide them information on foreign investor's preference on dividends in order for them to decide on dividend policy. To the academia, this study could be shared among students in order for them to bridge the gap between theories and practice in understanding the effect of foreign ownership on dividend policy of listed companies in Chinese.

#### **1.6 Organization of Study**

Chapter one gives a background explanation in the study which includes relevant issues related to the dividend payment. The chapter also discusses the research questions, research objectives, and significance of the study. Chapter Two contains the review of literature related to the study. This includes discussion of related theories and review of prior empirical works. Chapter Three highlights the methods to be adopted in conducting the study. The chapter includes research framework, hypothesis, data source

and method. Chapter four analysis the results of the study whereas chapter Five summarizes the findings of the study, the limitations and possible areas to explore in future studies.





## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter consists of two main parts: underlying theory and empirical evidence. Following the discussion of relevant theories, the chapter presents detailed review of related empirical studies. Prior studies on effect of foreign ownership on dividend payout decisions were discussed. The chapter then proceeds to discuss other explanatory factors that prior studies have shown to explain dividend payout decisions. Empirical evidence on dividend payments during policies changes and crisis is also discussed.

#### 2.1 Underlying Theories

Dividend policy is the decision made by the company's management either to distribute profits in the form of cash dividends or to retain earnings or to do both. It is a continuation of the company's financing and investment decision making. The study of dividend policy began in 1956. Lintner's (1956) study of corporate dividends, retained earnings, and tax distribution issues started the debate on dividend policy. Five years later, Miller and Modigliani (MM, 1961) put forward irrelevance theory (MM theory) which opened a new chapter in the study of dividend theory. Miller and Modigliani (1961) states that in a perfect market without taxation, investors are indifferent as to

whether they receive dividends or capital gains. Therefore, dividend does not affect the firm's value. However, researchers have argued that assumptions of the MM theory may not hold in the real world where imperfections exist. As such, different theories have been propounded overtime to prove the relevance of dividends when the assumptions of a perfect market are relaxed. These theories indicate why firms may be inclined towards one pattern of dividend above the other and why investors may have their own dividend preferences.

There are four theories related to the research objective in this study, which are cliental effect theory, signaling theory, agency theory and life-cycle theory. The following subsection present the relevant theories.

### **2.1.1. The Clientele Effect Theory**

This theory explains the fact that different groups of investors have different preferences for dividend payment. As a result, investors alter their shareholdings in response to changes in company policies and this has effect on share prices (Al-Malkawi, Rafferty & Pillai, 2010; Allen, Bernardo & Welch, 2000). Dividend clientele refers to a group of investors with preference for a particular dividend policy that best suits their interests (Al-Malkawi *et al.*, 2010). Miller and Modigliani (1961) state that different groups of investors have their own preferences of dividend policy and that dividend policy has no effect on firm's value. Miller and Modigliani (1961) explained that there are costs associated with market imperfections, when there exists transaction costs and differential tax rate. Such costs influence the portfolio preference of investors.

In a bid to reduce these costs, investors may therefore prefer one portfolio over the other. The resultant effect is to either have tax-minimization induced clientele or transaction cost minimization induced clientele (Al-Malkawi *et al.*, 2010). Based on this, Miller and Modigliani (1961) referred to dividend clientele effect as the likelihood that investors will favor a particular type of dividend paying stock. Although Miller and Modigliani (1961) recognized the existence of clientele effect and agreed that clients may be formed based on age or income preferences, but they disagreed that such effect has any impact on the value of the corporation because they argued that one client is as good as another. Miller and Modigliani (1961) further add that while the older clientele groups (such as retired persons) prefer "income stocks" to meet their immediate consumption needs, the younger clientele groups prefer low payout as they desire to accumulate wealth.

However, other authors have shown that dividend policy has an effect on the value of a company. Tax induced clientele effect advanced by Brennan (1970) and Elton and Gruber (1970) is the most popular in explaining for the clientele effect theory. Brennan (1970) developed the asset pricing model which encompasses differences in the taxation of dividend and capital gains. In a perfect market, taxes do not exist but they do in the real world. Differences in the taxation of dividends and capital gains influence investor's preference for a particular dividend pattern. For investors that are tax advantaged, they would prefer high-yield firms while those that are tax disadvantaged will prefer low-yield firms. Some investors are indifferent to the dividend yield of their portfolio as they are tax exempt. In some instances, because personal income tax paid

by individual investors are taxed more, they tend to prefer low yield stocks than institutional investors who prefer high yield stocks as they are less affected by tax. Dividend preferences resulting from differential taxation on dividend and capital gains will depend on how capital gains tax is implemented in a particular country. With no capital gains tax at all in China, tax disadvantage exists on dividend relative to capital gains.

### **2.1.2. The Signaling Theory**

Signaling theory was pioneered by Akerlof (1970) and Spencer (1973). Their work form the basis for other signaling theories of dividend. Some of the prominent signaling theories were developed by Bhattacharya (1979), John and Williams (1985), Miller and Rock (1985) and John and Lang (1991). The signaling theory of dividend proposed that dividend announcement relay information to investors regarding the firm's future prospects. Based on MM theory (1961), they assume symmetric information which suggests that all market participants have the same information about the firm. As opposed to the assumption of MM theory, the problem of information asymmetry may arise in practical situation as those within the organization like managers may possess more information than outsiders although information is publicly available (Khang & King, 2003).

Different signaling theories have been developed in order to explain dividend policy based on asymmetric information. Bhattacharya (1979) tested the information content of dividends by showing that dividends could be used to signal future cash flow of a

firm. In the model, cash dividends serve as an indication of anticipated cash flow of the firm in an imperfect information condition. The author noted that the main signaling cost that makes dividend to serve as signals evolve due to the fact that taxation is imposed on dividend at ordinary income tax rate while capital gains are subjected to lower tax rate. Therefore, the model is regarded as a tax-based signaling cost structure premised on the possibility that signaling equilibria can be achieved. The model explains that cash flows generated in a period are used to finance dividends and when it is not enough to pay dividends, the firm should seek for external financing. Therefore, Bhattacharya's model is premised on the assumption that firms pay dividends even when they are taxed. This model has been criticized on the basis that it considers dividends and share repurchases as substitutes and on the grounds that it fails to explain dividend smoothing and it is only a single signal model. Lease, John, Kalay, Lowenstein, and Sarig (2000) faulted the model by stating that the model fails to explain why firms stick to a specific dividend level since there is no contractual obligation upon them to do so.

Unlike the Bhattacharya's model, Miller and Rock (1985) used a two period model which shows that cash flows generated in a particular period is used to pay dividends and to re-invest in new projects. In the subsequent year, the situation repeats. The model is premised on the belief that managers consider dividend announcements as a reflection of unannounced earnings. As such, dividend announcements are used to convey information about future earnings.

The Miller and Rock (1985) model assume that if a company increases the level of

dividend payment by sacrificing planned investment opportunities, it transmitted incorrect information that the company future is better than it actually is. Since investment decrease is not aware by the market before the announcement of the company's actual financial report, this incorrect dividend information would cause the stock price to increase. Thus, investors who sell their shares between the date of dividend news release and the announcement of the company's actual financial report will obtain higher returns. When the market fully recognizes the incentive of insiders to trade high dividends at the expense of investment, it would cause the stock price to drop.

The Miller-Rock model shows that a company management must adopt a relatively high dividend payment strategy in order to deliver the company's performance. As a result, it sends wrong information to the market, induces the stock price to rise, and benefits the investors who immediately sell the stock. However this strategy defrauded new investors. If a company's management contribute to use this strategy, it will affect its performance in the long run. The company might become the main target of mergers and acquisitions due to poor performance.

John and Williams (1985) proposed another signaling theory that take into account dividend distribution and taxation, issuance of new shares, stocks repurchases and investments. According to them, the goal of internal managers is to maximize existing shareholders' wealth through decisions of dividend payment, issuance of new shares and investment. Thus, decision on dividend payment must consider the marginal benefits that can be obtained out of distributing dividends. When a company's

investment and individual shareholders' cash needs are greater than the company's internal cash supply, distribution of dividends would generate favorable signals which in turn cause the stock price to rise and the number of new shares to be issued to reduce. In this situation, equity dilution is small as the reduce of the number of new shares to be issued. But the premium of the stock price can make up for the taxes that shareholders must pay for dividends they received. If the demand for funds is less than the supply, the favorable signals generated by the distribution of dividends will be small. Hence, when it comes to dividend distribution, a company must consider the trade-off between the cost of depreciation of dividends and the marginal benefits of diluting equity.

There are costs associated with signaling information to the market (Deeptee & Roshan, 2009; Al-Malkawi, 2007; Miller & Rock, 1985). Al-Malkawi (2007) argued that only firms with high quality can use dividends to convey signals to the market and low quality firms cannot imitate this due to the cost implication. Deeptee and Roshan (2009) also noted that firms have different ways of sending information to the market but most importantly, the firm must be able to sustain the cost of conveying the information. One of the costs of signaling explained by Miller and Rock (1985) is the need to pay high level of dividends which small firms cannot imitate.

### **2.1.3 Agency Theory of Dividends**

Agency theory is a theory that is concerned with resolving problems that emerge from agency relationships. Two common problems which are related to agency relationships

are the conflict of interest in the desires or goals of the principal and the agent on one hand, and on the other hand, the two parties may have different attitudes toward risk resulting in inclination to take different actions. In the context of a firm, agency theory derives from the separation of ownership and control of the firm. The shareholders are the principals while the company management (executives) is the agent who runs the company for the owners. Therefore, agency theory in this context observes the relationship or interaction between the shareholders (as owners of the company) and the management (as those responsible for managing the company). Jensen and Meckling (1976) in their pioneering work of agency theory showed that agency costs arise from the different objectives of the managers and the shareholders.

Rozeff (1982) was the first person who applied agency costs to the study of dividend policy. He believes that cash dividends contribute to reducing agency costs, because the policy of paying cash dividends: (1) will put pressure on managers to ensure that they generate enough cash to pay cash dividends; (2) may force managers to raise external funds for investment projects so that shareholders can observe the use of the new funds; (3) It can reduce the amount of cash flow that managers waste on non-profit investment projects. In this way, shareholders benefit from a relatively high cash dividend payment policy.

Easterbrook (1984) divided agency costs into two categories. The first category is monitoring costs. He believes that the discussions of dividend policy in prior literature are based on the assumption that managers are perfect agents. However, in reality managers are not perfect agents, nor are they perfect agents for shareholders. As long



as managers get the chances, they will do their best to pursue their own interests. They might not act in the best interests of shareholders. Therefore, a company must establish a corresponding monitoring mechanism to ensure that managers act on behalf of shareholders. The establishment of the relevant monitoring mechanism will inevitably be associated to a certain cost, known as agency cost.

The second category is agency costs associated with managers' risk aversion. Easterbrook (1984) pointed out that managers' attitude towards risk is also one of the sources of agency costs. Managers are risk-averse. They tend to choose investment projects with lower risks and lower returns. However, shareholders have the opposite attitude toward risk. They prefer projects with higher risks and higher returns. However, the pursuit of high-risk and high-yield would be a cost to creditors' interests. When creditors fully understand the behavior of shareholders and managers, they will inevitably restrict the behavior of managers through various legal terms. Among them, one of the ways they can adopt is dividend policy. Creditors will interfere with a company's dividend policy in order to protect their interests. They might require a company to leave cash as retained earnings to support investment projects. This could reduce a company's leverage, thereby reducing the company's risk and allowing creditors to get their principal and interest back. The cost of transferring this shareholder's wealth to creditors is the agency cost associated with managers' risk aversion.

Easterbrook (1984) also postulated that small shareholders have no incentive to monitor managers. Therefore, payment of dividends plays the monitoring role in this situation.

There are two predictions that can be inferred from Easterbrook's model. Firstly, a positive relationship is expected between dividends and the presence of small shareholders who cannot effectively monitor management as there will be a need for dividend to play the monitoring role. Secondly, the model predicts a negative correlation between dividend and debt level of a firm. This is based on the fact that creditors will force managers to leave cash as retained earnings to provide financial support for investment projects.

Compared with Rozeff (1982), Easterbrook's theory has expanded the agency relationship of a company from managers and shareholders to creditors and company (including shareholders and managers), and also gives an insight to the effect of dividend policy on managers, shareholders and creditors. Furthermore, he clearly defined the content of agency costs and pointed out high cash dividends can effectively prevent managers from abusing cash, thus alleviating agency problems between managers and shareholders.

Jensen (1986) proposed free cash flow hypothesis. He revealed that it is dangerous if excessive cash left in a company to be controlled by managers. The most effective way to curb manager's abuse of free cash flow is to reduce managers' discretionary cash resources. Dividends are one of the most direct means to reduce managers' discretionary cash resources. Increasing the cash dividend payment or stock repurchase would mean returning the free cash flow back to the shareholders. This could avoid waste of free cash flow on low-yield projects and reduce agency costs. Therefore, Jensen's free cash flow hypothesis predicts a positive relationship between dividends and cash flow due

to the need to mitigate agency conflicts. Jensen (1986) also noted that in order to minimize agency costs, companies can reduce their free cash flow by increasing leverage which requires regular payment of interest. Thus, Jensen's (1986) theory also predicts a negative relationship between leverage and dividend; but external financing increases transaction costs. Rozeff (1982) in his cost minimization model explained the tradeoff between reducing transaction cost and increasing agency cost. The model showed that transaction cost that will be reduced through a reduction in dividend payout will be accompanied by an increase in agency cost. When dividend payout is reduced, there may be less need for external financing thus lowering transaction cost associated with such financing. However, this reduction in dividend payments increases the resources under management's control which may be invested into non-profitable projects or diverted for personal use, thus increasing agency costs. Based on this, it was argued further that the most favorable payout ratio is the level where the sum of both agency cost and transaction cost is minimized.

In summary, the conflicting interest between managers and shareholders create agency conflict which can be minimized by paying out free cash flow in the form of dividend. This is because payment of dividend help to prevent the over investment issue that result from having free cash flow. However, such payment may lead to increase in transaction cost associated with raising external finance. Therefore, dividend payout should be maintained at a level where both agency cost and transaction cost are minimized.

#### 2.1.4. Life Cycle Theory of Dividends

Mueller (1972) propounded the life cycle theory of the firm. This theory which has been applied to dividend payout by Fama and French (2001) and Grullon, Michaely, and Swaminathan (2002). It gained more popularity from the study of DeAngelo, DeAngelo and Stulz (2006). The life cycle theory of dividend explains that the corporate payout policy of a firm varies over the different stages of its financial life cycle (DeAngelo *et al.*, 2006; Fama & French, 2001; Grullon *et al.*, 2002). The theory extends on the explanation of the free cash flow hypothesis of Jensen (1986).

Based on the life cycle theory, a company continuously optimizes its dividend policy based on changes in investment opportunities. In the early development stage, a company has more investment opportunities. Thus, they will choose to pay less dividends to retain funds for good investment opportunities. On the contrary, in the mature period, a company has fewer investment opportunities, and less demand for internal capital. A company will choose to pay more dividends to reduce the waste of free cash. From the life cycle perspective, DeAngelo *et al.* (2006) found that the ratio of dividend payment is positively correlated with the ratio of retained earnings to owner's equity (RE/TE). The ratio of retained earnings to owner's equity (RE/TE) represents the stage of the company's life cycle. The authors indicate that firms with high retained earnings to total equity (proxy for lifecycle theory) are mature firms with sufficient profits that make them largely self-financing.

## **2.2 Empirical Evidence on Factors Affecting Payout Policies**

The sub-section present empirical review relating to the relationship between foreign ownership and dividend payout decisions and empirical evidence of other factors affecting dividend policy.

### **2.2.1 Foreign Ownership and Dividend Payout Decisions**

In explaining foreign ownership effects on dividend payout decisions, most of the available literature fails to differentiate between foreign institutional and foreign retail ownership possibly due to data constraints. Foreign ownership emanates from a high proportion of shareholdings by the foreign institutional investors. There are two major strands of arguments on how foreign ownership affects dividend policy. Some of the studies have examined this relationship within the agency theory framework while others have looked at it from the perspective of the clientele theory.

Foreign investors influence dividend policy through monitoring incentives which emanates from their substantial shareholdings and their adoption of global standards and practices (Jeon, Lee & Moffett, 2011). Based on the agency theory, dividend payment is regarded as a substitute to direct monitoring of firms by large shareholders targeted at reducing over-investment problem (Jensen, 1986; Easterbrook, 1984). Thus, on one hand, the theory predicts that a positive relationship exists between dividend payments and foreign ownership where foreign shareholders cannot directly monitor management actions due to geographical distance. Hence, the existence of foreign shareholders puts pressure for firms to disgorge out cash to serve as a substitute for

direct monitoring. When a firm is pressured to pay dividends, it reduces available resources at the disposal of managers. This may lead them to seek external financing from the capital market, thus exposing them to capital market monitoring (Rozeff, 1982). Therefore, the theory predicts that a positive relationship exists between dividend policy and foreign ownership in the absence of direct monitoring. On the other hand, a negative relationship exists between dividend payments and the presence of effective monitors where direct monitoring is possible. This is because the presence of direct monitoring creates less need to press managers to pay dividends which may lead to capital market monitoring.

In line with the positive prediction, empirical evidence have been provided that foreign investors can serve as effective monitors; but in cases where they are unable to directly monitor the firm, dividend is then used as a monitoring device. Manos (2003) examined how varying ownership types influence dividend policy in India and regression results showed that dividend payout increases as shareholdings of foreigners increased. The relationship was established after studying 882 firms listed on the Mumbai Stock Exchange by using ordinary least square (OLS) regression. Chai (2010) provided the same evidence of such relationship in Korea when he analyzed companies listed on the Korean Stock Exchange from 1998 to 2003 using probit regression. Chai (2010) found that the more foreign ownership inside a company, the higher the profitability of a dividend payout. By using a longer period of study from 1994 to 2004, Jeon, Lee and Moffett (2011) also found a positive relationship between dividend payout decision and foreign ownership as in the work of Chai (2010). This is also consistent to Ullah, Fida

and Khan (2012) who found a similar relationship in their work covering 70 firms listed on the Karachi Stock Exchange between 2003 and 2010. The positive relationship is also observed in developed market. Bena and Hanouzek (2008) found that a significant and positive relationship between foreign minority shareholders and dividend payout in Czech Republic by examining the firms listed on the Prague Stock Exchange from 1996 to 2003 by linear probability regression and OLS. Baba (2009) also presented the same evidence when he analyzed 847 Japanese firms listed on the first section of the Tokyo Stock Exchange 1997 to 2005.

Based on the clientele theory, foreign ownership may be positively or negatively related to dividend policy depending on the dividend preference of foreign investors. The tax-induced clientele advanced by Brennan (1970) and Elton and Gruber (1970) predicts a negative (positive) relationship between investors who are tax disadvantaged (advantaged) and dividend payment. Tax disadvantage on dividends leads to a lower preference for dividend paying stocks. In line with this, Ferreira, Massa and Matos (2010) documents that foreign ownership influence dividend policy through foreign institutional investors. These investors pressured the firm to retain and re-invest earnings rather than payout due to tax disadvantage and high cost of repatriating or re-investing the dividend income. Therefore, their presence drives down dividend payment as firms may shape payout policies to meet their dividend preferences. This result was established after studying firms across 37 countries between 2000 and 2007 by using the probit regression. Dahlquist and Robertsson (2001) also found negative relationship between dividend payment and foreign ownership in Sweden when they analyzed listed

firms from 1991 to 1997. In contrast to the study by Ferreira, Massa and Matos (2010) and Dahlquist and Robertsson (2001), Manos (2003) found a positive relationship between dividend payment and foreign ownership in India. This is due to foreign investors being exempt from tax in India. Comparing with a 30% withholding tax rate for dividend in Sweden, a 12.5% withholding tax rate in Pakistan shows a big tax advantaged (Ullah, Fida & Khan, 2012).

Few studies have offered explanations on dividend preferences of foreign versus domestic investors and how these differing preferences can affect corporate policies. Foreign investors are less informed about the market than domestic investors. Thus, due to the information asymmetry, they are more likely to favour dividend distribution than the domestic investors (Jeon & Ryoo, 2013; Ferreira *et al.*, 2010). Ferreira *et al.* (2010) also postulated that weaker governance on the part of the foreign investors relative to their domestic counterparts may lead to the latter having preference for more payout. In line with the findings of Ferreira *et al.* (2010), Henry (2011) reported that domestic investors have significant preference for higher dividends as they enjoy greater tax benefits while foreign investors have less preference for dividend payment as they benefit less from the receipt of dividends. Other studies have also shown a similar result (Thanatawee, 2013; Kowalewski *et al.*, 2008; Rantapuska, 2008).

In line with the agency theory, Cook and Jeon (2006) found that foreign investors are active monitors. Their findings indicate that among the dividend paying firms, foreign investors prefer to invest in low-dividend paying firms. Furthermore, domestic institutional investors do not desire dividends and they do not play an important role in



a firm's payout policy. Contrary to the position of Cook and Jeon (2006), Thanatawee's (2013) findings indicate that domestic institutional investors emerged as the major investment group. They play a vital role in shaping the firm's payout policy; whereas foreign ownership has no significant influence on a firm's decision to pay dividends in Thailand after he analyzed 287 Thailand firms between 2002 and 2010 using Logit and Tobit Regression. In line with Thanatawee's (2013) findings, Kowalewski (2008) found no evidence to show that foreign ownership affects dividend payout policy when he examined the determinants of dividend policy using 110 non-financial firms in Poland between 1998 and 2004.

### **2.2.2 Empirical Evidence on Factors Affecting Payout Policy**

Fama and French (2001) showed that there are other characteristics of a dividend payer which include higher profitability, larger size and lower investment opportunities. Al-Malkawi, Twairesh and Harery (2013), Kargar and Ahmadi (2013), Jasim and Hameeda (2011), Al-Malkawi (2007) and Amidu and Abor (2006) found that firms which earn higher profits have better ability to distribute dividends because of their ability to meet dividend payment from internal funds while those with lower profitability were less inclined to pay dividend due to the rising cost of external finance to meet up dividend payments. Contrarily, Maladjian and El Khoury (2014) reported a negative relationship between profitability and dividend payout. They argued that most firms plough back for growth when they get more profit, which lead to lower dividend payout.

Size is another important variable reported to have a positive and significant

relationship with dividends (Arshad, Akram & Amjad, 2013; Al-Malkawi *et al.*, 2013; Kargar & Ahmadi, 2013; Mansuurinia, Emangholipour, Rekabdarlolaei & Hozoori, 2013; Imran, 2011; Jasim & Hameeda, 2011; Al-Malkawi, 2007; Bebczuk, 2004). Al-Malkawi (2007) reported that large firms have an edge above small firms in terms of their ability to access capital markets. Thus, they can raise funds at a lower cost and do not need to depend heavily on internal funding. This increases their dividend payout ability. This result was derived after examining 160 companies in the Amman Stock Exchange from 1989 to 2000 by utilizing the probit method. Contrarily, Ehsan, Tabassum, Akram and Nazir (2013) found a negative relationship between size and dividend payout and argued that size may not be a good measure of payout decisions in Pakistan. Other study, Azeem, Akbar and Usman(2011) found an insignificant relationship between dividend policy and company's size.

Apart from the characteristics of the firm such as size, profitability and investment opportunities advanced by Fama and French (2001), DeAngelo *et al.* (2006) also suggested that the implication of the life cycle theory can be tested by relating dividend payment of the firm to its combination of earned and contributed capital using retained earnings as a proportion of total equity (RE/TE). This ratio explains the extent to which the firm depends on internally sourced funds over the external capital. The authors explained that when equity is earned rather than contributed (high RE/TE), firms are likely to pay dividends. Khani and Dehghani (2011) explained further that firms with high RE/TE are considered as mature firms because they have more retained earnings and better ability to distribute dividends. This is confirmed by the empirical results of

Bradford, Mark and Qun (2013), Perretti, Allen and Weeks (2013), El-Ansary and Gomaa (2012), Coulton and Ruddock (2011), Khani and Dehghani (2011) and Thanatawee (2011).

Cash flow is another determinant of dividend. Prior studies have shown that failure to pay out free cash flow as dividends resulted in its diversion or misuse (Chetty and Saez, 2007; La Porta *et al.*, 2000). Thus, dividend payout increases with higher levels of free cash flow. From another perspective, Adelegan (2003) argued that cash flow is superior to earnings in explaining dividends due to two reasons: the possibility of manipulating the accruals component of earnings; and the fact that cash flow is a better proxy for liquidity which is expected to be a good predictor of firm's dividend policy. Therefore, cash flow is reported to be positively related to dividends (Ahmed, 2014; John & Muthusamy, 2010; Amidu & Abor, 2006 and Adelegan, 2003).

Leverage has also been found to affect dividend policy. Rozeff (1982) argued that high leverage firms maintain low levels of dividend payments in order to reduce transaction costs associated with external financing. Thus, previous studies have shown that firms which have high financial leverage maintain low dividend payments because they need to preserve adequate cash to meet financial commitments (Al-Malkawi *et al.*, 2013; Arshad, Akram & Amjad, 2013; Bradford *et al.*, 2013; Ehsan *et al.*, 2013; Huda & Abdullah, 2013; Karami, 2013; Kargar & Ahmadi, 2013; Mansuurinia *et al.*, 2013; Asif, Rasool & Kamal, 2011; John & Muthusamy, 2010 and Al-Malkawi, 2007). Benito and Young (2003) reported that firms with higher income gearing and leverage are more likely to engage in dividend cuts and omissions. From another perspective, some studies

document that firms achieve financial flexibility by maintaining low leverage (Daniel, Denis & Naveen, 2008; DeAngelo & DeAngelo, 2007). Contrarily, Mehta (2012) found leverage to be insignificant in influencing dividend payout.

Literature indicates that financial policies of firms including dividend policies have been affected by financial crisis and government policies changes across different markets; and firms adjust their policies in response to the crisis and government policies changes. Although it is widely held in the literature that dividend cuts could send negative signals to investors, Reddemann, Basse, and Johann-Matthias (2010) contend that dividend cut is an appropriate act to ensure financial stability in troubled times. The authors observed that during the 2008 and 2009 global financial crisis, firms in the European insurance industry adjusted their dividend policy through dividend cuts in order to strengthen liquidity and preserve their capital base. Similarly, Bancel and Mittoo (2011) reported in a survey of French firms that one of the ways in which managers preserved their financial flexibility during the global financial crisis was through dividend cuts.

As for China, the government had put forward semi-mandatory dividend rules in 2008 and 2013 (as discussed in chapter one). An (2012) found that the dividend payout level of Chinese listed companies has gradually improved with the implementation of the semi-mandatory dividend rules after he analyzed listed companies in China from 2007 to 2011. Similarly, Zhang (2012) and Wei, Li and Li (2014) have got an almost similar result in their study of listed companies from 2000 to 2010. However, contrary to the finding from the Chinese market, Adaoglu (2008) found there is no significant

relationship between dividend payout and mandatory dividend rules in Turkey.

### **2.3 Summary of Chapter**

This chapter discussed the underlying theories related to the study. In line with the issues to be investigated in the study, the chapter presented empirical evidence on how foreign ownership can affect a firm's dividend policy. The chapter then proceeds to discuss other factors which have been documented in the literature on dividend payout policies. Empirical evidence was provided on dividend policy during the 2008 financial crisis and prior studies on dividend policy changes in China.



## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.0 Introduction

This chapter will discuss the research design used to answer the objectives of the study. It will be subdivided into the following heading: research framework, data, method and summary.

#### 3.1 Research Framework

Figure 3.1 presents the research framework of the present study. As shown in this figure, the dependent variable uses a dummy variable which is to pay or not to pay. Following Jeon (2010), Chai (2010) and Baba (2009), if a company pays dividend, the dependent variable  $Div=1$ ; otherwise,  $Div=0$ .

There are nine independent variables included in the study, which are size, profitability, investment opportunities, leverage, cash flow, retained earnings to total equity, policy changes, crisis and foreign ownership. This study is more interested to see how foreign ownership influences the dividend payout. The rest of the variables are treated as control variables.

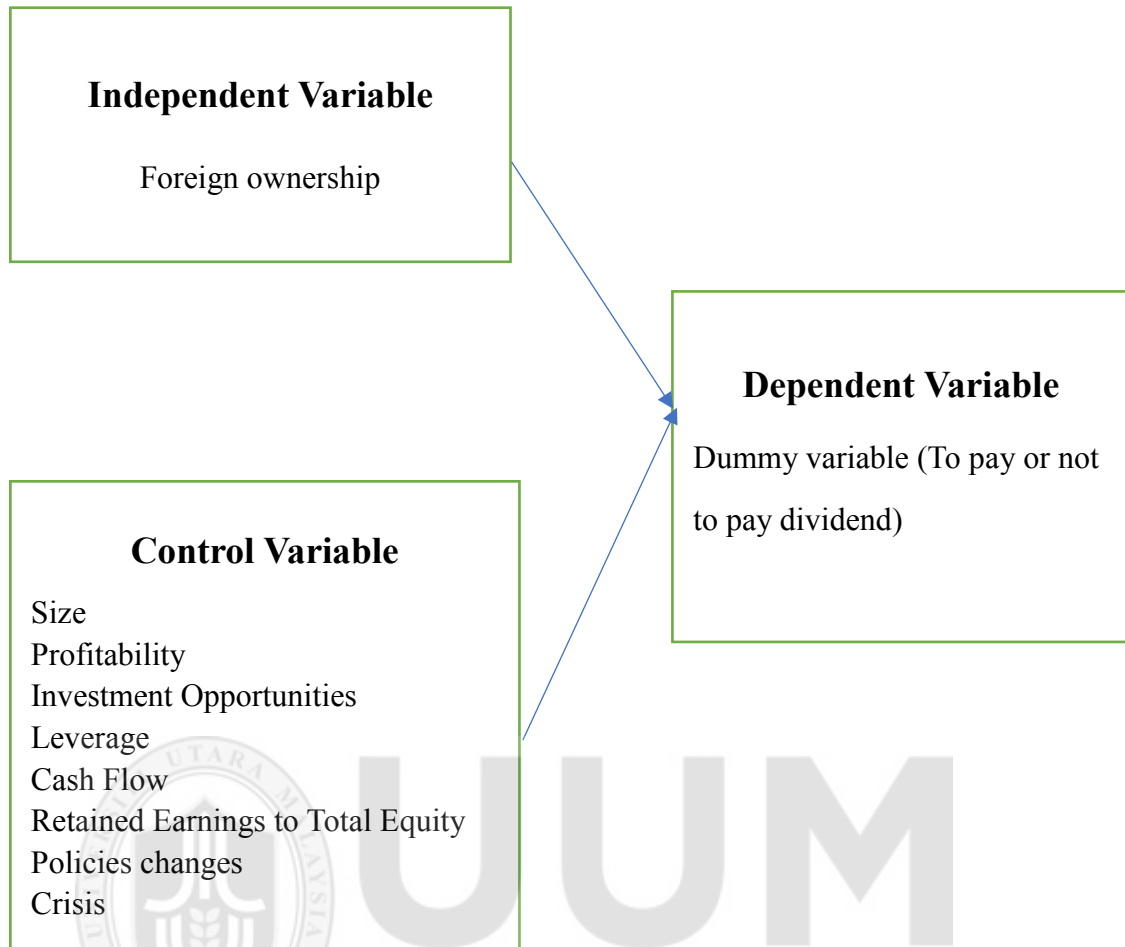


Figure 3.1  
*Research Framework*

### 3.2 Hypothesis Development

As indicated in the literature review, there are two theories (agency and clientele effect theories) that can explain the relationship between dividend payment decisions and foreign ownership. In line with the agency theory, the study expects foreign investors to have preference for dividends based on two arguments. Firstly, the study argues that foreign investors are less informed about the market than domestic investors due to different language and culture. Secondly, the study argues that foreign investors are not able to exert direct monitoring on the firms due to the geographical distance. Therefore,

based on the information asymmetry and lack of direct monitoring, it is expected that foreign investors will press the firms to disgorge out cash to reduce agency cost caused by excessive investment as foreign shareholders are not informed on how the firm utilize its funds. Thus, foreign ownership is expected to have a positive influence on dividend payment. Foreign ownership has been reported to be positively and significantly related to dividend payment by prior studies (Ullah *et al.*, 2012; Jeon *et al.*, 2011; Chai, 2010; Baba, 2009; Lee, Liu, Roll & Subrahmanyam, 2006). For China, the cash dividend tax rate for foreign investors is less than 10%. This shows a big tax advantage as compared to the western countries such as the US (40%) and Sweden (30%). Therefore, it is expected that foreign investors will prefer dividend as they have tax advantage. Based on the foregoing, the study hypothesizes that:

H1: Firm's dividend payment is positively related to foreign ownership.

### **3.3 Measurement of Variables**

This sub-section discusses the measurement of variables used in this study.

#### **3.3.1 Dependent variable**

Dependent variable of this research paper is propensity to pay dividend. According to hypothesis one, the foreign ownership has effect on the decision of dividend payment. Here we follow Chai (2010), Jeon (2010), Baba (2009) and Fama and French (2001) who use a dummy variable (DIV) to measure dividend payment options. If a company pay dividend,  $DIV=1$ ; otherwise,  $DIV=0$ .

#### **3.3.2 Independent variable**

As the objective of this research paper is to study the relationship between dividend



policy and foreign ownership, the main independent variable is foreign ownership which is expressed as the percentage of foreign shareholding (Ye, 2017; Jeon *et al.*, 2010). Based on the work of Ye (2017), this study uses B-shares holders, H-shares<sup>3</sup> holders, foreign institutional shareholders and foreign individual shareholders as foreign shareholders. The total percentage of shareholdings of these shareholders is used as a proxy for foreign ownership.

### 3.3.3 control variables

There are six companies' characteristics that are used as control variables, which include size, profitability, investment opportunities, leverage, cash flow, past dividend and retained earnings to total equity. In addition to these firm characteristics, the study controlled for macro level variable such as financial crisis represented by a dummy variable which takes the value of 1 for the crisis years and 0 for other years. Furthermore, a dummy variable for dividend policy changes in 2008 and 2013 is also included. As the policy changes happened at the end of 2008 and 2013, the dummy variable takes the value of 1 for the year 2009 and 2014 and 0 for other years.

In this research paper, we follow Lam *et al.* (2012), Jeon *et al.* (2011), Chai (2010), Cook and Tang (2010), Mukherjee and Mahakud (2010), Kim *et al.* (2010) and Delcoure (2007) use the natural logarithm of firms' total assets as the measure of companies' size.

$$\text{Size} = \log(\text{Total Asset})$$

As for profitability, this study follows Jeon and Ryoo (2013), Lam *et al.* (2012), Chai (2010) and Mukherjee and Mahakud (2010) measurement which is net income scaled by total assets (ROA).

$$\text{Profitability (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

---

<sup>3</sup> H-shares are shares of Chinese mainland companies that are listed on the Hong Kong Stock Exchange or H-Shares are shares of Chinese mainland companies that listed on the Hong Kong Stock Exchange or other foreign exchange which are denominated in Hong Kong dollars and are traded in the same way as other equities on the Hong Kong exchange. See: H-Share, INVESTOPEDIA

The next control variable is investment opportunity, market value of equity divided by book value of equity is used as a proxy to represent investment opportunity, following the work of Al Malkawi (2007). Baker and Wurgler (2004).

$$\text{Investment Opportunities (INV)} = \frac{\text{Market Value of Equity}}{\text{Book Value of Equity}}$$

For leverage, this paper follows the proxy used by Thanatawee (2013), Afza and Mirza (2011), Chai (2010), Lee (2010), DeAngelo *et al.*, (2006) and Ronapat and Evans (2005) which is total debt to total assets. Kim, Heshmati, and Aoun (2005) argue that firms' financial managers are concerned with bankruptcy which is related to the book value of debt rather than the market value of debt. Given this argument, most studies prefer to use book leverage ratio.

$$\text{Leverage} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

As for cash flow, a proxy used by Binsbergen, Graham, and Yang (2011) is utilized which is the ratio of net operating cash flow divided by revenue.

$$\text{Cash Flow} = \frac{\text{Net Operating Cash Flow}}{\text{Revenue}}$$

Retained earnings to total equity is another control variable that is utilized in this study. This ratio is a proxy of company development stage in the life-cycle theory (DeAngelo *et al.*, 2006). El Ansary and Gomaa (2012), Khani and Dehghani (2011) and Fama and French (2001) argue that companies need retained earnings to investment during initial development stage. This would mean at this stage, there will be a high ratio of retained earnings to total equity and a low dividend payment. Conversely, mature companies would depend less on retained earnings. As such, companies will pay more dividends. Following El Ansary and Gomaa (2012), Khani and Dehghani (2011), DeAngelo *et al.* (2006) and Fama and French (2001), this research paper uses the ratio of retained earnings to total equity as one of the control variables. A summary of all variables used

in this study is presented in Table 3.1.

$$\frac{RE}{TE} = \frac{Retained\ Earnings}{Total\ Equity}$$

Table 3.1  
*Summary of Variables and Measurement*

Variables	Measurement	Sources
Div payout option (Div)	Dummy variables 0= Firm does not pay dividend 1= Firm pays dividend	Baba (2009); Chai (2010), Jeon (2010), Fama & French (2001)
Div payout level ( Payr)	Dividend to book value of total assets	LLSV (2000), Grinstein & Michaely (2005)
Foreign ownership (Fow)	Total percentage of foreign shareholding	Ye ( 2017); Jeon <i>et al.</i> (2010)
Size	Natural log of total assets	Lam <i>et al.</i> (2012), Jeon <i>et al.</i> (2011), Delcoure (2007), Chai (2010), Cook & Tang (2010), Mukherjee & Mahakud (2010), Kim <i>et al.</i> (2010)
Profitability (ROA)	Net earnings divided by total assets	Jeon & Ryoo (2013), Lam <i>et al.</i> (2012), Chai (2010) and Mukherjee & Mahakud (2010)
Investment opportunities (INV)	Market to book ratio (Market value of equity/book value of equity)	Al Malkawi (2007). Baker & Wurgler (2004a)
Leverage (LEV)	Total debts to total assets	Thanatawee (2013), Afza and Mirza (2011), Chai (2010), Lee (2010), DeAngelo <i>et al.</i> , (2006) and Ronapat & Evans (2005)
Cash flow ( CF)	The ratio of net operating cash flow divided by revenue	Binsbergen, Graham, & Yang (2011)
Retained earnings to total	Retained earnings divided	El Ansary and Gomaa

---

equity ( RE/TE)	by total equit	(2012), Khani and Dehghani (2011) and Fama and French (2001)
Policies changes	Dummy variable, take value 1 for year 2009 and 2014 and 0 for other years	Wei, Li & Li (2014) Zhu(2014)
Crisis	Dummy variable, take value 1 for year 2008 and 2009 and 0 for other years	Hauser (2013). Abdulkadir <i>et al.</i> (2015)

---

### 3.4 Research Design

This section describes the data and method used to fulfill the objective of the study.

#### 3.4.1 Data

Non-financial companies listed on Shenzhen Stock Exchange ( SZSE) of China are selected for this research paper. Following Idowu *et al.* (2015), Jeon *et al.* (2011), Dominic (2010) and Baba (2009), the exclusion of financial companies, such as banks, insurance companies and investment companies is because they usually have huge cash flow and different information disclosure requirement ( Abdulkadir, Abdullah and Wong, 2015). Financial industry accounting standards are significantly different from other industry accounting standards, and related indicators are not comparable between the financial industry and the non-financial industry (Ye, 2017). This paper also excludes special treatment companies under the classification of ST and \*ST. Companies classified as ST are those that have financial abnormalities or have suffered losses for two consecutive years; whereas \*ST company refers to a company that has suffered a loss for three consecutive years and has been warned about the risk of delisting. Taking into account the accuracy of financial information and the company's continuing operations, this study removed such companies (Ye, 2017).

The Shenzhen Stock Exchange was established on December 1, 1990 and is one of the

two stock exchanges in mainland China and is located in Futian District, Shenzhen, Guangdong Province. In comparison to the Shanghai Stock Exchange that only includes the main board companies, Shenzhen Stock Exchange includes not only main board market, but also the small and medium (SME) board and the ChiNext market. The Shenzhen Stock Exchange is more comprehensive than the Shanghai Stock Exchange. Listed companies in the main board market are relatively large. The company's total share capital is more than 50 million yuan. The number of publicly issued shares should exceed 25 percent of the total number of shares of the company. If the total share capital of the company exceeds 400 million yuan, the percentage of publicly issued shares should be more than 10%. The small and medium (SME) companies that have a total capital between 30 million yuan and 50 million yuan, are listed on the small and medium-sized board (SME) (Shenzhen Stock Exchange Listing Rules, 2014).

In comparison to Shenzhen Stock Exchange (SZSE), most of the companies listed on the Shanghai Stock Exchange (SSE) are state-owned companies usually belong to special industries such as oil and gas. Generally, it is difficult for foreign investors to invest in these companies (Wang, Liu and Gu, 2009). Other than those differences, the Shenzhen Stock Exchange emphasizes on company's information disclosure quality. Hence companies listed on SZSE attract more investors because of the transparent disclosures (Demirer and Kutan ,2006; Wang and Liu and Gu ,2009). Exchanges that have high disclosure requirements provide a more accurate data ( Wang & Liang, 2008). As such, following Ye (2017) and Lam, Sami and Zhou (2012), this study utilizes the main board companies of SZSE as the sample. A total of 142 non-financial companies with foreign ownership listed on the main board from 2003 to 2016 are selected after removing 14 financial companies, 53 special treatment (ST or ST\*) companies and 267 non-foreign ownership companies<sup>4</sup>. Companies' characteristic data are collected from companies' financial reports such as income statement, cash flow statement and balance sheet. All these data are available in the Thomson Reuters' financial database Datastream and CSMAR database. The Datastream database has both corporate

---

<sup>4</sup> 267 non-foreign ownership companies are excluded from the study due to time constraint.

accounting data and the company's market value. It is a common database for economic research (Memon, 2015). CSMAR database is controlled by the China Securities Regulatory Commission (CSRS). It has financial data and economic information in China. Ye (2017) used this database in their studies of dividend policy. Information on dividend payout ratio is taken from companies' annual report which is downloaded from Datastream; whereas data on foreign ownership is taken from CSMAR database.

### 3.5 Method

This paper uses a panel data as it is collected across time and different companies from the main board of SZSE in 2003 to 2016. The panel data is supposed to be superior than cross-section data because of the large number of observations and higher degrees of freedom. Use of panel data decreases multicollinearity problem and provides more efficient estimates (Asteriou and Hall, 2007). Many empirical studies focusing on the effect of foreign ownership on dividend policy use this method such as shown in the work of Abdulkadir *et al.* (2015), Chai (2010), Jeon (2010) and Baba (2009).

In order to fulfill the objective of this study which is to examine the effect of foreign ownership on dividend policy of listed companies in China, a logit model is used. Logistic regression is a discrete model. Leech, Barrett, and Morgan (2005) noted that logit model can be used when the model contains both continuous and dummy variables. In this case, the dependent variable is the decision to pay or not to pay dividends which is a dummy variable whereas the independent variables have both continuous and dummy variables.

As logit model is a non-linear model, the assumptions related to the distribution of independent variables such as linearity, normality and homoscedasticity are not required (Schwab, 2010). However, logistic regression has its own assumptions that need to be satisfied. Firstly, there is a need to ensure that the true conditional probabilities serves as logistic function of the independent variables. As the dependent variable of this study is a discrete choice to pay or not to pay. The logit function is

appropriate as the link function to link the dependent variable to the independent variables. Secondly, it must ensure that the independent variables are measured without error. Thirdly, the observations must be independent. Finally, the independent variables should not be linear combinations of each other. To ensure that the above assumptions are met, model fitting test, model specification test, and multicollinearity test are performed in the following chapters before estimating the logit regression.

Following Abdulkadir, Abdullah and Wong (2015) and Fama and French (2001), the logit model for the study is specified as follows:

$$Div_{it} = \theta_0 + \theta_1 fow_{it} + \theta_2 control\ variables_{it} + \mu_{1,it} \quad (1)$$

Where:

$Div_{it}$  = (i) Dividend payout ratio and (ii) Dummy variable where Div = 1 if a company pays dividend and Div = 0 otherwise;

$fow_{it}$  = Foreign ownership;

$control\ variables_{it}$  = All of the control variables which include size, profitability, investment opportunities, leverage, cash flow, retained earnings to total equity, policy changes and crisis;

$$\mu_{1,it} = \beta_{1,it} + \varepsilon_{1,it} ,$$

Where:

$\beta_{1,it}$  = Individual effect item,  $\varepsilon_{1,it} \sim N(0, \sigma^2)$ .

### 3.6 Chapter Summary

This chapter outlines the research framework, data and method used to answer the objective of the study. Most data for 142 non-financial companies listed on the main board of Shenzhen Stock Exchange from the period 2003 to 2016 are collected from Datastream and CSMAR database. In order to examine the effect of foreign ownership on dividend policy, the logit regression is used.

## CHAPTER FOUR

### FINDINGS AND DISCUSSION

#### 4.0 Introduction

The results of the analyses conducted are presented and discussed in details in this chapter. The chapter starts with a descriptive analysis. This is followed by the multicollinearity test, model fit test, model specification test and regression results. Detailed discussion of the results obtained in comparison to the results of prior studies and the implication added in the theories. The chapter concluded with a brief summary of what is contained therein.

#### 4.1 Descriptive Statistics of Variables

Table 4.1 presents the descriptive statistic of the variables in the regression models. The sample covers 142 firms over a fourteen-year period. This yields a dataset consisting of a balanced panel data totaling 1,988 observations. An average of 56.2% of the firms paid dividends over the entire sample period. The table also shows that on average, foreign investors own 5.17% of shares in the Chinese market. According to Jeon et al. (2010) and Ye (2017) studies, this level has a significant impact on the company's governance structure as it is more than 5%. The maximum value of foreign ownership reveals that there exist as much as 29.77% shareholdings by foreign investors among the 1988 observations while the minimum value of 0 indicates that some firms are



wholly owned by domestic investors in some years. The standard deviation of 9.1 indicates that there is considerable variation in terms of ownership structure of the Chinese market. The mean value of foreign ownership is low relative to what is reported in other emerging markets. Bokpin (2011) reported 27.97% for Ghana market within the year 2002 and 2007; Kim *et al.* (2010) reported 31.39% for Korean market within the year 2001 and 2007 and Vo (2010) reported 14.80% for Vietnam market within the year 2007 and 2009.

Mean value of cash flow is 3.1% for leverage (LEV), it shows that 59% of total assets are financed by debts indicating that many of the firms are highly levered. In comparison to the US market, Aivazian, Booth and Cleary (2003) reported an average debt of 41%. As for the macro variables, the descriptive statistic indicate that 14.28% of the total observations are from the crisis period and the same percentage is observed for the policy changes period. The mean value for retained earnings to total equity is 26%. This implies that on average, only 26% of the equity of firms listed on the Shenzhen Stock Exchange is composed of retained earnings. This is much less than 44.42% reported by Thanatawee (2013) for the Thailand market. The size of firms listed in the market as measured by the natural log of total assets has a mean value of RMB6.6 billion; whereas the mean value of profitability (ROA) shown an average of 3.5% return on total assets. This measure of profitability ranges from negative minimum value of -386% to a maximum value of 1040%. This indicates a high disparity in performance

Table 4.1

*Variable Definition and Descriptive Statistics*

<b>Variables</b>	<b>Definition</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
DIV (0, 1)	Dummy variables; 0= Firm does not pay dividend 1= Firm pays dividend	1988	0.5629	0.4962	0	1
Foreign ownership	Total percentage of foreign shareholding	1988	5.1721	9.0999	0	29.77
Cash flow	The ratio of net operating cash flow divided by revenue	1988	0.0311	1.0656	-32.9167	3.8913
Size	Natural log of total assets	1988	9.5981	0.6085	7.2777	11.9194
Leverage	Total debts to total assets	1988	0.5896	0.8053	0.0444	13.7114
RE/TE	Retained earnings divided by total equity	1988	0.2612	0.6651	-4	17.53
Profitability (ROA)	Net earnings divided by total assets	1988	0.0353	0.2832	-3.8561	10.4009
Investment opportunities	Market to book ratio	1988	5.4180	63.1155	-1525.56	1758.11
Policy changes (0,1)	Dummy variable which takes the value of 1 for year 2009 and 2014, and takes the value of 0 for other years	1988	0.1429	0.3500	0	1
Crisis (0,1)	Dummy variable which takes the value of 1 for year 2008 and 2009, and takes the value of 0 for other years	1988	0.1429	0.3500	0	1

among firms in the samples. Prior studies have reported this wide difference in firm's performance in the market such as in the work of Salawu *et al.* (2012) whom reported that there exists great disparity between firms in performance. The negative minimum value also indicates that some firms recorded losses over the period. The average investment opportunities (INV) measured by the market to book ratio is 5.418. This shows a big difference from the Nigeria market, which is less than one from the research conducted by Abdulkadir *et al.* (2015). Market to book ratio of more than one indicates there are a lot of valuable investment opportunities available amongst companies listed on the Shenzhen Stock Exchange (Chung, Wright & Charoenwong, 1998), which is consistent with the rapid development of the stock market as described in chapter one.

#### **4.2 Multicollinearity Analysis**

It is necessary to examine the correlation between the independent variables used in the analysis. Thus, Table 4.2 presents pairwise correlation coefficients among the explanatory variables to detect whether any of them is highly correlated. Foreign ownership is positively and significantly correlated with dividend payment decision (0.15). The highest correlation coefficients are between policy changes and crisis (0.42) and ROA and RE/TE (0.29). However, these coefficients are below the benchmark of 0.8 given by Hair *et al.* (2006) and unlikely to lead to multicollinearity problem. The existence or nonexistence of possible multicollinearity is confirmed further by variance inflation factors (VIF) test. The VIF values are presented in the Table 4.3. VIF for all the variables ranges from 1.02 to 1.23. According to Hair, Black, Babin, and Anderson

Table 4.2

*Pairwise Correlation Coefficients*

	DIV	FOWNERS	CF	SIZE	LEV	RE/TE	ROA	INV	POLY	CRISIS
DIV	1.0000									
FOWNERS	0.1542***	1.0000								
CF	0.0213	-0.0514	1.0000							
SIZE	0.3677***	0.0848**	0.0864**	1.0000						
LEV	-0.1509**	0.0358	-0.1563	-0.1900***	1.0000					
RE/TE	0.2410***	0.0954**	-0.0444	0.2537***	-0.0764	1.0000				
ROA	0.0719*	0.0025	0.1817**	0.0462	-0.1214**	0.2948**	1.0000			
INV	-0.0312	-0.0058	-0.0200	-0.090**	-0.0053	0.0220	0.1225***	1.000		
POLY	0.0294	0.0035	0.0085	0.0616**	0.0068	0.0131	-0.0164	0.019	1.000	
CRISIS	-0.0170	0.0213	0.0033	-0.0661	0.0441	-0.0206	-0.0285	-0.009	0.4167***	1.000

\*significant at  $p < 0.10$ , \*\*significant at  $p < 0.05$ , \*\*\*significant at  $p < 0.01$ . Dummy variable which takes value of 1 if company pay dividend and 0 otherwise (DIV); total percentage of foreign shareholding; the ratio of net operating cash flow divided by revenue (CF); natural log of total assets (SIZE); total liabilities to total assets (LEV); retained earnings divided by total equity (RE/TE); net income divided by total assets (ROA); market to book ratio (INV); dummy variable which takes the value of 1 for year 2009 and 2014 and takes the value of 0 for other years (POLY); dummy variable which takes the value of 1 for year 2008 and 2009 and takes the value of 0 for other years (CRISIS).

(2010), VIF values above 10 indicate multicollinearity problem. The VIF values indicate absence of multicollinearity problem as the values fall below 10 for all independent variables.

Table 4.3

*Variance Inflation Factors*

Variables	VIF
Foreign ownership	1.02
Cash flow	1.08
Size	1.15
Leverage	1.07
Retained earnings to total equity	1.20
Profitability (ROA)	1.17
Investment opportunities	1.03
Policy changes	1.22
Crisis	1.23

### 4.3 Test for Model Fit

The results of model fit tests are reported in Table 4.4. The model's overall goodness of fit is tested using the likelihood ratio  $\chi^2$ . The model's likelihood ratio  $\chi^2$  is statistically significant at 1% indicating goodness of fit of the whole model. Just like the likelihood ratio  $\chi^2$ , the Wald test also uses for model fit test. The hypothesis of Wald test is all parameters are simultaneously equal to zero. The test result shows that the Wald chi-square test statistic of 166.3 which is significant at 1% significance level (p-value = 0.0000), thus we reject the hypothesis that all parameters are simultaneously equal to zero. This indicates that at least one of the coefficients in the model has effect on the dependent variable.

Hosmer-Lemeshow test which also indicates how well the model fits the data. Hosmer

and Lemeshow (2000) recommended partitioning observations into ten equal sized groups according to their predicted probabilities. Based on this, an insignificant chi-square indicates adequate fit of the model while a significant chi-square suggests that the model does not adequately fit the data. As shown in Table 4.4, the Hosmer-Lemeshow  $\chi^2$  is insignificant (p-value= 0.1935), thus we fail to reject the hypothesis that no difference exists between the observed and the model predicted values. Therefore, the estimates of the model fit the data at an acceptable level. The last test for goodness of fit is the percentage of correct predictions (PCP), which is obtained from a classification table shows the predictive power of the model by assessing the model's ability in classifying outcomes of the dependent variable. Thus, the PCP shows the extent to which the actual outcome corresponds to the predictions made. As indicated in the table, the percentage of cases correctly predicted is 71.93%. This is considered high as Pampel (2000) suggests between 50% and 100% correctly predicted cases as a measure of predictive accuracy.

Table 4.4  
*Tests for Goodness of Fit (Binomial Model)*

<b>Tests</b>	<b>Results</b>
Likelihood Ratio $\chi^2$	p-value=0.0000
Wald chi-square test	P-value=0.0000
Hosmer-Lemeshow	p-value=0.1935
Percent of correct prediction	PCP= 71.93%

#### **4.4 Test for Model Specification**

Apart from the goodness of fit tests, model specification check is also important as misleading inferences may result from an inappropriate model specification. Therefore,

in order to avoid bias and inconsistent results, link test was conducted in this study which is the general model specification test for non-linear regression models. The test is based on the notion that if a regression is properly specified, then any additional independent variable should be insignificant except by chance.

Table 4.5  
*Model Specification Test (Linktest)*

Test	Results
Linktest	
_hat	p-value=0.0000
_hatsq	p-value=0.5060

Linktest shows two variables as indicated in Table 4.5. *\_hat* represents the predicted value from the model and *\_hatsq* represents the predictor to rebuild the model.

According to Pregibon (1980), to pass the linktest, it is expected that *\_hat* should be significant and *\_hatsq* should be insignificant. The results show in table 4.5 indicate that the model is correctly specified as *\_hat* is significant and *\_hatsq* is insignificant.

#### 4.5 Panel Logistic Regression Analysis

The study adopts panel analysis for logit regression. Hausman test conducted has  $\chi^2$  statistic of 25.71 and it is significant at ( $p > \chi^2 = 0.002$ ) indicating that the fixed effect estimates are preferred to random effect estimates. Thus, the results are discussed based on the fixed effect estimates which are presented in Table 4.6. The reported coefficient estimates indicate the influence of the explanatory variables on the decision to pay dividends.

Model 1 is the base model to measure the relationship between foreign ownership and

dividend payment decisions which measured by a dummy that takes the value of 1 if a firm pays dividend and 0 if otherwise. In model 2, the study incorporates firm characteristics which have been used to explain Chinese companies' dividend policy. In model 3, the study extends the model to include macroeconomic variables.

Table 4.6

*Determinants of Dividend Payout Decision (Fixed Effect Logistic Regression)*

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Foreign ownership	0.0653*** (4.78)	0.0558*** (3.81)	0.0560*** (3.82)
Cash flow		-0.0060 (-0.08)	-0.0057 (-0.07)
Size		1.7604*** (7.28)	1.7478*** (7.10)
Leverage		-3.0521*** (-4.49)	-3.0385*** (-4.44)
RE/TE		0.6693*** (2.72)	0.6727*** (2.73)
Profitability (ROA)		0.9914 (0.52)	0.9817 (0.54)
Investment opportunities		0.0007 (0.30)	0.0007 (0.25)
Policy changes			0.1258 (-0.27)
Crisis			-0.0542 (-0.27)
LR $\chi^2$	25.51***	150.20***	150.57***
Wald $\chi^2$			
No. of obs	1512	1512	1512

\*significant at  $p < 0.10$ , \*\*significant at  $p < 0.05$ , \*\*\*significant at  $p < 0.01$ . z-stat are in parentheses;

The results presented in Table 4.6 shows that foreign ownership is consistently significant for all the models in which it appeared, although the coefficient is not large.

The coefficient of foreign ownership is significantly positive in all the models. Thus,



the higher the level of foreign ownership the higher the likelihood to pay dividends. This finding provides strong evidence in support of agency theory. Based on agency theory, foreign shareholders treat dividend payments as a substitute to direct monitoring to prevent managers from over-investment. The finding is in accordance with prior studies in India (Manos, 2003), Korea (Jeon et al., 2011; Chai, 2010), Japan (Baba, 2009) and Pakistan (Ullah, Fida & Khan, 2012) where a reported positive and significant relationship between foreign ownership and dividend payment decision is reported.

The result contradicts other studies that reported a negative and significant relationship between foreign ownership and dividend policy. Dahlquist and Robertsson's (2001) study of the Swedish market reveals that foreigners show a preference for firms paying low dividends. Ferreira *et al.* (2010) study also showed that foreign institutional investors dislike dividend distribution while domestic investors desire dividends as the foreign institutional investors have to bear higher dividend tax and transaction costs. Ferreira *et al.* (2010) argued the greater the tax disadvantage of dividends to international investors, and the higher are transaction costs related to repatriating and reinvesting dividends, the more international investors push for fewer dividends. However, based on tax induced clientele effect advanced by Brennan (1970) and Elton and Gruber (1970), foreign ownership may be positively or negatively related to dividend policy depending on the tax advantaged or disadvantaged. Comparison to the

Swedish 30% flat rate<sup>5</sup>, 30% withholding tax rate in New Zealand<sup>6</sup>, and 69% marginal tax rate in Australia for dividend<sup>7</sup>, not more than 10% tax rate for dividend in China<sup>8</sup> shows a big tax advantaged. Due to this, foreign shareholders prefer dividend distribution in China as shown by the positive relationship between foreign ownership and dividend payment decision. This is an support to the clientele effect theory from the tax advantage perspective. In addition, foreign shareholders generally face a high degree of informational asymmetry relative to domestic shareholders. As such foreign shareholders in China treat dividends as a substitute to direct monitoring of firms targeted at reducing over-investment problem (Jensen, 1986; Easterbrook, 1984).

In model 2, among all the companies control variables, only size, leverage and retained earnings to total equity show a significant effect on dividend payment decision. The coefficient of retained earnings to total equity is significantly positive in model 2 and model 3. This indicates that the more firms rely on retained earnings, the higher the likelihood of them to pay dividends. Findings which indicate positive relationship between retained earnings to total equity and decision to pay dividends is consistence with the prediction of the life cycle theory where firms in the maturity stage of their lifecycle have fewer investment opportunities, thus they have better ability to pay dividend (DeAngelo et. al, 2006). This finding supports the results of earlier studies conducted by El-Ansary and Gomaa (2012), Khani and Dehghani (2011) and Bradford

---

<sup>5</sup> See Sweden: Individual - Income determination, Worldwide Tax Summaries, at <http://taxsummaries.pwc.com/ID/Sweden-Individual-Income-determination>

<sup>6</sup> See Non-resident withholding tax (NRWT): NRWT payers, New Zealand Inland Revenue, at <http://www.ird.govt.nz/nrwt/nrwt-payers/>

<sup>7</sup> See Tax rates – foreign resident, Australian Taxation Office

<sup>8</sup> See State Administration of Taxation (SAT) Public Notice [2008] No.2, Public Notice of the List of Dividend Tax Rates Issued under the Agreement

*et al.* (2013). As for company's size, it has a positive and significant effect on the decision to pay dividend among companies listed on the Shenzhen Stock Exchange. This indicates that the larger the size of a company, the higher the likelihood for companies to pay dividend. This finding is in line with the results reported by Jasim and Hameeda (2011), Al-Malkawi (2007) and Fama and French (2001).

The result of the study also shows a significant negative coefficient of leverage indicating that firms with a higher leverage is less likely to pay dividends. The finding concurs with the view of Rozeff (1982) that high levered firms maintain a low dividend payment in order to reduce transaction cost associated with external financing. This may result from the need for high levered firms to hold back funds for debt servicing and the need to prevent obtaining additional external finance in order to minimize transaction cost associated with external financing (Abdulkadir *et al.*, 2015), thus lowering the funds available for dividend distribution. This finding also matches the results of other studies conducted by Bradford *et al.* (2013), Huda and Abdullah (2013) and Al-Malkawi (2008) where a negative and significant relationship was documented between leverage and dividend payout.

Other than the three control variables, the results of cash flow, profitability and investment opportunities are insignificant. The insignificant result of investment opportunities supports the finding of Fama (1974) and D'Souza (1999) where investment opportunities and dividend decisions were found to be unrelated. The insignificant results of cash flow and investment opportunities indicate that dividend payment decision are not support by signaling theory.

The two controlled variables (policy changes and crisis) which were controlled for in model 3 are insignificant with positive and negative coefficients, respectively. The results imply that policy changes and crisis have no significant effect on dividend payment decisions. The result for dividend policy changes is consistent with Adaoglu (2008) findings in Turkey.

#### **4.6. Odds Ratio for Decision to Pay or Not to Pay Dividends**

Logistic estimates are presented in terms of the logit coefficients or odds ratio. This is because odds ratio presents an easier alternative to interpreting the estimates. More so, odds ratio are considered to be more informative (Menard, 2002). This is because it tells how many times the likelihood of occurrence relative to non-occurrence will increase or decrease when the explanatory variable changes by one unit. Therefore, logistic regression analysis indicate how the odds change when a particular explanatory variable changes. Odds is the ratio of probability of an event occurring to the probability of the event not occurring (Gujarati, 2004). An odds ratio greater than 1 corresponds to a positive logit coefficient while odds ratio of less than one corresponds to a negative logit coefficient. The odds ratio in this study is the ratio of probability of decision "to pay" to the probability of the decision "not to pay". Table 4.7 presents the odds ratio based on the expanded model of the fixed effect estimates.

Odds ratio for each explanatory variable is interpreted given that the other variables in the model are held constant. Based on this, the odds ratio presented in Table 4.7 indicates that if foreign ownership increases by one point, the odds of taking the

decision "to pay" relative to "not to pay" is expected to increase by 1.04 units. Similarly, if retained earnings to total equity increases by one point, then the odds of decision "to pay" relative to "not to pay" is expected to increase by 2.53 units. If the company's size increase by one point, the odds of taking the decision "to pay" relative to "not to pay" is expected to increase by 4.78 units. On the other hand, if leverage increases by one point, the odds of decision "to pay" relative to "not to pay" is expected to decrease by 0.04 units. The probability of paying dividends in policy changes years (2004 and 2014) is 1.03 times higher than the years without policy changes. Similarly, the probability of paying dividends in crisis years (2008 and 2009) is 1.05 times higher than the years without crisis.

Table 4.7  
*Odds Ratio of Decision " To Pay" or "Not to Pay"*

	Odds ratio	z-stat
Foreign ownership	1.0353***	5.50
Cash flow	0.8311	-1.9
Size	4.7843***	13.59
Leverage	0.0378***	-10.65
RE/TE	2.5271***	6.31
Profitability (ROA)	0.9623	-0.15
Investment opportunities	0.9994	-0.30
Policy changes	1.0268	0.16
Crisis	1.0532	0.31

\*\*\*significant at  $p < 0.01$

#### 4.7 Robustness Check for Panel Logistic Regression Model

It is necessary to assess the model for robustness of its key findings. Thus, it is

expected that the main conclusions as derived from the signs and significance level of

key variable(s) should hold even when the variables are subjected to different model specification. This sub-section examines whether the initial results are driven by the use of a dummy variable as proxy for dividend payout policy as opposed to the use of dividend scaled by total assets. Therefore, an alternative measure of dividend policy (dividend scaled by total assets) is employed for robustness check on model 3 (including of all variables). Since this new dependent variable is not in discrete choice form, the study estimates panel linear regression as reported in Table 4.8.

Table 4.8  
*Determinants of Dividend Payout Decision (Fixed Effect Regression)*

	Coef.	Std. Err.	t	P> t
Intercept	-0.6021485	0.0835999	-7.20	0.000***
Foreign ownership	0.0027948	0.0048118	5.10	0.000***
Cash flow	0.0034202	0.0048118	0.71	0.477
Size	0.0832546	0.0086808	9.59	0.000***
Leverage	-0.025628	0.0063449	-4.04	0.000***
RE/TE	-0.0137017	0.0081143	-1.69	0.091*
Profitability (ROA)	0.039322	0.0188693	2.08	0.037**
Investment opportunities	-0.0000325	0.0000793	-0.41	0.682
Policy changes	-0.0150328	0.0156134	-0.96	0.335
Crisis	-0.0078023	0.0156134	-0.50	0.617
No. of obs	1988			

\*significant at  $p < 0.10$ ; \*\*significant at  $p < 0.05$ ; \*\*\*significant at  $p < 0.01$ ; DV= Dividend/Total Assets.

The findings on foreign ownership effect on dividend payout policy remains unaltered as it is still significantly positive. Thus, the finding is robust to the use of alternative

measure of dividend payout policy. in comparison to the results obtained in Table 4.6 to 4.8 indicate that more variables which include foreign ownership, size, leverage, retained earnings to total equity and profitability explain the amount of dividends paid. Contrarily, the insignificance of profitability in the non-linear model as shown in Table 4.6 shows that profitability cannot explain the initial decision on whether or not to pay dividends. However, it is relevant in explaining how much to pay. The results obtained from the logit estimates and those obtained in the linear regression are both useful to shareholders in making investment decisions. For those who are not concerned on how much dividend is being paid out, there are four factors (foreign ownership, size, leverage and RE/TE) that need to be considered. However, for investors who are particular on how much dividend is to be paid, profitability is an additional factor to be considered in their investment decision making.

#### **4.8 Summary of Chapter**

The chapter provides answers to the research question raised in the study on the effect of foreign ownership on dividend policy. In order to address the research question, binomial panel logistic was carried out. Overall, empirical result suggests that foreign ownership play a very important role in a firm's decision to pay dividends on the Shenzhen Stock Exchange. This is confirmed from the robustness check where further evidence is provided that the significant explanatory role of foreign ownership is not limited to the decision to pay or not to pay. It also has impacts on the amount of dividends paid.

## CHAPTER FIVE

### SUMMARY AND CONCLUSION

#### 5.0 Introduction

This chapter provides a summary of the main findings of the study, the implications, limitations and suggestions for future research.

#### 5.1 Summary of Findings

This study was conducted to examine whether the foreign ownership affect companies' dividend policy in the Shenzhen Stock Exchange. Based on a sample of 142 firms over 14 years (2003-2016), panel logistic regression results show that there is a significant positive relationship between foreign ownership and dividend payment decision. The results of the robustness test further indicate that foreign ownership not only have an impact on the dividend payment decision, but also affect the amount of dividend payment. The higher the level of foreign ownership, the higher the likelihood to pay dividends and the more dividend being payout. In addition, the company's characteristic also have an effect on dividend policy for companies listed in the Shenzhen Stock Exchange. Results of the study indicate that big size, low leverage and high retained earnings to total equity (mature stage) companies are most likely to pay dividend. However, the results show that crisis and policy changes have an insignificant effect on payout decision.



## **5.2 Implications of the Study**

In addition to the theoretical implications discussed in the previous chapter, findings of the study also have implication for policy and practice. Findings suggest that firms shape their payout policy in line with the preference of foreign investors. As indicated by the results, the foreign shareholders in the Chinese market have high preference for dividend paying stocks. If a company wants to attract foreign investors, it should choose a payout policy to cater for the needs of foreign investors. For investors who prefer dividends, they should invest in companies with foreign ownership as the likelihood of these companies to pay dividend is higher. For the Chinese government, it should continue with the existing policy on dividend or improve further on the policy as it is shown in Figure 1.3 that foreign fund investing in the Shenzhen Stock Exchange continue to increase.

## **5.3 Limitation and Suggestion for Future Research**

Due to time constraint, this study only includes listed companies that have foreign ownership in the mainboard of Shenzhen Stock Exchange. Therefore, the result may not be applicable to the whole market. Furthermore, the study excluded financial firms due to the different regulatory structure and as such findings of the study may not be applicable to such firms. Therefore, further research can be conducted on all companies listed on the Shenzhen Stock Exchange and Shanghai Stock Exchange to examine whether or not foreign ownership has an effect on dividend policy. A comparative

analysis of the effect among mainboard, SME board and ChiNext will also be an interesting area to explore in future research.



## REFERENCES

- Abdulkadir, R. I., Abdullah, N. A. H., & Wong, W. C. (2016). Dividend payment behaviour and its determinants: The Nigerian evidence. *African Development Review*, 28(1), 53-63.
- Adam, H. & Javid, A. (2010). The Ownership Structure and Dividend Payout Policy in Pakistan: Evidence from Karachi Stock Exchange 100 Index. *Int. J. Buss. Mgt. Eco. Res.*, 1(1), 58-69
- Adaoglu, C. (2008). Dividend policy of the ISE industrial corporations: The evidence revisited (1986-2007). *Journal of BRSA Banking and Financial Markets*, 2(2), 113-115.
- Adelegan, O.I. (2003). An empirical analysis of the relationship between cash flow and dividend changes in Nigeria. *R & D management*, 15(1), 35-49.
- Afza, T., & Mirza, H.H. (2011). Do mature companies pay more dividends? Evidence from Pakistani stock market. *Mediterranean Journal of Social Sciences*, 2(2), 152-161.
- Ahmed, I.E. (2014). The impact of liquidity on dividend policy. Proceedings of 26th International Business Research Conference, Imperial College, London
- Aivazian, V., Booth, L., & Cleary, S. (2003). Do emerging market firms follow different dividend policies from US firms? *Journal of financial Research*, 26(3), 371-387.
- Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84(3), 488-500.
- Allen, F., Bernardo, A. E., & Welch, I. (2000). A theory of dividends based on tax clienteles. *The Journal of Finance*, 55(6), 2499-2536.
- Al-Malkawi, H. A. N., Rafferty, M., & Pillai, R. (2010). Dividend policy: A review of theories and empirical evidence. *International Bulletin of Business Administration*, 9, 171
- Al-Malkawi, H. A. N. (2007). Determinants of corporate dividend policy in Jordan: An application of the Tobit model. *Journal of Economic and Administrative Sciences*, 23(2), 44-70.
- Al-Malkawi, H.A.N., Twaresh, A.E., & Harery, K. (2013). Determinants of the likelihood to pay dividends. *Journal of American Science*, 9(12), 518-528.

- Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *The Journal of Risk Finance*, 7(2), 136-145.
- An, Q. S. (2012). Research on the Present Situation and Trend of Dividends in China's Listed Companies. *Securities Market Herald*, (11), 15-19.
- Arshad, Z., Akram, Y., & Amjad, M. (2013). Ownership structure and dividend policy. *Interdisciplinary Journal of Contemporary Research in Business*, 5(3), 378-401.
- Asif, A., Rasool, W., & Kamal, Y. (2011). Impact of financial leverage on dividend policy: Empirical evidence from Karachi Stock Exchange-listed companies. *African Journal of Business Management*, 5(4), 1312-1324.
- Asteriou, D., & Hall, S. G. (2007). *Applied Econometrics: a modern approach using views and microfit*. New York: Palgrave Macmillan.
- Azeem, M., Akbar, Z., & Usman, A. (2011). Investigating compliance of dividend policy with firm size: A case of Karachi Stock Exchange listed companies. *Interdisciplinary Journal of Contemporary Research in Business*, 2(11), 263-279.
- Baba, N. (2009). Increased presence of foreign investors and dividend policy of Japanese firms. *Pacific-Basin Finance Journal*, 17(2), 163-174.
- Baker, M., & Wurgler, J. (2004a). A catering theory of dividends. *The Journal of Finance*, 59(3), 1125-1165.
- Bancel, F., & Mittoo, U. R. (2011). Financial flexibility and the impact of the global financial crisis: Evidence from France. *International Journal of Managerial Finance*, 7(2)
- Bebczuk, R. (2004). Explaining dividend policies in Argentina. *Documento de Trabajo*, 50.
- Bena, J., Fons-Rosen, C., & Hanousek, J. (2008). *European pyramid ownership structures*. UPF Mimeo.
- Bena, J., & Hanousek, J. (2006). Rent extraction by large shareholders: Evidence using dividend policy in the Czech Republic. *Czech Journal of Economics and Finance*. 58(3-4), 106-130.
- Benito, A., & Young, G. (2003). Hard times or great expectations? Dividend omissions and dividend cuts by UK firms. *Oxford Bulletin of Economics and Statistics*, 65(5), 531-555.

- Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *The Bell Journal of Economics*, 10(1), 259-270.
- Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*, 5, 634-639.
- Black, F., & Scholes, M. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *Journal of Financial Economics*, 1(1), 1-22.
- Bokpin, G. A. (2011). Ownership structure, corporate governance and dividend performance on the Ghana Stock Exchange. *Journal of Applied Accounting Research*, 12(1), 61-73.
- Bradford, D.J., Mark, H.L., & Qun, W. (2013). Organizational structure and corporate payout policy. Retrieved from <http://www.fma.org/Chicago/Papers/divMA01142013WU.pdf>.
- Brennan, M. J. (1970). Taxes, market valuation and corporate financial policy. *National Tax Journal*, 23(4), 417-427.
- Brockman, P., & Unlu, E. (2009). Dividend policy, creditor rights, and the agency costs of debt. *Journal of Financial Economics*, 92(2), 276-299.
- Chai, D. (2010). Foreign Corporate Ownership and Dividends. Centre for Business Research, University of Cambridge Working Paper No 401. Retrieved from [www.cbr.cam.ac.uk/pdf/WP401.pdf](http://www.cbr.cam.ac.uk/pdf/WP401.pdf)
- Chetty, R., & Saez, E. (2007). *An agency theory of dividend taxation*. NBER working paper series. National Bureau of Economic Research, Cambridge.
- Chung, K.H., Wright, P., & Charoenwong, C. (1998). Investment opportunities and market reaction to capital expenditure decisions. *Journal of Banking and Finance*, 22(1), 41-60.
- Cook, D. O., & Jeon, J. Q. (2006). *Foreign ownership, domestic ownership, and payout policy*. working paper, university of Alabama, department of economic. website.
- Cook, D.O., & T. Tang. (2010). Macroeconomic Conditions and Capital Structure Adjustment Speed. *Journal of Corporate Finance* 16 : 73-87.
- Coulton, J. J., & Ruddock, C. (2011). Corporate payout policy in Australia and a test of the life - cycle theory. *Accounting & Finance*, 51(2), 381-407.
- Dai, Q., & Bie, Z. (2006). FDI, accumulation of human capital and economic growth. *Jingji Yanjiu (Economic Research Journal)*, 41(4), 15-27.

- Dahlquist, M., & Robertsson, G. (2001). Direct foreign ownership, institutional investors, and firm characteristics. *Journal of Financial economics*, 59(3), 413-440.
- Daniel, N.D., Denis, D.J., & Naveen, L. (2008). Sources of financial flexibility: Evidence from cash flow shortfalls. *Unpublished Working Paper, Drexel University, Purdue University and Temple University*.
- DeAngelo, H., & DeAngelo, L. (2007). Capital structure, payout policy and financial flexibility. *Marshall School of Business Working Paper No. FBE, 02-06*.
- DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory. *Journal of Financial economics*, 81(2), 227-254.
- Deeptee, P. R., & Roshan, B. (2009). Signaling power of dividend on firms' future profits: A Literature Review. *International Interdisciplinary Journal*.
- Demirer, R., & Kutan, A. M. (2006). Does herding behavior exist in Chinese stock markets?. *Journal of international Financial markets, institutions and money*, 16(2), 123-142.
- Delcours, N. (2007). The determinants of capital structure in transitional economies. *International Review of Economics & Finance*, 16(3), 400-415.
- Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659.
- Ehsan, S., Tabassum, N., Akram, Z., and Nazir, R. (2013). Role of insider and individual ownership structure in dividend payout policy: Evidence from Pakistan. *Middle-East Jour*
- El-Ansary, O., & Gomaa, T. (2012). The life cycle theory of dividends: Evidence from Egypt. *International Research Journal of Finance and Economics*, 97, 72-80.
- Elston, J. A., Hofler, R., & Lee, J. (2011). Dividend Policy and Institutional Ownership: Empirical Evidence Using a Propensity Score Matching Estimator. *Journal of accounting*
- Elton, E. J., & Gruber, M. J. (1970). Marginal stockholder tax rates and the clientele effect. *The Review of Economics and Statistics*, 68-74.
- Fama, E. F., & French, K. R. (2001). Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial Economics*, 60(1),

3-43.

- Ferreira, M. A., Massa, M., & Matos, P. (2010). Dividend clienteles around the world: Evidence from institutional holdings (*Working Paper No. FBE 35-09*). *University of Southern*
- Grullon, G., Michaely, R., & Swaminathan, B. (2002). Are dividend changes a sign of firm maturity? *The Journal of Business*, 75(3), 387-424.
- Gujarati, D.N. (2004). *Basic econometrics*. (4th ed.). The Mc Graw Hill companies.
- Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate analysis*. (7th ed.). Pearson prentice hall.
- Henry, D. (2011). Ownership structure and tax-friendly dividends. *Journal of Banking and Finance*, 35, 2747-2760.
- Hosmer, D.W., & Lemeshow, S. (2005). *Applied logistic regression*. (2nd ed.). John Wiley & sons.
- Huda, N., & Abdullah, M.N. (2013). Relationship between ownership structure and dividend policy: Empirical evidence from Chittagong Stock Exchange. Proceedings of 9th Asian Business Research Conference, Bangladesh.
- Imran, K. (2011). Determinants of Dividend Payout Policy: A Case of Pakistan Engineering Sector. *The Romanian Economic Journal*, 14(41), 47-60.
- Jasim, A., & Hameeda, A.H. (2011). Corporate dividend decisions: Evidence from Saudi Arabia. *The Journal of Risk Finance*, 12(1), 45-56.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial economics*, 3(4), 305-360
- Jeon, J. Q., Lee, C., & Moffett, C. M. (2011). Effects of foreign ownership on payF5:F17out policy: Evidence from the Korean market. *Journal of Financial Markets*, 14(2), 344-37
- Jeon, J. Q., & Ryoo, J. (2012). How Do Foreign Investors Affect Corporate Policy?: Evidence from Korea. *International Review of Economics & Finance*, 25, 52-65.
- Jiang, J. F. (2004). FDI and China's economic growth. *The Journal of World Economy*, 1

- John, K., & Lang, L. H. (1991). Insider trading around dividend announcements: Theory and evidence. *The Journal of Finance*, 46(4), 1361-1389.
- John, K., & Williams, J. (1985). Dividends, dilution, and taxes: A signaling equilibrium. *The Journal of Finance*, 40(4), 1053-1070.
- John, S. F., & Muthusamy, K. (2010). Leverage, growth and profitability as determinants of dividend payout ratio: Evidence from Indian paper industry. *Asian Journal of Business*
- Karami, L. C. (2011). The Influence of Leverage and Liquidity on Dividend Policy (Empirical Study on Listed Companies in Indonesia Stock Exchange of LQ45 in 2008-2010). *Jurnal Ilmiah Mahasiswa FEB Malang*.
- Kargar, E. F., & Ahmadi, G. R. (2013). The Relationship between Free Cash Flows and Agency Costs Levels: Evidence from Tehran Stock Exchange. *Research Journal of Finance and Accounting*, 4(14), 51-65.
- Khani, A., & Dehghani, S. (2011). The effect of financial life cycle on dividend policy of listed companies in Tehran Stock Exchange. *Interdisciplinary Journal of Contemporary Research in Business*, 3(6), 621-626.
- Khang, K., & King, D. (2003). *Is dividend policy related to information asymmetry: Evidence from insider trading gains*. AFA 2003 Washington, DC. meetings. Retrieved from <http://ssrn.com/abstract=342621>
- Kim, H., Heshmati, A., & Aoun, D. (2006). Dynamics of Capital Structure: The Case of Korean Listed Manufacturing Companies. *Asian Economic Journal*, 20(3), 275-302.
- Kim, S., Sul, W., & Kang, S. A. (2010). Impact of foreign institutional investors on dividend policy in Korea: A stock market perspective. *Journal of Financial Management & Analysis*, 23(1), 10-26.
- Kowalewski, O., Stetsyuk, I., & Talavera, O. (2008). Does corporate governance determine dividend payouts in Poland?. *Post-Communist Economies*, 20(2), 203-218.
- Kumar, J. (2006). Ownership structure and dividend payout policy in India. *Journal of Emerging Market Finance*, 5( 1 ), 15 – 58.
- Lam, K. C., Sami, H., & Zhou, H. (2012). The role of cross-listing, foreign ownership and state ownership in dividend policy in an emerging market. *China Journal of*



*Accounting Research*, 5(3), 199-216.

- LaPorta, R., Lopez de Silanes, F., Shleifer, A., & Vishny, R. (2000). Agency problems and dividend policies around the world. *Journal of Finance*, 55(1), 1-33.
- Lease, R. C., John, K., Kalay, A., Loewenstein, U., & Sarig, O. H. (2000). *Dividend policy: Its impact on firm value*. Boston: Harvard Business School Press.
- Leech, N., Barrett, K., Morgan, G. (2005). *SPSS for intermediate statistics: Use and interpretation*. (2nd ed.). New Jersey: Erlbaum associates.
- Lee, K.F. (2010). Retail minority shareholders and corporate reputation as determinant of dividend policy in Australia. *Pacific Basin Finance Journal*, 18, 351-368.
- Lee, Y.T., Liu, Y.J., Roll, R., & Subrahmanyam, A. (2006). Taxes and dividend clientele: Evidence from trading and ownership structure. *Journal of Banking and Finance*, 30, 229-246.
- Maladjian, C., & El Khoury, R. (2014). Determinants of dividend policy: An empirical study of Lebanese listed banks. *International Journal of Economics and Finance*, 6(4), 240-2
- Mancinelli, L., & Ozkan, A. (2006). Ownership structure and dividend policy: Evidence from Italian firms. *European Journal of Finance*, 12(03), 265-282.
- Manos, R. (2003). Dividend policy and agency theory: Evidence from Indian firms. *South Asia Economic Journal*, 4(2), 276-300.
- Mansuurinia, E., Emamgholipour, M., Rekabdarkolaei, E.A., & Hozoori, M. (2013). The effects of board size, board independence and CEO duality on dividend policy of companies: Evidence from Tehran Stock Exchange. *International Journal of Economy, Management and Social Sciences*, 2(6), 237-241.
- Mehta, A. (2012). An empirical analysis of determinants of dividend policy-Evidence from UAE companies. *Global Review of Accounting and Finance*, 3(1), 18-31.
- Menard, S. (2002). *Applied logistic regression analysis* (Vol. 106). SAGE Publications.
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *Journal of Business*, 34(4), 411-433.
- Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031-1051.

- Moscu, R.G. (2012). Determinant Agents Analysis of Dividend Policies Practiced by Companies Listed in Great Britain and France. *Romanian Statistical Review Supplement*, 60(1), 28-34.
- Mueller, D. C. (1972). A life cycle theory of the firm. *The Journal of Industrial Economics*, 20(3), 199-219.
- Mukherjee, S., & Mahakud, J. (2010). Dynamic adjustment towards target capital structure: Evidence from Indian companies. *Journal of Advances in Management Research*, 7(2), 250–266.
- Pampel, F.C. (2000). *Logistic regression: A primer*. Sage university series on quantitative applications in social sciences, Thousand Oaks, CA: SAGE Publications
- Perretti, G.F., Allen, M.T., Weeks, H.S. (2013). Determinants of dividend policies for ADR firms. *Managerial Finance*, 39(12), 1155-1168.
- Pregibon, D. (1980). Goodness of link tests for generalized linear models. *Applied Statistics*, 29, 15-24.
- Rantapuska, E. (2008). Ex-dividend day trading: Who, how, and why? Evidence from the Finnish market. *Journal of Financial Economics*, 88(2), 355-374.
- Reddemann, S., Basse, T., & Von der Schulenburg, J.M. G. (2010). On the impact of the financial crisis on the dividend policy of the European insurance industry. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 35(1), 53-62.
- Ronapat, M., & Evans, M. (2005). Disappearing dividends in the Thai capital market: Changing firm characteristics or lower propensity to pay. *Journal of Economic and Social Policy*, 10(1), 7.
- Rozeff, M. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research*, 5(3), 249-259.
- Schwab, J.A. (2010). Logistic regression basic relationships. Retrieved from <http://www.utexas.edu/.../schwab/.../LogisticRegres>.
- Song, M., Tao, J., & Wang, S. (2015). FDI, technology spillovers and green innovation in China: analysis based on Data Envelopment Analysis. *Annals of Operations Research*, 228(1), 47-64.
- Zhao, W. J., & Yu, J. P. (2012). Trade openness, FDI and China's industrial economic growth pattern: empirical analysis based on data of 30 industrial sectors. *Economic*

*Research Journal*, 8, 18-31.

- Spencer, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355-374.
- Thanatawee, Y. (2013). Ownership structure and dividend policy: Evidence from Thailand. *International Journal of Economics and Finance*, 5(1), 121-132.
- Ullah, H., Fida, A., & Khan, S. (2012). The impact of ownership structure on dividend policy evidence from emerging markets KSE-100 Index Pakistan. *International Journal of Business and Social Science*, 3(9).
- Van Binsbergen, J. H., Graham, J. R., & Yang, J. (2011). An Empirical Model of Optimal Capital Structure<sup>1</sup>. *Journal of Applied Corporate Finance*, 23(4), 34-59.
- Vo, X.V. (2010). Foreign ownership in Vietnam stock markets - an empirical analysis. Retrieved from [mpra.ub.uni-muenchen.de/29863/](http://mpra.ub.uni-muenchen.de/29863/)
- Wang, B., & Liang, X. X. (2008). Corporate governance, financial condition and quality of disclosure: evidence from Shenzhen Stock Exchange [J]. *Accounting Research*, 2, 006.
- Wang, Y., Liu, L., & Gu, R. (2009). Analysis of efficiency for Shenzhen stock market based on multifractal detrended fluctuation analysis. *International Review of Financial Analysis*, 18(5), 271-276.
- Wei, H. (2002). Effects of foreign direct investment on regional economic growth in China. *Economic Research Journal*, 4(1), 19-26.
- Wei, Z. H., Li, M.L., & Li, C. Q. (2014). The Semi-mandatory Dividend Rules and Dividend Behaviors of Chinese Listed Firms. *Economic Research Journal*, 6, 008.
- Ye, M. (2017). Foreign Major Shareholders and Dividend Policy. *CO-Operative Economy & Science*, (5), 95-97.
- Zhang, Y. W. (2012). Research on Cash Distribution Strategy of Listed Companies in China. *Securities Market Herald*, 9, 27-32.