The Determination of CEO compensation following Mergers & Acquisitions in China

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The Determination of CEO compensation following Mergers & Acquisitions in China

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Abstract

This thesis explores the issue of CEO compensation following mergers and acquisitions (M&As) for Chinese firms. The objectives are presented as follows: First, to explore the relationship between CEO compensation and M&As decisions in Chinese firms. Second, to examine the factors influencing the determination of CEO compensation following M&As in Chinese firms. Based on a sample of 10,249 observations for Chinese listed firms and a quantitative research approach, the thesis finds that CEO compensation in Chinese firms is positively and significantly related to the M&As completion when controlling for factors including firm performance, corporate governance and the CEO political connection. Regarding the determination of CEO compensation following M&As, none of the theories could perfectly explain the determination of CEO compensation following M&As. Some of the results are more consistent with the agency theory that the optimal CEO compensation arrangement is designed to align the interests of shareholders. For example, empirical results show that size and ROA are significantly and positively correlated to CEO compensation following M&As. Some results are more consistent with the managerial power theory. For example, CEO shareholding is significantly positively correlated to CEO compensation. The result of politically connected CEO is consistent with the managerial power theory combined with resource dependency theory. Specifically, a positive relationship exists between CEO compensation and CEO political connection.
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Statement of Copyright

I Zhao Huang, confirm that this work submitted for the degree of PhD in Corporate Governance is my own and is expressed in my own words. Any uses made within it of the works of other authors in any form (e.g. ideas, equations, figures, text, and tables) are properly acknowledged. A full list of the references used has been included.

Signed: Zhao Huang

Date: August 2016
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Chapter One: Introduction

1.1. Introduction

Over the last few decades, issues related to executive compensation have been of great concern to academics, the business community, media, politicians, and the public in general. This has been exacerbated by the global financial crisis, which was partly blamed on excessive risk-taking by executives to achieve short-term financial goals at the expense of long-term economic stability (Keller & Stocker, 2008). Waldron (2012) showed that from 1978 to 2011, CEO (chief executive officer) compensation increased by about 725%, an increase significantly greater than the stock market and worker compensation growth in the same period (Waldron, 2012). In this regard, a recurring debate has centred on whether the compensation is excessive, and how the executives’ interests and those of shareholders and stakeholders can be aligned. This debate has increasingly led to greater oversight of executive compensation in many countries. For example, the US has witnessed a growing introduction of claw-back clauses, mechanisms designed to retroactively reduce executive compensation (Boyd et al., 2012). In the UK, for example, there have been calls to curb executive compensation and a drive to give shareholders the power to block excessive compensation contracts.

Academia has seen several studies examining the relationship between executive compensation and firms’ performance (e.g. Kato & Kubo, 2006; Rost & Osterloh, 2009; Ozkan, 2011; Heugens et al., 2012). Using different
performance measures such as accounting profits (e.g. Krauter, 2012; Core et al., 1999) and stock market return (e.g. Conyon et al., 2011; Ozkan, 2011) the studies have generally failed to find consistent results. Another stream of literature has investigated the relationship between corporate governance mechanisms and executive compensation (e.g. Fahlenbrach, 2009; Basu et al., 2007; Ozkan, 2007; Conyon & He, 2011), and these have demonstrated that executive compensation is influenced by governance mechanisms such as board independence, the presence of a remuneration committee, and CEO role duality.

A recent stream of research has started to explore compensation in M&As, and this literature demonstrates that the problem of top executives’ compensation is also acute in M&As (e.g. Harford & Li, 2007; Bujela et al., 2012). In particular, studies show that the top executives of bidding firms are, on average, awarded with higher compensation following completion of acquisitions, although the M&As destroy, instead of create, value for the acquiring shareholders (Khorana & Zenner, 1998; Bliss & Rosen, 2001; Anderson et al., 2004; Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Harford & Li, 2007). This is interesting, particularly given that top executives play a vital role in initiating and implementing acquisitions, and therefore acquisition is an important factor influencing executives’ compensation (Soojin, 2010). Harford and Li (2007) argued that acquisitions give the bidding firm’s CEOs and board a good reason to re-package their compensation by increasing the size of the firm and changing its scope of operations.
A growing body of research on executive compensation and corporate governance (CG) has developed in China, given its tremendous economic growth and capital market developments (see Firth et al., 2006; Chen et al., 2010). The focus has been on the relationship between the top executives’ compensation and the firm’s performance (Firth et al., 2006; Kato & Long, 2006; Firth et al., 2006, 2007; Chen et al., 2010; Wang & Xiao, 2011) and the role of CG in CEO compensation (Li et al., 2007; Buck et al., 2008; Ding et al., 2009; Conyon & He, 2012). However, this work has not yet examined the top executives’ compensation following M&As in China.

China, as one of the largest and fastest growing transition economies, has a considerably higher annual GDP growth rate at between 8 and 12% (Gaur et al., 2013). In turn, M&As have become a popular strategic means for Chinese firms to chase growth, particularly since the setup of stock markets to assist in the privatization of state-owned enterprises (SOEs). According to Gaur et al., (2013), there are three reasons for Chinese firms to make M&As: Firstly, in order to have inorganic growth, making M&As tend to be a priority for Chinese listed firms as it is the quickest way to increase the size of the firm. More than 78% of Chinese firms tend to grow through M&As to achieve economies of scale. Secondly, when a firm needs to develop in a new market, or develop a new product, acquiring another firm can be an easy way to achieve the goal. Thirdly, in order to make Chinese firms internationally competitive, the Chinese government encourages Chinese firms to make M&As, and are always actively
involved in helping to privatize state-owned enterprises, thus allowing Chinese firms to list in Fortune 500 (Backman, 2001). Therefore, there has been a significant rise in both the number and value of acquisitions and mergers. The number of M&As increased from 171 cases in 2006 – with a total value of US$ 15.26 billion – to 1,232 cases in 2013 with US$93.20 billion, after the Chinese government started the Non-tradable Share Reform in April 2005 (which saw non-tradable shares transformed to tradable shares). The numbers of M&As in China ranked only behind the US (Economist, 2011).

Accordingly, many academics studied the performance of M&As for Chinese listed firms, particularly to investigate the market reactions to M&As (e.g. Chi et al., 2008; Boateng & Bi, 2014). They found a positive market reaction around M&As announcements. However, no research focused on CEO compensation following M&As in China. Interestingly, it was found that the CEOs of acquiring firms were, on average, awarded higher compensation following the completion of acquisitions. For example, CEO compensation of the Hai Tong Securities company increased to 6.74 million RMB in 2007 from 0.76 million RMB in 2006 after a merger with Urban Agricultural trading company. The top three executives’ pay of Hua yuan Real Estate was 7.4 million RMB in 2008, but it increased 23.67 times compared to 2007 after acquiring Far Real Estate Co. In 2010, after making a merger, the top three executives’ pay at GF Securities increased 54 times in 2010 compared to 2009. In addition, many top executives’ pay rose more than 10 times because of acquisitions, such as
Foton Motor and Qingdao Haier. Given the considerable increase of CEO compensation following M&As, it is interesting to research into the determination of CEOs’ compensation following M&As for Chinese firms, particularly because CEOs play a vital role in initiating and implementing M&As and M&As is an important factor influencing CEO compensation.

China presents a more interesting environment in which to test top executive compensation following M&As completion. For instance, China, as a transitional economy, has weak corporate governance. Therefore, managers can be powerful in Chinese listed companies as they can make use of poor corporate governance to receive higher compensation (Chen et al., 2010).

Weak corporate governance in China has led to excessive powers of the CEO. Chen et al. (2010) argued that weak corporate governance was likely to give managers opportunities to extract corporate resources through excessive compensation. For example, a typical feature of the weak corporate governance in Chinese firms is the lack of efficient long-term incentives for CEOs. In China, CEO compensation generally includes salary and bonuses. However, long-term incentives are less commonly used in China as the presence of equity incentives is a very recent phenomenon, and until 2006 firms were allowed to reward options to top executives. The effect of the long-term incentives on compensation has been limited. Therefore, the lack of long-term incentives encourages CEOs to chase an increase in cash pay (Zhang & Guo, 2007).
Cash pay is mainly linked to the operating scope of a firm while the operating scope is directly related to a firm’s size. Achieving organic growth would be likely to take a long time for firms, thus CEOs are likely to seek out ways to realize inorganic growth. M&As are viewed as a quick way to increase firm size, and might give powerful CEOs a good reason to increase their compensation by increasing the size of the firm and changing the scope of its operations, even though in some cases the shareholders’ interests are damaged through inefficient overinvestment behaviour.

In some cases, CEOs of Chinese firms have tended to hide their poor past operating performances through making inefficient M&As; in other words, when the company’s past operating performance is poor, powerful CEOs, in order to make a business to survive and to keep their positions, tend to adopt ‘quick ways’ to conceal mediocrity (Zhang & Guo, 2007). Morck, Shleifer, and Vishny (1990) studied that when poor operating performance threatened a senior executive’s job, executives have had greater motivation to engage in diversified acquisitions. The direct outcome of making M&As for CEOs is to obtain more power, more prestige, lower employment risks, and more convenient use of legal means to justify their high income. Therefore, powerful CEOs might make M&As to secure their jobs and earn higher compensation.

In addition, the ownership of Chinese listed firms is very concentrated. Evidence showed that the median largest shareholder owned 42.61%, followed by just 5% of the second largest shareholder (Firth et al., 2006). In many cases,
the largest shareholder is the state, which holds more than 50% of listed company shares. Given its dominance, many CEOs of Chinese listed firms are directly or indirectly appointed by the government, and in many cases they are former government officials (Firth et al., 2006). Many M&As deals for Chinese firms have been mainly driven by CEOs and government intervention (Li et al., 2009). Chinese governments, in order to increase the performance of government, would encourage local firms to conduct M&As, which is likely to provide CEOs of firms with more opportunities to pursue private personal benefits. Those CEOs who have political connections with government are particularly more likely to be actively involved in M&As deals because they are able to obtain support from government.

Therefore, given the significant rise in both the number and value of acquisitions and mergers, the compensation paid to the CEO of acquiring firms awarded following the completion of acquisitions, and weak corporate governance, it is necessary and valuable to examine the issue of CEO compensation following M&As for Chinese firms.

1.2. Research aims and research questions

1.2.1. Research aims

The main aim of this research is to investigate CEO compensation for acquiring firms following the completion of M&As in China, mainly using the agency theory, managerial power theory, and resource dependency theory.
Specifically, the research has two main objectives:

i. To explore the relationship between CEO compensation and M&As completion in Chinese firms.

ii. To examine the factors influencing the determination of CEO compensation following the M&As in Chinese firms.

1.2.2. Research questions

The thesis addresses the following research questions:

i. Is there a relationship between CEO pay and M&As completion in Chinese firms?

ii. Do corporate governance factors influence CEO pay following M&As completion?

iii. Does CEO pay in Chinese M&As link to corporate performance and CEO effort in completing the deal?

iv. Do the effects of CEO political connection influence CEO pay following M&As?

1.3. Summary research methodology

The thesis is based on panel and cross-sectional analysis of a sample of 10,249 observations from 2006 to 2013. The time span of the data chosen from 2006 to 2013 is because of fact that M&As have grown significantly since the 2005 Non-tradable Share Reforms. The required data is accessible mainly from
two databases in China: The China Stock Market and Accounting Research (CSMAR) and Centre for Economics Research (CCER) databases. Where data was unavailable from the CSMAR and CCER, annual reports were used. The CSMAR mainly provides the data at firm level in relation to M&As deals and financial information, while the CCER provides the data at the firm level of CEO compensation and CG indicators for this study. The annual report mainly provides the CEO profile that specifies whether the CEO had a political connection.

To answer the research questions, five empirical research models have been developed. The first three models are used to examine whether CEO compensation was correlated to the M&As decisions and addresses the first research question. Models 4 and 5 are used to examine the impact of a firm’s performance, M&As deals, corporate governance, and political connection on CEO compensation, thus addressing research questions two, three, and four.

The measurements of independent variables (e.g. performance, corporate governance, political connection) were developed from prior studies (e.g. Core et al., 1999; Ozkan, 2007; Li et al., 2007; Chen et al., 2010; Conyon & He, 2012; Dai, 2014). The dependent variable was measured by the total CEO compensation, composed of salary and bonus.

The data analysis included the descriptive analysis, univariate, and multivariate analysis. The descriptive analysis of the sample for the dependent and independent variables provided a preliminary understanding of the data and
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its distribution. The data transformation was carried out when data of variables could not meet normality. The univariate analysis examined the correlations between the dependent and independent variables for each model, separately using Spearman’s rho correlations and to find the potential multicollinearity problems. Multivariate regression was used to test the hypothesis and to allow the isolation of the contribution of each independent variable to explain variation in the dependent variable by holding the effect of the other variables constant. Regression analysis was based on a set of assumptions which have to be tested before the analysis in order to ensure the validity of the results and the inferences drawn from the analysis. The assumptions refer to the normality, linearity, homoscedasticity, and independence of error terms. Various checks were discussed to examine the data of this study against the assumptions of the OLS (Ordinary Least Squares) regression model. This section ended with a consideration of the selected estimation methods and the statistical justifications for the selection, including the fixed effect and two-step SGMM (System Generalized Method of Moments) methods.

1.4. Contribution to knowledge

The research makes significant contributions to the literature in general, and to Chinese CEO compensation in particular. The following contributions are presented:

i. This study provides a contribution to CEO compensation following
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M&As literature since it is the first to examine CEO compensation following M&As in China. The issue has been investigated in western developed countries in prior literature (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012), but not in China. In the context of China, studies have focused on examining the relationship between executive compensation and firm performance, and corporate governance mechanisms (e.g. Li et al., 2007; Buck et al., 2008; Conyon & He, 2008; Wan, 2009; Chen et al., 2010; Ding et al., 2010; Conyon & He, 2012). Therefore, this study extends Chinese literature on CEO pay by examining the determination of CEO compensation following M&As.

ii. Taking advantage of the institutional environment in China, this study provides contributions to literature by considering unique Chinese corporate governance factors and CEO political connections when examining the relationship between CEO compensation and M&As decisions and the determination of CEO compensation following M&As. Previous studies only controlled for firm performance, size, and corporate governance when investigating whether CEO compensation was correlated to an M&As decision (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Guest, 2009; Bugeja et al., 2012). This study contributes to control more corporate governance factors (e.g. supervisory board and ownership characteristics) and CEO
political connections. Also, by investigating the determination of CEO compensation following M&As in Chinese listed firms, this study contributes by providing an understanding of the influence of corporate governance factors (e.g. supervisory board and ownership characteristics) and CEO political connection on CEO compensation following M&As. The impact of these governance factors of CEO compensation following M&As have not been investigated in prior literature.

iii. On an international basis, this is the first study to examine the impact of CEO political connections on the determination of CEO compensation following M&As. The results demonstrating that politically-connected CEOs are rewarded higher compensation than non-politically-connected CEOs is new.

1.5. Summary of the key findings

This section presents a brief summary of the key findings:

i. Regarding whether CEO compensation is correlated with M&As decisions, the empirical analysis results showed that CEO compensation in Chinese firms was related to M&As completion when controlling factors as in the Anglo-Saxon countries (size, market ratio, ROA, ROA growth, margin, margin growth, sales growth, and stock return). Also, CEO compensation in Chinese firms was related to M&As completion when
controlling for corporate governance factors and factors related to Chinese institutional environment (board size, independent ratio, supervisory size, block share, CEO share, remuneration, and political CEO).

ii. Overall, regarding the determination of CEO compensation following M&As, none of theories could perfectly explain the determination of CEO compensation following M&As. Some results were more consistent with the agency theory that the optimal CEO compensation arrangement was designed to align the interests of shareholders; the measure of firm performance and managerial efforts should be positively correlated to CEO compensation. For example, the empirical results showed that size and ROA were significantly and positively correlated to CEO compensation. In addition, some of the results were more consistent with the managerial power theory. For example, the CEO shareholding was significantly positively correlated to CEO compensation, showing that the CEO shareholding gave CEOs more power to obtain higher compensation.

iii. Regarding whether CEO compensation of acquiring firms was associated with CEO political connection, the result was consistent with the managerial power theory combined with resource dependency theory. Specifically, the positive relationship between CEO compensation and CEO political connection showed that those CEOs who brought many benefits and treatments to firms through political connections had more power and dominance in firms, thus obtaining more compensation.
1.6. Structure of the Thesis

This chapter has presented the research problems and the overall thesis objectives. The summary of research methodology and key findings were then provided. Finally, the chapter summarises the contributions of this thesis and outlines its structure.

Chapter two presents a description of the development of executive compensation in China and how to set executive compensation in Chinese listed firms. In addition, it discusses both Chinese corporate governance and legal systems and their implication for the determination of CEO compensation.

Chapter three presents theoretical and empirical literature. A review of the literature associated to the study shows that three main theoretical frameworks have been used to explain and analyse the determinants of CEO compensation following M&As; they are, namely, agency theory, the managerial power perspective, and resource dependency theory. This chapter then reviews the prior empirical literature of determinants of CEO compensation. Finally, the relationship between CEO compensation and M&As decisions and determinants of CEO compensation following M&As has been discussed.

Chapter four draws from previous studies on the literature about CEO compensation and on the unique Chinese contextual environment to develop a conceptual framework for the determination of CEO compensation following M&As in China. It also assesses the hypotheses relating to the relationship
between CEO compensation and M&As decisions. The relationship between CEO compensation and the CG and criteria factors following M&As will be developed in this chapter.

Chapter five develops the research philosophy and identifies the related research methods, followed by the empirical research models to carry out the analysis and the measurement of variables. The discussion of the sample selection and data collection procedures has been presented. Finally, data analysis of descriptive statistics and univariate and multivariate analysis is presented.

Chapter six reports the results of testing the first hypothesis that relationship between CEO compensation and the M&A decision. The dataset used in testing the hypotheses is presented to provide an overall picture of the data. The normality and data transformations are then carried out for further analysis. Finally, the results of univariate and multiple regression analysis are presented.

Chapter seven reports the results of the test of the hypotheses about determination of CEO compensation following M&As. The dataset used in testing the hypotheses is presented to provide an overall picture of the data. The normality and data transformations are then carried out for further analysis. Finally, the results of univariate and multiple regression analysis are presented.

Chapter eight summarises the thesis and draws conclusions for the research followed by a summary of findings. Furthermore, this chapter provides
the implications of the findings for practitioners and regulators. Finally, the chapter outlines the study’s potential limitations and provides recommendations for researchers for future research.
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Chapter Two: Chinese Institutional Environment

2.1 Introduction

The aim of this chapter is to provide a description of the development of executive compensation in China and the setting of executive compensation in Chinese listed firms. In addition, it discusses both Chinese corporate governance and legal systems and their implication for the determination of CEO compensation.

The chapter is structured as follows: Section 2.2 demonstrates and discusses the evolution of executive compensation of SOEs and the setting of executive compensation in listed firms. Section 2.3 illustrates the internal corporate governance mechanism, including the ownership structure, board of directors, supervisory board, independent directors, and political connections. Section 2.4 presents and discusses weak legal systems and Section 2.5 summarises the chapter.

2.2 Executive compensation in China

2.2.1 The Development of Executive Compensation in China

With the economic transition from a planned to a market-based system, China has experienced a series of market-oriented reforms since 1978. Accordingly, the executives’ compensation system also went through a huge change.

In the planned economy period before 1978, all corporations were state-
owned. Managers were appointed by the government and firms had an inflexible and rigid pay system. All the profits the corporation created could not be kept and were returned to the state. Managers only received a fixed salary which was not linked to the firm’s performance, but to the size of the firm, job title, and even the region and industry (Kato & Long, 2006).

The lack of incentive-based pay, and the poor economy, resulted in managers receiving a salary that was almost at the same level of pay as ordinary employees between 1950 and 1978, and managerial compensation was not linked too greatly to a firm’s performance (Lin, 2014).

During the earliest economic reforms in the 1980s, management selection by competitive auction had been initiated (Groves et al., 1995). State-owned enterprises (SOEs) started to create profit retention or profit sharing schemes (Sun & Tong, 2003); the SOEs were allowed to preserve some profits in order to pay managers. More delegation and decision-making was given to managers. The change in the executive compensation system helped firms to enhance performance (Jefferson et al., 2006). Lin (2014) stated that managers’ compensation had been increased and was about one to three times that of ordinary employees’ pay between 1986 and 1988. However, the difference in pay between executives and ordinary employees was smaller than in developed western countries.

At the start of the 1990s, SOEs became listed firms through the establishment of two stock exchanges (Shenzhen and Shanghai) under
privatization reform. The purpose of the reform was: (1) diversifying ownership in listed firms; (2) providing SOEs with more autonomy in operations as listed firms; (3) improving corporate governance (Chen, 2010). In this context, SOEs’ annual executive compensation scheme was developed in 1992. The scheme required executive compensation consisting of a base salary and bonus (performance-related pay). The aim of the annual executive compensation system was to link executives’ compensation to the performance of a firm and to expand the difference between the compensation of executives and ordinary employees (Rampling et al., 2013). Thus, executive compensation was greatly enhanced and linked to firms’ performance (Chen, 2010). The annual executive compensation scheme turned out to be the main executive compensation practice for SOE firms (Kato & Long, 2006).

After experiencing the reforms, executive compensation increased considerably between 2001 and 2011, growing up 3.5 times, 2.8 times faster than Brazil, 1.4 times faster than the US, 1.7 times faster than the UK, and 2.0 times faster than the whole of western Europe during the same period (Lin, 2014). In some cities, the top SOEs’ executive compensation was similar to private firms, but generally the pay of executives in SOEs was still smaller than foreign firms and joint ventures. The overwhelmingly rapid growth in executive compensation among SOEs in 2009 led to the government providing a recommendation (Guidance on Regulating the Compensation of Managers in Key State-owned Enterprises) that the executive compensation of SOEs could not be beyond 30
times that of ordinary employees to curb the fast growth in executive compensation. Moreover, the government further issued the guidance (State Council Notice on Furthering Distribution System Reform) that the growth rate of executive compensation in SOEs could not exceed that of the ordinary employees in 2013 (Lin, 2014).

2.2.2 Setting executive compensation in listed firms

Company Law in 2006 regulated the setting of executive compensation for Chinese listed firms. It regulated that the board of directors could make decisions on the employment and pay of executives (art. 47(9)). The Corporate Governance Code issued by the China Securities Regulatory Commission (CSRC) in 2002 recommended that the board of directors was responsible for executive compensation and needed to explain it at the shareholders’ meetings and disclose it to the public. Also, the code suggested that executive compensation must be linked to both the firm’s and individual manager’s performance.

The compensation committee is important for Chinese listed firms, which is similar to western countries such as the UK where the compensation committee plays a vital role in the setting of executive compensation (Zhu et al., 2009). For example, the executive compensation scheme in UK listed firms is recommended to the board of directors by the compensation committee. However, under the 2002 Corporate Governance Code, it was recommended that
Chinese listed firms should set up a compensation committee approved by shareholder meetings, but it did not give specific details on duties and responsibilities of the compensation committee. The code simply gave a general suggestion demonstrating that firms should “study and review the remuneration policies and schemes for directors and senior management personnel” (arts. 70.). Therefore, the decisions made and the approval rights on executive compensation were left with the board.

Furthermore, the independence of the compensation committee played a vital role in the process of the setting of executive compensation. For example, the NYSE Listed Manual required members of the compensation committee to be comprised of independent directors (Lin, 2014). But the corporate governance code of 2002 for Chinese listed firms states that: “Boards of listed firms are recommended to appoint compensation committees, consisting wholly or mainly of independent directors and chaired by an independent director” (art. 52).

This statement simply provides a recommendation and vaguely mentions “wholly or mainly” rather than giving a clear requirement for the composition of the compensation committee. In addition, Chinese listed firms do not usually disclose details of the composition of the compensation committee, therefore it is difficult for the compensation committee to maintain true independence.
2.3 Internal corporate governance mechanism

2.3.1 The ownership structure

The most distinctive characteristic of Chinese listed firms is concentrated ownership, particularly as the largest shareholder, in many cases, is the state. To appreciate how the ownership structure changes, it is necessary to understand two important reforms that have occurred since the early 1990s in China. The first one is the privatization of SOEs through the setting up of two stock exchanges (Shanghai and Shenzhen). The second is the split in share reform that allowed non-tradable shares to become tradable in 2005.

The main aim of setting up two stock exchanges was to let SOEs raise capital, enhance operational efficiency, and improve the performance of SOEs (e.g. see Green, 2003). The privatization of SOEs resulted in the split share among Chinese listed firms. The split share structures mean there were two types of shares, namely tradable shares and non-tradable shares. The non-tradable share-holders were mainly the state (e.g. the State-owned Assets Supervision and Administration Commission) and legal persons held by state-controlled legal entities, but individual investors and private domestic and foreign institutional investors mainly held the tradable shares. Also, the shares could be categorized by A-shares, B-shares, H-shares, and N-shares. A-shares refer to the shares traded in Chinese Yuan on the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE). B-shares of companies listed on the SHSE were quoted and traded in US dollars and, if listed on the SZSE, they were
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quoted and traded in Hong Kong dollars. The shares of firms in mainland China listed on the Hong Kong Stock Exchange and on US stock markets were called H-shares and N-shares, respectively. The non-tradable holders had the same voting rights and cash flow rights as tradable holders. The state held a great amount of the non-tradable shares, accounting for about two-thirds of each firm’s shares. It also possessed the largest ownership in many Chinese listed firms, highlighting that the state had a considerable influence on firms, for example with an influence on board decisions and executive compensation arrangements (Yang et al., 2011).

However, the government gradually recognised the complexity surrounding tradable and non-tradable shares, and that the existence of plenty of non-tradable shares produced a substantial number of problematic issues. For example, the owners of the non-tradable shares lacked the motivation to increase the stock value and they could not obtain the profit from the stock price appreciations (Firth et al., 2010). The direct outcome of this was that the controlling shareholder embezzled from the listed firms as they could not benefit from trading the stock (Yang et al., 2011). It was reported by the Chinese Securities Regulatory Committee (CSRC) in 2006 that the dominant shareholder embezzled the wealth from listed firms at a total of 57.7 billion Chinese Yuan in 2003. In addition, it was difficult to engage in true mergers and acquisitions in the stock markets because of the non-tradable shares (Yang et al., 2011). The split share reform was therefore launched by the Chinese government in April
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2005 to make the non-tradable shares become tradable. The holders of tradable and non-tradable shares would negotiate a compensation plan by themselves as the value could be diluted in the process of transforming non-tradable shares to tradable shares. For example, the holder of tradable shares would obtain some shares as one type of compensation from the non-tradable owners.

After carrying out the split share reform, the non-tradable shares were gradually transformed to the tradable shares. For example, each firm had an average of 39.8% of tradable shares in 2003; by 2012 the mean (median) percentage of tradable shares was 76.5% (95.4%) (Jiang & Kim, 2015). In addition, the average proportion of state-owned shares had also been decreased because of the split share reform. The state shares decreased from 84 per cent of listed companies in the end of 2001 to about 50 per cent of listed firms’ shares reported at the end of 2009 (Yang et al., 2011). Also, about 40 per cent of the listed firms had the state as the dominant shareholder in 2013, lower than the approximate figure of 69 per cent in 2005 (calculated by the author through CCER (China Center for Economic Research)). In addition, the ownership of Chinese listed firms was concentrated. Evidence showed that the average largest shareholder owned 34.14 per cent, followed by just 9.51 per cent owned by the second largest shareholder (calculated through CCER) in 2013. This is very different from many developed western countries in which ownership is dispersed, and the shareholders usually hold a small proportion of ownership (typically less than 5%) (Conyon et al., 2015). Therefore, the privatization of
SOEs and the reform of split share did not essentially change the ownership structure of Chinese listed firms. The state still had a considerable influence on firms.

In the context of China’s socialist society, the state shares do not belong to any true owner. The Chinese government pronounced that the State Council of China was the ultimate holder of state shares, but the essence of a socialist society is that people in China own all properties and the State Council of China acts on behalf of all Chinese citizens. Thus in practice there is no actual holder for state shares (Oliver et al., 2014), it is impossible to supervise the state shares. Therefore, the absence of a proper holder for state shares can result in corruption as well as weak corporate governance for Chinese listed firms (Shi & Weisert, 2002).

As a consequence of the absence of supervision on state ownership, there is a serious insider control problem within Chinese listed firms. The failure of state supervision allows directors and management to have dominant power and collude with each other in listed firms. This is likely to make directors and management have more discretion, empowering them to engage in activities in their own interest (Oliver et al., 2014). Deng and Wang (2006) indicated several characteristics of insider control problem: (1) chasing for personal interests, for example, such as satisfying personal needs through grabbing firms’ wealth; (2) conducting market manipulation or insider trading; (3) searching and keeping useful resources, such as state-owned firms appointing many CEOs with
political backgrounds so as to retain the relationship with the government; (4) manipulation of accounts and of the public by faking financial information and; (5) excessively engaging in investment or disproportionately expending assets. Therefore, managers in firms which have the state as the dominant shareholder might have more power over the board and be able to extract more compensation as they control more economic resources, colluding with the board of directors and lacking effective monitoring.

2.3.2 Board of Directors

As is the case in many countries, Chinese listed firms are required to have a board of directors. The board of directors plays a vital role in the internal corporate governance system. The general responsibilities for boards of directors in Chinese listed firms are to (1) organise the board meetings; (2) carry out the resolutions from shareholders; (3) implement the operational and investments strategies; (4) deal with the financial fairs (e.g. making annual financial budgets); (5) setting up the firms’ internal management system; (6) recruit, monitor, and dismiss the top management, and set up their remuneration (Oliver et al., 2014). In China, the minimum size of the board required by the Corporate Governance Code in 2002 is 5 members and the maximum is up to 19 members for listed firms (Jiang & Kim, 2015).

PRC (People’s Republic of China) Company Law in 2006 highlighted that directors, senior managers, and supervisors need to comply with the laws,
administrative regulations, and articles of association of the firm and take on the responsibilities of loyalty and due diligence towards it. However, the law does not specify the loyalty in detail, only listing the many requirements forbidden between directors and managers. Those prohibited requirements are: (1) making corruption; (2) appropriating the firm’s asset; (3) opening accounts with the company’s capital in the (director’s) own name or that of others; (4) transferring capital to other parties with the company’s capital or providing security to third parties with the firm’s assets, without authorization from the constitution, or agreement from the shareholders’ general meeting or the board of directors; (6) making self-dealing transactions with the firm; (7) disclosing the concealment. The Guidelines of CSRC in 2006 only provide some simple explanations about the directors’ duty of diligence. Those are: (1) to treat all shareholders equally; (2) to comprehend the firm’s operation; (3) to make sure the disclosed information is complete, accurate, and true; and (4) to provide information and materials to the supervisory board.

The information provided above regarding the loyalty or the duty of diligence is too general to show all situations, particularly not providing details of a director’s responsibility to set the executive’s compensation. Furthermore, there are no criteria for the law to punish the breaking of the duty of diligence and loyalty. As the Chinese court cannot make judgement on this misbehaviour, the loyalty or duty of diligence might not play their full role. Therefore, directors might commit misconduct on various kinds of activities including not effectively
arranging executive compensation with management (Lin, 2014).

In addition, considering the collegiality, team spirit, and friendship etc. demonstrated by Bebchuk and Fried (2002), the directors do not generally go against the proposals of the firm’s executives. Given that the importance of Guanxi (the interpersonal relationship and networking) in China, directors would be more likely to stand by managers and agree with the decisions they made. Hence managers would become more powerful in firms, particularly when they are also the chairmen of the boards, and they can create more influence for firms, e.g. setting the executives’ compensation (Lu, 2008). In Chinese listed firms, there is a trend of separating the CEO from the chairman as the CSRC holds that CEO duality harms the effectiveness of corporate governance (Dai, 2014). Yang et al. (2011) calculated the CEO duality rate using the CCER database that only 2.2% of the listed firms had CEOs who also held the position of chairman of the board, lower than developed western countries, including the US. It is generally accepted that CEO duality not only impairs the independence of the board of directors, but leads to a more severe insider control problem in Chinese listed firms, thus making CEOs more powerful in setting their compensation (Dai, 2014).

2.3.3 Supervisory Board

It is worth noting that Chinese listed firms have had to carry out the two-tier board system of corporate governance since 1994. The two-tier board system
includes both the normal board such as the US and the supervisory board as is the case in Germany (Chen et al., 2010). The requirement is that the supervisory board should compose of no less than three supervisors, and be comprised of representatives of shareholders and a reasonable proportion of employee representatives (Articles 52 & 53, PRC Company Law). Financial controllers, directors, and managers cannot be supervisors.

The responsibility of the supervisory board is to review and audit the reports offered from the directors and to monitor the firm’s assets as well as the financial affairs. They are required to specialise in related accounting and law (Yang et al., 2011). The supervisory board can take part in board meetings, but have no voting rights. The main duty of the supervisory boards is to monitor the directors and managers. If any directors or managers breach the listed firms’ laws or rules, the supervisory boards can only raise the suggestion of dismissing the directors or managers, but have no deciding power (Jiang & Kim, 2015).

Oliver et al. (2014) argue that those professional skills should have been beneficial to firms in monitoring managers’ behaviour, but supervisors are more involved in administrative activities rather than playing a monitoring role.

Since the supervisory board has no true rights in terms of monitoring the directors and managers, the supervisory board in Chinese listed firms is not an effective mechanism. Unlike the supervisory board in Germany, the supervisors of Chinese listed firms have no voting rights, therefore they cannot appoint and dismiss the directors and managers and cannot take part in the operation of the
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firms (Lin, 2004). Furthermore, employee representatives on supervisory boards would usually not disobey the suggestions proposed by the board, such as the executive pay plan, because the employees’ compensation is arranged by the boards. It was empirically found that the majority of Chinese supervisory boards agreed to the board’s proposals in 2011 (Lin, 2014). Additionally, because of the information asymmetric, supervisory boards lack sufficient information as this is controlled by CEOs and it is difficult for them to monitor managers (Tenev and Zhang, 2002). Therefore, the supervisory board is regarded as a simple decoration, cannot be a functional mechanism in Chinese listed firms, and effectively monitors and disciplines the directors and management. Management might not be aligning the interest of shareholders and extracting the higher compensation

2.3.4 Independent directors

Given the insider control problem in Chinese listed firms, the CSRC issued ‘Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies’ in 2002.

The guidelines defined independent directors as “a director whom does not hold any position in the company other than director and who has no relationship with the listed company engaging him or its principal shareholders that could hinder his making independent and objective judgments”. According to the guidelines, listed firms needed to have at least two independent directors
on their boards by 30 June 2002, and at least one-third of the board members needed to be independent directors by 30 June 2003. The introduction of the independent directors in Chinese listed firms aimed to enhance the effectiveness of corporate governance and monitoring of executive directors and/or managers.

The independent directors are nominated by the boards and approved at the shareholders’ meeting. They are required to possess a fundamental understanding of the operation of listed firms and understand the related laws and regulations; more than five years’ work experience in law, economics, or other fields are also a requirement of them (Liao et al., 2009). In order to satisfy the needs of qualified independent directors in Chinese listed firms, the CSRC introduced training courses for those candidates who could potentially become independent directors. However, Thian (2005) states that independent directors in Chinese firms generally do not have adequate knowledge and experience, and cannot therefore effectively monitor management.

Independent directors are usually members of different committees (e.g. remuneration committee) which significantly monitor the process of the setting of compensation and nomination (Oliver et al., 2014). The independent directors have more rights than supervisors, such as voting and approval on managerial and financial decisions (e.g. information disclosure, merger and acquisition activities) (Yang et al., 2011). Therefore, independent directors are a useful corporate governance mechanism to oversee managers and reduce the agency cost for shareholders (Jiang & Kim, 2015).
However, as the controlling shareholders know that the independent directors would oversee them, the controlling shareholders who have much more impact on the board would appoint the minimum number of independent directors required by law. Given the prevalence of the controlling shareholder in Chinese listed firms, research shows that many Chinese listed firms’ boards are comprised of only one-third independent directors. This is different from the higher rate in western developed countries, for instance 78% in the US market (Conyon, 2015).

Furthermore, Liao et al. (2009) state that independent directors in Chinese listed firms might be important for establishing connections with people to obtain outside resources. Lin (2014) argues that many independent directors in Chinese listed firms are not appointed based on their quality and skills, but on the basis of their ties being beneficial to the firms. Generally, there are two main types of independent directors in Chinese listed firms. The first one refers to the scholars who are the university scholars or researchers in research institutions. In Chinese culture, people tend to worship and respect authority, and the scholars themselves represent a sort of authority. They bring optimism to markets as they probably provide useful suggestions and resolutions for firms (Liao et al., 2009).

The second one refers to the political connections which can bring beneficial ties to firms. Many independent directors are former government and military officials, particularly in the Central SOEs. The politically-connected independent directors build up a close relationship with the government, thus
providing more valuable resources and increasing a firm’s lobbying power (Rampling et al., 2013). Furthermore, evidence shows that in Chinese listed firms, independent directors are always the friends or previous schoolfellows of CEOs; they have a close social relationship within firms. Such independent directors having connections with CEOs might be more loyal to the CEOs rather than monitoring them (Westphal, 1999). In this case, the independent directors in Chinese listed firms are usually regarded only as ‘window-dressing’, and cannot be truly independent. Therefore, independent directors in Chinese listed firms tend to be the providers of resources instead of a monitor.

2.4 External legal system

A strong legal infrastructure can be a useful external monitoring mechanism to make sure participants in the markets fairly obtain the benefits and enhance the effectiveness of the corporate governance within firms (Bai et al., 2004). China, as a transitional economy, has a weak legal system and weak law enforcement. This is different from western countries which have strong legal and judicial frameworks. For example, courts in the US play an important role in supervising executive compensation through strictly monitoring the executives’ behaviour in setting their compensation (Wells, 2010). Compared with these developed countries, the degree of protections of China’s creditors and shareholders are significantly lower than the global average while law enforcement is also lower than other countries (Allen et al., 2005).
Although China initiates a number of company laws and corporate governance codes – such as the Code of Corporate Governance for Listed Firms in China issued by CSRC in January 2002 based on the OECD Principles of Corporate Governance in 1999, and the PRC Company Law in 2006 – they are not playing an effective role in protecting minority shareholders and monitoring executives (Zou et al., 2008). The code only provides general, not clear, guidance on corporate governance to Chinese listed firms; for example, it does not give specific explanations on duties and responsibilities of the compensation committee. And the PRC Company Law does not provide the judicial explanation of the duty of loyalty and duty of diligence; for example, there is no specific interpretation of the director’s responsibility in setting executive compensation. Moreover, having the state as the regulator as well as the participant of the market (e.g. the controlling shareholder in listed firms) results in the legal system not being genuinely independent (Allen et al., 2005), a situation which might violate the effectiveness of corporate governance.

Additionally, the cost of the breach of laws and regulations is quite low. Most of the penalties for breaking laws are required to range from 0.3 to 0.6 million RMB. Therefore, relative to the huge benefits, executives are willing to take such low risks in going against laws and regulations (e.g. the illegal transfer of huge amounts of assets) (Jiang & Kim, 2015). Under a weak legal system and weak law enforcement in China, firms cannot effectively monitor CEOs’ behaviour, which leads to entrenchment, thus extracting higher compensation.
2.5 M&A in China

M&A began in China in 1993, but started to be prevalent in the late 1990s because of the development of capital market and corporate law. The privatization of SOEs makes the separation of ownership and control for Chinese firms. The owners keep supervision role in firms, but the managers have more control on firms and become the main initiator for M&A activities.

Before 2005, the split share structures in China let tender offers difficult. In China, it is not common that both acquiring firms and target firms are publicly listed firms. Two main different M&A deals associated to listed firms exist in China. The first category is the acquiring firms are listed firms but the target firms are unlisted firms. The second category is either the acquiring and target firms are unlisted firms or the acquiring firms are unlisted firms but target firms are listed firms. Two third of the M&A deals are in the first category and one third are in the second category. Chinese acquiring firms and target firms, generally, are those unlisted firms that have relationship with government. To acquire the shares or assets of the listed firms, the acquiring firms prefer to go to the over-the-counter (OTC) market instead of the stock exchange. In China, there are tradable and non-tradable shares in listed firms and their price are different. It is more expensive to buy the tradable shares in stock exchange. Through the OTC market, it is not expensive for firms to buy non-tradable shares by bargaining with government or a holding company than buying tradable
shares through stock exchanges. Therefore, firms would prefer to buy non-tradable shares or assets of listed firms rather than tradable shares through stock markets.

However, as it is discussed above, the government gradually recognised the complexity surrounding tradable and non-tradable shares, it was difficult to engage in true mergers and acquisitions in the stock markets because of the non-tradable shares (Yang et al., 2011). The split share reform was therefore launched by the Chinese government in April 2005 to make many non-tradable shares become tradable. This was a gradual process to avoid quick change of large blocks of shares: after one year, 5% could be sold, after two years, 10% could be sold. Therefore, a significant rise in both number of acquisitions and mergers take place since the split share reform in 2005. The number of M&As increased more than 600 % from 2006 to 2013.

There are four main ways to complete acquisitions in China, they are Takeover by offer, Takeover by agreement, Free transfer and Judicial transfer. The first one is similar as US/UK practice, the second one refers to the transfer of up to 30% of the target’s shares at a mutually agreed price. The Free transfer and Judicial transfer involves some unique Chinese characteristics. For example, the Free transfer allows SOE to be transferred to the control of another SOE. And in Judicial transfer, the shares of a legal person shareholder might be transferred to another organization through a court judgement due to it is bankrupt.
2.6 Summary

This chapter discussed the development of executive compensation and the setting of executive compensation in Chinese listed firms. Additionally, it discussed the internal corporate governance mechanism and an external weak legal system in China, how they function, and provided the implication of this on executive compensation. In addition, the development of M&A in China has been introduced.

In terms of the development of executive compensation, it is argued that after a series of reforms from a planned to market-based system in China, managers have gradually gained more autonomy in firms’ operations and have more deciding power. Therefore, managers’ compensation has increased considerably from fixed pay to performance-related pay. In terms of the setting of executive compensation in Chinese listed firms, the compensation committee cannot perform as it does in western developed countries, such as the UK, as it does not have true independence, and there is no detailed disclosure of the composition of the committee.

The most distinctive characteristic of Chinese listed firms is the ownership structure. Even experiencing two important reforms – including the privatization of SOEs and the split share form – it does not fundamentally change the ownership structure of Chinese listed firms. The ownership of Chinese listed firms is still very much concentrated. In many cases, the largest
shareholder is the state. The lack of the actual holder for the state share simply leads to the vagueness of monitoring, thus creating a serious insider control problem. The insider control problem permits directors and management to become dominant and collude with each other, empowering them to engage in activities in the interest of themselves, such as extracting excess executive compensation.

Chinese listed firms are required to carry out a two-tier board system, including both the normal board and the supervisory board. The board of directors might not be an effective monitoring mechanism, as they are particularly limited in constraining excessive executive compensation. Neither the law nor regulation clearly specify the loyalty or duty of diligence, for example not providing details of a director’s responsibility to set the executive’s compensation, and the connections between directors and managers might lead to the directors not going against the managers’ proposals. Managers would therefore become more powerful in firms, particularly when they are also the chairmen of the board, and can put more influence on firms by, for example, setting the executives’ compensation. Additionally, the supervisory board should have played an effective monitoring role in Chinese listed firms, but supervisors have no true monitoring right towards the directors and managers (e.g. appointing and dismissing directors and managers), thus they are more involved in administrative activities instead of playing a monitoring role. Also, a lack of independence means the supervision board cannot also be an effective
Independent directors are seen as a complement to the supervisory board in Chinese listed firms, and have more rights than the supervisory board. However, the low numbers of independent directors and social ties (e.g. political connections) might mean they do not play a mainly monitoring role, but be one kind of the mechanism to outside resources. Considering the ineffectiveness of corporate governance mechanisms, a CEO’s political connections can be viewed as a unique corporate governance mechanism to give firms alternative support (e.g. a tax reduction) to improve a firm’s efficiency and allow a CEO to have more power to influence the board of directors’ decisions, thus obtaining higher compensation.

The external legal system is also weak in China. Laws and regulations do not effectively protect minority shareholders or monitor the executives as the Chinese legal system is not truly independent. Laws or regulations give only general and vague guidance, and the cost of the breach of the laws and regulations is quite low, most likely leading to executive misconduct.

Overall, China presents a more interesting environment in which to test the applicability of different theories on CEO compensation. According to the above discussion, weak corporate governance and the external legal system might not effectively monitor directors and executives, resulting particularly in excessive CEO power and giving managers the opportunity to extract excessive compensation.
Chapter Three: Literature Review

3.1. Introduction

The main purpose of this chapter is to develop the theoretical and empirical literature and identify gaps. In terms of the theories, so far no one single theory can effectively explain CEO compensation in the academy. A review of the literature associated to the author’s study shows that three main theoretical frameworks have been used to explain and analyse the determinants of CEO compensation following M&As; agency theory, the managerial power perspective, and resource dependency theory. This chapter aims to review the previous empirical literature that discussed the related issues between executive compensation, corporate performance, and corporate governance mechanisms. A discussion on these relationships post M&As has also been completed.

This chapter is structured as follows: Section 3.2 demonstrates and discusses the theoretical literature, including the agency theory, the managerial power perspective, and resource dependency theory. Section 3.3 illustrates the empirical literature that discusses the relationship between CEO compensation, corporate performance, and corporate governance, the relationship between CEO compensation and M&As decisions, and determinants of acquiring CEO compensation. Section 3.4 summarises the chapter and identifies gaps from the empirical literature.
3.2. Theoretical Literature

3.2.1. Agency Theory

The dominant theoretical approach used in these studies is the agency theory (Jensen & Meckling, 1976; Jensen, 1993). It holds that the conflict of interest between the shareholder (principal) and manager (agent) is rooted from the separation of ownership and control which leads to the agency problem (Berle & Means, 1932). Jensen and Meckling (1976) demonstrated that the agency relationship is that principals own the firms and hire managers to service them on their behalf, delegating some decision-making authority to managers.

Principals hope managers use their professional talents to maximize their benefits; from the managers’ position, however, they might only aim to expand their personal benefits instead of caring about the principals’ interests and in increasing the firm’s value. Because of the separation of ownership and control, the managers’ activities are not observable, and this might provide managers with opportunities to take decisions to merely increase their personal wealth rather than increasing the principals’ benefits. Therefore, the agency problem means managers do not always act in the best interests of the principals. Eisenhardt (1989) concluded that there were two reasons for agency problems: Firstly, the principal and the manager have divergent purposes; secondly, the activities of managers are not observable. The unobservable behaviour of managers leads to an information asymmetry between the manager and the principal while the moral hazard arises (Jensen & Meckling, 1976). Margiotta
and Miller (2000) state that moral hazard exists when shareholders give managers decision-making authority, whereas when managers’ actions cannot be observed directly, the manager has a different interest from the shareholders. Managers might engage in activities that do not benefit the shareholders, such as under-investment or over-investment in projects. Also, Margiotta and Miller (2000) argue that if firms are not concerned by the moral hazard issue, firms will suffer from numerous losses. They summarize three issues about the moral hazard as follows: (1) given that the firms do not make contract with managers to surmount the moral-hazard problem, there will be the loss of firm value; (2) managers will gain more if they are motivated by their personal interest rather than the firms value; (3) a shadow value will be obtained when a firm is willing to spend money for monitoring to remove the moral hazard. In this view, the key is for a firm to raise measures to eliminate the moral hazard to reduce the agency problem.

To mitigate the moral hazard problem, principals must incur agency costs. According to Jensen and Meckling (1976), there are three agency costs created by agency relationship, including monitoring expenditure by the principal, the bonding expenditures by the manager, and the residual loss. Monitoring costs are created when the principal designs related incentives for the agent to prevent the agent conducting inappropriate behaviour. Bonding costs refer to the principal having to pay the agent to expend resources (bonding costs) to ensure that the performance of the agent would not damage the principal’s profit, or that
the principal will be compensated as a result of the aberrant activities of the agent (hiring the external independent auditor). The residual loss created as the cost of full enforcement of contracts outnumbers the profits (Fama & Jensen, 1983).

From the agency theory perspective, it is vital to address the agency problem to make the agent’s performance consistent with the principal’s benefit and to maximize the principal’s wealth. In order to reduce the agency costs, Shleifer and Vishny (1997) emphasised that corporate governance mechanisms could provide a useful way for suppliers of finance to control the managers’ actions and to ensure they align with their interests. It also ensures that firms get profits for their investments. In the agency theory, Dey (2008) concluded that strong governance mechanisms could effectively help firms minimize agency conflicts between shareholders and managers.

Internal corporate governance mechanisms include well-designed compensation contracts, an effectively structured board, and an effective ownership structure that encourages managers to act in accordance with shareholder interest resulting in the effective monitoring of managers (Walsh & Seward, 1990; Daily et al., 2003). And external governance mechanisms include the market for corporate control that is particularly working as the internal mechanisms fail.

Well-designed CEO compensation contracts play an important role in making sure managers act in the interest of shareholders. As discussed above,
moral hazard might occur when shareholders cannot directly observe managers’ behaviour, and managers engage in activities which harm the shareholders’ benefit. In this case, shareholders are motivated to design an effective compensation contract to encourage managers’ behaviour to align with their interests of them and maximize shareholders’ value. The compensation contract has been seen as a vital and explicit mechanism to reduce moral hazard as the managers’ incentive compensation can be correlated with observable variables related to managers’ performance, such as market returns or profitability (Holmstrom, 1979; Grinstein & Hribar, 2004).

Therefore, in agency theory, executive compensation should be tightly related to corporate performance using the profits and share prices as measures (Dorff, 2004). The association between executive compensation and corporate performance demonstrates whether the compensation contract is optimal. The optimal contract would reward executives who work hard and spend much effort enhancing corporate performance. In line with this view, the Corporate Governance Code issued by China Securities Regulatory Commission (CSRC) in 2002 suggests the board of directors should be responsible for executive compensation and that this needs to be explained at the shareholders’ meetings and disclosed to the public. Also, the code demonstrates that executive compensation must be linked to a firm’s performance and each individual manager’s performance.

According to Bebchuk et al. (2002), In order to guarantee the executive
compensation scheme optimal to the shareholders, three key channels has been mentioned as follows: (1) the boards of directors, acting as the monitoring role, decide the compensation scheme that expand the shareholder benefits; (2) also, the market has strong forces to limit the executives behaviour to choose the compensation scheme in the interest of shareholders; (3), finally, shareholders have voting rights to choose perfect pay design for executives, or to impede executive compensation scheme that not optimal for shareholders, which can form an effective mechanism to compel executives choosing the schemes that serve the best interest of shareholder and expand their value.

To have well-designed CEO compensation contracts, an effective board structure (e.g. board independence, remuneration committees, the separation of CEO and chair positions) leads to the design of optimal incentive contracts for CEOs to maximize shareholders’ value (Filatotchev & Allcock, 2010). Under the agency theory, the board of directors, in order to align the interests of shareholders, would make effective CEO compensation to expand the shareholders’ benefits and firm’s performance. For instance, small board size as a measure of an effective board of directors allows more group cohesiveness and increases efficiency, thus it could help develop appropriate CEO compensation arrangements. The introduction of independent directors in firms could provide a board of directors with professional knowledge to design the CEO compensation contracts, and monitor CEOs with the prospect of sacking those who are performing poorly, thus preventing CEOs from extracting the rent,
especially greater compensation from shareholders. To comply with agency theory, the CSRC issued ‘Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies’ in 2002 in China. The introduction of the independent directors in Chinese listed firms aimed to enhance the effectiveness of corporate governance and monitor of directors and managers to avoid an insider-controlled board. The guidelines for introducing independent directors show regulators support the view of agency theory that corporate governance mechanisms play an important role in monitoring management and aligning in the interests of shareholders.

Ownership structure, as an important corporate governance mechanism, also plays a vital role dealing with the agency problem. Generally, concentrated ownership monitors and disciplines management. Different countries adopt different ownership structures. A dispersed ownership structure is more widely employed in the US and UK, but continental European, Asian, and Latin American countries prefer to adopt the more concentrated ownership structure (Barca & Becht, 2001). Some researchers conclude which conditions determine the concentrated or dispersed ownership structure, for example Helwege et al. (2007) showed that dispersed ownership is determined by better stock market conditions, such as high returns and liquidity. Also, Foley and Greenwood (2010) examined a sample of several countries and found that investment opportunities and strong investor protection were also vital variables for firms to adopt the dispersed ownership structure. Taking the US and UK with dispersed ownership
as an example, La Porta (1998) provided evidence that countries with different legal origins had different degrees of investor protection, and that the US and UK belonged to the common-law countries with the strongest legal protection for investors. However, many firms in other countries do not have strong investor protection. Therefore, a concentrated ownership structure can provide more monitoring to compensate some weak corporate governance in those countries. In particular, concentrated ownership can increase the shareholders’ power to fire bad performing managers and prevent managers from extracting rents for themselves compared with dispersed ownership (Elston & Goldberg, 2003); dispersed ownership also creates considerable managerial power, resulting in the CEOs extracting higher pay for themselves (Firth et al., 1999).

The most typical feature of corporate governance for Chinese listed firms is different from other countries and lies in the ownership structure. Most Chinese listed firms have a dominant shareholder whose ownership share is much higher than the next largest shareholder.

The largest shareholder usually has effective control to formulate the strategies and policies of the company (Firth et al., 2006). The block shareholders in China may be the state or private institutional investors (including foreign investors). Chen et al. (2010) argued that block owners in China have increasingly become a useful instrument to monitor management and constrain executive compensation, and empirically find that block ownership is negatively correlated to top executive compensation, showing that
block shareholders play a monitoring role in restraining managers’ self-dealing.

Therefore, strong corporate governance mechanisms through effective internal and external control mechanisms constrain the managerial opportunism and maximize the shareholders wealth and achieve the firms’ goals. The agency theory predicts that CEOs aligning with the interests of shareholders, and under soundly monitored corporate governance, would obtain higher pay when a firm’s performance increases. The boards of directors would punish CEO misbehaviour.

However, the weak corporate governance lead to greater agency problems, and managers might receive greater compensation. The CEO has more control and power over boards of directors, leading to boards of directors not functioning well. Particularly, during the setting process of compensation scheme, it might suffer from problems: (a) the CEOs might have an impact on the recruitment of directors. In most firms, CEOs dominate the selection of directors and they have responsibility to choose candidates for the boards. CEOs are driven by self-interest to select those directors who would not defend the CEO compensation scheme; (b) The independent directors appointed might not create a positive influence on the setting of executives’ compensation as the board and social dynamics, self-serving cognitive dissonance, insufficient incentives, economic benefits and cost, the market for directors and information disparity (Bebchuk et al., 2002).

When the boards of directors cannot play their duties, the market becomes another important mechanism to constrain the management behaviour.
In detail, it has been argued that markets for managerial labour, corporate control, capital, and products play a vital role in aligning interests between shareholders and executives (Fama, 1980). For example, executives’ incentives are influenced by the market for corporate control, executives have to make the firms perform better to attract potential acquirers willing to finance. However, Bebchuk and Fried (2002) argue that these market forces might not produce strong power to assist the boards limiting the excessive compensation of CEOs. For example, according to the empirical results by Jensen and Murphy in their seminal study in 1990, the dismissal risk for CEOs is small. It seems extremely impossible that such small dismissal risk for CEOs will prevent them from benefiting themselves and increasing their compensation.

Apart from the boards and market forces to monitor the compensation arrangements of executives, as it is mentioned above, shareholders can take actions to influence the setting of executives’ compensation by having voting rights to choose perfect pay design for executives, or to impede executive compensation scheme that not optimal for shareholders. Nerveless, only if shareholders own a great amount of share in and/or they have seats on the board, the mechanism will produce a positive influence on executives’ behaviour (Weisbach, 2007).
3.2.2. Managerial power approach

Although the agency theory demonstrates that corporate governance can effectively monitor management and align the interests of management with shareholders, weakened corporate governance might provide CEOs with power to chase self-interests to extract more compensation. Given that weakened corporate governance might provide CEOs with power to chase self-interests and extract more compensation, ineffective boards of directors might allow CEOs to have more control and power over the board, leading to boards not functioning well.

Managerial power theory holds that the CEO can exert power to influence their own compensation. CEO compensation is not only a way to address agency problems, but is also part of the agency problem because managers use the pay arrangements to engage in rent-seeking (Bebchuk & Fried, 2003; Chintrakarn et al., 2015). Bebchuk et al. (2002) argued that because of the control inefficiencies, powerful managers could influence the effectiveness of corporate governance mechanisms in determining a CEO’s compensation. For example, managers can use their power via their control of the board.

Generally, the managerial power hypothesis maintains that the nature of the director selection process, the composition of the board of directors, directors’ incentives to please management, and the relative lack of director resources, support a finding that managers exert power over boards of directors (Dorff, 2004).
The main channel for CEOs to gain power is the board, which determines the compensation scheme. CEOs will have a powerful impact on director selection; they can choose those directors who will stand by them, with this creating a great deal of power for CEOs to engage in activities to increase their pay packages.

Core et al. (1999) concluded that the greater the power of CEOs on the choice of board members via their membership of the nominating committee, the higher the pay levels they obtain. In the election, Shareholders only need to decide whether to withhold their support from the board’s list of candidates. The lack of a proxy fight or other takeover attempt, and managers’ impact on choosing board of directors lead to the CEOs powerful.

Due to the nature of the selection process, the board of directors are made up of those who possibly comply with management. Many directors are CEOs of other large, public firms. CEO-directors are more sympathetic to their colleague’s desire for a free hand in managing the firm. It is not difficult for them to ask for rise in their own compensation if CEO of comparable firms are paid more. If the directors are friends of the CEO, the friendship is likely to allow them not to be willing to defy the CEO decisions. And “celebrity” directors, prominent academics and retired politicians who usually are short of professional knowledge to evaluate and monitor the CEO’s behaviour.

In the meantime, once directors are elected, they have little incentive to challenge management’s practices. the board and social dynamics (Bebchuk et
al., 2002) will increase the power of CEOs; they mean directors would never engage in any activities that threaten their interests, thus providing CEOs with the possibility of gaining more power. For example, the responsibility of the board lies in monitoring the CEO’s behaviour, but this might see them not wanting to take risks of being fired as CEOs would not hire directors who are not loyal to them. Most directors definitely want to keep their status, connections, and compensation (Main, O’Reilly, & Wade, 1995), so they may not go up against the CEO’s will. Under these circumstances, CEOs can take advantage of these social and psychological factors to increase their control and power on many aspects in firms, increasing their own benefits.

Also, the managerial power hypothesis argues that directors who expect to challenge management have limited resources with which to do so. Directors have their main job and only spend part-time work for firms, but CEOs spend a plenty of working time for firms. Hence, directors would not be able to devote more attention to question managements.

Additionally, as Jensen (1993), Bebchuk et al. (2002), and Bebchuk and Fried (2003) argued, another reason that CEOs become powerful lies in the fact they have better information than the board about the company, and they decide the board meeting schedule and which information will be presented to the board, more so if they are also the chairman of the boards.

Many previous studies concluded the different sources of this power – which for example include the board size (Jensen, 1993), CEO duality (e.g. Lu
and Wei, 2008), and CEO ownership (Veprauskaitė & Adams, 2013) – allow CEOs to appoint or select supportive board members (Fracassi & Tate, 2012) thereby perpetuating their power and influencing the compensation decisions (O’Reilly & Main, 2010).

The size of a board can influence a CEO’s behaviour. Jensen (1993) argued that keeping boards small could help improve performance and that boards with more than seven or eight people will be likely to lead to ineffective perform and that it is easier for the executives to control them. Core et al. (1999) support that bigger boards are inclined to pay more and bigger boards remain CEOs with more discretion. It is supposed that larger boards are ineffective and related to higher managerial power (Jensen, 1993; Yermack, 1996).

According to Adams et al. (2005), CEOs become more powerful when they are also the chair of the board since the chairman usually has a vital role in strategic decision-making, and CEO duality enhances the CEO’s impact on the nomination process of new directors (Westphal & Zajac, 1995). The Cadbury Report (1992) demonstrated that CEO duality damages a firm’s governance standards; the separation of the role of CEO and chairman indicates reduced managerial power (Conyon & Peck, 1998).

Another important element in creating managerial power depends on the CEO shareholding. The CEO shareholding is a double-edged sword. On one hand, under the agency theory approach, the CEO shareholder tends to be an effective mechanism in protecting shareholders’ benefits (Jensen & Murphy,
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1976, 1990). It offers long-term incentives to managers which aims to constrain managerial power. On the other hand, increasing CEO shareholding gives managers more control and power to influence their pay and enhances the possibility of entrenchment (Finkelstein & Hambrick, 1989). Thus, with the excessive shares owned by the CEO, they have more managerial influence on internal control decisions, such as director elections and making decisions on the level and structure of CEO compensation (Finkelstein, 1992). Hence, the greater the percentage of shares owned by the CEO, the power increases and simultaneously the power will decrease along with the increase of the percentage of shares that outside shareholders have (Bebchuk et al., 2002).

3.3. Empirical Literature

Based on the theories already discussed, this chapter aims to review the prior literature that discusses the related issues between executive compensation, corporate performance, and corporate governance mechanisms. Then, the discussion on these relationships post M&As has also been addressed.

3.3.1. CEO Compensation and Corporate Performance

In recent years, many studies have demonstrated that performance impacts favourably on CEO compensation. For example, Hall and Liebman (1998) present a strong relationship between a firm’s performance and CEO compensation, mainly created by the stock-holding options of the CEO. Kato
and Kubo (2006) found there was a positive pay-performance relationship on examining CEO compensation from a sample of listed and non-listed Japanese firms, which is consistent with the result of Kaplan (1994) on top executive compensation in Japan and the United States.

Ozkan (2011) found there was a positive relationship between a firm’s performance and the level of CEO cash compensation and total compensation in UK non-financial firms, supporting the agency theory. Additionally, Van et al. (2012) used a multilevel meta-analytic method to test pay for performance relationship based on 332 prior primary studies conducted in 29 countries, showing performance was positively associated with CEO compensation modestly supporting the optimal contracting theory, which was consistent with the results of two prior meta-analyses on this topic (Rost & Osterloh, 2009; Tosi et al., 2000). A large amount of studies documented the positive relationship between executive compensation and company performance for Chinese listed firms. For example, Kato and Long (2006) worked on a sample of 937 Chinese publicly traded firms over time from 1998 to 2002 and found empirical evidence that there was a positive relationship between executive cash compensation and firm performance measured by stock returns. Firth et al. (2006, 2007) investigated a sample of 549 Chinese publicly traded firms during the period from 1998 to 2000 and also provided empirical evidence that accounting performance was related to executive cash compensation, but no relationship existed between the executive cash compensation and stock returns, consistent
with the results of Wang and Xiao (2011).

Working on the sample of 1,342 unique publicly traded Chinese firms listed on the domestic exchanges from 2001 to 2005, Conyon and He (2011) also found empirical evidence that executive cash compensation was positively related to both stock market performance and accounting performance measured as shareholder returns and ROE (return on assets) respectively after controlling for firm size, growth opportunities, independent directors, and time and industry effects with fixed effect model. The most unique feature of this study was different from previous studies and lies in identifying the impact of CEO equity incentives on Chinese listed firm performance and found that the CEO equity incentives were positively correlated to the firm’s performance, consistent with the view that CEO equity incentive provides effective monitoring on CEO behaviour and can align the shareholders’ interest with CEO (Core & Guay, 1999; Holmstrom, 1979). Continually, Conyon and He (2012) expanded the sample size into 2,104 unique Chinese publicly traded firms over the period from 2000 to 2010 to examine the determination of executive compensation in Chinese listed firms with the same method and still give the same empirical outcome that executive cash pay was positively related to firm’s performance.

However, some studies do not show empirical evidence to support the agency theory that a firm’s performance should be positively correlated to CEO compensation. For example, Gregg et al. (2005) found there was a weak association between cash compensation and performance based on a sample of
large UK companies during the period 1994-2002. Ozkan (2006) found that there was no significant relationship between a firm’s performance and CEO compensation, which was consistent with her findings in 2007 while measures of board and ownership structures explained a significant amount of cross-sectional variation in the total CEO compensation, including cash and equity-based compensation (Ozkan, 2007). Girma et al. (2007) also found that there was a weak relationship between pay and performance for the purpose of examining the impact of the Cadbury reforms on the CEO pay for a sample of UK companies. In China, for example, Firth et al. (2007) found there was no relationship between CEOs’ pay and companies’ stock returns.

3.3.2. CEO Compensation and Corporate Governance

3.3.2.1. Board Size

Boards play an important role in monitoring the management of firms. On one hand, some researchers argued that larger boards would be more functional than small boards as they can provide CEOs with high quality advice and counsel (Dalton et al. 1999) and offer higher levels of company performance. On the other hand, some researchers maintained the size of boards should remain small as bigger boards lead to poor communication and decision-making, and that such costs would outnumber the benefits of larger size; small board size provides more group cohesiveness (Lipton & Lorsch, 1992; Jensen, 1993). The larger size of boards tends to be related with ineffective boards and higher
managerial power (Jensen, 1993; Yermack, 1996). Hence, making board sizes small might increase efficiency.

With regard to CEO compensation, a large amount of empirical evidence shows that board size is positively correlated to executive compensation (e.g. Yermack, 1996; Core et al., 1999; Chalmers et al., 2006; Ozkan, 2007), which demonstrates that larger boards might result in larger agency problems and provide CEOs with more power to extract rent from compensation.

Core et al. (1999) examined how corporate governance mechanisms influenced executive compensation and corporate governance using a sample of 205 publicly traded US firms from 1984 to 1986. The empirical results showed that board size was positively correlated to CEOs’ compensation, including salary, cash, and total compensation separately, which indicated that CEOs might exact more compensation with a bigger board size. The results also showed that in the case of bigger boards, the CEOs’ compensation was significantly negative with the corporate performance measured as firm operating and stock return performance, demonstrating that weaker corporate governance might lead to more agency problems.

Similar to the results obtained by Core et al. (1999), Chalmers et al. (2006) provided empirical results that board size was significantly positively correlated to the total Australian CEOs’ compensation, fixed salary, and bonus. They argued that this was consistent with the managerial power theory that the board monitoring power would reduce with the bigger board size and that it was
not difficult for CEOs to extract the rent from compensation. However, it also found that there was no significant association between board size and stock compensation (options and shares).

Fahlenbrach (2009) examined the impact of corporate governance and shareholder rights on CEO compensation using a sample of large US public firms between 1993 and 2004. It was found that board size, as a measure of board quality, was significantly positively related to total CEO compensation. Simultaneously in the case of larger boards, the sensitivity of pay-for-performance was significantly low, which was also consistent with the managerial power theory and indicated that larger boards impaired monitoring for management.

Other empirical studies have investigated the impact of board size on corporate performance (e.g. Yermack, 1996; Mangena et al., 2012). Yermack (1996) provided empirical evidence that smaller boards were more effective and that board size was negatively linked to the firm’s value using Tobin’s Q as an approximation of market valuation based on the sample of 452 large US firms between 1984 and 1991. The results were also robust to control for company size, industry membership, inside stock ownership, growth opportunities, and alternative corporate governance structures. Consistent with Yermack’s results, Mak and Kusnadi (2005) examined firms in Singapore and Malaysia and offered similar findings that there was a negative relationship between board size and firm value measured by Tobin’s Q. In Yermack’s results, there was no evidence
to prove the inverse relationship between firm value and board size with size below six. Eisenberg et al. (1998) updated and confirmed Yermack’s results and used a random sample of about 900 small Finnish firms to provide a similar outcome of an inverse association between board size and profitability of firms using industry-adjusted return on assets as a measurement.

However, Yermack’s (1996) results are only partly confirmed by Bhagat and Black (2000); for example, the board size was significantly negative related to firm performance measured as SAL/AST between 1991 and 1993.

However, the empirical results of an inverse relationship between board size and firm value was criticized for not controlling endogeneity problems (Wintoki, 2007). Then Wintoki’s (2007) use of a dynamic panel GMM (generalized method of moments) estimator to control the endogeneity problem found there was no relationship between board size and corporate performance.

Although a large amount of empirical literature provided an inverse relationship between board size and firm value, some researchers still challenge this argument and find that, in some specific conditions, large board size can bring some beneficial outcomes. For example, Aggarwal et al. (2006) found evidence that the non-profit’s board size was positively associated with the number of programme activities chased by the organisation. This means that not-for-profit organisations pursued more objectives and have larger boards.

In terms of China, working on a sample of total of 206 Chinese listed firms during 2000–2001, Li et al. (2007) examined the determination of CEO
compensation in Chinese listed firms and found no relationship between board size and CEO compensation, suggesting that compensation standards have an influence on CEO compensation levels. They argued that the result indicated that large board sizes did not seem to weaken the control of the board of directors and that the CEO did not use the large board size to extract higher pay. Buck et al. (2008) used a sample of 601 Chinese listed firms from 2000-2003 to examine the relationship between top executive compensation and a firm’s performance controlling the corporate governance mechanisms, and found empirical evidence that board size had no significant influence on top executive compensation.

3.3.2.2. Supervisory Board

Two main typical types of board structures are dominant in the firms of different countries; the Anglo-Saxon style one-tier board (i.e. the board of directors) or the Germanic style two-tier board consisting of both a board of directors and a supervisory board (Aufsichtsrat) (Peck & Ruigrok, 2000). For example, Korn-Ferry (1996) classified the UK and Italy into the one-tier board structure while Denmark and the Netherlands were in the two-tier board structure. Generally, the supervisory board is chaired by the non-executive directors and is comprised of the shareholders, employees and bank representatives (Luo, 2005). The supervisory board in large public firms in Germany usually has 19 members (Kaplan, 1997). The main role of the supervisory board is to appoint, supervise, and dismiss the members of the board
of directors, and watch over management performance (Hopt et al., 2004). Also, the supervisory board is responsible for the financial statements and approval of the consolidated financial statements, as well as for the effective compensation arrangement of top management (Dyballa & Kraft, 2015).

According to the agency theory, the supervisory board should be independent from management and the non-executive directors have to remain independent, thus conducting an effective monitoring function in compliance with the shareholders’ interests (Andreas et al., 2012). An inefficiency problem of the supervisory board may arise when the supervisory boards are not dominated by the shareholders themselves, but the former executive board members become the members of the supervisory board in the same firm, and interlocked board members exist. From this point, the supervisory board might not fully represent the shareholders’ interests and could lead to self-interested behaviour by management (Dyballa & Kraft, 2015). However, empirically, Balsmeier et al. (2015) worked on a sample of the 100 largest companies in Germany and found that supervisory board members with simultaneous outside directorships were positively correlated to executive turnovers, showing the effective monitoring function of interlocked board members.

Few studies have examined the relationship between the supervisory board size, corporate performance, and executive compensation. Van et al., (2003) examined the characteristics of board and firm performance in the Netherlands using a sample of 94 Dutch listed non-financial (mainly
manufacturing) firms in 1996, and provided empirical evidence that the size of the supervisory board was negatively correlated to the firm’s performance, showing that the supervisory board in Dutch firms did not function well. Fiss (2006) examined the social influence effects on executive compensation using original data on German firms and a longitudinal design, and found that the supervisory board size was positively and significantly correlated to executive compensation even controlling firm size, which was consistent with the argument that large board size cannot effectively supervise management (Yermack, 1996).

Chizema (2008) investigated the disclosure of individual compensation in Germany using data on large German firms for 2002-2005 and found that the size of the supervisory board was negatively and significantly associated with individual disclosure of executive compensation.

Listed firms in China adopted a two tier board structure including the board of directors and supervisory board. On one hand, the supervisory board was regarded as an effective monitoring mechanism to management and the board of directors (Xiao et al., 2004). According to the ‘The Code of Corporate Governance for Listed Companies in China’ issued by the CSRC in 2002’, the main duty of the supervisory boards was to monitor the directors and managers and firms’ financial activities. Dahya et al. (2002) concluded there were four main roles of the supervisory board in Chinese listed firms; honoured guest, friendly advisor, censored watchdog, and independent watchdog. Logically, the
function of the supervisory board was to protect shareholders’ interests and rights and improve corporate governance and corporate performance (Shan and Xu, 2012). For example, Dahya et al. (2002) indicated that a negative market reaction occurred when a company failed to include a supervisory report in its annual report; Firth et al. (2007) showed that supervisory boards resulted in an improvement in the quality of accounting information; Ding et al. (2009) found a negative association between supervisory board size and the pay of the chair of the board of directors.

On the other hand, some researchers argued that the supervisory board in Chinese listed firms could not perform the monitoring role (e.g. Xi, 2006; Tam, 1995). Firstly, the members of supervisory board did not possess adequate qualifications and lacked professional knowledge and work experience (Tian, 2009). Secondly, Ding et al. (2010) held that, differently from German supervisory boards that have the power to appoint and dismiss board directors, the supervisory boards for Chinese firms cannot influence executive decisions and have no right to select directors, managers, and financial officers, thus their responsibilities are more abstract in nature. Thirdly, because of the information asymmetric, supervisory boards lack efficient information that is controlled by CEOs, and it is difficult for them to monitor the managers (Tenev et al., 2002). Therefore, the supervisory board in Chinese listed firms is more like a decoration instead of a truly effective monitoring mechanism.

Empirically, Chen et al. (2010) examined the internal control on Chinese
executive compensation in a balanced panel sample of 502 Chinese listed firms between 2001 and 2006, and found that there was no significant relationship between the supervisory board size and executive compensation. The empirical result was consistent with the outcome from Li et al. (2007). They also failed to find any association between supervisory board size and CEO compensation. Ding et al. (2010) worked on a sample of 1,345 observations in 2005 and 1,410 in 2006 to examine the relationship between CEO compensation and the supervisory board under the reform of corporate governance in Chinese listed firms. They found that before the reform of corporate governance, the supervisory board did not affect executive compensation, but positively influenced it after the reform of corporate governance; it also found that supervisory board size was positively correlated to the total executive compensation, but negatively correlated to the pay-performance sensitivity for the combined total sample. Also, Jia et al. (2009) found that the CSRC possibly penalized the listed firms with bigger supervisory boards.

3.3.2.3. Board Independence

As discussed in the theory framework, the independent director’s mechanism plays a vital role in monitoring and is used to protect shareholders’ benefits to enhance their value. Independent directors, or outside directors, as an important part of boards of directors, are managers of other firms or important decision agents in other complex organisations. Their main responsibilities are
providing professional knowledge to assist managers in handling specialised decision problems such as corporate law or relevant technology, and have motivations such as reputation to monitor managers, thus reducing the agency problem (Fama & Jensen, 1983). This is also supported by Hermelin and Weisbach (1998) in that more independent boards do more monitoring, and that outsider-dominated boards could reduce the bargaining power of managers as they would be more likely to sack poorly performing CEOs than insider-dominated boards. Thus, independent directors can effectively prevent the managers extract the rent, especially the greater compensation from shareholders.

However, some researchers argue that outside directors are generally hired by managers; they might have hidden associations with managers (e.g. Core et al., 1999), thus having less monitoring on managers and controlling their compensation.

Great amounts of literature have discussed the impact of independent directors on CEO compensation and produced mixed findings. Lambert et al. (1993) investigated the structure of the organisational incentive in a sample of large publicly traded US firms and found the percentage of outside directors appointed by CEO was positively correlated to the level of CEO compensation, supporting the managerial-power theory. Boyd (1994) provided similar findings. Core et al. (1999) examined the influence of independent directors on CEO compensation in a sample of US large firms. They classified the independent
directors as grey directors (if they obtained payments from firms exceeding board pay) and interlocked directors (other inside director of firms sit on the board of outside directors). They found CEO compensation was positively correlated to the percentage of outside directors, and the grey outside directors, and was negatively correlated to the insider directors, but was not significantly related to the interlocked directors. This was not consistent with the results of Hallock (1997) who found that interlocked directors had a positive relationship with the CEO total pay in 500 firms in 1992.

Ozkan (2007) worked on a sample of 414 UK firms for the fiscal year 2003-2004 to examine whether corporate governance affected CEO compensation and found that CEOs were paid higher compensation with a higher proportion of non-executive directors on their boards, indicating that non-executive directors do not play an effective monitoring role for CEOs.

However, some empirical literature provides an inverse relationship between CEO compensation and independent directors and a positive monitoring function of independent directors. For example, Basu et al. (2007) found evidence that outside directors, as one of the monitoring mechanisms, can effectively tackle the agency problems in Japanese business environment, and provided empirical findings that the outside directors were significantly negatively related to the CEO cash compensation for 174 large Japanese firms during 1992-1996.

Previous research about the influence of independent directors on CEO
compensation gave less consideration to the bias caused by endogeneity and outliers. Wan (2009) looked at the endogeneity and outlier problems and found evidence that there was no relationship between CEO total pay and a board that had a greater number of independent directors.

Other literature investigated the relationship between the firm’s performance and the independent directors. For instance, Rosenstein and Wyatt (1990) found that a significant positive share price reaction was influenced by the proportion of outside directors appointed by managers.

Byrd and Hickman (1992) found that bidding firms on which independent outside directors held at least 50% of the seats had significantly higher announcement-date abnormal returns than other bidders. Baysinger and Butler (1985) found the proportion of independent directors was positively correlated to the firm’s performance. However, Agrawal and Knoeber (1996) examined the influence of seven control mechanisms on a firm’s performance in a sample of nearly 400 large US firms and found evidence that a large percentage of outside directors had a negative impact on a firm’s performance measured by Tobin’s Q in OLS estimations. In addition, Klein (1998) showed that the change in market value of equity was significantly negatively related to the proportion of independent directors, but the proportion of independent directors had no significant relationship with return on assets and raw stock market returns. Bhagat and Black (2000) examined whether board independence enhanced the firm’s value in the large and long-term sample of large US firms and found that
profitability was lowered by increasing the independent directors.

In terms of China, independent directors were emphasised as the better practice of corporate governance to optimize such structures. Regarding the impact of independent directors, the findings were also mixed. Fan et al. (2007) found that the non-executive directors were related to CEO turnover, thus showing that independent directors played a positive monitoring role for CEOs. However, Tian and Lau (2001) study the 207 Chinese listed firms for 1996-1997 and found no positive association between reported performance and the proportion of independent directors on the board. Conyon and He (2011), working on a sample of publicly traded Chinese firms listed on the domestic exchanges from 2001-2005, found evidence that more independent directors on the board brought firms a higher pay-for-performance association and firms with more independent directors on the board were possibly likely to fire the CEO for poor performance, which was consistent with the argument that independent directors make a positive monitoring governance. However, Conyon and He (2008) found evidence in Chinese listed firms that firms with a greater proportion of independent directors on the board had higher executive pay and greater CEO equity incentives in a sample of 1481 unique firms over the period 2001-2005, which seems to go against the monitoring function of independent directors. In addition, Conyon and He (2012) continued to find that the proportion of independent directors had little impact on CEO compensation in both OLS and fixed-effect models.
3.3.2.4. CEO Duality

CEO duality means that the CEO also serves as the chairman of the board of directors. Jensen (1993) and Yermack (1996) argued that the agency problem was becoming more severe in cases where the CEO also sat on the board as chairman. CEO duality increases CEO power and boards are no longer independent. For example, those CEOs who are also the chairman of boards dominate both the agenda and content of board meetings (Mallette & Fowler, 1992), which would potentially reduce the board monitoring function, thus increasing the CEO entrenchment (Finkelstein & D’Aveni, 1994) and might influence the board to set compensation to favour themselves. In addition, CEOs holding both positions have more dominance on the selection of new directors, which increases the risk of opportunistic and inefficient behaviour of CEOs, thus impairing shareholder benefits (Jensen & Meckling, 1976).

Therefore, according to the agency theory, to avoid increasing CEO entrenchment, the CEO should be separate from the chairman of the board of directors. However, some researchers argue that CEO duality provides integrated leadership and highlights the role of the CEO in charge of a firm’s operation, thus reducing the internal or external equivocalness and increasing performance (e.g. Donaldson, 1990; Finkelstein & D’Aveni, 1994; Lipton & Lorsch, 1993).

With regard to the influence of CEO duality on a firm’s performance, the
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empirical findings are mixed. Rechner and Dalton (1991) found evidence that when CEOs were separate from the chairman of boards, the firms performed better in return on equity, return on investment, and profit margin in a sample of Fortune 500 firms. Sanda et al. (2010) also provided a similar finding on a positive association between a firm’s performance and non-joint CEO leadership. Goyal and Park (2002), working on the 3,239 firm-years representing 823 control firms from 1992-1996, showed that the sensitivity of CEO turnover to firm performance was significantly lower when the CEO and board chair positions were held by the same individual.

However, Daily and Dalton (1992) did not find evidence that CEO duality had an association with the performance of entrepreneurial firms in a sample of 100 small US firms listed in Inc. magazine’s annual ranking of the fastest-growing businesses in 1990, consistent with the results for Dalton et al. (1998) with meta-analyses of 31 empirical studies of board leadership structure. In addition, Mak and Kusnadi (2005) did not find evidence that CEO duality had a relationship with firm value.

Donaldson and Davis (1991) worked on a sample of various organisations and sizes, yielding variation, providing empirical evidence that firms with a CEO duality leadership structure received more shareholder returns measured as ROE (return on equity) than those firms adopting the independent structure. Dey et al. (2011) took empirical analyses to doubt the view in support of the separation of role of CEO and chairman of boards. They examined the
relationship among the firm’s performance, CEO compensation, and combining or not combining the roles of CEO and board chairman and found that firms with the joint structure had higher pay-performance sensitivity in CEO compensation contracts and significantly lower CEO pay-performance sensitivity with a separate role of CEO and chairman of the board. In addition, Brickley et al. (1997) documented that the costs of separation of the role of CEO and chairman of boards were larger than the benefits for most large US firms and CEO duality was not correlated to the inferior performance.

In terms of the impact of CEO duality on CEO compensation, Cyert et al. (2002), found evidence that CEOs obtained higher compensation when they also sat on the chair of the board, in particular, the CEO who was also the chairman received about 36% greater equity compensation than a non-chairman CEO in a sample size at 1,648 firms for 1992 and 1993. Core et al. (1999) and Boyd (1994) found similar empirical evidence that CEO compensation was an increasing function of CEO duality.

According to Fan et al. (2007), the phenomenon of firms with a joint leadership structure was common in Chinese listed firms. The leadership structure on corporate performance and CEO compensation in China also involved different findings. Tian and Lao (2001) examined the impact of corporate governance mechanisms on organisational performance in Chinese shareholding companies with special attention to China’s unique institutional environment and its impact on the board and found firms with CEO duality
received better corporate performance. However, Chen et al. (2010) documented that CEO duality created a considerable impact on the Chinese compensation contracting process and made CEOs receive a high level of compensation, which was consistent with managerial power theory. Li et al. (2006) documented that CEO compensation was not significantly correlated to the CEO duality for Chinese listed firms.

3.3.2.5. CEO Shareholding

According to agency theory, CEO shareholding has been recognised as a mechanism to monitor managers, and boards can take advantage of the stock-based incentives to prevent managerial opportunism and arrive at higher corporate performance, thus protecting the shareholders’ benefits (Jensen & Meckling, 1976; Jensen & Murphy, 1990). However, in the view of managerial power theory, some researchers hold that excess CEO shareholding might lead to managers having more power on the board and making use of power to extract benefits for themselves rather than increasing shareholders’ benefits (Holderness & Sheehan, 1988; Lambert et al., 1993).

Increasing stock ownership gives managers more control and power to influence their pay and enhances the possibility of entrenchment (Finkelstein & Hambrick, 1989).

Empirically, Morck et al. (1988) examined the association between the management shareholding and market valuation of the firm measured as Tobin’s
Q in a cross-section of 371 Fortune 500 firms in 1980, finding a significant nonmonotonic relationship which was that the market valuation increased at low levels of managerial ownership and decreased at higher levels. Shuto and Takada (2010) examined the relationship between managerial ownership and accounting conservatism in Japan, the results show that, consistent with the incentive alignment view, whether managerial ownership was high or low level, there was a significant and negative relationship between the managerial ownership and the asymmetric timeliness of earnings; the managerial power effect was found in the middle levels of managerial ownership that the asymmetric timeliness of earnings was significantly and positively correlated to the managerial ownership.

In terms of the test of the managerial ownership and executive compensation, Finkelstein and Hambrick (1989) investigated the determination of CEO compensation in America, working on a sample of 110 US listed firms in the leisure industry for the years 1971, 1976, 1982, and 1983, and finding that the CEO power measured by the CEO shareholding was positively correlated to the CEO salary compensation. Furthermore, Mehran (1995) studied the US listed firms and found the CEO shareholding was positively correlated to the CEO cash compensation instead of the equity-based compensation. However, Cyert et al. (2002) examined the effect of the corporate governance level on CEO compensation using a sample of 1,648 US firms between year 1992 and 1993.

Consistent with the view of managerial entrenched effect, they found that CEO ownership was significantly and positively correlated to the CEO
salary and equity-based compensation. In addition, Byrd and Cooperman (2010) argued that large shareholdings held by the CEO enabled the CEO to have more control on their compensation and empirically found that CEO ownership was significantly and positively correlated to the total CEO compensation in a sample of 93 publicly traded US banks.

According to Ozkan (2007) in an empirical study of the investigation of the influence of corporate governance on the level of CEO compensation in a sample of 414 large UK companies for the fiscal year 2003/2004, CEO ownership was negatively and significantly correlated to the equity-based CEO compensation. In a study in Sweden and Norway by Randøy and Nielsen (2002), the CEO shareholding was negatively correlated to the CEO compensation using cross-sectional ordinary least-square (OLS) regression model for the sample of 224 firms in Sweden and Norway, consistent with the agency theory.

In China, Chen et al., (2010) empirically found that the CEO shareholding was significantly positively correlated to the CEO compensation that was consistent with the prediction of managerial power approach that CEO shareholding provides managers more opportunity to collude with government officials and extract the state property. Also, Li et al. (2007) documented the significantly positive association between CEO shareholding and CEO compensation. But, they gave different reasons from that Li et al. (2007), maintaining that the CEO shareholding in Chinese firms was recognised as a method to attract and retain talented managers.
3.3.2.6. Ownership Structure

Ownership structure, as an important corporate governance mechanism, also plays a vital role dealing with the agency problem. Different countries adopt different ownership structures. The dispersed ownership structure is more widely employed in the US and UK, but continental European, Asian, and Latin American countries prefer to adopt the more concentrated ownership structure (Barca & Becht, 2001). Some researchers conclude the factors determining the concentrated or dispersed ownership structure, for example Helwege et al. (2007), show that dispersed ownership is determined by better stock market conditions, such as high returns and liquidity. Also, Foley and Greenwood (2010) examined the sample of several countries and found that investment opportunities and strong investor protection were also vital variables for firms to adopt dispersed ownership structures. Taking the US and UK with dispersed ownership as an example, La Porta (1998) provided the evidence that countries with different legal origins had different degrees of investor protection and the US and UK belonged to the common-law countries with the strongest legal protection of investors. However, many firms in other countries do not have such strong investor protection. Therefore, concentrated ownership structures can provide more monitoring to compensate some weak corporate governance in those countries. In particular, concentrated ownership can increase the shareholders’ power to fire badly performing managers and prevent managers
from extracting rents for themselves than dispersed ownership (Elston & Goldberg, 2003), and dispersed ownership creates considerable managerial power, resulting in the CEOs extracting higher pay for themselves (Firth et al., 1999).

The literature also examined the relationship between ownership concentration and CEO compensation. For example, earlier both Santerre and Neun (1986) and Dyl (1988) examined the agency problem related to executive compensation and found that ownership concentration was negatively correlated to CEO compensation. Elston and Goldberg (2003) examined executive compensation in German firms and found that firms with more concentrated ownership structures had lower levels of executive compensation, consistent with the view that a concentrated ownership structure could monitor the manager’s behaviour and protect the shareholders’ benefits.

Earlier, Berle and Means (1932) supported the concentrated ownership and argued that a more concentrated ownership structure was linearly positively correlated to a firm’s performance. They hold that the diffused ownership concentration brought free riding problems and it was hard to monitor the CEOs. Shleifer and Vishny (1986) provided empirical analysis supporting the argument of Berle and Means (1932) and found that large shareholders played a crucial role in a firm’s performance, in particular, evidence showed that the stock price was positively correlated to the proportion of shares held by these large shareholders. Agrawal and Mandelker (1990) also provided evidence supporting
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Shleifer and Vishny (1986) and found that large shareholders offered both better monitoring to managers and performance, particularly when the ownership was concentrated by institutional investors. These arguments, in the previous literature, showed that there was a positive relationship between ownership concentration and firm value.

Kapopoulos and Lazaretou (2007) examined the influence of the structure of ownership on firms’ performance measured by profitability in a sample of 175 Greek listed firms in 2000. They found that a more concentrated ownership structure had a more positive impact on firms’ profitability and also found that higher firm profitability required less diffused ownership.

However, some researchers found negative relationship between ownership concentration and a firm’s value. For example, Leech and Leahy (1991) investigated the ownership structure and related firm performance in UK firms and found that ownership concentration was negatively related to the firm’s value. Also, Mudambi and Nicosia (1998) used the UK sample of firms and confirmed the findings of Leech and Leahy (1991) and provided a similar finding that the ownership concentration was negatively correlated to the firm’s value measured by the rate of return on the stock market.

De Miguel et al. (2004) argued that different countries adopting different corporate governance systems would have different firm values and ownership associations, especially in the cases in which these countries had different levels of ownership concentration, the effectiveness of boards, the development of
capital markets, and the role of the market for corporate control and the legal protection of investors. For example, Gedajlovic and Shapiro (1998) examined the impact of ownership concentration on a firm’s value for several countries with different corporate governance systems, providing evidence that ownership concentration was not linearly correlated with profitability in US and German firms, and no association was found between ownership concentration and firms’ performance in the UK, France, and Canada. They hold that these different findings among different countries relied on the different institutional contexts and corporate governance systems.

The most typical feature of corporate governance for Chinese listed firms was different from other countries and was in the ownership structure. Most Chinese listed firms have a dominant shareholder whose ownership share is much higher than the next largest shareholder. The largest shareholder usually has effective control to formulate the strategies and policies of the company (Firth et al., 2006).

Given the unique characteristic of the ownership structure in China, some researchers examined the different ownership controller type on firm performance and executive compensation. For example, Firth et al. (2006) examined the relationship between different controller shareholder type and the CEOs’ compensation for Chinese listed firms and found that firms with the state as the largest shareholder had no relationship between CEO pay and the firm’s performance, but firms with the private block holders or SOEs as the controlling
shareholders had a relationship between a CEO’s pay and firm value. However, the pay for performance sensitivities of CEOs was low. Chen et al. (2010) argued that the block owners in China have increasingly become a useful instrument to monitor management and constrain executive compensation, and empirically found that block owners were negatively correlated to top executive compensation, showing that block shareholders played a monitoring role in restraining managers’ self-dealing.

3.3.3. Political Connections

The understanding of firms’ political connections has been widely documented by many previous studies focusing on developed and less developed countries and it is regarded as a useful means for several firms (Morck et al., 2000; Goldman et al., 2009). It was demonstrated that many firms had political connections with government, the large shareholder, or that the top leaders of firms were currently, or had been, government officials or party members. Political connections as a useful resource among firms made businesses successful; the firms with political connections had more policy privileges and could own more benefits and enrich themselves (Bunkanwanicha & Wiwattanakantang, 2008). Particularly, it would bring many benefits such as acquiring more tax reduction and bank loans (Firth et al., 2009), and looser regulations (Bunkanwanicha & Wiwattanakantang, 2009), thus enhancing corporate performance (Boubakri et al., 2012).
However, there were mixed empirical findings on the issue of whether the political connections increased corporate performance (e.g. Fisman, 2001; Faccio, 2006; Faccio et al., 2006; Bunkanwanicha & Wiwattanakantang, 2009).

For example, Fisman (2001) examined the influence of political connections to firm value in a sample of 79 listed firms of Indonesia during 1995-1997 and found that political connections were the main reason that affected the firm’s performance, adding 33% to the firm’s value. Similarly, Ramalho (2003) found family-connected firms’ stock prices did not significantly decrease because of the impeached president. Fisman et al. (2012) continued to examine the impact of political connection to the firm’s value through the state of US vice president Dick Cheney’s heart attack, and found that there was no significant relationship between the heart attack and the firm’s performance for connected firms.

Working on a large sample of 20,202 listed firms in 47 countries during 1996-1999, Faccio (2006) studied the common features of political connection among several countries and the influence of political connection on firms’ performance. The results indicated that politically-connected firms were more prevalent in countries with high levels of corruption and a weak legal system, and the positive firm performance measured by the cumulative abnormal return is obtained once the large shareholders or top officers enter politics in those countries with high corruption level.

In addition, Faccio et al. (2006) examined the relationship between
political connections and corporate bailouts in a sample of 450 politically-connected firms from 35 countries during 1997-2002. The results showed that politically-connected firms possibly obtained the bailout from government and financial support from the International Monetary Fund or the World Bank compared with those firms without connections as the shareholder might make use of political connections to secure the corporate bailouts. But the politically-connected firms performed worse than those non-connected at the time of and following the bailout, specifically, the lower industry-adjusted ROA in bailed-out connected firms than those bailed-out non-connected firms. Similarly, Boubakri et al. (2008) worked on the newly-privatised firms using a sample of 245 privatised firms in 27 developing and 14 developed countries during 1980-2002, and found that the politically-connected firms performed worse in accounting performance than those not connected. Consistent with the results of Boubakri et al., (2008), Menozzi et al. (2012) found that the political connections of newly-privatised Italian firms damage firms’ performance.

Under the weak corporate governance and severe corruption of Thailand, Bunkanwanicha and Wiwattanakantang (2009) worked on a sample of the top 2,000 largest listed and non-listed firms in Thailand in 2000, finding evidence that the market valuation of the large family firms with political connections performed better than those without connection, which was consistent with the result of Imai (2006) whose Thailand study showed that family firms in which members took part in politics had a positive performance. Also, they discovered
that those family businesses in regulated industries sought more top positions and were therefore more involved in drawing up regulations to benefit themselves. The results showed that owners of big business working for top government offices could take advantage of political power to influence policy decisions, thus favouring their own interests. Consistently with the Thailand study from Imai (2006) and Bunkanwanicha and Wiwattanakantang (2009), Civilize et al. (2015) found that political connection brought firms large stock returns and it particularly took place in regulated industry.

Generally, politically-connected firms were not common in those developed countries with sound corporate governance and strong legal systems because government officials bore the considerable cost (e.g. political and legal punishment) for supporting those firms with political connections with government. However, Goldman et al. (2009) found that political connections were important in the US. Their study on the association between the political connections and company performance used a sample of all firms which were in the S&P 500 during the years 1996 and 2000. The results showed a positive abnormal stock return following the announcement of the nomination of a politically-connected individual to the board.

Also, Niessen and Ruenzi (2010) found that German firms with political connections performed better than non-connected firms in accounting and market performance. But in the study of Ang et al. (2013), they found that Singapore fitted the general argument that the phenomenon of political
connection was not prevalent in countries with good corporate governance and sound legal systems, and the political connections added little value to firms in Singapore.

Few studies investigated the influence of political connection on CEO compensation. Aslan and Grinstein (2011) examined the impact of CEOs’ political connections measured as campaign donations on CEO pay and found that the CEO political connections were positively correlated to CEO compensation and negatively related to the pay-performance sensitivity on a sample of US listed firms during 1996-2006. They argued that CEOs’ political capital brought firms resources and strategic values, thus they were rewarded for the skills and resources they brought to firms (e.g. regulation support, useful resources).

Politically-connected firms are common in China as there is a weak legal system, weak law enforcement, and high levels of corruption. In the context of Chinese culture, Guanxi, or interpersonal relationship and networking, play a vital role at all levels of the social, economic, and political arena (Yee, 2005). According to Gu et al. (2008), the reason why Chinese firms prefer different connections is that they can take advantage of the durable social connections and networks to support firms’ operation. Therefore, Guanxi can be regarded as a useful tool which provides firms with many benefits (Xin & Pearce, 1996). In particular, political connections as one typical Guanxi for firms tend to be an efficient method in business transactions.
It is concluded that strong political connections exist between the government and Chinese listed firms. Many CEOs of Chinese listed firms are significantly politically-connected; they were previous, or are current, government officials (Yang et al., 2011) who possess a network with the government, control information and resources, and can collude with the state (Chen et al., 2010). It was reported by Fan et al. (2007) that around 25% of CEOs were previously, or are currently, government officers. In addition, it is common for independent directors to be former government officials in Chinese listed firms. As indicated, 13.88% of independent directors are politically-connected, and those independent directors can use their political connections with the government to provide firms with more resources and add value to them (Liao et al., 2009).

The government significantly influences the allocation of resources, such as the granting of land use rights, the setting of prices for energy, electricity, and water, and the control of access to financial capital. Hence, the government might either grant preferential treatment to businesses or impose extra fees and fines on them (Li et al., 2008). In this case, CEOs’ political connections are a key resource to guarantee a firm’s success (Li et al., 2006). In China, the government provides priority access to many resources and provides benefits to the SOEs compared to the privately-controlled firms (Nee, 1992). The state-controlled firms actively and easily establish and seek out political connections with the government through appointing CEOs with a political background.
Retaining the relationship with government helps the state-controlled firms to have influence over many more resources and obtain more preferential treatment. The privately-controlled firms do not have such advantages and therefore, to compensate the drawbacks of lacking better treatment and resources, and to improve market competitiveness, the privately-controlled firms more actively seek political connections through the politically-connected executives and directors. Thus, political connections also play an important role in privately-controlled firms (He et al., 2014). This brings many genuine benefits to privately-controlled firms, as with state-owned firms, such as acquiring tax reductions and bank loans (Firth et al., 2009), and looser regulations (Bunkanwanicha & Wiwattanakantang, 2009), thus enhancing corporate performance (Boubakri et al., 2012).

The political connections allow both privately-controlled and state-owned firms to enjoy the resources to improve firms’ efficiency. Accordingly, the increased benefits derived from the political connections or increased corporate performance might lead to higher CEO compensation. Importantly, those CEOs with political connections might be more capable of bringing benefits and better treatments to firms, which also allows those CEOs to have more power and dominance (Pi & Lowe, 2011). For example, when CEOs have more power, they can enhance the impact of the board of directors’ decisions, such as arranging the CEO compensation (Hermalin & Weisbach, 1998).
Empirically, In China, some researchers maintained that political connections damaged firms’ performance (e.g. Ang et al., 2013). Empirically, Fan et al. (2007) worked on a sample of 790 newly-partially privatised firms in China to examine the impact of a politically-connected CEO on firm performance, and found that the political connection harmed the firm’s performance. Firms with politically-connected CEOs underperformed those without politically connected CEOs measured by accounting and market performance in post-IPO period. Ang et al. (2013) argued that the results of Fan et al. (2007) was consistent with the point that lower managerial ownership in Chinese firms (Li et al., 2007) was likely to result in managerial entrenchment through the political connection. Li and Zhou (2015) argued that the politically-connected firms made IPO easier because of the looser investigation by CSRC, then resulting in poor corporate performance. Similarly, Li et al. (2008) examined the influence of CEOs’ political connections on long-run performance for 769 Chinese IPO firms under different ownership styles. The results showed that the CEO’s political connection was negatively correlated to the firms’ three-year post-IPO stock performance in local SOEs. Consistent with the results of Li et al. (2008), Wu et al. (2012a) and (2012b) found that the politically-connected CEOs were negatively correlated to the firm’s performance measured by ROA and Tobin’s Q for firms with local SOEs as the CEOs have to mainly achieve more government goals that the local SOEs required.

However, many researchers argued that the political connections brought
many resources and benefits, such as reducing the cost of external financing (Xu et al., 2013), thus adding value to firms. Du and Girma (2010) investigated the impact of political connections on the post-entry performance of private start-up firms in China and found that the firms with political connections obtained higher growth and more survival prospects. To complement the findings of Fan et al. (2007), Chen et al. (2011) worked on a sample of the 276 listed private firms that made an IPO between 1993 and 2008, and found that the political connections were positively related to the post-IPO CARs (cumulative abnormal returns) which was different from the negative effect of Fan et al. (2007) for state-owned enterprises (SOEs).

According to Jiang (2008), the CEO political connection has been classified into two types: Developed connections (e.g. school ties) and inherited connections (e.g. family connections). Jiang (2008) found that the developed connections were positively correlated to the firm’s performance, but the inherited connections were negatively correlated to the firm’s performance.

Pi and Lowe (2011) argued that the political connections allowed CEOs to have more power which came from their capabilities to offer firms many important resources, thus CEOs were difficult to replace. They worked on a sample of 325 listed firms during the period 1997-2006 and found that the CEOs’ political connections were negatively correlated to CEO turnover, which was consistent with the result of Cao et al. (2011). Cao et al. (2011) stated that political connections led to poor corporate governance, and resulted in
managerial entrenchment. Consistent with the results of Pi and Lowe (2011), You and Du (2012) obtained a similar conclusion that the CEO with political connections as less likely to be dismissed by firms, stating that the CEO made use of the resource of political connection to benefit themselves.

Earlier, Choi et al. (2001) examined how state policy affected the interaction between the cadres (party bureaucrats) and private entrepreneurs in China. Regressing the firms’ profits in 1992 against entrepreneurs’ past cadre experience and other variables, they found that the entrepreneurs’ past cadre experience was positively correlated to the 1992 profits at the legitimized stage of private business development rather than the initial stage of private business development. In other words, with the policy change and market development, the entrepreneurs’ interest was enhanced. They argued that the political resources played a vital role when the private business expanded, hence the political background facilitating entrepreneurs gaining more than those entrepreneurs without political connection.

The section below reviews previous literature that discussed the relationship between CEO compensation and M&As decisions, and between CEO compensation and determinants of acquiring firms.

3.3.4. CEO Compensation and M&As Decisions

A recent stream has started to explore CEO compensation in mergers and acquisitions (M&As), and this literature demonstrates that the CEO
compensation problem is acute in this area (e.g. Grinstein & Hribar, 2004; Harford & Li, 2007; Bujela et al., 2012). In particular, the literature showed that CEO compensation as repackaged following M&As and empirically examined the relationship between CEO compensation and M&As decisions.

For example, Grinstein and Hribar (2004) examined the CEO compensation following the M&As deals in the sample of 327 large M&As deals during 1993-1999 for US publicly-listed firms. In order to address the question of whether CEO compensation was associated with the M&As deals, an acquisition dummy of independent variable has been established to investigate the relationship between CEO compensation and M&As deals in the first model of the research. The results showed that CEOs obtained higher bonuses for acquisitions even after controlling for measures of performance and fixed effects.

Consistent with the results of Grinstein and Hribar (2004), Coakley and Iliopoulou (2006) provided similar findings with completed bids in the UK and Australia respectively. Working on a sample of 100 UK and US bidders during the 1998-2002 period, Coakley and Iliopoulou (2006) found that the cash compensation received by CEOs and executives of acquiring firms was positively related to the M&As in the year following M&As and year after. Furthermore, Harford and Li (2007) then split firm performance (stock returns) into positive and negative returns and found that non-acquiring CEOs were normally penalized for poor performance, but acquiring CEOs were not penalized in the post-merger period, indicating that CEOs obtain higher pay even
if they made an underperformance acquisition.

However, Grinstein and Hribar (2004) and Coakley and Iliopoulou (2006) did not consider the endogeneity problem when they examined the relationship between CEO compensation and M&As decisions. Gust et al. (2009) used the GMM estimation to control the endogeneity problem. They worked on a more comprehensive sample, which included foreign, domestic, public, and private acquisitions, and found that M&As decisions resulted in significant pay increases in the year following M&As but declined two years after M&As. Also, Kumar et al. (2012) used a large sample of 2,187 US firms over a long period from 1993 to 2006 to investigate the influence of M&As on CEO compensation. Several panel data estimation methods (e.g. GMM estimation) and propensity score matching methods were employed and found evidence that the level of M&As played a considerable positive impact on CEO compensation, in particular, the CEO equity-based compensation, was increased following M&As activities.

Furthermore, Bugeja et al. (2012) provided similar findings with completed bids in Australia. They provided a more comprehensive assessment study on all components of CEO compensation, including the different six types of compensation: Bonus only, salary only, salary and bonus, shares, options, and total compensation, and found forms of compensation CEOs received following M&As deals were positively related to the M&As decisions for the sample of 177 M&As deals of Australian listed firms during the period from 2000 to 2007
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in the year following M&As and a year after. However, Bugeja et al. (2012) did not consider the endogeneity problem of the panel data.

3.3.5. Determination of CEO Compensation of Acquiring Firms

3.3.5.1. CEO Compensation Post M&A and Corporate Performance

According to agency theory, because of the lack of full observation of managers’ behaviour, CEO compensation was correlated to the observable firm such as with accounting measures. CEOs were expected to receive increases in their compensation when these measures increased. In terms of M&As, agency theory saw CEO compensation as rewarding managerial skill in seeking out only those M&As deals that contributed to shareholder value creation. Upon this opinion, it is reasonable that CEOs received higher compensation when they made value-increasing M&As. In literature, many researchers empirically analysed the relationship between CEO compensation and corporate performance.

For instance, in early literature, Lambert and Larcker (1987) examined the effects of acquisition on the relationship between executive cash compensation and wealth and security market reaction measured by the abnormal stock returns. They compared the results of executive cash compensation and wealth on positive security market reaction with the negative security market reaction respectively using a total of 35 acquisition cases in the US from 1976-1980, finding evidence that for top executives (particularly the
CEO) total compensation including cash and stock holding-based compensation increased with the positive security market reaction (the increase of the shareholder wealth). Khorana and Zenner (1998) also provided similar findings that CEOs who made good acquisitions were rewarded higher compensation; the bad acquisitions made by CEOs did not provide a positive impact on their compensation.

Girma et al. (2006) examined whether CEOs in UK firms received higher compensation for the good acquisitions and/or were punished for bad acquisitions. They also used abnormal stock returns as a measure to capture the information about good or bad acquisitions. Working on a total sample of 195 mergers between 1985-1996, they found evidence that CEOs’ compensation was higher when they made value-increasing mergers, and the growth of CEO compensation became slow because of value-reducing mergers. The results of Lambert and Larcker (1987), Khorana and Zenner (1998), and Girma et al. (2006) were consistent with the agency theory that CEOs were rewarded by higher performance and punished by their lower performance.

However, a great amount of studies found evidence that bad acquisitions also led to CEO pay raises (e.g. Firth, 1991; Bliss & Rosen, 2001; Guest, 2009), indicating that CEOs’ behaviour could not with the shareholders’ interest. For example, Schmidt and Fowler (1990) examined the relationship between executive compensation and corporate financial performance post acquisitions in a sample of 127 US firms during the period 1975-1979, providing empirical
evidence that executives received higher cash compensation after acquisitions.

Bliss and Rosen (2001) provided evidence that CEO compensation increased even if the acquiring bank’s stock price decreased in a sample from 1986-1995; in particular, the loss because of the decline of stock price did not exceed the increase of the cash pay of the CEO. Consistent with the result of Bliss and Rosen (2001), Harford and Li (2007) also found that even acquisitions made value decline, and that the CEO still received a large amount of compensation for a sample of 1,508 mergers during the period 1993-2000.

Also, Firth (1991) found evidence that bad acquisitions led to executives’ pay increasing in the same way as for good acquisitions for UK listed firms during 1974-1980 and argued that the result suggested that the motivation to make acquisitions was in the executives’ self-interest maximization rather than shareholder-interest maximization. Based on more extensive and a large sample of 4,528 UK acquisitions in different type of acquisitions, including domestic and cross-border acquisitions, and public and private acquisitions, Guest (2009) also found that not only were CEOs paid by good acquisitions, but also the bad acquisitions. However, this result was only significant for the cash compensation of CEOs.

3.3.5.2. CEO Compensation Post M&As and Managerial Power

A growing body of literature has analysed whether managerial power has an impact on CEO compensation following the completion of M&As (e.g.
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Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012). The results are conflicting.

For example, Grinstein and Hribar (2004) and Coakley and Iliopoulou (2006) concluded that an increased bonus was driven more by CEO power, and less by effort of CEOs in completing the acquisition with US and UK data respectively. Working on a sample of 327 large M&As deals between 1993 and 1999, Grinstein and Hribar (2004) found that measures of managerial power (e.g. CEOs on the nominating committee, CEO duality) explained much of the cross-sectional variation in the CEOs’ bonus and much more than measures of effort or performance; Coakley and Iliopoulou (2006) examined the sample of 100 firms including UK and US firms between 1998–2001, showing evidence that less independent and larger boards paid CEOs considerably higher bonuses and salary following M&As completion, both for the full sample and for the UK and US sub-samples respectively.

However, working on a sample of 4,528 acquisitions on the executive pay of 2,469 publicly listed UK firms over the period 1984-2001, Guest (2009) used a series of weak corporate governance (e.g. large board size, CEO duality, less independent directors, long CEO tenure, less CEO ownership) as measures to examine whether the weak corporate governance would bring the acquiring CEO higher compensation, but the outcomes did not provide strong evidence that the CEOs in the acquiring firms with weak corporate governance were rewarded higher compensation and argued that higher CEO pay could not be
recognised as the result of weak corporate governance. These results are consistent with the results of Anderson et al. (2004) that the CEO pay of acquiring firms was not associated with the CEO with tenure and CEO shareholding.

Also, Bugeja et al. (2012) provided empirical results in Australia which were more consistent with the predictions of the agency theory that CEO compensation in acquiring firms was significantly influenced by CEO effort and corporate performance such as accounting performance and stock market performance. However, the managerial power (the CEO sitting on the nominating committee has a higher level of share ownership, or the board has more executive directors) do not bring the CEO higher compensation, but a lower bonus and other compensation. Bugeja et al. (2012) argued that differences in corporate governance characteristics in different countries might provide implications for the empirical results in Australia.

The corporate governance arrangement in Australia varies in some aspects from the US and UK. Australia is more compliant with ‘best practice’ on board governance than the UK and US, for example. Australia also has a higher proportion of independent directors, a lower proportion of executive directors (insiders) on the board, smaller board size, and CEO duality is less common than either the US or UK. Kumar et al. (2012) support the view that managerial power cannot lead to higher CEO compensation; they found empirical evidence that managerial power measures such as CEOs with long tenures, CEO duality, and
lower power of shareholders cannot provide the CEO of the acquiring firm with higher compensation.

3.4. Summary and Gap

The main purpose of this chapter is to develop the theoretical and empirical literature and discover gaps. Three main theories related to this study have been identified through the literature; they are agency theory, the managerial power perspective, and resource dependency theory.

This chapter aimed to review previous empirical literature that discussed the related issues between executive compensation and corporate performance and corporate governance mechanisms. A discussion on these relationships post-M&As was also conducted.

The dominant theoretical approach used in this study was the agency theory. The agency theory provides a comprehensive explanation between the CEO compensation and firm performance and corporate governance. The agency theory predicts that CEOs aligning with the interests of shareholders, and under the sound monitoring of corporate governance, would be likely to obtain higher pay when a firm’s performance increased. Therefore, the agency theory has been considered by government and regulators in regulating the rules and policies; for example, the Corporate Governance Code issued by China Securities Regulatory Commission (CSRC) in 2002 linking executive compensation to the firm’s performance. However, academics increasingly
perceived the drawbacks of agency theory and studied other theories in CEO compensation. Weakened corporate governance might provide CEOs with power to chase self-interests to extract more compensation. The managerial power theory holds that the CEO can exert power to influence their own compensation. Bebchuk et al. (2002) argued that because of the control inefficiencies, managers with power could influence the effectiveness of CG mechanisms in determining a CEO’s compensation. For example, managers can use their power via control of the board. The managerial power theory can be a deviation in CEO compensation explained by agency theory. However, power could be a sound quality in the management, psychology, and sociology disciplines, such as to obtain critical resources for firms.

Resources dependency theory argues that, in order to reduce the uncertainty from external environment and resource scarcities, power could allow an entity to secure the critical resources for an organisation. In China, CEOs with political connections could be a useful mechanism for the CEO to help firms deal with the uncertainties from external environments and secure important resources.

In the empirical literature, the relationships between CEO compensation and corporate performance and corporate governance were reviewed. Also, many academics empirically examined the relationship between CEO compensation and M&As decisions. They only controlled the firm’s performance and firm-level and industry effects, but did not consider that other
important factors might influence CEO compensation, for example, the corporate governance mechanisms (board characteristics, ownership structure) examined by prior literature, which might not comprehensively explain the relationship between CEO compensation and M&As decisions. In this study, more controlling variables would be considered in the model, such as board and ownership characteristics and CEO political connections as a unique Chinese characteristic under the Chinese environment. In terms of the determination of CEO compensation of acquiring firms, a great amount of studies examined the relationship between acquiring CEO compensation and corporate performance. Many academics provide the empirical results consistent with the agency theory, demonstrating that the acquiring CEO was rewarded by good acquisitions. However, many other studies found evidence that bad acquisitions also led to a pay increase for the acquiring CEO, which was not consistent with agency theory. Furthermore, many researchers shared the doubts that the acquiring CEO’s compensation might be determined by CEO power and empirically examined whether the acquiring CEO’s compensation following M&As was driven more by CEO power instead of the efforts of completing M&As. The results were conflicting; some studies found that the acquiring CEO compensation following M&As was driven more by CEO power, but others discovered it was driven more by the efforts of completing the M&As. The reason for these conflicting results might be because of the different corporate governance practices and institutional environments in different countries.
China, under a unique institutional background (discussed in chapter two), might provide a new mode to test the determination of acquiring CEO compensation following M&As, particularly considering the political connections of CEOs.
Chapter Four: Conceptual Framework and Hypothesis Development

4.1. Introduction

Chapter two presented the Chinese institutional context to provide a description of the development of executive compensation of China and discussed the impact of internal corporate governance mechanisms and the external weak legal system in China on CEO compensation. Chapter three reviewed the literature on the determination of CEO compensation solely and following M&As. In chapter four, previous studies on CEO compensation and the unique Chinese contextual environment were drawn upon to develop a conceptual framework for the determination of CEO compensation following M&As in China. The hypotheses relating to the relationship between CEO compensation and the CG, and criteria factors following M&As, will be developed in this chapter.

The chapter is structured as follows: In section 4.2, the conceptual framework for the determination of CEO compensation following M&As in China will be developed. In Section 4.3, several hypotheses are presented including the relationship between CEO compensation and the CG, and criteria factors following M&As. Finally, section 4.4 summaries the chapter.

4.2. Conceptual Framework

The conceptual framework of this study is developed from Barkema and
Gomez-Mejia (1998). Barkema and Gomez-Mejia (1998) developed a general framework of executive compensation identifying three important factors of executive compensation: The CG, criteria, and contingent factors. The factor of criteria on executive compensation is based on the agency theory that, in order to align managers’ interests with shareholders, shareholders should not only link executive pay to the observable firm performance, but also other informative signals of the agents’ efforts (Holmstrom, 1979, 1982), particularly the weak relationship between CEO pay and firm performance found by some prior studies leading to consideration of other issues such as firm size, the market, peer compensation, behaviour, individual characteristics, and role or position issues suggested by Barkema and Gomez-Mejia (1998).

Governance plays a vital role in executive compensation as it influences the executive pay-setting process, which in turn depends on its ownership structure, board of directors, remuneration committee (if present), the market for corporate control, and the general public. Furthermore, Barkema and Gomez-Mejia (1998) argued that because of the weak relationship between CEO pay and firm performance found in previous empirical studies, the internal and extremal contingencies should also be considered, including a firm’s strategy (e.g. its product diversity and international diversity), R&D level, market growth, demand instability, industry concentration and regulation, national culture, and national tax system would influence executive pay.

In this study, previous studies on the literature on executive
compensation and the unique Chinese contextual environment are drawn upon, and Barkema and Gomez-Mejia’s (1998) general framework is adapted upon to develop a conceptual framework for the determination of CEO compensation following mergers and acquisitions in China (see figure 1). The author’s conceptual framework identifies two important factors of CEO compensation: The CG and criteria.

In terms of CG, CG factors can be categorised into the board structure, board leadership and power, and ownership structure. The board structure refers to the size of the board of directors and supervisory board, independent directors and remuneration committee; the board leadership and power refers to CEO duality, CEO shareholding, and CEO political connection; ownership structure refers to block ownership, state ownership, and foreign ownership.

As agency theory suggests that strong corporate governance mechanisms through effective internal and external control mechanisms constrain the managerial opportunism, however, managerial power theory argue that weakened corporate governance might provide CEOs with power to chase self-interests to extract more compensation. Given that weakened corporate governance might provide CEOs with power to chase self-interests and extract more compensation, ineffective boards of directors might allow CEOs to have more control and power over the board, leading to boards not functioning well. Generally, the managerial power hypothesis maintain that the nature of the director selection process, the composition of the board of directors, directors’
incentives to please management, and the relative lack of director resources, support a finding that managers exert power over boards of directors. CEOs have dominant power on choosing directors of boards. They, generally, have close relationship with CEOs, such as CEO-directors or friends of CEOs who devote few of time on monitoring management, so that have little incentive to challenge management’s practices. Many previous studies concluded the different sources of this power – which for example include the board size, CEO duality and CEO ownership etc. allow CEOs to appoint or select supportive board members thereby perpetuating their power and influencing the compensation decisions. Consistent with the managerial power theory, as a result of the weak institutional environment in China, for instance, weak corporate governance, and ill-defined legal system, the boards of director and ownership structure cannot fully play an effective monitoring role in management, which allows the CEO more power to control boards and extract higher compensation. Particularly, under the context of M&As, the CEOs in firms with weak corporate governance might become more powerful and make use of creating M&As to bargain for higher compensation. The different sources of this power for this study, as the figure 1 shows, come from Board Structure, Board Leadership and Power and Ownership Structure.

In terms of criteria, this refers to a firm’s performance, size, and with regards to M&As, it refers to the deal size, and abnormal returns in many previous studies on executive compensation following M&As (e.g. Ozkan, 2011,
Bugeja et al., 2012; Ozkan, 2012; Conyon, 2014). According to agency theory, the managers’ activities are not observable, and this might provide managers with opportunities to take decisions to merely increase their personal wealth rather than increasing the principals’ benefits. Therefore, the agency problem rise and it means managers do not always act in the best interests of the principals. From the agency theory perspective, it is vital to address the agency problem through internal corporate governance mechanisms. One of important internal corporate governance mechanism is well-designed compensation contracts. Well-designed CEO compensation contracts play an important role in making sure managers act in the interest of shareholders. Shareholders cannot directly observe managers’ behaviour, hence, they are motivated to design an effective compensation contract to encourage managers’ behaviour to align with their interests of them and maximize shareholders’ value. The compensation contract has been seen as a vital and explicit mechanism to reduce moral hazard as the managers’ incentive compensation can be correlated with observable variables related to managers’ performance, such as market returns or profitability. Therefore, in agency theory, executive compensation has to be tightly related to corporate performance. The association between executive compensation and corporate performance demonstrates whether the compensation contract is optimal. The optimally-designed compensation packages provide managers with incentives to devote more efforts to maximising shareholders’ benefits. For this study, it is expected that the
managerial efforts measured by firm performance, firm size, the deal size and abnormal returns should be positively correlated to CEO compensation following M&As.

Figure 1 Conceptual Framework for CEO Compensation in China

Adapted from Barkema and Gomez-Mejia (1998)

4.3. Hypothesis Development

4.3.1. M&As Decisions and CEO Compensation

According to the literature, CEOs can repackage their compensation by M&As decisions they execute as M&As which can affect the firm size and bring
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complexity of the integrated firm (Harford and Li, 2007). Some literature empirically examined the relationship between CEO compensation and M&As decisions, and found CEOs’ compensation was actually related to M&As decisions (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Guest, 2009; Bugeja et al., 2012). For example, Grinstein and Hribar (2004) examined CEO compensation following M&As deals in a sample of 327 large M&As deals from 1993-1999 for US publicly-listed firms. Results showed that CEOs obtained higher bonuses for acquisitions even controlling for firm performance. Consistent with the results of Grinstein and Hribar (2004), Coakley and Iliopoulou (2006) and Bugeja et al. (2012) provided similar findings with UK and Australian firms respectively.

In terms of China, because of the Non-tradable Share Reform in April 2005, a large amount of M&As deals were produced whatever the rise in the number or the value of deals. Anecdotal evidence in China showed that the CEOs of acquiring firms were, on average, awarded higher compensation following the completion of acquisition (Song, 2009). Hence, researchers were interested in studying the relationship between CEO compensation and M&As deals in China. For example, Zhang and Guo (2007) made an attempt to find out why CEOs preferred to take advantage of M&As deals to increase their compensation in China. They argued that CEOs owned the rights to execute M&As deals, which was the most important strategy of firms’ resource allocation. They argued that the lack of efficient long-term incentives made
CEOs concentrate on how to increase cash compensation. The cash compensation rewarded to CEOs was directly related to the firm’s profit and complexity of a firm’s operation. M&As would bring firms complexity of operation, therefore, conducting M&As has been the preferable way for CEOs to expand their compensation.

Therefore, the following hypothesis is tested:

**H1: CEO total compensation (salary and annual bonus) is positively correlated to M&As decisions.**

### 4.3.2. CG and Executive Compensation

CG factors can be categorised into the board structure, board leadership and power, and ownership structure. These CG factors are important for executive compensation in general, and following M&As completion in particular, as the CEO might have the power to extract more compensation for making M&As in weak corporate governance mechanisms, or strong corporate governance might provide strong monitoring on the CEO, leading CEOs to obtain less compensation even after making M&As.

According to agency theory, the core function of the board of directors is to assist in addressing the agency problems in managing a firm. To align the interests of management with shareholders, the shareholder delegates the rights to boards of directors elected to monitor management; although it incurs the agency costs, shareholders expect the benefits that boards of directors bring to
outnumber the agency cost (Fama & Jensen, 1983). The board of directors is at the apex of the organisation and has an important responsibility for the functioning of the firm, particularly in supervising management and setting rules for them, for example, to recruit, dismiss, and most importantly to decide on executive compensation (Weisbach, 2007). The board’s effectiveness in its monitoring function is determined by its size, composition, and independence (John & Senbet, 1998).

Different theories have different opinions on board size, in that large or small board sizes might be more beneficial to firms. From a resource dependence theory perspective, it is argued that larger boards provide more channels to access to resources (Kiel et al., 2003; Ntim et al., 2015), particularly in bringing the diversity that allows a firm to become more competitive in different aspects, such as having more expertise, experience, skills, resource co-optation, corporate strategy, innovation, creativity, and provision of broad services (Jackling & Johl, 2009).

However, according to managerial power theory, it is supposed that larger board sizes are related to ineffective boards and higher managerial power (Jensen, 1993; Yermack, 1996). Big boards are less likely to function effectively and are easier for the CEO to control, thus big board sizes allow CEOs to have more power to acquire higher compensation (Core et al., 1999). It is suggested that the problem of dysfunctional boards increases with board size; smaller boards tend to be more effective because they facilitate closer communication.
channels and coordination processes between directors (Yermack, 1996; Ozkan, 2007), and improve group cohesiveness and bonding that increase the firm’s performance as suggested by Donaldson and Muth (1998). There are no agreements from the literature on what is the perfect board size for a firm. Lipton and Lorch (1992) suggested that board size should be a minimum of 7 and a maximum of 9 while Jensen (1993) suggested that the ideal size was 8. Shaw (1981), however, suggested the optimal board size was 5.

Many previous studies used board size to measure governance quality and empirically examined the impact of board size on CEO compensation and found that CEO compensation was a function of board size (Core et al., 1999; Ozkan, 2007). For example, Core et al. (1999), working on a sample of 205 publicly traded US firms from 1984-1986, investigated the relationship between corporate governance mechanisms and CEO compensation, and found that board size was significantly and positively associated with salary, cash, and the total compensation of CEOs, indicating the CEOs might extract more compensation with bigger board size. Similarly, Chalmers et al. (2006) provided empirical results that board size was significantly positively correlated to the total Australian CEOs’ compensation, fixed salary, and bonus. They argued that this was consistent with the managerial power theory that board monitoring power would be reduced with the bigger board size.

Also, Ozkan (2007) examined the impact of corporate governance on CEO compensation for a sample of 414 large UK companies for the fiscal year
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2003-2004 in a cross-sectional study and found that firms with larger board sizes paid CEOs more compensation. Ozkan (2011) examined a similar issue with different data and different times during 1999-2005 and found similar results in the UK that board size played a significant role in increasing both cash and total CEO compensation.

There were few studies examining the relationship between board size and executive compensation in China. For example, Li et al. (2007) did not find the association between board size and CEO compensation.

Also, previous studies examined the impact of board size on executive and CEO compensation following M&As and had mixed results (e.g. Coakley & Iliopoulou, 2006; Guest, 2009). Grinstein and Hribar (2004) worked on a sample of 327 large M&As deals between 1993 and 1999, finding that one measure (board size) of managerial power was negative and significant on CEOs’ bonuses, which was not consistent with Yermack (1996) that smaller boards are more effective. However, Coakley and Iliopoulou (2006) examined a sample of 100 firms – including UK and US firms – between 1998-2001, providing evidence that larger boards paid CEOs considerably higher bonuses and salaries following M&As completion, both for the full sample and the UK and US sub-samples respectively. The results indicated that larger CEO pay around M&As was because of the managerial power indicated by large board size. Guest (2009) uses a series of weak corporate governance as measures to examine whether weak corporate governance would bring acquiring CEOs higher compensation;
The outcomes did not show that large board size increased CEO pay around M&As, and argued that higher CEO pay of acquiring firms could not be recognised as the result of weak corporate governance.

Also, working on a sample of 177 M&As deals in Australian public firms during 2000-2007, Bugeja et al. (2012) provided the empirical results that CEO compensation in acquiring firms was not significantly influenced by managerial power; for example, the board size did not have significant influence on CEO compensation.

In terms of China, Li et al. (2007) used a sample of 206 Chinese listed firms during 2000-2001 to examine the determination of CEO compensation in Chinese listed firms and found no relationship between board size and CEO compensation. They argued that the result indicated that large board size did not seem to weaken the control of board of directors and the CEO did not use the large board size to extract higher pay. Also, consistent with the results of Li et al. (2007), Buck et al. (2008) used a sample of 601 Chinese listed firms from 2000-2003 to examine the relationship between top executive compensation and firm performance controlling the corporate governance mechanisms, finding evidence that board size had no significant influence on top executive compensation.

Like many other countries, Chinese listed firms are required to build a board of directors. The board of directors plays a vital role in the Chinese internal corporate governance system, particularly recruiting, monitoring, and
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dismissing top management, and making arrangements on their remuneration (Oliver et al., 2014). In China, the minimum required size of the board is 5 members and the maximum is up to 19 members for listed firms. Consistent with the argument of Yermack (1996) and Core et al. (1999) that small board size is more effective as they facilitate closer communication channels and coordination processes between the directors, the big board size in Chinese firms might result in poor communication and coordination processes between directors and allow the CEO more power to extract higher compensation (Jiang & Kim, 2015). Accordingly, under the context of M&As, the CEOs in firms with large boards might become more powerful and control the board of directors, making use of creating M&As to bargain for higher compensation.

Therefore, the following hypothesis is tested:

\[ H2: \text{CEO total compensation of acquiring Chinese firms is positively correlated to board size.} \]

According to Ding et al. (2010), in a similar way to the board of directors, a large supervisory board size is more likely to result in poor communications and coordination between members, thus allowing CEOs to have more power to acquire higher compensation suggested by the managerial power theory. However, from the resource dependence theory perspective, the supervisory board can bring networking from stakeholders and business partners, providing more channels to access resources (Hopt & Leyens, 2004).

Many countries adopt the two-tier board structure (management board
and supervisory board), such as Germany and the Netherlands. The main responsibility of the supervisory board is to appoint, dismiss, and monitor the management board, particularly to supervise whether the management operates the firms well (Van et al., 2003). Also, the supervisory board is responsible for financial statements and approval of the consolidated financial statements, and for the effective compensation arrangement of top management (Dyballa & Kraft, 2015).

Empirically, previous research studied the impact of the supervisory board size on corporate performance (e.g. Van et al., 2003) and CEO compensation (e.g. Fiss, 2006). For example, Van et al., (2003) examined the characteristics of board and firm performance in the Netherlands using a sample of 94 Dutch listed non-financial (mainly manufacturing) firms in 1996, providing empirical evidence that the size of the supervisory board was negatively correlated to the firm’s performance, which showed that the supervisory board in Dutch firms did not function well. Fiss (2006) examined the social influence effects on executive compensation using original data on German firms and a longitudinal design, and found that the supervisory board size was positively and significantly correlated to executive compensation, even controlling firm size, which was consistent with the argument that large board size could not effectively supervise management (Yermack, 1996). Chen et al. (2010) examined internal control on Chinese executive compensation in a balanced panel sample of 502 Chinese listed firms between 2001 and 2006, and
found there was no significant relationship between the supervisory board size and executive compensation. The empirical result was consistent with the outcome from Li et al. (2007). They also did not find any association between supervisory board size and CEO compensation. Ding et al. (2010) worked on a sample of 1,345 observations in 2005 and 1,410 in 2006 to examine the relationship between CEO compensation and the supervisory board under the reform of corporate governance in Chinese listed firms. They found that before the reform of corporate governance, the supervisory board did not affect executive compensation, but positively influenced it after the reform of corporate governance; it also found that supervisory board size was positively correlated to the total executive compensation, but negatively correlated to the pay-performance sensitivity for the combined total sample, indicating the inefficiency of the supervisory board.

Similar to the situation in Germany, Chinese firms adopted a two-tier board structure which included a supervisory board and a board of directors. The requirement was that the supervisory board should comprise of not less than three supervisors, and be comprised of representatives of shareholders and a reasonable proportion of representatives of employees (Articles 52 & 53, PRC Company Law).

The main duty of supervisory boards is to monitor directors and managers, but it does not function well. The supervisory board has no true rights on monitoring directors and managers, and in Chinese listed firms it is not an
effective mechanism (Lin, 2014). Unlike the supervisory board in Germany, which has rights to appoint and dismiss directors and managers, supervisors of Chinese listed firms have no voting rights, thus they cannot appoint and dismiss directors and managers, and cannot take part in the firm’s operation. If any directors or managers breach the laws or rules of the listed firms, the supervisory boards only can raise the suggestion of dismissing directors or managers, but have no deciding power to dismiss them (Jiang & Kim, 2015). Oliver et al. (2014) argued that those professional skills should have been beneficial to firms in monitoring the manager’s behaviour, but supervisors are more involved in administrative activities instead of playing a monitoring role.

In addition, supervisors in Chinese firms are not selected adequately; they usually lack related work experience and professional knowledge compared with directors and managers (Sheng, 2004). Furthermore, the representatives of employees in a supervisory board would usually not disobey suggestions proposed by the board, such as the executive pay plan, because the employees’ compensation was arranged by boards. It was empirically found that the majority of Chinese supervisory boards agreed to the board’s proposals in 2011 (Lin, 2014). Additionally, because of the information asymmetric, the supervisory boards lack sufficient information as this is controlled by CEOs, and it is difficult for them to monitor managers (Tenev & Zhang, 2002). Therefore, the supervisory board is regarded as a simple decoration, and cannot be a functional mechanism in Chinese listed firms to effectively monitor and discipline directors.
and management. Management might not be aligning the interests of shareholders, thus extracting higher compensation. Accordingly, under the context of M&As, the large supervisory board cannot effectively monitor CEOs, thus they might be more powerful in attaining higher compensation through making M&As.

Therefore, the following hypothesis is tested:

\[ H3: \text{CEO total compensation of acquiring Chinese firms is positively correlated to supervisory board size.} \]

The effectiveness of the board in undertaking its roles and responsibilities depends on its structure, in particular its composition structure. In terms of composition, more independent directors provide effective monitoring (Mangena et al., 2012; Saravanan, 2014) and would be likely to design an optimal executive compensation scheme.

According to the agency theory, an independent director mechanism plays a vital role in monitoring and is used to protect shareholders’ benefits to enhance their value (Ozkan, 2007). Independent directors or outside directors, as an important part of boards of directors, are managers of other firms or important decision agents in other complex organisations. The main responsibility of independent directors is to provide professional knowledge to assist managers handling specialised decision problems such as corporate law or relevant technology, and to monitor managers, thus reducing the agency problem (Fama & Jensen, 1983). From this standpoint, the proportion of independent
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directors on the board has been used to indicate the extent of board independence
in major previous studies (see, for example, Cannella et al., 2008; Adams et al.,
2010). Many countries introduced independent directors to the board and viewed
them as an effective mechanism for increasing corporate governance. Independent directors play an active role in monitoring management as they
serve on committees, such as nomination committees and remuneration
committees, where they can have better access to information to monitor
management (Bebchuk & Hamdani, 2016).

Previous literature discussed the impact of independent directors on CEO
compensation and have mixed findings (Core et al., 1999; Ozkan, 2007; Wan,
2009). Core et al. (1999) examined the influence of independent directors on
CEO compensation in a sample of large US large firms. They found CEO
compensation was positively correlated to the percentage of independent
directors. Ozkan (2007) worked on a sample of 414 UK firms for the fiscal year
2003-2004 to examine whether corporate governance affected CEO
compensation. They used the non-executive directors or outside directors to
represent the board independence and found that CEOs were paid higher
compensation with a higher proportion of non-executive directors on their
boards, indicating that non-executive directors do not play an effective
monitoring role for CEOs. Wan (2009) controlled the endogeneity and outlier
problems and found evidence that there was no relationship between CEO total
pay and independent directors. Li et al. (2007) used a sample of 206 Chinese
listed firms from 2000-2001 to examine the determination of CEO compensation in Chinese listed firms and found CEO compensation was positively significantly correlated to the independent directors. Similarly, Conyon and He (2008) reported a positive relationship between CEO compensation and independent directors, indicating that independent directors did not play the monitoring role well. In terms of M&As, Coakley and Iliopoulou (2006) examined a sample of 100 firms including UK and US firms between period 1998-2001, finding evidence that fewer independent boards paid CEOs considerably higher bonuses and salaries following M&As completion both for the full sample and for the UK and US sub-samples respectively.

In China, the CSRC (China Securities Regulatory Commission, 2003) requires that at least one-third of directors must be independent directors in order to be effective (Yang et al., 2011). Independent directors are nominated by boards and approved at the shareholders’ meeting. They are required to have a fundamental understanding of the operation of listed firms and know related laws and regulations; in the meantime, more than five years work experience in law, economics, or other fields are also required of them (Liao et al., 2009). The introduction of independent directors in Chinese listed firms aimed to enhance the effectiveness of corporate governance and monitoring of executive directors and/or managers. Independent directors are seen as a supplement to the supervisory boards because they can vote on managerial and financial decisions, but the supervisory boards are more like a decoration and have no true power to
vote on managerial and financial decisions (Yang et al., 2011). Therefore, the independent directors seem a useful corporate governance mechanism to oversee managers and reduce the agency cost for shareholders (Jiang & Kim, 2015).

However, as the controlling shareholders know that the independent directors oversee them, controlling shareholders who have much more impact on the board would appoint the minimum number of independent directors required by law. Given the prevalence of the controlling shareholder in Chinese listed firms, research shows that many Chinese listed firms have only one-third independent directors on the board. This is different from the large rate in western developed countries; for instance, 78% in the US market. Furthermore, evidence shows that in Chinese listed firms, the independent directors are always the friends or previous schoolfellows of CEOs; they have a close social relationship within firms. Such independent directors having connections with CEOs might be more loyal to the CEOs rather than monitoring them (Westphal, 1999). In addition, Thian (2005) states that independent directors in Chinese firms generally have no adequate knowledge and experience, therefore cannot effectively play the monitoring role well. In this case, independent directors in Chinese listed firms are usually regarded as only a ‘window-dressing’, and cannot be truly independent or effectively monitor management. Accordingly, under the context of M&As, independent directors cannot effectively monitor CEOs, thus they might be more powerful in bargaining higher compensation through making M&As.
Therefore, the following hypotheses are tested:

\textit{H4: CEO total compensation of acquiring Chinese firms is positively correlated to proportion of independent directors.}

The remuneration committee is common for listed firms and plays a vital role in monitoring management and the setting of executive compensation (Zhu et al., 2009). Conyon and Perk (1998) argued that the lack of a remuneration committee would provide senior management with opportunities to increase their pay, thus being divergent from the interests of shareholders. Furthermore, Higgs (2003) argued that the independence of the remuneration committee has more importance in monitoring management. For example, executive compensation schemes in UK listed firms are recommended to the board of directors by the remuneration committee. The Greenbury Committee in UK (Greenbury, 1995) suggests the remuneration committee should be fully composed of non-executive directors. Particularly, the non-executive directors working on the remuneration committee (as a sub-committee of the board influencing CEO compensation) could be more independent in restraining the excess of CEO compensation. Many previous studies looked at the impact of presence and composition of remuneration committees on executive compensation (e.g. Conyon & Perk, 1998; Daily et al., 1998; Gregor, 2012). For example, Conyon and Perk (1998) examined the role of board control and remuneration committees in determining management compensation in a sample of 94 publicly traded UK firms from 1991-1994, providing the empirical results...
that the presence of remuneration committees was positively related to the level of top management compensation. Gregor (2012) investigated the impact of composition of remuneration committee on CEO pay in a sample of FTSE350 firms from 1996-2008, finding the independence of remuneration committee was not related to CEO pay.

In China, listed firms were recommended by the Corporate Governance Code in 2002 to set up a compensation committee approved by shareholder meetings, but not given the specific explanation on duties and responsibilities of the compensation committee. The code simply gave a general suggestion demonstrating that “to study and review the remuneration policies and schemes for directors and senior management personnel” (arts. 70.). Hence, the decisions made and approval rights on executive compensation were left with the board. Furthermore, the independence of compensation committee plays a vital role in the process of setting of executive compensation. For example, the NYSE Listed Manual requires members of the compensation committee to be full of independent directors (Lin, 2014); however, the corporate governance code of 2002 for Chinese listed firms states that: “Boards of listed firms are recommended to appoint compensation committees, consisting wholly or mainly of independent directors and chaired by an independent director” (art. 52). This statement simply provides a recommendation and vaguely mentions “wholly or mainly” rather than giving a clear requirement for the composition of the compensation committee. In addition, Chinese listed firms usually do not
disclose the details of the composition of the compensation committee. Therefore, it is difficult for the compensation committee to keep true independence and play a monitoring role in setting of CEO compensation. Under the context of M&As, the remuneration committee cannot effectively monitor the CEOs, thus they might be more powerful in bargaining higher compensation through making M&As.

Therefore, the following hypotheses are tested:

\[ H5: \text{CEO total compensation of acquiring Chinese firms is negatively correlated to the remuneration committee.} \]

The effectiveness of board structure mechanisms in monitoring managers depends on the power of the CEO. CEO power can derive from the CEO/chair duality, managerial share ownership, and CEO political connections. These might weaken the board’s independence and the quality of monitoring, thus increasing CEO entrenchment (Morse et al., 2014). The managerial power theory (Bebchuk et al., 2002; 2003) argues that powerful CEOs have the ability to influence the decisions of the board on compensation. They can influence compensation directly and/or via their influence of the board’s decisions.

Adams et al. (2005), for example, argued that agency problems became more severe when the positions of CEO and chairman were combined as this concentrated power in a single person. Lu (2008) concluded that CEO duality was the most obvious expression of concentration in managerial power. For example, those CEOs who were also the chairman of boards dominated both the
agenda and content of board meetings (Mallette and Fowler, 1992), which would potentially reduce the board monitoring function, thus increasing CEO entrenchment (Finkelstein & D’Aveni, 1994) and might influence the board in setting compensation which favoured themselves. In addition, CEOs holding both positions have more dominance on the selection of new directors, which increases the risk of opportunistic and inefficient behaviour by CEOs, thus impairing shareholder benefits (Jensen & Meckling, 1976). In contrast, separating the role of chairman and CEO can make the board perform more effectively (Jensen, 1993) and can decrease the managerial power (Brickley et al., 1997).

Empirically, Cyert et al. (2002) found evidence that CEOs obtain higher compensation when they also sit on as the chairman of the board, in particular, the CEO who is also the chairman receives about 36% greater equity compensation than a non-chairman CEO in a sample size at 1,648 firms for 1992 and 1993. Core et al. (1999) and Boyd (1994) found similar empirical evidence that CEO compensation was an increasing function of CEO duality.

Based on a balanced panel sample of 502 Chinese listed firms between 2001-2006, Chen et al. (2010) found that executive compensation was positively correlated to the CEO duality. In terms of M&As, working on a sample of 327 large M&As deals between 1993 and 1999, Grinstein and Hribar (2004) found that measures of managerial power (e.g. CEO duality) explained much of the cross-sectional variation in the CEO’s bonus and much more than measures of
effort or performance. However, Kumar et al. (2012) reported that CEO duality could not provide CEO higher compensation through making M&As.

In China, CEO/chair role duality is a common leadership structure in listed firms (Fan et al., 2007) and impacts on the executive's compensation (Chen et al., 2010). It is generally accepted that CEO duality not only impairs the independence of the boards of directors, but leads to a more severe insider control problem in Chinese listed firms, thus making CEOs more powerful in setting compensation (Dai, 2014). Therefore, in Chinese listed firms, there is a trend of separating the CEO from the chairman as the CSRC holds that CEO duality harms the effectiveness of corporate governance (Dai, 2014).

Accordingly, under the context of M&As, CEO duality allows CEOs to be more powerful and to bargain higher compensation through making M&As.

Therefore, the following hypothesis is tested:

*H6: CEO total compensation of acquiring Chinese firms is positively correlated to the CEO duality.*

In terms of the managerial share ownership, the agency theory argues that share ownership aligns managerial interests with those of other shareholders, as the ownership held by the management would encourage them to increase the firm value (Jensen & Murphy, 1990; Lotfi & Mohammadi, 2014). However, according to the managerial power theory, a greater share of ownership gives managers more power to control the board, thus enhancing the possibility of entrenchment (Veprauskaitė & Adams, 2013). Empirically, Cyert et al. (2002)
examined the effect of CEO ownership on the structure of CEO compensation and found that CEO ownership played a significant role in determining managerial compensation since they found this variable had a positive and significant relationship to CEO salary and equity-based compensation, which was consistent with the argument of managerial power theory that higher CEO shareholding increased the possibility of entrenchment.

Similarly, Byrd and Cooperman (2010) found that CEO ownership was significantly and positively associated with total CEO compensation on a sample of US financial firms. In terms of China, Chen et al. (2010) argued that, given the problem of politically-connected CEOs, the CEO shareholding could entrench insider managers and cause them to collude with government officials to extract the firm’s asset. Chen et al. (2010) empirically found that the CEO shareholding was significantly positively correlated to CEO compensation that was consistent with the prediction of managerial power approach that CEO shareholding provides managers more opportunity to collude with government officials and extract the state property. Also, Li et al. (2007) documented the significantly positive association between CEO shareholding and CEO compensation. In terms of M&As, working on a sample of 327 large M&As deals between 1993 and 1999, Grinstein and Hribar (2004) found that measures of managerial power (e.g. CEO duality) explained much of the cross-sectional variation in the CEOs bonus and much more than measures of effort or performance following M&As.
In China, managerial ownership was introduced in 1999 by the government to inspire senior management in SOEs to enhance corporate performance. The most distinctive characteristic of managerial shareholding is that executive shareholding is quite low in China (Yang et al., 2011); “zero” executive shareholding is common in many Chinese firms. When the firm is going public, senior management can purchase shares at a discounted price, but cannot sell these shares during their tenure. Hence, managerial shareholding is more like a benefit rather than an incentive (Tenve et al., 2002). Furthermore, the ownership allocated to management is based on their rank in the managerial hierarchy, the more ownership the management holds indicates higher positions and power in firms (Tenve et al., 2002). Hence, greater ownership gives CEOs more power to influence boards, increasing the possibility of entrenchment. In the context of M&As, higher CEO shareholding allows CEOs to be more powerful to bargain higher compensation through making M&As.

Therefore, the following hypothesis is tested:

\( H7: \) CEO total compensation of acquiring Chinese firms is positively correlated to the CEO shareholding.

According to resource dependency theory, in order to reduce uncertainty from the external environment and resource scarcities, firms endeavouring to look for resources can assist in diminishing dependency between firms and the external environment (Pfeffer & Salancik, 1978), thus reducing transaction costs (Williamson, 1984), and becoming competitive and surviving (Singh et al.,
In China, political connections as one typical *Guanxi* for firms tend to be an efficient method in business transactions and bring many resources and benefits. The government significantly influences the allocation of resources, such as the granting of land use rights, the setting of prices for energy, electricity, and water, and the control of access to financial capital. Hence, the government might either grant preferential treatment to businesses or impose extra fees and fines on them (Li et al., 2008). In this case, CEOs’ political connections turn out to be a key resource to guarantee the firms’ success (Li et al., 2006). Therefore, firms tend to actively seek political connections through politically-connected executives and board directors to bring many benefits and more favourable treatments, such as acquiring more tax reductions and bank loans (Firth et al., 2009) and looser regulations (Bunkanwanicha & Wiwattanakantang, 2009), thus enhancing corporate performance (Boubakriet et al., 2012).

Empirically, previous research studied the influence of political connection on corporate performance (Faccio, 2006; Bunkanwanicha & Wiwattanakantang, 2009; Civilize et al., 2015). For example, working on a large sample of 20,202 listed firms in 47 countries during 1996-1999, Faccio (2006) studied the common features of political connection among several countries and the influence of political connection on a firm’s performance. The results indicated that politically-connected firms were more prevalent in countries with high levels of corruption and a weak legal system, and with event study, the positive performance by firms measured by a cumulative abnormal return
obtained once the large shareholders or top officers entered politics in those countries with high corruption levels. Under the weak corporate governance and severe corruption of Thailand, Bunkanwanicha and Wiwattanakantang (2009) worked on a sample of the top 2,000 largest listed and non-listed firms in Thailand in 2000, finding evidence that the market valuation of the large families’ firms with political connections performed better than those without connection, which was consistent with the result of Imai (2006) in a study on Thailand. Consistent with Imai (2006), and Bunkanwanicha and Wiwattanakantang (2009), Civilize et al. (2015) found that political connections brought firms large stock returns.

For the influence of political connections on CEO compensation, Aslan and Grinstein (2011) examined the impact of CEOs’ political connections measured as campaign donations on CEO pay and found that the CEO’s political connections were positively correlated to CEO compensation and negatively related to the pay-performance sensitivity on a sample of US-listed firms during 1996-2006. They argued that the CEO’s political capital brought firms resources and strategic values, thus they were rewarded for the skills and resources they brought to firms (e.g. regulation support, useful resources).

In China, many researchers have argued that political connections bring many resources and benefits, such as reducing the cost of external financing (Xu et al., 2013), thus adding value to firms. Du and Girma (2010) investigated the impact of political connections on the post-entry performance of private start-up
firms in China and found that the firms with political connections obtained higher growth and had better survival prospects. To complement the findings of Fan et al. (2007), Chen et al. (2011) worked on a sample of 276 listed private firms that made an IPO between 1993 and 2008, and found that political connections were positively related to the post-IPO CARs (cumulative abnormal returns) which was different from the negative effect of Fan et al. (2007) for state-owned enterprises (SOEs).

Pi and Lowe (2011) argued that the political connections allowed CEOs to have more power which came from their capabilities to offer firms many important resources, thus CEOs were difficult to replace. They worked on a sample of 325 listed firms during the period 1997-2006 and found CEO political connections were negatively correlated to CEO turnover, which was consistent with the results of Cao et al. (2011). Cao et al. (2011) held that political connections led to poor corporate governance, resulting in managerial entrenchment. Consistent with the results of Pi and Lowe (2011), You and Du (2012) obtained a similar conclusion that the CEO with a political connection was less likely to be dismissed by firms, stating that the CEOs made use of the resources of political connections to benefit themselves.

Many CEOs of Chinese listed firms are politically connected as they are directly or indirectly appointed by the government and are former government officials (Yang et al., 2011). Politically connected CEOs own the network with the government and control information and resources, and may draw their
power from the political leaders (Fan et al., 2007). They would collude with the state and use their interpersonal relationships and relative power within firms to acquire rents from shareholders (Chen, 2005). Under these circumstances, politically connected CEOs who secure useful resources and benefits may draw their power from political leaders and become powerful. According to the resource dependency theory and managerial power theory, politically connected CEOs who bring many benefits and treatments to firms have more power and dominance, particularly having more control on the board (Pi & Lowe, 2011). Under the context of M&As, the CEO with political connections allows CEOs to be more powerful in order to bargain higher compensation through making M&As.

Therefore, the following hypothesis is tested:

\( H_8: \text{CEO total compensation of acquiring Chinese firms is positively correlated to the CEO political connection.} \)

Figure 1 also shows that the ownership structure has an effect on the determination of compensation. According to the agency theory, block ownership can serve as an important monitoring mechanism on management and reduce the management power (Shleifer & Vishny, 1986; Bebchuk & Fried, 2003). The significant number of shares they hold gives them both the ability and incentive to monitor and restrain managers’ self-serving behaviour as the shareholders can obtain higher benefits if managers increase the firm’s performance. Cyert et al. (2002) argued that the level of executive compensation
tended to be lower when a company’s shares were held by large shareholders. Shleifer and Vishny (1986) provided the empirical analysis supporting the argument of Berle and Means (1932) and found that large shareholders played a crucial role in a firm’s performance, in particular, evidence shows that the stock price was positively correlated to the proportion of shares held by those large shareholders. Agrawal and Mandelker (1990) also provided evidence supporting Shleifer and Vishny (1986) and found that large shareholders offered both better monitoring to managers and performance, particularly when the ownership was concentrated by institutional investors.

The block shareholders in China may be the state or private institutional investors (including foreign investors) (Jiang & Kim, 2014). Chen et al. (2010) argued that the block owners (including state and private institutional investors) in China have increasingly become a useful instrument to monitor the management and constrain executive compensation, and empirically find that the block ownership is negatively correlated to top executive compensation, showing that block shareholders play a monitoring role in restraining managers’ self-dealing. Under the context of M&As, the block shareholders can effectively monitor CEOs, thus restraining them to obtain higher compensation through making M&As.

One of the most distinctive characteristics of Chinese listed firms is that after experiencing two important reforms, including the privatization of SOEs and the split share reform, ownership of Chinese listed firms is still very
concentrated. In many cases, the largest shareholder is the state. In the context of China’s socialist society, the state shares do not belong to any true owner. The Chinese government pronounces that the State Council of China is the eventual holder of the state shares, but the essence of the socialist society indicates that the Chinese people own all properties and the State Council of China acts on behalf of the all residents of China, thus in practice, there is no actual holder for state shares (Oliver et al., 2014), it is impossible to supervise the state shares. Therefore, the absence of a proper holder for the state shares easily results in corruption as well as weak corporate governance for Chinese listed firms (Shi & Weisert, 2002). As a result of the absence of supervision on state ownership, there is serious insider control problem with Chinese listed firms. The failure of supervision of the state shares allows directors and management to have dominant power and collude with each other in listed firms, which is likely to make directors and management have more discretion, empowering them to engage in activities in their own interests (Oliver et al., 2014). Therefore, managers in firms with the state as the dominant shareholder might be more powerful over the board and be able to extract more compensation. Under the context of M&As, the firms with the state as dominant shareholder allows CEOs to be more powerful to bargain higher compensation through making M&As.

In addition, the increase of foreign direct investments (FDI) since the 1990s has had a significant impact on the Chinese executive compensation. FDI has introduced market-oriented human resource management practices to China,
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especially the executive reward systems and corporate governance system from
developed capital markets (Ding et al., 2006). To follow the global pay
benchmark effects introduced by foreign investment, CEOs generally obtain
higher compensation in firms with the foreign investor as the controlling
shareholder in Chinese listed firms. In addition, foreign investors provide the
CEO with competitive compensation packages, the higher compensation attracts
CEOs with more professional and well-developed skills and experience. Firth et
al. (2007) and Li et al. (2007) provide evidence showing a positive relationship
between CEO compensation and the foreign investor as the controlling
shareholder in Chinese listed firms. Under the context of M&As, the competent
CEOs in Chinese firms with foreign investors as the controlling shareholder are
usually rewarded higher compensation through M&As.

Therefore, the following three hypotheses are formulated:

H8: CEO total compensation of acquiring Chinese firms is negatively correlated
to the block shareholding.

H9: CEO total compensation of acquiring Chinese firms is positively correlated
to the state as the controlling shareholder.

H10: CEO total compensation of acquiring Chinese firms is positively
correlated to the foreign investor as the controlling shareholder.

4.3.3. Criteria Factors and CEO Compensation

The optimally-designed compensation packages provide managers with
incentives to devote more efforts to maximising shareholders’ benefits. The managerial effort can be measured in terms of the firm’s performance and firm’s size (Ozkan, 2011; Conyon, 2014). In terms of M&As, managerial efforts can also be measured in terms of the deal size and abnormal returns in many previous studies on executive compensation (e.g. Bugeja et al., 2012; Ozkan, 2012).

It is generally accepted that firm size can influence executive compensation; the previous literature argued that large firms had more growth opportunities and complex operations that needed highly skilled managers who should devote more efforts and thus obtain higher compensation (Rosen, 1990; Conyon & Murphy, 2000). The empirical literature provided evidence of the relationship between firm size and executives’ compensation (e.g. Core et al., 1999; Hill et al., 2016). For example, Core et al. (1999) used a sample of 205 publicly traded US firms from 1984-1986 to find that CEO compensation was positively correlated to firm size. Also, a great amount of previous research examined the relationship between firm size and CEO compensation following M&As (e.g. Bliss & Rosen, 2001; Wright et al., 2002). Bliss and Rosen (2001) investigated the relationship between mergers and CEO compensation for the US banking industry in a sample of 32 banks during 1986-1995, and found that firm size was positively correlated to CEO compensation following acquisitions.

In addition, many previous studies looked at the impact of firm size on executive and CEO compensation in China (e.g. Zhang et al., 2003; Tao et al., 2007). For instance, working on a sample of 120 Chinese listed firms in 2006,
Tao et al. (2007) found that CEO compensation was positively correlated to the firm size, which was consistent with the results of Zhang et al. (2003).

Bebchuk and Fried (2006) argued that the pay policy that CEOs were rewarded by increasing the size of the firm allowed CEOs to have motivation to increase the size of the firm and that even the strategy might damage the shareholders' benefits. A CEO’s pay can be repackaged through M&As as it is deemed a fast and easy way to increase the firm’s size that is directly related to CEO pay as the board of directors may pay CEO compensation based on the firm size (Jensen, 1989), even if it is not in the best interests of shareholders (Harford & Li, 2007). Therefore, many studies argue that CEO compensation is strongly associated to firm size following M&As, as the CEO can adopt an M&As strategy to increase the size, thus increasing their compensation (Bliss & Rosen, 2001; Wright et al., 2002).

According to agency theory, the firm’s performance is the significantly vital factor influencing CEO compensation; the positive relationship between a firm’s performance and CEO compensation indicates the alignment of the interests of managers with those of shareholders (e.g. Eisenhardt, 1989; Lambert et al., 1993; Core et al., 1999; Conyon et al., 2009). Previous studies have used a variety of performance market- and accounting-based measures, mostly using the ROA (return on assets) to control for a firm’s accounting performance as it has received a great deal of attention on CEO compensation in recent research, particularly in the context of M&As (Grinstein & Hribar, 2004; Coakley &
Iliopoulou, 2006; Guest, (2009); Bugeja et al., 2012). For example, Guest (2009) used a sample of 4,528 acquisitions on executive pay of 2,469 publicly-listed UK firms over the period 1984-2001 to examine the determinates of CEO compensation following M&As, and did not find significant relations between CEO compensation of acquiring firms. However, working on a sample of 177 M&As deals in Australian public firms from 2000-2007, Bugeja et al. (2012) found that CEO compensation in acquiring firms was significantly correlated to a firm’s performance measured by ROA.

The annual stock market return on common stock has been found to be an appropriate proxy for a firm’s market-based performance as it directly reflects the change in shareholders’ wealth that comes from stock appreciation during the year and the firm’s investment opportunity set respectively (e.g. Core et al., 1999; Murphy & Sandino, 2010; Conyon & He, 2012). According to agency theory, CEO compensation should be positively related to the stock return as it is the observable performance to measure the CEO’s effort. Many prior studies examined the relationship between CEO compensation and stock return, particularly in the context of M&As (Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012). For example, Coakley and Iliopoulou (2006) examined a sample of 100 firms including UK and US firms between 1998-2001, and only found a significantly positive relationship between stock return and CEO compensation of acquiring firms in the UK sample, which supported the agency theory that CEOs should be rewarded because of their
higher performance. However, Grinstein and Hribar, (2004) and Bugeja et al. (2012) did not find significant relations between stock return and CEO compensation of acquiring firms.

Empirically, many previous studies assessed whether CEO compensation was linked to a firm’s performance in China, particularly, the accounting measure in ROA and market measure in stock return (Sun & Zhao, 2006; Firth et al., 2007; Chen et al., 2010). For example, Sun and Zhao (2006) used a sample of 108 Chinese listed firms from 2000-2002 to examine the association between CEO compensation and a firm’s performance, and provide evidence that CEO compensation is significantly correlated to the ROA.

Similarly, Firth et al. (2007) found a significantly positive relationship between CEO compensation and a firm’s performance measured by ROA, but not significant between CEO compensation and stock returns. Based on a balanced panel sample of 502 Chinese listed firms between 2001 and 2006, Chen et al. (2010) found that executive compensation was positively correlated to stock return. In China, the annual executive compensation scheme of SOEs had been developed in 1992. The aim of the annual executive compensation system was linking executive compensation to a firm’s performance, which was consistent with the agency theory that executive compensation should be positively correlated to the observable measurements (Rampling et al., 2013).

In terms of M&As, managerial efforts could also be measured in terms of the deal size and abnormal returns in many previous studies on executive
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compensation (e.g. Bugeja et al., 2012; Ozkan, 2012). Deal size reflected that the larger deal involves more complexity of the transaction, suggesting that larger deals needed much more managerial efforts and skill of managers who should be rewarded much more compensation than smaller deals. Empirically, prior studies examined the impact of deal size of M&As on CEO compensation following M&As and have mixed results (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulos, 2006; Bugeja et al., 2012). Grinstein and Hribar (2004) worked on a sample of 327 large M&As deals between 1993 and 1999, finding that one measure (deal size) of managerial effort had a significantly positive influence on CEO compensation. Consistent with the results of Grinstein and Hribar (2004), Coakley and Iliopoulos (2006) examined a sample of 100 firms including UK and US firms between 1998-2001, only finding a the positive relationship between the deal size and CEO’s bonus at the 1% significance levels in UK sample. Ozkan (2012) investigated the influence of domestic and foreign acquisitions on CEO compensation packages using a sample of 147 completed bids by UK firms from 1999-2005, and found that deal size as a measure of CEO effort was positively correlated to a CEO’s total compensation either in domestic or foreign acquisitions. Also, working on a sample of 177 M&As deals in Australian public firms between 2000-2007, Bugeja et al. (2012) found that the deal size was a significantly positive impact on CEO compensation in acquiring firms. In terms of China, no research studied the influence of deal size of M&As on CEO compensation. Based on the agency theory, the author assumes that
CEOs should obtain higher compensation when they need to exert more skills and effort in completing the large deals by Chinese acquiring firms.

In terms of M&As, the abnormal stock returns reflect the reaction of the market toward M&As. According to agency theory, higher abnormal stock returns indicate the higher skill of managers who should be rewarded higher compensation (Bugeja et al., 2012). Empirically, previous studies examined the impact of abnormal stock returns on executive and CEO compensation following M&As and had mixed results (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012). Grinstein and Hribar (2004) worked on a sample of 327 large M&As deals between 1993 and 1999, finding that one measure (abnormal stock return) of managerial effort had no significant influence on CEO compensation. Similarly, Coakley and Iliopoulou (2006) examined a sample of 100 firms including UK and US firms between 1998-2001, showing evidence that abnormal stock return was not significantly related to CEO compensation, both for the full sample and for the UK and US sub-samples respectively, indicating that managerial pay was not linked to good performance or valuable acquisition decisions. Also, working on a sample of 177 M&As deals in Australian public firms from 2000-2007, Bugeja et al. (2012) provided the empirical results that there was no significant relationship between CEO compensation in acquiring firms and abnormal stock returns, indicating that the reaction of market toward M&As had no impact on CEO compensation.

In terms of China, no previous research studied the relationship between
abnormal stock return and CEO compensation for M&As; prior research mainly focused on the abnormal stock return around M&As alone. Unlike developed countries, the abnormal stock return around M&As announcements for Chinese listed firms was usually positive, showing that the investors in China saw M&As positively. For instance, working on a sample of 1,148 M&As deals from 1998-2003, Chi et al. (2008) examined market reactions to M&As deals for Chinese listed firms and found averagely positive abnormal returns for acquiring firms. Similarly, Boateng and Bi (2014) examined the acquirer characteristics in China in a sample of 1,370 mergers and acquisitions from 1998-2008, and found that there have been positive abnormal returns around M&As. According to agency theory, the abnormal stock returns around M&As announcement were higher, which means that the investor view making M&As by CEO as a correct decision in China, hence, the CEO should be rewarded higher compensation.

Therefore, the following hypotheses are tested:

**H11:** CEO total compensation of acquiring Chinese firms is positively correlated to the firm size.

**H12:** CEO total compensation of acquiring Chinese firms is positively correlated to the ROA.

**H13:** CEO total compensation of acquiring Chinese firms is positively correlated to the stock return.

**H14:** CEO total compensation of acquiring Chinese firms is positively correlated to the deal size.
**H15:** CEO total compensation of acquiring Chinese firms is positively correlated to the three-day abnormal returns.

### 4.4. Summary

In this chapter, a conceptual framework for the determination of CEO compensation following the mergers and acquisitions in China was developed from previous studies on the determination of executive compensation and the unique Chinese contextual environment. Based on the theoretical and empirical literature, and the unique Chinese contextual environment, the hypotheses relating the relationship between CEO compensation and M&As and the relationship between CEO compensation and the CG, criteria factors have been developed in this chapter.
Chapter Five: Research Methodology and Modelling

5.1. Introduction

In chapter 1, the research aims and objectives were specified as examining whether CEO compensation was related to M&As decisions and the determinants of CEO compensation following M&As. A unique Chinese institutional environment was discussed in chapter 2. The relevant theories and empirical studies supporting research objectives were reviewed in chapter 3, leading to the development of the supporting research framework and the hypotheses as discussed in the preceding chapter 4. The objective of this chapter is to discuss the research methodology adopted to test the hypotheses, thus addressing the research aims and objectives as specified in chapter 1.

The chapter is structured as follows: Section 5.2 provides a discussion of research philosophy underpinning the study. In section 5.3, the empirical research models are developed, and the measurement of variables are discussed and justified. In section 5.4, sample selection and data collection procedures are presented. In section 5.5, the statistical methods that are employed in this study are explained, together with the diagnostic analysis of parametric assumptions for each model to determine their suitability and relevance. This section ends with a consideration of the selected estimation methods (e.g. Two-step SGMM) for this selection. In section 5.6, an overall summary of the chapter is provided.
5.2. Philosophy

Ryan et al. (2002) defined research as “a process of intellectual discovery, which has the potential to transform our knowledge and understanding of the world around us” (pp 1). In similar fashion, Saunders et al. (2009) saw research as engagement by people in some activities with a view to finding out things using the methods to collect data in a systematic way based on logical relationships and analysing the results.

According to Blumberg et al. (2005), quality research must have a clearly defined purpose, a detailed research process, a well-planned research design, high ethical standards, frankly revealed limitations, and appropriate analysis. Saunders et al. (2009) explained the research process as the layers of an “onion” including research philosophies, research approaches, research strategies, choices, time horizons and data collection techniques, and analysis procedures (Saunders et al., 2009). Different “onion” layers have different and unique functions in the whole research process.

This section mainly aims to develop the research philosophy to identify the related research methods. It analyses the ontological and epistemological position based on the context of this study and decides whether the method of this study is the quantitative or qualitative method. The research philosophies play a vital and fundamental role in business research and create an impact on how business research can and should be directed and how the intrinsic quality of organisations is understood (Bryman & Bell, 2007). In this context, the first
critical step in the process is to start by explaining the philosophy underpinning the research.

Guba and Lincoln (1994) defined research philosophy as a set of basic beliefs that deal with how the researcher views the world and their individual role in it. These basic beliefs are based on assumptions of ontology, epistemology, and methodology. These are closely interconnected, such as the assumptions taken in one, taken in any order, constrains the assumptions taken in the others (Guba & Lincoln, 1994). In other words, the ontological position that the researcher adopts influences the epistemological position and, consequently, the research methodology adopted. In the following sections, these philosophical issues are discussed in detail and the approach adopted in this research is then justified.

5.2.1. Ontological Considerations

Ontology is defined in terms of “whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perception and actions of social actors” (Bryman & Bell, 2007, pp 22). In other words, ontology concerns the nature of the reality, what exists definitely are and how the “exists” can be represented (Gruber, 1993). Specifically, it addresses the question: What is the form and nature of reality and what can be know about that reality? Saunders et al. (2009) discussed two aspects of
ontology: Objectivism and constructivism.

5.2.1.1. Objectivism

Objectivism refers to how social entities exist in reality external to and independent of social actors (Saunders et al., 2009). There are different features of objectivism. First, the real world comprises of entities which would be classified by their properties and relations. Second, the reality is exactly and explicitly structured and can be shared by everyone who receives it; hence, it can be modelled. Third, symbols are the demonstrations of reality and can only be significant to the degree that they accord with reality. Fourth, the human mind manipulates abstract symbols so that they mirror nature. Fifth, human thought is symbol-manipulation and is independent of the human organism. Finally, the meaning of the world exists objectively, independent of the human mind (Lakoff, 1987; Vrasidas, 2000; Cronje, 2006). Specifically, the realities can be received by all humans and formed with abstract symbols in a human’s mind. The human then operates these abstract symbols and starts to understand the world. It is worth noting here that the human mind only reflects the reality and that is independent of the human mind, which is the key point in objectivism.

5.2.1.2 Constructivism

Constructivism is “a broad family of arguments built on the notion that people only arrive at certain actions due to their adoption of certain ‘social
constructs’ to interpret their world” (Marsh & Stoker, 2010, pp 97). It is explained as a ‘world of our making’ (Onuf, 1989). Vrasidas (2000) explained that the structure of the world is created in the mind by interaction with the world based on interpretation, and human choices and actions are a result of interpretation of the world. Also, symbols are formed because of culture and they are used to construct reality. Furthermore, Cronje (2006) argues that, regarding constructivism, human thought is imaginative and develops out of perception, sensory experiences, and social interaction; the interpretive process relies on the human’s experiences and understanding. Therefore, constructivism emphasises that the human’s mind plays the dominant role in interpretation to the world.

5.2.2. Epistemological Considerations

Epistemological considerations involve “what is regarded as appropriate knowledge about the social world; a particularly central issue in this context is the question of whether or not a social world can and should be studied according to the same principles, procedures, and ethos as the natural sciences” (Bryman & Bell, 2007, pp 16). The ontological considerations seem to show the human’s opinion on what the world is and its nature, whereas epistemological positions show the human’s opinion of what we can know about the world it (Marsh & Stoker, 2010). It also refers to two aspects: Positivism and interpretivism.
5.2.2.1. Positivism

The main assumption of positivism depends on the existence of objective reality and facts, and it holds that the scientific criteria of verification can be used to find and test a real explanation or cause of an event or social pattern (Roth & Metha, 2001). Gill and Johnson (2002) argued that the natural sciences generally used positivism as a main consideration, and a scientific approach usually would be used in positivism to explain the social world. Under the epistemological position, positivism holds that research should be done through an objective approach instead of subjective methods (Easterby-Smith et al., 2002). The observer interprets the phenomenon through recognising the fundamental laws by observable reality instead of human beliefs and interests (Saunders et al, 2003). Positivism requires the social phenomena to be observable and measurable (Bryman, 1988). It aims to employ the hypothesis and then conduct causal inferences regarding social phenomena (Lin, 1998). Saunders et al. (2011) explained that positivism usually uses the deductive method, they use the existing theory as a foundation to develop a hypothesis and then collect the credible data. The hypothesis will be tested and confirmed with empirical analysis. Also, it is emphasised that the key feature of positivism is that research is conducted in a value-free way, which means that “the researcher is independent of and neither affects nor is affected by the subject of the research” (Remenyi et al., 1998, pp 33), and the researcher is independent of the data collection process and would generally not change the nature of the data.
collected.

5.2.2.2. Interpretivism

Interpretivism is when “the methods of research adopt the position that our knowledge of reality is a social construction by human actors…value-free data cannot be obtained, since the enquirer uses his or her preconceptions in order to guide the process of enquiry, and furthermore the researcher interacts with the human subjects of the enquiry, changing the perceptions of both parties” (Walsham, 1995, pp 376). Interpretivists are affected through those insights of people and the environment in which people behaviour, those subjective perceptions in different environments should be considered and explained in the research (Gill & Johnson, 2002). Individuals’ behaviour is influenced through the explanation which they give in different circumstances (Saunders et al, 2003). Interpretivism attempts to examine how people recognise and explain the world in their own perspective (Burns, 2000). Unlike the positivism that is independent from research, within interpretivism, the researchers, or enquirers, cannot be independent of the research; they are involved in the composition of the research. For example, in the interview, the researcher might put their feelings into the process to influence the respondent’s opinions. Roth and Metha (2001) concluded that interpretivism aims to appreciate how people interpret a phenomenon or event, the “construction of facts” is regarded as interpreted and subjective, and analyses can only be self-validating by the consistency and
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cohere of “thick description”. Unlike positivism, interpretivism usually uses the inductive approach. Rather than using theory, interpretivists tend to create a theory to interpret meanings and insights according to prepared observations (Denzin, 1978).

The main purpose of the research study is to examine the determination of CEO compensation following M&As, which is inclined to be objectivism. According to the arguments in the ontological position above, several reasons for this have been presented. Firstly, the acquiring CEO’s compensation and the determinants of CEO compensation following M&As, such as corporate governance mechanisms, corporate performance, and “political connection”, seem to be established facts; these entities are classified by their properties and relations. These symbols, such as CEO compensation, are demonstrations of reality. Although these symbols are produced by humans, the creation of these symbols do not rely on human experience and perception; their essence is an objective existence and they only mirror nature, so that they are independent of social actors.

Secondly, this study aims to identify the relationship between CEO compensation and M&As decisions, and the relationship between the acquiring CEO’s compensation and those factors following M&As, which exist in reality external to social actors as it only reflects objective reality. The author aims to show this potential objective reality to others instead of creating anything that did not exist before. Therefore, the ontological position for this research can be
reasonably regarded as objectivism. For the epistemological position, this study can be identified as positivism and conducts a deductive approach as research is based on the existing theories of agency theory, managerial power theory, and resource dependency theory. According to these theories, related literature would be formed and then several hypotheses based on these facts (literature) should be developed. Related variables such as CEO compensation and corporate governance will be measured with some specific measurements; for example, the total compensation for CEO compensation and the board size for one kind of corporate governance mechanism. The hypothesis would then be tested using the data collected. In the process of data collection, the researcher would not involve the person’s feeling and views about the data collection which is only obtained through the highly credible database and annual reports. The research process fits the principle of positivism; hence, this research has been examined to belong to positivism. After testing the hypothesis, the predicted results should accord with these existing theories. In some cases, the theory might be modified in light of the findings. Accordingly, this research follows the deductive approach as it is a theory testing rather than theory creation activity.

5.2.3. Research Methods

Following the philosophical ideas, it is crucial to identify the research methods which are qualitative and quantitative.
5.2.3.1 Qualitative Methods

Qualitative methods are more linked to the interpretivism of the epistemological position (Secker et al., 1995). In interpretivism, reality is not independent of individuals’ minds. Thus it shows that reality only exists after investigating the object; once the investigation terminates, the reality would disappear (Smith, 1983). Interpretivism began with demonstrating notions with regard to a phenomenon, and sought out possible associations among those notions (Brannen, 1992). Furthermore, it focuses more on people’s activity and their recognition towards the world, and pursues these deep meanings (Burns, 2000). In addition, it concentrates more on exploring the particular details of an event or situation and the data would usually be collected, presented, and analysed in the form of words, pictures, or objects; also, the researcher is inclined to involve themselves into the subject research, so that it is often argued as a more subjective method (David et al., 2008). Maxwell (1996) argued that qualitative research depends on its inductive approach, and is more concerned with particular situations or people, with more focus on words rather than numbers.

The study design in qualitative research includes the case study, oral history, focus groups, participant observation, holistic research, community discussion forums, and reflective journal log sources (Kumar, 2011). Generally, there are three main methods of data collection in qualitative research: Unstructured interviews, participant observation, and secondary sources (Kumar,
5.2.3.2. Quantitative Methods

Desai and Porter (2006) emphasised that quantitative methods were based on the positivism assumption that reality consists of objective facts, and that reality is independent from human minds; on an epistemological level, individuals should be independent from entities and not be affected by them; also, it involves the deductive analysis of those observed facts using existing theory and mainly focuses on strict objective measurement with a view to testing developed hypotheses. The logic of such a method is to collect data using standardised approaches on a range of variables; search for patterns of causal relationships between these variables; and test given theory by confirming or denying precise hypotheses (Henn et al., 2006). Bryman (1984) emphasised that the research designs of quantitative methodologists tend to focus more on fixed measurements and hypothesis testing instead of fieldwork.

Generally, study designs commonly used in quantitative research include the cross-over comparative experimental design, the replicated cross-sectional design, trend studies, cohort studies, panel studies, blind studies, and double-blind studies (Kumar, 2011). There are several main research methods related to the quantitative methods, such as structured interviewing, self-completion questionnaires, structured observation, and secondary analysis.

Quantitative and qualitative approaches represent different research
strategies and each carries with it striking differences in terms of the role of theory, epistemological issues, and ontological concerns (Bryman & Bell, 2007). Interestingly, the main aims of quantitative research methods are theory testing and theory modification, which is consistent with the rule of the deductive approach. Qualitative research’s main purpose however lies in theory creation and theory building, which is consistent with the rule of the inductive approach (Newman & Benz, 1998). Generally, the deductive approach is associated with positivism while the inductive approach is more associated with interpretivism (Bryman & Bell, 2007). Also, positivists are inclined to mainly use quantitative methods, while interpretivists prefer to deploy qualitative methods (Marsh & Stoker, 2010). Consequently, according to the argument in the philosophical ideas and discussion between the research approaches above, the current research tends to adopt the quantitative approach.

In summary, the current study is mainly based on the agency theory, managerial theory, and stewardship theory; these prior theories and empirical literature offer a valid base to develop the hypothesis, and the hypothesis test will be conducted via analysing the secondary numeric data which will be collected through annual reports of listed companies and professional databases. Therefore, the current study would carry out the objective positivist and deductive position, and the quantitative research method would be used in this study.
5.3. Economic Modelling

Five models are specified to address the objectives. First, three models are developed to address the objective of whether CEO compensation is correlated with the M&As decisions. Then the aim of models 4 and 5 is to address the second objective two of determinants of CEO compensation following M&As.

The first model is based on Guest (2009); the second model is based on Grinstein and Hribar (2004), Coakley and Iliopoulos (2006), and Bugeja et al. (2012); the third model is developed based on the first two models with the addition of adding more other factors considered by previous studies have impact on CEO compensation, particularly the Chinese characteristics.

\[
\begin{align*}
\text{Compensation}_{it} &= \alpha + \beta_1 \text{Size}_{it-1} + \beta_2 \text{ROA}_{it} + \beta_3 \text{MTNV}_{it} + \beta_4 \text{Acquisition Dummy}_{it} + [\text{Industry Dummies}] + \\
\varepsilon_{it} 
\end{align*}
\]

\[
\begin{align*}
\text{Compensation}_{it} &= \alpha + \beta_1 \text{Size}_{it-1} + \beta_2 \text{ROA}_{it} + \beta_3 \text{ROA}_{Growth_{it}} + \beta_4 \text{TSR}_{it} + \\
&\quad \beta_5 \text{Sales Growth}_{it} + \beta_6 \text{Margin}_{Growth_{it}} + \beta_7 \text{Margin}_{it} + \beta_8 \text{MTNV}_{it} + \\
&\quad \beta_9 \text{Acquisition Dummy}_{it} + \beta_{10} \text{Acquisition Dummy}_{i(t-1)} + [\text{Industry Dummies}] + \\
\varepsilon_{it} 
\end{align*}
\]

\[
\begin{align*}
\text{Compensation}_{it} &= \alpha + \beta_1 \text{Size}_{it-1} + \beta_2 \text{ROA}_{it} + \beta_3 \text{ROA}_{Growth_{it}} + \beta_4 \text{TSR}_{it} + \\
&\quad \beta_5 \text{Sales Growth}_{it} + \beta_6 \text{Margin}_{Growth_{it}} + \beta_7 \text{Margin}_{it} + \beta_8 \text{MTNV}_{it} + \\
&\quad \beta_9 \text{Acquisition Dummy}_{it} + \beta_{10} \text{Acquisition Dummy}_{i(t-1)} + \beta_{11} \text{CEO Duality}_{it} + \\
&\quad \beta_{12} \text{BoardSize}_{it} + \beta_{13} \text{SupervisorySize}_{it} + \beta_{14} \text{Independent Ratio}_{it} + \beta_{15} \text{Remueration}_{it} + \\
&\quad \beta_{16} \text{CEO Share}_{it} + \beta_{17} \text{BlockShare}_{it} + \beta_{18} \text{PoliticalCEO}_{it} + \beta_{19} \text{Compensation}_{it-1} + \\
&\quad [\text{Industry Dummies}] + \\
\varepsilon_{it} 
\end{align*}
\]

Model 4 examines the determinants of CEO compensation following the M&As, and derives from Grinstein and Hribar (2004); Coakley and Iliopoulos (2006).
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(2006) and Bugeja et al., (2012). In Model 4, only the influence of block shareholders on CEO compensation is considered, thus in Model 5 the impact of different types of block shareholders on CEO compensation were considered, including the state controller and foreign controller.

\[
\text{Compensation}_i = \chi + \delta_1 \text{Size}_i + \delta_2 \text{Deal Size}_i + \delta_3 \text{CAR}_{[-1,+1]}_i + \delta_4 \text{BoardSize}_i + \delta_5 \text{IndependentRatio}_i + \delta_6 \text{RemuninationCommittee}_i + \delta_7 \text{CEO Duality}_i + \delta_8 \text{CEO Share}_i + \delta_9 \text{SupervisorySize}_i + \delta_{10} \text{BlockShareholder}_i + \delta_{11} \text{CEOPolitical}_i + \delta_{12} \text{TSR}_i + \delta_{13} \text{ROA}_i + [\text{Industry Dummies}] + \epsilon_i \quad (5.4)
\]

\[
\text{Compensation}_i = \chi + \delta_1 \text{Size}_i + \delta_2 \text{Deal Size}_i + \delta_3 \text{CAR}_{[-1,+1]}_i + \delta_4 \text{BoardSize}_i + \delta_5 \text{IndependentRatio}_i + \delta_6 \text{RemuninationCommittee}_i + \delta_7 \text{CEO Duality}_i + \delta_8 \text{CEO Share}_i + \delta_9 \text{SupervisorySize}_i + \delta_{10} \text{BlockShareholder}_i + \delta_{11} \text{StateController}_i + \delta_{12} \text{ForeignController}_i + \delta_{13} \text{CEOPolitical}_i + \delta_{14} \text{TSR}_i + \delta_{15} \text{ROA}_i + [\text{Industry Dummies}] + \epsilon_i
\]

5.4. Variables Measurements

CEO Compensation (dependent variable)

The main composition of CEO compensation in Chinese listed firms is cash pay including salary and bonus. Long-term incentives are less commonly used in China as the presence of equity incentives is a very recent phenomenon in China, and until 2006, the firms were allowed to reward options to top executives. This is different from western countries, including the US, where most incentives are in the compensation package. In the US, the stock options
account for about 45% of the CEO compensation package (Conyon, 2014). The restricted stock and other equity grants related to performance have also been used as components of CEO compensation in the US (Bizjak et al., 2011).

European firms are more likely to use long-term incentive plans (LTIPs) (Conyon et al., 2013). However, the stock options and LTIPs are not common in China, with only about 1% of CEOs in the listed firms being rewarded with the stock option from 2006 and 2010, and the value of these stock options only worth 30% of CEO cash compensation and 21% of non-CEO top executive compensation (Bryson et al., 2012). Therefore, the effect of the long-term incentives on compensation is limited.

Cash compensation is important components of total compensation. This is the pay that is awarded by the firm and received by the CEO during the fiscal year. Some academics give cash compensation the definition that it includes all of the salary, bonuses, benefits, and allowances rewarded during the year to the CEOs (e.g. Conyon & Sadler, 2001; Eichholtz et al., 2008). However, some studies define cash compensation as comprising of salary and bonus (e.g. Ozkan, 2007). In China, an obvious characteristic of executive compensation that differs from the west is that executive compensation mainly includes the salary and annual bonus. Buck et al. (2008) argued that even without long-term incentives, cash compensation still has reward and motivational influence on executives in China. Therefore, the main components of CEO compensation are cash and bonus.
In the period before 2001, listed firms were not obliged to publicise executive compensation information in their annual reports. The CSRC, since 2001, required listed firms to go public with the sum of the top three executives’ compensation and the three highest board members’ compensation. Since 2006, listed firms were required to disclose the total compensation of individual top management and board members, but the components of total compensation were not specified. Additionally, firms were also required by the CSRC to disclose some information about equity incentives, such as stock options, restricted shares, and share appreciation rights in 2006. However, only a few firms issued equity incentives. As discussed above, only about 1% of CEOs in listed firms were rewarded the stock option from 2006-2010. The use of the equity incentive as a measure of CEO compensation might reduce the current sample. In the meanwhile, Chinese firms do not disclose details of the equity-based compensation and previous studies usually used cash compensation instead of the equity incentive as a measure of CEO compensation (e.g. Conyon & He, 2011). Therefore, this study can only use the total cash compensation as a measure of CEO compensation for dependent variables.

**Firm Size**

Many previous studies found the relationship between CEO compensation and firm size (Core et al., 1999; Ezzamel & Watson, 2002). Previous research generally used the book value of total assets (e.g. Tian & Lau,
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2001; Firth et al., 2006) and sales (e.g. Core et al., 1999; Ezzamel & Watson, 2002) to measure the size of a firm. This study uses the book value of total assets to measure firm size, which is widely used by previous studies (e.g. Kaplan, 1994; Wang et al. 2011), particularly in studies of CEO compensation following M&As (e.g. Bugeja et al., 2012).

M&As Decisions Variable

According to previous literature, M&As decisions were measured by dummy variable coding one if a firm made an M&A (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Guest, 2009; Bugeja et al., 2012). In this study, the M&As decision was measured by dummy variable coding one if a Chinese listed firm made an M&A.

Board Characteristics Variables

The board of directors play an important role in monitoring management. Board effectiveness in its monitoring function is determined by its size, composition, and independence. This study use variables of board size, independent directors and remunerations committee to present board of directors’ characteristics.

Board Size

Many previous studies found a relationship between CEO compensation
and board size (Core et al., 1999; Ozkan, 2007). Core et al. (1999) measured board size as the number of members of the board of directors during each fiscal year. This study measures the board size by the number of members of the board of directors for a Chinese listed firm.

**Independent Ratio**

According to the literature, independent directors are defined as those who are not current employees of the firm, such as top management and those who have no connections with current or former employees of the firm, and who have no extensive business connections with the firms (Denis & Sarin, 1999). The CSRC issued ‘Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies’ in 2002. The guidelines defined independent directors as “a director whom does not hold any position in the company other than director and who has no relationship with the listed company engaging him or its principal shareholders that could hinder his making independent and objective judgments”. Previous literature used the ratio of independent directors to present board independence and found its correlation with CEO compensation (e.g. Basu et al., 2007; Wan, 2009; Conyon, 2016). Wan (2009) defined the independent ratio as the number of members of independent directors divided by the total number of board members. This study measures the independent ratio by the number of members of independent directors divided by the total number of board members for a Chinese listed firm.
Remuneration Committee

In China, listed firms were recommended by the Corporate Governance Code in 2002 to set up a compensation committee approved by shareholder meetings. Much previous literature examined the impact of the existence of a remuneration committee on executive and CEO compensation (e.g. Chen et al., 2010, Conyon & He, 2012). Chen et al. (2010) measured the remuneration committee by whether the boards of directors had a remuneration committee. This study measures the remuneration committee by whether the boards of directors of Chinese firms have a remuneration committee.

Supervisory Board Size

Supervisory boards are another important monitoring mechanism for firms. Many previous studies used the size of supervisory boards to measure supervisory board quality and examine their influence on CEO compensation (e.g. Chizema, 2008; Chen et al., 2010). Supervisory board size is defined as the number of members of the supervisory board (e.g. Li et al., 2007; Chen et al., 2010; Ding et al., 2010). This study measures the supervisory board by the number of members of the supervisory board for a Chinese firm.

Board Leadership and CEO Power Variables

The effectiveness of board structure mechanisms in monitoring managers depends on the power of the CEO. CEO power for this study can
derive from the CEO/chair duality, managerial share ownership, and the CEO’s political connections.

**CEO Duality**

CEO duality means that the CEO also serves as the chairman of the board of directors and is also a critical corporate governance mechanism. Plenty of previous studies have discussed how CEO duality influences CEO compensation (e.g. Cyert et al., 2002; Li et al., 2007). CEO duality is defined as the CEO is also the chairman of the board (Cyert et al., 2002; Dai, 2014). This study measures CEO duality using a dummy variable coded one if the CEO is also the chairman of the board for a Chinese firm.

**CEO Shareholding**

Managerial ownership is defined by previous studies as the ownership held by top managers and boards of directors (McConnell & Servaes, 1990; Himmelberg et al., 1999). The information of ownership for CEOs can be found in annual reports of Chinese listed firms. This study measures the CEO shareholding using the percentage of shares held by the CEO.

**CEO Political Connections**

Political connections are an important access to critical resources and can bring substantial benefits to firms, particular for the CEO with political
connections. Many previous studies examined the relationship between a firm’s performance and political connections (including CEO’s political connections) (e.g. Aslan & Grinstein, 2011; Civilize et al., 2015). Faccio (2006) defined politically-connected firms as one where at least one of the firm’s largest shareholders, or one of its top officers, was a member of parliament, a minister, a head of state, or closely related to a top official. Aslan and Grinstein (2011) measured the CEOs’ political connections through the CEOs’ campaign donations. Fan et al. (2006) defined the CEO political connections as where a CEO is a current or former officer of the central government, local government, or the military for a Chinese listed firm. This study measures a CEO’s political connections by whether the CEO is a current or former officer of the central government, local government, or the military.

**Ownership structure variables:**

**Block Shareholding**

Ownership structure has an effect on the determination of compensation, particularly block shareholding (see also Elston & Goldberg, 2003; Wang & Xiao, 2011). According to previous studies, block ownership has had a significant influence on CEO compensation (Cyert et al., 2002; Hartzell & Starks, 2003; Fahlenbrach, 2009). Previous studies measured block shareholding by the sum of the top five largest holders (Elston & Goldberg, 2003; Hartzell & Starks, 2003). This study will measure block shareholding by the sum
of the top five largest holders.

**State Controller**

The block shareholders in China may be the state or private institutional investors (including foreign investors). The most distinctive characteristic of Chinese listed firms is the ownership structure. The ownership of Chinese listed firms is much more concentrated compared with western developed countries. In many cases, the largest shareholder is the state, which as the dominant shareholder has a considerable influence on executive compensation (Firth et al., 2007; Chen et al., 2010; Conyon & He, 2012).

According to the previous studies, the state controller is measured by the state as the largest shareholder of the firm (e.g. Chen et al., 2010; Conyon & He, 2012). This study measures the state controller by whether the state is the largest shareholder of the firm.

**Foreign Ownership**

According to previous studies, foreign investors provide effective monitoring in Chinese firms and enable competitive compensation packages. Previous studies examined the impact of foreign ownership on executives and CEO compensation in China (Firth et al., 2007; Li et al., 2007; Conyon & He, 2012). They measure foreign ownership by whether the foreign institution is the largest owner of the firm. Therefore, this study measures foreign ownership by
whether the foreign institution is the largest owner of the Chinese listed firm.

Firm Performance

According to previous studies, a firm’s performance is a significantly vital factor in influencing CEO compensation (e.g. Eisenhardt, 1989; Lambert et al., 1993; Core et al., 1999; Conyon et al., 2009). Previous studies used a variety of market- and accounting-based measures to measure firms’ performance; the market-based measure indicated the present value of future streams of income while the accounting-based measure presented past performance (Seth, 1990). According to previous studies, ROA, ROA growth, margin, and margin growth, would be used to control for a firm’s accounting performance in this study as it has received a great deal of attention on CEO compensation and in the context of M&As in recent research (Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Cadman et al, 2010; Chen et al., 2010; Wang et al, 2011; Bugeja et al., 2012). In this study, consistent with previous studies (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012), ROA is measured by earnings before tax divided by total assets (Cadman et al, 2010; Chen et al., 2010); ROA growth is measured by current ROA divided by ROA in the previous year (Ozkan, 2012; Bugeja et al., 2012). Margin is measured by earnings before tax divided by sales (Coakley & Iliopoulou, 2006; Bugeja et al., 2012). Margin growth is measured by margin in the current year divided by the margin in the previous year (Grinstein & Hribar, 2004; Bugeja et
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The annual stock market return on common stock (RET) and market-to-book have been found to be an appropriate proxy for a firm’s market-based performance as it directly reflects the change in shareholders’ wealth that comes from stock appreciation during the year and the firm’s investment opportunity set respectively, and have been found to have had a significant influence in CEO compensation only and in the context of M&As (e.g. Core et al., 1999; Perry & Zenner, 2001; Brick et al., 2006; Murphy & Sandino, 2010; Conyon & He, 2012). This study will use the stock return and market to book to measure market-based firm performance. Based on previous studies, the stock return in this study is measured by earnings per share (Core et al., 1999; Conyon & He, 2012) while market-to-book value is measured by the market value by book value total assets (Murphy & Sandino, 2010; Conyon & He, 2012).

Managerial Efforts in Completing M&As

In terms of M&As, managerial efforts can also be measured in terms of deal size, three-day abnormal returns in many previous studies on executive and CEO compensation (Harford & Li, 2007; Bugeja et al., 2012; Ozkan, 2012).

Deal Size

Deal size reflects larger deals are more complex and require greater managerial effort and skill which should be rewarded with more. According to
previous studies, deal size is measured by the value of the deal (Coakley & Iliopoulou, 2006; Bugeja et al., 2012). This study measures deal size by the value of the deal.

**CAR [-1, +1]**

Abnormal returns reflect the reaction of the market toward the M&As, higher abnormal returns show the positive reaction on the M&As deals, which indicate the higher skill of managers who should be rewarded with higher compensation (Bugeja et al., 2012). Previous studies have examined the abnormal returns for acquiring firms around the announcement date and its influence on executive and CEO compensation (Girma et al., 2006; Guest, 2009). This current study uses an event study methodology to calculate the abnormal returns around M&As so as to investigate the impact of M&As toward shareholder value. The market model is used as it is commonly found in M&As literature (Danbolt, 1995; Coakley & Iliopoulou, 2006). This study uses the Shanghai and Shenzhen index returns as the benchmark for calculating a firm’s abnormal returns around the acquisition announcement. It calculates the cumulative abnormal returns (CAR) of the sample firms to examine short-run post-merger performance. The study estimates an event windows of 3 days (−1; +1) surrounding the day of the M&As announcement, which has been used in previous studies (Harford & Li, 2007; Bugeja et al., 2012).
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Table 1 Variables Definition

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Sources of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO compensation of acquiring firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation</td>
<td>Total CEO compensation (salary and bonus) (e.g. Conyon &amp; He., 2012).</td>
<td>CCER</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance and characteristics of acquiring firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>Book value of total assets of the acquiring firm (e.g. Kaplan, 1994).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>ROA</td>
<td>Earnings before tax divided by total assets (e.g. Core et al., 1999).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>ROA growth</td>
<td>Current ROA divided by ROA in the previous year (e.g. Coakley &amp; Iliopoulou, 2006).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>TSR</td>
<td>The stock return on the acquiring firms in the financial year (e.g. Lin, 2005).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>Sales growth</td>
<td>Sales in the current year divided by sales in the previous year (e.g. Harford &amp; Li, 2007).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>Margin</td>
<td>Earnings before tax divided by sales (e.g. Jones &amp; Kato, 1996).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>Margin growth</td>
<td>Margin in the current year divided by the margin in the previous year (e.g. Grinstein &amp; Hribar, 2004).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>MTNV</td>
<td>The market value by book value total assets (Murphy &amp; Sandino, 2010; Conyon &amp; He, 2012).</td>
<td>CSMAR</td>
</tr>
<tr>
<td>Deal characteristic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deal size</td>
<td>The value of the deal (e.g. Guest,</td>
<td>CSMAR</td>
</tr>
</tbody>
</table>
### The Determination of CEO compensation following Mergers & Acquisitions in China

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR[−1,1]</td>
<td>The three-day market adjusted return between the day prior to the announcement and the day after the announcement (e.g. Bugeja et al, 2012).</td>
<td>CSMAR</td>
</tr>
<tr>
<td><strong>Board structure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board size</td>
<td>The number of members of the board of directors (Core et al., 1999; Ozkan, 2007)</td>
<td>CCER</td>
</tr>
<tr>
<td>Supervisory size</td>
<td>The number of members of the supervisory board (e.g. Li et al., 2007; Chen et al., 2010).</td>
<td>CCER</td>
</tr>
<tr>
<td>Independent ratio</td>
<td>The percentage of independent directors in board (e.g. Ozkan, 2007).</td>
<td>CCER</td>
</tr>
<tr>
<td>Remuneration</td>
<td>The binary variable coded as one if the firm have a remuneration committee, zero otherwise (e.g. Chen et al., 2010).</td>
<td>CCER</td>
</tr>
<tr>
<td><strong>CEO power source</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO duality</td>
<td>A binary variable coded as one if the CEO is also the chairman of the board, zero otherwise (e.g. Cyert et al., 2002).</td>
<td>CCER</td>
</tr>
<tr>
<td>CEO shareholding</td>
<td>The percentage of company shares owned by the CEO (e.g. Veprauskaitė &amp; Adams, 2013).</td>
<td>CCER</td>
</tr>
</tbody>
</table>
The Determination of CEO compensation following Mergers & Acquisitions in China

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO political</td>
<td>A binary variable coded as one if the CEO was former or current official of government, zero otherwise.</td>
<td>Annual report</td>
</tr>
<tr>
<td>Ownership structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block shareholders</td>
<td>The square sum of the first five biggest shareholders’ ownership (Hartzell &amp; Starks, 2003).</td>
<td>CCER</td>
</tr>
<tr>
<td>State dominator</td>
<td>A binary variable code as one if the state is the largest shareholder in acquiring firms, zero otherwise (e.g. Firth et al., 2006).</td>
<td>CCER</td>
</tr>
<tr>
<td>Foreign Investment</td>
<td>A binary variable code as one if the foreign shareholder is the controlling shareholder of a firm, zero otherwise (e.g. Chen et al., 2010).</td>
<td>CCER</td>
</tr>
<tr>
<td>Dummy variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition dummy</td>
<td>The binary variable coded as one if the firm completed an M&amp;As during the year, zero otherwise.</td>
<td>CSMAR</td>
</tr>
<tr>
<td>Lagged value of acquisition dummy</td>
<td>The binary variable coded as one if the firm completed an M&amp;As one year before, zero otherwise.</td>
<td>CSMAR</td>
</tr>
</tbody>
</table>

**Control Factors**

The control factors include the industry classification which is considered to control the influence of industry on CEO compensation. Many previous studies controlled the influence of industry classification on executive
and CEO compensation (e.g. Firth et al., 2006; Conyon & He, 2012). Accordingly, this study considers the difference of industry in all models of the current study. The industry is based on 18 CSRC (China Securities Regulatory Commission classification) of industries. They are:

i. Agriculture, forestry, livestock farming, and fishery;

ii. Mining;

iii. Manufacturing;

iv. Utilities;

v. Construction;

vi. Wholesale and retail;

vii. Transportation;

viii. Hotel and catering industry;

ix. Information transmission, software and information technology service;

x. Real estate;

xi. Leasing and commerce service;

xii. Scientific research and technology service;

xiii. Water conservancy, environment, and public facilities management;

xiv. Resident service, repair, and other service;

xv. Education;

xvi. Hygienic and social work;

xvii. Culture, sports, and entertainment;

xviii. Comprehensive.
5.5. Sample Selection and Data Collection Procedures

5.5.1. Data Source

The required data is accessible mainly from the two credible databases in China: China Stock Market and Accounting Research (CSMAR) and China Centre for Economics Research (CCER) databases, and annual reports are also provided to collect the data. These two databases have been used in a number of previous studies (see Chen et al., 2010). The CSMAR mainly provides the data on the firm level M&As deals and financial information, while the CCER provides data on the firm level CEO compensation and CG indicators for this study. The annual report mainly provides the CEO profile, particularly for the variable of CEO political connection. The current study used the non-financial Chinese firms listed on the Shanghai and Shenzhen stock exchanges to construct the sample. The timespan of the data was from 2006 to 2013 and was chosen to capture all the M&As since 2005 when the Non-tradable Share Reforms commenced, given that M&As grew significantly after the reforms.

5.5.2. Sampling Process

The whole sample includes treatment and control sample. The treatment sample refers to the firms which made M&As while the control sample refers to the firms not involved in M&As. The sampling process for the treatment sample started at all firms that made M&As. The sampling process for the treatment
The Determination of CEO compensation following Mergers & Acquisitions in China

sample can be seen in Panel A below: (1) excluding all financial firms as financial firms have different regulatory regimes from non-financial firms, (2) eliminating firms engaging in multiple M&As in the year to avoid conflating the effects of multiple transactions in the analysis. The final treatment sample contains 369 M&As deals. The sampling process for the control sample started at all firms not involved in M&As. The sampling process for the control sample (not involving M&As) can be seen in Panel A below:

i. dropping all financial firms; 

ii. eliminating all firms with missing information; 

iii. then excluding the treatment sample, leaving a control sample of 9,880 observations.
## Panel A

### Sampling process of treatment sample

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Initial MA deals (cases)</td>
<td>466</td>
<td>12</td>
<td>28</td>
<td>55</td>
<td>88</td>
<td>49</td>
<td>49</td>
<td>103</td>
<td>82</td>
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<tr>
<td>Excluded</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Drop financial firms (cases)</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Drop all firms engaging in multiple M&amp;As (cases)</td>
<td>89</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>19</td>
<td>2</td>
<td>10</td>
<td>22</td>
<td>29</td>
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<tr>
<td>Final treatment sample (cases)</td>
<td>369</td>
<td>10</td>
<td>28</td>
<td>50</td>
<td>68</td>
<td>47</td>
<td>38</td>
<td>79</td>
<td>49</td>
</tr>
</tbody>
</table>

## Panel B

### Sampling process of control sample

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Non-MA sample (cases)</td>
<td>11224</td>
<td>1373</td>
<td>1423</td>
<td>1395</td>
<td>1375</td>
<td>1405</td>
<td>1416</td>
<td>1374</td>
<td>1403</td>
</tr>
<tr>
<td>Excluded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop financial firms (cases)</td>
<td>266</td>
<td>24</td>
<td>31</td>
<td>28</td>
<td>30</td>
<td>35</td>
<td>38</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Drop firms with missing information (cases)</td>
<td>1078</td>
<td>107</td>
<td>163</td>
<td>159</td>
<td>158</td>
<td>152</td>
<td>129</td>
<td>94</td>
<td>56</td>
</tr>
<tr>
<td>Final control sample</td>
<td>9880</td>
<td>1242</td>
<td>1229</td>
<td>1208</td>
<td>1187</td>
<td>1218</td>
<td>1249</td>
<td>1240</td>
<td>1307</td>
</tr>
</tbody>
</table>
5.6. Data Analysis

This chapter has so far discussed the research philosophy underpinning the study, as well as the empirical research models which were developed and the measurement of variables was justified. Also, sample selections and data collection procedures were presented. This section discussed the data analysis process and the statistical methods used. Data analysis included descriptive statistics followed by univariate and multivariate analysis.

5.6.1. Descriptive Statistics

Descriptive statistics of the treatment and control sample for the dependent and independent variables provide a preliminary understanding of the data and its distribution. The statistics analysed include the maximum, minimum, mean, 25th quantile, median, 75th quantile, standard deviation, and T test, to demonstrate how CEO compensation changes over time between the treatment and control sample. Finally, the average total CEO compensation accounting for the differences in industry types from year 2006 and 2013 was presented for the whole sample.

5.6.2. Univariate Analysis

Univariate analysis examines the correlation between the dependent and the individual independent variables. The thesis uses Spearman’s rho correlations. The strength and direction of the correlation between the variables is given by the correlation coefficient r, which lies between -1 and +1, where a positive (negative) value
signals a positive (negative) association. A higher value means a stronger association (Field, 2009). The coefficients and signs of correlation provide a basic understanding to the direction and magnitude of the correlations between dependent and independent variables.

5.6.3. Multivariate Analysis

Multivariate regression covers the cases in which the dependent variable is hypothesized to depend on more than one explanatory variable, to allow for isolating the contribution of each independent variable to explain variation in the dependent variable by holding the effect of the other variables constant (Gujarati, 2003). Four important assumptions have to be met for multivariate regression to guarantee the validity of the results of analysis (see e.g. Greene 1993; Tabachnick & Fidell 2007; Studenmund, 2001; Gujarati, 2003). The various checks discussed are used to examine the data of this study against the assumptions of the multivariate regression.

i. Normality

This assumption requires that the data must be normally distributed. Two common tests or checks are used to examine the normality of the variables of this study; namely skewness and kurtosis. Skewness refers to the symmetry around the mean, with positive (negative) skewness meaning more observations lying left (right) of the mean and a longer tail of the distribution right (left) of the mean. And kurtosis refers to the peakedness of a distribution. Positive kurtosis means a piling up of values around the
mean, thus more peaked than a normal distribution, whereas negative kurtosis means a flatter distribution than the normal distribution. If a distribution is normal, the values for both skewness and kurtosis should be zero or close to zero (Field 2009; Bryman & Cramer 2009). According to Haniffa and Hudaib (2006), data is statistically considered to be normally distributed if the skewness value is ±1.96 and the kurtosis value is within ±3. A more objective numerical test of normality of the distribution is the Kolmogorov-Smirnov test. A significant result (p < 0.05) indicates that the distribution differs significantly from a normal distribution (Field, 2009).

If the tests indicate that the distribution of the data is not normal, it is usually suggested that transforming the data is a useful way to make data of distribution normal (see e.g. Kenny, 1987; Tabachnick & Fidell, 2007). Statistically, it is suggested that data transformation helps in overcoming the problem of non-normality and outliers by artificially making the data normally distributed. Even though this method might influence the result of the analysis through transforming the nature of the information which leads to the complication of any interpretation, it has been found that it is a valuable statistical method to enhance the normality of data (Osborne, 2002).

ii. Linearity

This assumption requires that the model should have linear parameters. In other words, the relationship between the explanatory variables (X) and the dependent variable (Y) should be linear. When this assumption is violated, using parameter methods will results in biased estimates (Ayyangar, 2007).
iii. Homoscedasticity

Under this assumption, the standard deviation or the variance of the dependent variable within the groups is required to be equal or homogenous. Otherwise, the problem of heteroscedasticity will arise if the error variance is heterogenous, which leads to biased standard errors and inefficient estimates. With respect to the assumption of homoscedasticity, the widely used Breusch-Pagan and White tests were employed to detect the problem of heteroscedasticity. These two tests assume the variance of residuals is constant; if it is not, it indicates an existing problem of heteroscedasticity (Tabachnick & Fiedell, 2007).

iv. Independence of error terms

This assumption requires that error terms must be independent from each other, and therefore no serial correlation must exist. In other words, parameter models demand that the error terms are uncorrelated and therefore observations are uncorrelated, otherwise, there is autocorrelation. This is done via the Wooldridge test. The Wooldridge test assumes that there is no first-order autocorrelation, if violated, means autocorrelation exists.

In addition, it is important to account for the problem of multicollinearity in the model. The problem of multicollinearity indicates that a strong correlation might exist between the explanatory variables of the model. The problem of multicollinearity might lead to the estimation of variables being invalid. There are two important tools to identify the problem of multicollinearity; the first one is the variance inflation factors (VIF) test. If the value exceeds 10, the problem of multicollinearity exists (Gujarati
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2003; Field 2009). The second one is the Spearman rank correlation. The Spearman correlation coefficients between the explanatory variables are examined in a correlation matrix. If the coefficient of any pair of explanatory variables is more than 0.8, there might be a problem of multicollinearity.

5.6.3.1. Fixed Effect and Random Effect Model

A panel dataset is one in which each variable contains information on N units and each unit contains T time-series observations. Panel data regression differs from a regular time series or cross-section because it combines both in a double subscript on its variables. The equation can be written as follows:

\[
y_{it} = \alpha + \beta x_{it} + \mu_{it} + \epsilon_{it}
\]

where \(i\) and \(t\) represent individual firm and time periods respectively.

\(y_{it}\) is dependent variable and \(x_{it}\) is an independent variable. \(\alpha\) is the constant and \(\beta\) is the slope of the independent variable which reflects a partial explanation or prediction for the value of \(Y\). \(u_i\) is unobserved individual specific effects and \(\epsilon_{it}\) is an error term.

The unobserved heterogeneity would result in the OLS estimates being biased and inconsistent as the common variations in the series are not taken into account across all cross-sectional entities and over time in a pooled OLS model. In order to deal with
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data analysis. The main difference between the models is in their interpretations about unobserved individual specific effects.

The Fixed Effect Model and Random Effect Model are widely used for the panel data as they account for individual effects (unobserved heterogeneity) that a pooled OLS model does not deal with. The fixed effect model is an approach that estimates the fixed effect of predictors on the dependent variables by controlling for the constant variations coming from the omitted variables and for unobserved heterogeneity between groups over time. The assumption of this technique is that the individual specific effect is related to the repressors. The fixed effect approach works by removing much of the error variance that arises because of the distortions resulting from the individual differences between groups that come from the omitted variables or the unobserved heterogeneity that is correlated with the repressors. However, this approach allows for correlations between the unobserved individual effects with the model’s variables (Greene, 2003). Random effect models on the other hand assume there is no correlation between the individual effects and the repressors, and thus consider the individual specific constant terms as being randomly distributed within or between the cross-sectional groups (Greene, 2007).

In order to justify this choice statistically, research in economics usually utilises the Hausman test (e.g. McKnight & Weir, 2009). The Hausman test is used to statistically make the choice between fixed and random effect models, and works by facilitating the differentiation between these two approaches by examining for
correlations. Under the Hausman specification test, the assumptions for the choice of
(1) the fixed effect approach is that the independent variables must be significantly
correlated to the unobserved heterogeneity, and (2) the random effect approach is that
the independent variables must be insignificantly correlated to the unobserved
heterogeneity. Following previous research, the Hausman test has been used to test this
assumption and to find out which approach is more relevant to the data.

5.6.3.2. System Generalized Method of Moments (SGMM)

Besides static panel estimates, the current study can also be examined by
dynamic panel data models where dependent variables are affected their own lags based
on previous literature (e.g. Guest, 2009). A dynamic panel data model will be used to
examine the impact on CEO compensation against M&As decisions controlling firm
performance, corporate governance, and CEO political connection. GMM is regarded
as a useful estimation tool to tackle the endogeneity and fixed effect problems (Arellano

A dynamic panel data model can be written as follows:

\[ y_{it} = \alpha y_{it-1} + \beta X'_{it} + \epsilon_{it} \]

\[ \epsilon_{it} = \mu_i + \nu_{it} \]

where \( i \) and \( t \) represent individual firms and time periods respectively. \( X' \) is a vector
of independent variables. The error terms contain two components: The fixed effect \( \mu_i \)
and idiosyncratic shocks \( \nu_{it} \). There are two main econometric problems for the
dynamic panel model. The first one is the causality problem; it might happen in both directions – from CEO compensation to determinants of CEO compensation and vice versa. These independent variables might be correlated with the error term. The second one is the fixed effects problem, where time-invariant firm characteristics (fixed effects contained in the error term in equation (4.6)) may be correlated with the independent variables.

The Generalised Method of Moments estimator (GMM), also call Difference GMM – DGMM) developed by Arellano and Bond (1991) allows the existence of lagged dependent variable, control for the fixed effect, and tackles the endogeneity problem of independent variables. In addition, the GMM estimator is useful when the panel data has large $N$ and small $T$, because the bias raised in dynamic panel model could be small when $T$ becomes large.

The Generalised Method of Moments estimator first-difference the panel data to remove the time-invariant fixed effect. But there is a problem for DGMM that if lagged dependent variables and explanatory variables are persistent over time, the lagged levels of variables (the instruments) providing little information about the first-differenced variables are poor (Arellano & Bover, 1995). To respond to this problem, Arellano and Bover (1995) and Blundell and Bond (1998) developed an alternative estimator – system GMM (SGMM) – to alleviate the weakness of DGMM and enhance precision. SGMM’s key was to simultaneously include the lagged levels and difference of variables as instruments (Roodman, 2009).

Based on Arellano and Bond (1991), the SGMM estimator requires that there is
first-order serial correlation, but no second-order serial correlation in the residuals. This means that the null hypothesis must be rejected in the MA(1) test, but not rejected in the MA(2) test.

This so-called overidentifying restrictions test can be performed by the Sargan (1958) or Hansen J (1982) tests. Under the null hypothesis, the model is correctly specified and the overidentifying restrictions are valid (Baum 2006, pp.190-191, p.201). The Sargan statistic is not robust to heteroskedasticity or autocorrelation while the Hansen J is. Baum (2006) argues that the most commonly used diagnostic for SGMM to investigate the suitability of model specification is the Hansen J-statistics test. Roodman (2009) also suggests that a Sargan test is biased in SGMM. Therefore, the validity of the instruments is tested using Hansen’s J test statistic of overidentifying restrictions. The Hansen J-test (p-value) does not reject the null at significance level of 0.05 or 0.10, which implies that the instruments are valid. It is also suggested that a p-value need to be at least as high as 0.25 (Roodman, 2009).

The GMM estimators includes one-step and two-step estimators. This study used two-step SGMM. The two-step is better than one-step, since two-step SGMM is able to create more efficient and accurate estimates (Baltagi, 2008). Also, Roodman (2006) argues that the two-step SGMM could lower bias and standard errors and allows for heteroskedasticity of errors.

5.7. Summary

In this chapter, the research philosophy was firstly discussed and identified the
related research methods. As the current study is mainly based on the agency theory and managerial power theory, these prior theories and empirical literature offer a valid base to develop the hypothesis, and the hypothesis test will be conducted via analysing the secondary numeric data which will be collected through annual reports of listed companies and professional databases. Therefore, the current study would carry out the objective positivist and deductive position, and the quantitative research method would be used in this study.

Secondly, five empirical research models have been developed based on the literature to address the objectives of this study. The first three models mainly address whether CEO compensation is correlated to the M&As decisions and Models 4 and 5 mainly address the impact of firms’ performance, M&As deals, corporate governance, and political connections on CEO compensation.

Thirdly, this chapter provides development of the measurement. Fourthly, sample selection and data collection procedures have been discussed and presented. Fifthly, this chapter demonstrated the data analysis, including the descriptive analysis, univariate, and multivariate analysis. The descriptive analysis of the treatment and control sample for the dependent and independent variables provides a preliminary understanding of the data and its distribution. The univariate analysis examines the correlations between the dependent and the independent variables for each model separately with the Spearman’s rho correlations. Multivariate regression is used to test the hypothesis and allows the isolation the contribution of each independent variable to explaining the variation in the dependent variable by holding the effect of the other
variables constant. Regression analysis is based on a set of assumptions which have to be tested before the analysis in order to ensure the validity of the results and the inferences drawn from the analysis. The assumptions refer to the normality, linearity, homoscedasticity, and independence of error terms. Various checks will be discussed to examine the data of this study against the assumptions of the OLS regression model. This section ends with a consideration of the selected estimation methods and the statistical justifications for this selection, including the fixed effect and random effect models, and two-step SGMM methods.
Chapter Six: Impact of M&As Decisions on CEO Compensation

6.1. Introduction

The first objective in chapter 1 was to examine whether CEO compensation was correlated with M&As decisions. The hypothesis relating to the relationship between CEO compensation and M&As decisions was developed in chapter 3. The approach to testing these hypothesis was discussed in the chapter 4 (research methodology). The purpose of this current chapter is to present and discuss the results from the hypotheses testing as discussed in chapter 3.

The chapter is structured as follows: In section 5.2, the dataset used in testing the hypotheses is presented to provide an overall picture of the data. In Section 5.3, the dataset was used to examine the distributions and undertake any transformations as necessary to meet the assumptions of the regression approach applied in the analysis. The results of univariate and multiple regression analysis are presented in section 5.4 and section 5.5 respectively. Finally, section 5.6 summarises the chapter and provides concluding remarks.

6.2. Descriptive Statistics

As explained in chapter 5, two samples were used in the analysis to examine whether CEO compensation was related to M&As decisions: A treatment sample and a control sample. The treatment sample included 369 Chinese listed firms that engaged in M&As between 2006-2013. The control firms were firms that did not engage in
M&As in the same period. The summary statistics are presented in Table 2.

As can be seen from Table 2, the average CEO compensation among acquiring firms in the treatment sample was RMB 0.66 million, significantly larger than firms in the control sample at RMB 0.51 million at the 1% level or better. The result was consistent with the outcome of Girma et al. (2006), Kumar et al. (2012), and Bugeja et al. (2012) that the average CEO compensation of acquiring firms was larger than non-acquiring firms. Acquiring firms in the treatment sample were, on average, not significantly larger than firms in the control sample which comprised firms not involved in M&As as the T value of -1.37 shows. Firms in this study’s treatment sample had an average of RMB 14400.00 million in total book assets, while this figure was RMB 10400.00 million for firms in the control sample. The result was consistent with the outcome of Kumar et al. (2012) and Bugeja et al. (2012) that the average firm size of acquiring firms was larger than non-acquiring firms.

In terms of performance, firms in the control sample performed averagely better than those in the treatment sample, evidenced with sales growth, ROA, ROA growth, margin and market ratio. The mean of sales growth, ROA, ROA growth, margin, and market ratio in the treatment sample were 8.16, 0.04, 0.71, 0.16, and 2.31, while the figure in the control sample was 16.97, 2.28, 274.33, 12.42, and 2.38 respectively. However, there was no significant difference of mean in sales growth, ROA, ROA growth, margin, and market ratio as T values of 0.12, 0.18, 0.19, 0.19, and 0.08 respectively illustrated. The result of ROA was consistent with the result of Kumar et al. (2012) and Bugeja et al. (2012) that the average of ROA in firms making M&As was
larger than those firms not involved in M&As. However, for margin growth and stock return, firms in the control sample averagely performed worse than those in the treatment sample. The mean of margin growth and stock return in the treatment sample was 1.56 and 0.53 while in the control sample it was -3.95 and 0.47 respectively, but the differences were not significant. The result of stock return was consistent with the result of Kumar et al. (2012) and Bugeja et al. (2012) that the average of stock return in firms making M&As was larger than those firms not involved in M&As.

With regard to board characteristics, the summary statistics showed no significant differences between acquiring and non-acquiring firms. The average board size for Chinese listed firms in both the treatment and control sample was about 9, which was consistent with Chen et al. (2010) and smaller than the UK board size of 10 (Coakley & Iliopoulou, 2006), the US board size of 13 (Grinstein & Hribar, 2004), and larger than the Australian board size of 7 (Bugeja et al., 2012). On the whole, the size of boards in China was in line with those in other countries and consistent with the minimum size of the board required by the Corporate Governance Code in 2002 which was 5 members and a maximum of up to 19 members for listed firms. The average proportion of independent directors was 37% and 36% in the treatment and control samples respectively. This was consistent with Li et al. (2009), but the figures were smaller than the 55% in the UK market (e.g. Ozkan, 2007), and 78% in the US market (Conyon, 2015). This was consistent with the guidelines issued by CSRC in 2003 that Chinese listed firms must have at least one-third of the board members as independent directors. This suggests that Chinese boards of directors were less independent
compared to the UK and US. Consistent with Conyon and He (2012), the average supervisory board size was about 4 in both the treatment and control samples, much lower than about 8 in Germany (Andreas et al., 2012). This result was consistent with the Company Law requirement that the supervisory board should compose of not less than three supervisors. The descriptive results of board size, independent ratio, and supervisory board size above were completely consistent with the guidance and requirements of the China Securities Regulatory Commission (CSRC) and Company Law.

The proportion of CEOs serving in dual capacity (i.e. board chair along with CEO) was both 13% in acquiring and non-acquiring firms; this finding was similar to that reported by Chen et al. (2009). However, this was larger than the figure of around 6% in UK (Veprauskait & Adams, 2013) and considerably smaller than 79% in the US (Pathak et al., 2013). The lower proportion of CEO duality indicated the trend of splitting the positions of chairman and CEO in Chinese listed firms as CEO duality negatively influenced a firm’s efficiency (Yang et al., 2011). Similar to many western developed countries such as US, most of the listed firms in China have set up remuneration committees. In the sample, 97% of treatment firms and 92% of control firms had a remuneration committee. The higher proportion of remuneration committees showed that Chinese listed firms complied with recommendations of CSRC to set up a remuneration committee. Consistent with the phenomenon of concentrated ownership in China, the average sum ownership of the top five owners was 54% in the treatment sample and 50% in the control sample. The CEO shareholding was quite low
in China (Yang et al., 2011), at only 0.12% and 0.28% in this study’s treatment and control sample respectively, which was considerably lower than the 4.48% reported by Bugeja et al. (2012) in Australia, and 3% reported by Ozkan (2012) in UK.

Finally, the proportion of politically connected CEOs was 19% in the treatment sample, which was higher than the 7% in control sample. The figure was a little lower than the 25% reported by Fan et al. (2007).
## Table 2 Descriptive Statistics

<table>
<thead>
<tr>
<th>Treatment Sample vs. Control Sample-Financial Characteristics, Governance, CEO Political connection</th>
<th>Treatment Sample</th>
<th>Control sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Min</td>
</tr>
<tr>
<td>CEOCOM (¥ mil)</td>
<td>0.66</td>
<td>0.04</td>
</tr>
<tr>
<td>Size (¥mil)</td>
<td>14400.00</td>
<td>33.00</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>8.16</td>
<td>0.12</td>
</tr>
<tr>
<td>ROA</td>
<td>0.04</td>
<td>-0.42</td>
</tr>
<tr>
<td>ROA Growth</td>
<td>0.71</td>
<td>-81.07</td>
</tr>
<tr>
<td>Margin</td>
<td>0.16</td>
<td>-1.18</td>
</tr>
<tr>
<td>Margin Growth</td>
<td>1.56</td>
<td>-34.88</td>
</tr>
<tr>
<td>Stock Return</td>
<td>0.53</td>
<td>-0.80</td>
</tr>
<tr>
<td>Supervisory Size</td>
<td>3.94</td>
<td>0.00</td>
</tr>
<tr>
<td>Herfindahl5</td>
<td>0.54</td>
<td>0.00</td>
</tr>
<tr>
<td>CEO Share</td>
<td>0.12</td>
<td>0.00</td>
</tr>
<tr>
<td>CEO Duality</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>Remuneration</td>
<td>0.17</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Notes: This table presents summary statistics of acquiring firms that completed their takeover bids during the financial years from 2006 to 2013 (treatment sample). The treatment sample includes 369 deals (firm-year) between companies listed on the Shanghai or Shenzhen Securities Exchange. Panel A presents a comparison of financial statistics between the treatment sample and control sample. All listed firms which were not involved in a merger and acquisition during the year are included in the control sample. There are 9,880 firm-year observations in the control sample over the period 2006-2013.
To demonstrate how CEO compensation changed over time between the treatment and control sample, this study plotted the average total compensation paid to the CEOs in each sample in Table 3 and Figure 1. Generally, the average total CEO compensation for firms involved in M&As was higher than those firms in the control sample during the period 2006-2013. For example, the average CEO compensation of firms that completed an acquisition during the year increased from approximately RMB 0.42 million in 2007 to RMB 0.68 million in 2012, with a peak of RMB 0.86 million in 2010. In contrast, the average compensation paid to CEOs of firms in this study’s control sample was around RMB 0.38 million in 2007 and reached RMB 0.67 million in 2012. This result might indicate that higher CEO compensation occurred as a result of making M&As.

Table 3 Average CEO Compensation 2006-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control sample</td>
<td>0.28</td>
<td>0.38</td>
<td>0.40</td>
<td>0.46</td>
<td>0.53</td>
<td>0.64</td>
<td>0.67</td>
<td>0.71</td>
</tr>
<tr>
<td>Treatment sample</td>
<td>0.24</td>
<td>0.42</td>
<td>0.73</td>
<td>0.53</td>
<td>0.86</td>
<td>0.81</td>
<td>0.68</td>
<td>0.67</td>
</tr>
</tbody>
</table>
The Determination of CEO compensation following Mergers & Acquisitions in China

Figure 2 Average CEO Compensation 2006-2013

Average CEO total compensation of treatment sample versus control sample – 2006–2013

- Control sample
- Treatment sample
Table 4 and Figure 2 below show that the average total CEO compensation differed by industry type between 2006 and 2013 for the aggregate sample. The industry was based on 18 CSRC classifications of industries. The findings showed that CEOs in real estate obtained the highest average compensation compared with their counterparts in other industries, earning around RMB 0.82 million. On average, the CEOs who were awarded the lowest compensation of about RMB 0.28 million were in agriculture, forestry, livestock farming, and fishery. The CEOs were rewarded between RMB 0.5 million and RMB 0.6 million in 10 industries (including mining, construction, wholesale and retail, transportation, information transmission, software and information technology service, leasing and commerce service, scientific research and technology service, resident service, repair and other service, hygienic and social work, culture, sports and entertainment), with the highest by around RMB 0.59 million in leasing and commerce service and the lowest by around RMB 0.51 million in resident service, repair, and other service. Furthermore, the CEOs were rewarded between RMB 0.39 million and RMB 0.50 million in 6 industries (including manufacturing, utilities, hotel and catering industry, water conservancy, environment and public facilities management, education; comprehensive), with the highest by around RMB 0.49 million in water conservancy, environment and public facilities management and the lowest by around RMB 0.39 million in education. The descriptive analysis above indicates that there was a difference in CEO compensation in different industries. It is therefore necessary to control the factor of industry when examining the determination of CEO compensation.
<table>
<thead>
<tr>
<th>Industry</th>
<th>CEOCOM (¥ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock farming, fishery</td>
<td>0.28</td>
</tr>
<tr>
<td>Mining</td>
<td>0.56</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.48</td>
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<tr>
<td>Utilities</td>
<td>0.43</td>
</tr>
<tr>
<td>Construction</td>
<td>0.51</td>
</tr>
<tr>
<td>Wholesale and retail</td>
<td>0.58</td>
</tr>
<tr>
<td>Transportation</td>
<td>0.56</td>
</tr>
<tr>
<td>Hotel and catering industry</td>
<td>0.42</td>
</tr>
<tr>
<td>Information transmission, software and information technology service</td>
<td>0.57</td>
</tr>
<tr>
<td>Real estate</td>
<td>0.82</td>
</tr>
<tr>
<td>Leasing and commerce service</td>
<td>0.59</td>
</tr>
<tr>
<td>Scientific research and technology service</td>
<td>0.57</td>
</tr>
<tr>
<td>Water conservancy, environment and public facilities management</td>
<td>0.49</td>
</tr>
<tr>
<td>Resident service, repair and other service</td>
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</tr>
<tr>
<td>Education</td>
<td>0.39</td>
</tr>
<tr>
<td>Hygienism and social work</td>
<td>0.52</td>
</tr>
<tr>
<td>Culture, sports and entertainment</td>
<td>0.58</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>0.46</td>
</tr>
</tbody>
</table>
The Determination of CEO compensation following Mergers & Acquisitions in China

Figure 3 Average CEO total compensation by industry

Note: 1= Agriculture, forestry, livestock farming and fishery; 2= Mining; 3= Manufacturing; 4= Utilities; 5= Construction; 6= Wholesale and retail; 7= Transportation; 8= Hotel and catering industry; 9= Information transmission, software and information technology service; 10= Real estate; 11= Leasing and commerce service; 12= Scientific research and technology service; 13= Water conservancy, environment and public facilities management, 14= Resident service, repair and other service; 15= Education; 16= Hygienic and social work; 17= Culture, sports and entertainment; 18= Comprehensive
6.3. Normality Tests and Data Transformations

The importance of data normality for regression analysis was discussed. This section reports the results of normality tests for both the dependent and the continuous independent variables. In order to test for deviations from normality, the Kolmogorov-Smirnov (KS) test was carried out. According to Haniffa and Hudaib (2006), statistically, data is considered to be normally distributed if the skewness value is ±1.96 and the kurtosis value is within ±3. For normally distributed data, the KS statistic would be insignificant (p>0.05).

From Table 5, the results for skewness and kurtosis indicated that the variables were positively or rightly skewed except for margin growth, board size, independent ratio, and remuneration that were negatively or left skewed, and all variables were thus non-normally distributed. However, other checks were applied to confirm these findings. The results of Kolmogorov-Smirnov test in Table 5 confirmed that the assumption of normality was not met.

Statistically, it is suggested that data transformation helps in overcoming the problem of non-normality and outliers by artificially making the data normally distributed. Although this technique could affect the output of the analysis by changing the fundamental nature of the information, which results in complicating any interpretation, it has been found that using this technique for improving the normality of data is a valuable statistical method (Osborne, 2002).

The techniques used to reduce the influence of outliers are usually trimming and winsorizing data (e.g. Tabachinick & Fidell, 2007; Muino & Trombetta, 2009).
Consistent with previous literature (e.g. Bugeja et al., 2012), this study chose to winsorize data, because doing so reduces the influence of extreme values at both ends of the distribution without removing the observations, and so improves the distribution of data. The trimming method might remove some observations that contain important information. When data is winsorized, the top and bottom ends of the distribution are set equal to a specified percentile or value of the data. In this thesis, because of the outliers, the variables (sales growth, ROA, ROA growth, margin, margin growth, stock return, and CEO shareholding) were winsorized at the 5th and 95th percentile; that is, values below the 5th were set to the value at the 5th percentile, and values above the 95th percentile were set to the value at the 95th percentile. This study then used the natural logarithm of CEOCOM and size because of their positive skewness and strong deviation from normality. After transforming the data, the skewness and the kurtosis were close to ±1.96 and ±3 respectively, as indicated in Panel B in table 5, which improved the normality.
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 5 Data Transformations

<table>
<thead>
<tr>
<th>Panel A: Untransformed variables</th>
<th>Mean</th>
<th>Median</th>
<th>Std.</th>
<th>Skew.</th>
<th>Kurt.</th>
<th>KS test</th>
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</thead>
<tbody>
<tr>
<td>CEOCOM (¥ mil)</td>
<td>0.52</td>
<td>0.37</td>
<td>0.60</td>
<td>5.84</td>
<td>69.42</td>
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<tr>
<td>Size (¥ mil)</td>
<td>10600.00</td>
<td>2600.00</td>
<td>54800.00</td>
<td>21.67</td>
<td>636.22</td>
<td>0.00</td>
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<tr>
<td>Sales growth</td>
<td>16.66</td>
<td>1.11</td>
<td>1337.99</td>
<td>99.46</td>
<td>9993.66</td>
<td>0.00</td>
</tr>
<tr>
<td>ROA</td>
<td>2.20</td>
<td>0.03</td>
<td>233.31</td>
<td>99.74</td>
<td>10057.75</td>
<td>0.00</td>
</tr>
<tr>
<td>ROA growth</td>
<td>264.48</td>
<td>0.89</td>
<td>26670.23</td>
<td>101.22</td>
<td>10246.64</td>
<td>0.00</td>
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<tr>
<td>Margin</td>
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<td>0.09</td>
<td>1161.73</td>
<td>99.20</td>
<td>9957.40</td>
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<tr>
<td>Margin growth</td>
<td>-3.75</td>
<td>0.93</td>
<td>950.35</td>
<td>-4.44</td>
<td>4.00</td>
<td>0.00</td>
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<tr>
<td>Stock return</td>
<td>0.48</td>
<td>0.13</td>
<td>1.10</td>
<td>2.36</td>
<td>15.13</td>
<td>0.00</td>
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<tr>
<td>Market ratio</td>
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<td>1.37</td>
<td>17.49</td>
<td>84.46</td>
<td>7852.68</td>
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<td>Board size</td>
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<td>9.00</td>
<td>2.15</td>
<td>-0.10</td>
<td>6.97</td>
<td>0.00</td>
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<td>Independent ratio</td>
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<td>0.33</td>
<td>0.07</td>
<td>-0.76</td>
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<td>0.00</td>
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<td>Supervisory size</td>
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<td>3.00</td>
<td>1.38</td>
<td>0.94</td>
<td>5.53</td>
<td>0.00</td>
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<td>Block share</td>
<td>0.50</td>
<td>0.50</td>
<td>0.17</td>
<td>0.56</td>
<td>4.97</td>
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<td>CEO share (% shareholding)</td>
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<td>0.00</td>
<td>2.54</td>
<td>15.58</td>
<td>347.75</td>
<td>0.00</td>
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<td>CEO duality</td>
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<td>0.33</td>
<td>2.24</td>
<td>6.01</td>
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<td>Remuneration</td>
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<td>-3.08</td>
<td>10.47</td>
<td>0.00</td>
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<tr>
<td>Political CEO</td>
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<td>0.00</td>
<td>0.29</td>
<td>2.82</td>
<td>8.94</td>
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</table>

<table>
<thead>
<tr>
<th>Panel B: Transformed variables</th>
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<th></th>
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<tr>
<td>CEOCOM</td>
<td>Ln</td>
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<td>12.82</td>
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<td>Size</td>
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<td>21.68</td>
<td>1.34</td>
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<td>Sales growth</td>
<td>WS95</td>
<td>1.16</td>
<td>1.11</td>
<td>0.31</td>
<td>0.88</td>
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<td>ROA</td>
<td>WS95</td>
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<td>0.03</td>
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<td>ROA growth</td>
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<td>Margin growth</td>
<td>WS95</td>
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<td>0.93</td>
<td>0.97</td>
<td>-1.03</td>
<td>4.64</td>
</tr>
<tr>
<td>Stock return</td>
<td>WS95</td>
<td>0.29</td>
<td>0.04</td>
<td>0.81</td>
<td>0.97</td>
<td>2.97</td>
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<tr>
<td>Market ratio</td>
<td>WS95</td>
<td>1.88</td>
<td>1.37</td>
<td>1.52</td>
<td>1.36</td>
<td>4.09</td>
</tr>
<tr>
<td>CEO share (% shareholding)</td>
<td>WS95</td>
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<td>0.00</td>
<td>0.02</td>
<td>3.31</td>
<td>12.72</td>
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</table>

Notes: Ln means natural logarithm of the variables; WS95 means the variables were winsorized at the 5th and 95th percentile that is values below the 5th were set to the value at the 5th percentile, and values above 95th percentile were set to the value at 95th percentile.

6.4. Univariate Analysis

This section presents the results of the univariate correlations investigation between CEO compensation and the independent variables. The correlation between
CEO compensation and each independent variable provided a first understanding of how each independent variable related to CEO compensation. In the previous section, the data was tested for normality and measures were taken, where appropriate, to obtain a more normal distribution of variables with normality violations, but not perfectly achieving normal distribution. Hence the analysis was carried out on the transformed variables using the Spearman’s rho correlations, which was appropriate for not perfectly normally distributed data (Field, 2009). Table 6 shows the Spearman’s rho correlations between the CEO compensation and the independent variables.

Table 6 shows the correlations of CEO compensation with the M&As decision and other factors. CEO compensation presents a significant positive relationship with size, sales growth, ROA, ROA growth, margin, margin growth, board size, independent ratio, supervisory size, block share, CEO share, remuneration, political CEO and ACQ and Lag ACQ (p<0.01), and a significant negative relationship with stock return and market ratio (p<0.01). The CEO compensation was positively related to the M&As decisions; in other words, the CEOs of firms involved in M&As were rewarded higher compensation.
Table 6 Correlations between CEO Compensation and other factors

<table>
<thead>
<tr>
<th></th>
<th>CEOCOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>0.463***</td>
</tr>
<tr>
<td>Sales growth</td>
<td>0.089***</td>
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<tr>
<td>ROA</td>
<td>0.312***</td>
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<tr>
<td>ROA growth</td>
<td>0.134***</td>
</tr>
<tr>
<td>Margin</td>
<td>0.183***</td>
</tr>
<tr>
<td>Margin growth</td>
<td>0.135***</td>
</tr>
<tr>
<td>Stock return</td>
<td>-0.120***</td>
</tr>
<tr>
<td>Market ratio</td>
<td>-0.095***</td>
</tr>
<tr>
<td>Board size</td>
<td>0.084***</td>
</tr>
<tr>
<td>Independent ratio</td>
<td>0.024**</td>
</tr>
<tr>
<td>Supervisory size</td>
<td>0.036***</td>
</tr>
<tr>
<td>Block share</td>
<td>0.133***</td>
</tr>
<tr>
<td>CEO share (%)</td>
<td>0.179***</td>
</tr>
<tr>
<td>CEO duality</td>
<td>-0.005</td>
</tr>
<tr>
<td>Remuneration</td>
<td>0.165***</td>
</tr>
<tr>
<td>Political CEO</td>
<td>0.077***</td>
</tr>
<tr>
<td>ACQ</td>
<td>0.062***</td>
</tr>
<tr>
<td>Lag ACQ</td>
<td>0.061***</td>
</tr>
</tbody>
</table>

***. Significant at the 0.01 level (2-tailed), **. Significant at the 0.05 level (2-tailed), * Significant at the 0.1 level.

6.5. Multiple Regression Analysis

While the correlation analysis provided some insights into the relationship between CEO compensation and the other factors, it cannot be concluded that relationships exist because the univariate analysis suffered from the omitted variables problem. In this case, the relationship observed might be a result of other variables not controlled for. In order to address this problem, multiple linear regression analysis was carried out.

6.5.1. Regression Assumptions

Multiple regression analysis is based on a number of assumptions to ensure
validity of the results. These assumptions were discussed in chapter 4, including normality, linearity, homoscedasticity, and independence of error terms. Additionally, multicollinearity of the data has to be ruled out. To test whether these assumptions were met, numerical methods were used.

For regression analysis, the main problem was the multicollinearity among the independent variables. In Table 7, the Spearman’s rho correlations among the independent variables are presented; the outcomes indicate that there were many significant relationships (p<.01) among the independent variables. Although the correlations were significant, all except margin growth and ROA growth (r= 0.741) were below 0.7. It is suggested that multicollinearity may damage or threaten regression analysis if the degree of correlation exceeds 80% (Gujarati, 2003; Hair et al., 1995). Since all correlations are below the threshold benchmark in Table 8, multicollinearity was not considered to be a big problem. In addition, the variance inflation factors (VIFs) for each independent variable were computed and analysed. The VIFs for all independent variables were far below the critical value of 10 (Tabachnick & Fidell, 1996), suggesting that multicollinearity was not a major problem. Considering the strong relationship between ROA growth and margin growth, this study would not put them in the same regression model.
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 7 The Spearman’s rho correlations for Model 1

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
<td>Sales Growth</td>
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<td>ROA</td>
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<td>ROA Growth</td>
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<td>Margin Growth</td>
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<tr>
<td>Stock Return</td>
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<td>0.066***</td>
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<td>0.068***</td>
<td>0.168***</td>
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<tr>
<td>Market Ratio</td>
<td>-0.529***</td>
<td>0.108***</td>
<td>0.338***</td>
<td>0.078***</td>
<td>0.189***</td>
<td>0.062***</td>
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<tr>
<td>CEO Duality</td>
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<td>-0.018***</td>
<td>-0.007***</td>
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<td>-0.014***</td>
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<tr>
<td>Board Size</td>
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<td>0.028***</td>
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<td>-0.076***</td>
<td>-0.110***</td>
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<td>0.031***</td>
<td>0.020***</td>
<td>0.017***</td>
<td>0.014***</td>
<td>0.009***</td>
<td>-0.068***</td>
<td>-0.099***</td>
<td>0.340***</td>
<td>1.000</td>
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<td></td>
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</tr>
<tr>
<td>Independent Ratio</td>
<td>0.025**</td>
<td>-0.007***</td>
<td>-0.000***</td>
<td>0.005***</td>
<td>0.010***</td>
<td>0.009***</td>
<td>0.005***</td>
<td>0.011***</td>
<td>0.020***</td>
<td>-0.228***</td>
<td>-0.033***</td>
<td>1.000</td>
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<td></td>
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<tr>
<td>Remuneration</td>
<td>0.115***</td>
<td>0.020***</td>
<td>0.040***</td>
<td>0.012***</td>
<td>0.028***</td>
<td>0.014***</td>
<td>-0.125***</td>
<td>0.025***</td>
<td>0.004***</td>
<td>0.028***</td>
<td>0.017***</td>
<td>-0.009***</td>
<td>1.000</td>
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</tr>
<tr>
<td>CEO Share</td>
<td>0.114***</td>
<td>0.022***</td>
<td>0.120***</td>
<td>0.067***</td>
<td>0.034***</td>
<td>0.072***</td>
<td>-0.002***</td>
<td>-0.020***</td>
<td>0.043***</td>
<td>0.015***</td>
<td>0.014***</td>
<td>-0.012***</td>
<td>-0.000***</td>
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<tr>
<td>Block Share</td>
<td>0.295***</td>
<td>0.116***</td>
<td>0.194***</td>
<td>0.055***</td>
<td>0.126***</td>
<td>0.055***</td>
<td>-0.006***</td>
<td>-0.052***</td>
<td>-0.073***</td>
<td>0.086***</td>
<td>0.064***</td>
<td>0.017***</td>
<td>-0.019***</td>
<td>-0.140***</td>
<td>1.000</td>
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<tr>
<td>Political CEO</td>
<td>0.074***</td>
<td>0.029***</td>
<td>0.070***</td>
<td>0.020***</td>
<td>0.102***</td>
<td>0.031***</td>
<td>-0.015***</td>
<td>0.002***</td>
<td>0.056***</td>
<td>-0.004***</td>
<td>0.005***</td>
<td>0.001***</td>
<td>0.014***</td>
<td>0.015***</td>
<td>0.033***</td>
<td>1.000</td>
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<tr>
<td>ACQ</td>
<td>0.035***</td>
<td>0.054***</td>
<td>0.038***</td>
<td>0.007***</td>
<td>0.043***</td>
<td>0.028***</td>
<td>-0.012***</td>
<td>0.015***</td>
<td>0.002***</td>
<td>-0.000***</td>
<td>0.002***</td>
<td>0.017***</td>
<td>0.038***</td>
<td>0.002***</td>
<td>0.040***</td>
<td>0.049***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Lag ACQ</td>
<td>0.049***</td>
<td>0.017**</td>
<td>0.020**</td>
<td>0.006***</td>
<td>0.031***</td>
<td>-0.005***</td>
<td>-0.038***</td>
<td>0.011***</td>
<td>-0.004***</td>
<td>0.004***</td>
<td>0.003***</td>
<td>0.012***</td>
<td>0.036***</td>
<td>0.003***</td>
<td>0.021**</td>
<td>0.041***</td>
<td>0.045***</td>
<td>1.000</td>
</tr>
</tbody>
</table>
With respect to the assumption of homoscedasticity, the widely-used Breusch-Pagan test (Null hypothesis: Constant variance) and White tests (Null hypothesis: homoscedasticity) were employed to detect the problem of heteroscedasticity. The findings of both tests illustrated that the problem of heteroscedasticity existed (Prob > chi2 = 0.0000) in model 1(1), model 1(2) and model 1(3). In addition, a Wooldridge test was used in this study since it is the most common technique employed to detect autocorrelation for panel data. The results of this test showed that the assumption of independence of the error terms was met in model 1(1) and model 1(2), but not met in model 1(3). In the presence of panel data sets, it was suggested that it was necessary to account for individual effects (unobserved heterogeneity). In order to deal with this problem, individual effects models, by estimating either the Fixed Effects or Random
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Effects Model, were considered for panel data analysis.

To justify this choice statistically, research in economics usually utilises the Hausman test (e.g. McKnight & Weir, 2009). The Hausman test (1978) is used to statistically make the choice between Fixed Effects or Random Effects Model, and works by facilitating the differentiation between these two approaches by examining for correlations. The results of this test can be interpreted as follows. If the correlation between X variables and ε\textsubscript{i} is found to be:

i. Significant or less than 0.05, then the fixed effect approach is preferred.

ii. Insignificant or more than 0.05, then the random effect approach is preferred.

Therefore, under the Hausman specification test, the assumptions for the choice of (1) the fixed effect approach was that the X variables must be significantly correlated to the unobserved heterogeneity, and (2) the random effect approach was that the X variables must be insignificantly correlated to the unobserved heterogeneity. According to this test, the results of (Prob>chi2 = 0.0000) indicated that the fixed effect model was preferred for the model 1(1) and model 1(2) and model 1(3). However, the problems of heteroscedasticity cannot be handled using the Fixed Effects Model. To address the problem arising from heteroscedasticity in model 1(1) and model 1(2); t-statistics in the current study were computed with White’s (1980) heteroscedasticity-consistent covariance as it dealt with the problem of errors that were not identically distributed. Fixed effect (robust) regression becomes the main regression for model 1(1) and model 1(2).
For model 1(3), the problem of autocorrelation cannot be handled using the Fixed Effects Model. Arellano and Bond (1991) suggested that SGMM was a better estimation method to address the problem of autocorrelation and unobservable fixed effect problems for the dynamic panel data model. Thus SGMM becomes the main regression for model 1(3).

6.5.2. Multivariate Analysis: CEO Compensation and M&As Decisions

This section tests whether CEO compensation in Chinese listed firms was related to M&As decisions in a multivariate setting, with industry controls. The industry was based on 18 CSRC classifications of industries. The analysis used Fixed Effect Regression with robust standard errors. The results are reported in Table 9.

Table 9 presents that the $R^2$ of 0.206 suggest that the model 1(1) or the equation had a good fit. The results of model 1(1) show that size was positively related to CEO compensation, significant at level 0.01. There was a significantly positive relationship between CEO compensation and ROA, statistically significant at the 0.01 level. The market ratio was positively related to CEO compensation, significant at the 0.01 level. The acquisition dummy was positively correlated to the CEO compensation significant at the 0.01 level.

Model 1(2) showed the empirical results of Fixed Effect Regression (robust) of CEO pay against M&As activity controlling other factors. Two separate sub-models were created to deal with the multicollinearity problem between ROA growth and margin growth for Model 1(2). They both considered the industries effect on CEO
compensation. The $R^2$ of 0.231 and 0.232 respectively in two sub-models suggested that the model or the equation had a good fit.

The results of model 1(2) showed that size was positively related to CEO compensation, significant at level 0.01 in two sub-models. The coefficients on sales growth were negative and statistically significant at the 0.05 levels in both ROA growth and margin growth models after controlling the industry effect. There was a significantly positive relationship between the CEO compensation and ROA, statistically significant at the 0.01 level in two sub-models. The coefficient of the margin was negative and statistically significant at the 0.05 level in two sub-models, also the stock return was negative and statistically significant at the 0.01 level in two sub-models. There was a positive relationship between CEO compensation and market ratio, significant at 0.01 levels in two sub-models. The coefficients on acquisition were positive and statistically significant at the 0.01 level in two sub-models. Also, the coefficients on lag acquisition were positive and statistically significant at the 0.1 levels in both ROA growth and margin growth models after controlling the industry effect.

Model 1(3) shows the main regression (SGMM) of CEO compensation on M&As decisions after controlling other factors. Two separate sub-models were created to deal with the multicollinearity problem between ROA growth and margin growth for Model 1(3) controlling the industries effect.

The current study performed several specification tests for the dynamic GMM estimation framework. Specifically, if the assumptions of the GMM IV estimator were valid, then the residuals in the first differences (AR (1)) should be correlated but there
should be no serial correlation in the second differences (AR (2)). Using the test suggested by Arellano and Bond (1991), the current study was unable to reject the null hypothesis that there was zero autocorrelation in the second differences for the CEO compensation in two sub-models (p-value: 0.464 and 0.527). Next, the Hansen test was applied for the null hypothesis that the overidentifying restrictions from the use of multiple lags as instruments. The author does not reject the null hypothesis of the validity of instruments for CEO compensation (p-value: 0.269 and 0.397) for two-sub models of model 1(3) that are controlling the industries effect. The p-value of the Hansen test should be a higher value than the conventional significance level of 0.05 or 0.10, at least as high as 0.25 is suggested by Roodman (2007), otherwise it would be a concern. Hence, the two sub-models of model 1(3) that controlled the industries effects are the appropriate models.

Similar to model 1(1) and model 1(2), the coefficient of the size variable in model 1(3) was significantly positive across all specifications, significant at the 0.01 level in two sub-models. There was a significantly positive relationship between CEO compensation and ROA, statistically significant at the 0.01 level in two sub-models. The coefficients of the margin and stock return were negative and statistically significant at the 0.01 level in two sub-models. The coefficient of the CEO shareholding was positive and significant at the 0.01 level in two sub-models. The block shareholding was positively related to the CEO compensation at the 0.01 level in two sub-models. Also, the coefficients on acquisition dummy were positive and statistically significant at the 0.01 level in two sub-models. Margin growth was positively related to the CEO
compensation only in the margin growth model.
Table 9 The determinants of CEO compensation in Chinese firms: M&As Activity and other Factors

<table>
<thead>
<tr>
<th></th>
<th>Model1(1)</th>
<th>Model1(2)</th>
<th>Model1(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROA Growth</td>
<td>Margin Growth</td>
<td>ROA Growth</td>
</tr>
<tr>
<td>Market ratio</td>
<td>0.07***</td>
<td>0.13***</td>
<td>0.13***</td>
</tr>
<tr>
<td></td>
<td>-9.55</td>
<td>-14.16</td>
<td>-14.24</td>
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<tr>
<td>Size</td>
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<td>0.51***</td>
<td>0.51***</td>
</tr>
<tr>
<td></td>
<td>-23.27</td>
<td>-23.71</td>
<td>-23.68</td>
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<td>Sales growth</td>
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<td>-0.06**</td>
<td>-0.06**</td>
</tr>
<tr>
<td></td>
<td>(-2.56)</td>
<td>(-2.43)</td>
<td>-0.26</td>
</tr>
<tr>
<td>ROA</td>
<td>1.94***</td>
<td>2.77***</td>
<td>2.75***</td>
</tr>
<tr>
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<td>-9.33</td>
<td>-7.18</td>
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<td>ROA growth</td>
<td>0.004</td>
<td>0.01</td>
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</tr>
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<td></td>
<td>-0.76</td>
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<td>-1.02</td>
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<tr>
<td>Margin</td>
<td>-0.44***</td>
<td>-0.45***</td>
<td>-0.59***</td>
</tr>
<tr>
<td></td>
<td>(-3.11)</td>
<td>(-3.15)</td>
<td>(-3.44)</td>
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<td>Stock return</td>
<td>-0.14***</td>
<td>-0.14***</td>
<td>-0.05***</td>
</tr>
<tr>
<td></td>
<td>(-13.12)</td>
<td>(-13.26)</td>
<td>(-3.94)</td>
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<tr>
<td>CEO duality</td>
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<td>-0.01</td>
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<tr>
<td></td>
<td>(-0.47)</td>
<td></td>
<td>(-0.23)</td>
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<tr>
<td>Board size</td>
<td>0.01</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.33</td>
<td>-1.63</td>
</tr>
<tr>
<td>Supervisory size</td>
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<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>(-0.35)</td>
<td></td>
<td>(-0.56)</td>
</tr>
<tr>
<td>Independent ratio</td>
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<td>0.002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.37</td>
<td></td>
<td>-0.01</td>
</tr>
<tr>
<td>Remuneration</td>
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<td></td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(-0.34)</td>
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<td>(-0.14)</td>
</tr>
<tr>
<td>CEO share</td>
<td>2.86***</td>
<td>2.77***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4.27</td>
<td>-4.17</td>
<td></td>
</tr>
<tr>
<td>Block share</td>
<td>0.39***</td>
<td>0.38***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-2.98</td>
<td>-2.93</td>
<td></td>
</tr>
<tr>
<td>Political CEO</td>
<td>-0.02</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.21)</td>
<td>(-0.20)</td>
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<tr>
<td>ACQ</td>
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<td>0.13***</td>
<td>0.13***</td>
</tr>
<tr>
<td></td>
<td>-4.10</td>
<td>-4.01</td>
<td>-3.98</td>
</tr>
<tr>
<td>Lag ACQ</td>
<td>0.07*</td>
<td>0.07*</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>-1.92</td>
<td>-1.93</td>
<td>(-0.69)</td>
</tr>
<tr>
<td>Margin growth</td>
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<td>0.02*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.36</td>
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</tbody>
</table>
6.5.3. Discussion of Results

The acquisition dummy showed a significant positive association with CEO compensation in model 1 (1), (2), and (3) (p<0.01). Hence Hypothesis 1 was supported, that the M&As decisions were positively correlated to CEO compensation. The main findings were consistent with those by, for instance, Grinstein and Hribar (2004), Coakley and Iliopoulou (2006), Guest (2009), and Bugeja et al. (2012). This suggests that in model 1 (1), after controlling for size, market ratio, and ROA, acquiring firms paid higher CEO total compensation for acquisitions in the year of completing the M&As; in model 1(2) after controlling for size, market ratio, ROA, ROA growth, margin, margin growth, sales growth, and stock return, acquiring firms paid higher CEO total compensation for acquisitions in the year of completing M&As and one year after; in model 1(3), after controlling for variables of size, market ratio, ROA, ROA growth, margin, margin growth, sales growth, stock return, board size, independent ratio, supervisory size, block share, CEO share, remuneration, and political CEO, acquiring
firms paid higher CEO total compensation for acquisitions in the year of completing M&As, but not one year after. The non-significant relationship between the lag acquisition dummy and CEO compensation in model 1(3) might be as a result of the consideration of more corporate governance factors and the endogeneity problem with GMM methods.

The significantly positive results reflected the phenomenon in China that CEOs of acquiring firms were on average awarded higher compensation following completion of acquisitions in the context of large amount of M&As deals produced following the Non-tradable Share Reform in April 2005. Also, the results were consistent with the argument by Zhang and Guo (2007) that CEOs owned the rights to execute M&As deals, which was the most important strategy of a firm’s resource allocation. The lack of efficient long-term incentive makes CEOs concentrate on how to increase cash compensation which was rewarded to CEOs that directly related to a firm’s profit and complexity of operation. M&As would bring firms complexity of operation. Therefore, making M&As has been the preferable way for CEOs to expand their compensation.

In terms of the control variables of a firm’s performance, the coefficient of the size variable was positive across all specifications, suggesting that larger firms were more complex to operate and prone to pay higher CEO compensation (see Conyon, 2014). The findings were consistent with those by, for instance, Core et al. (1999), Conyon et al. (2009), and Cadman (2010). There was a positive relationship between CEO compensation and ROA. The findings were consistent with those by, for instance, Grinstein and Hribar, (2004), Cadman et al. (2010), Chen et al. (2010), Wang et al.
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(2011), Bugeja et al. (2012), and Conyon and He (2012), and the results suggested that firms would pay their CEOs more total cash compensation if they achieved a superior higher ROA. There was no significantly positive relationship between ROA growth and CEO compensation, which was consistent with findings by Grinstein and Hribar (2004) and Coakley and Iliopoulos (2006). The coefficient of the market ratio variable was positive, implying that firms would pay their CEOs more total cash compensation if they achieved a superior higher market ratio. The findings were consistent with those by, for instance, Murphy and Sandino (2010) and Conyon and He (2012). There was no significantly positive relationship between sales growth and CEO compensation in model 1(3) that was consistent with those by, for instance, Grinstein and Hribar (2004), Coakley and Iliopoulos (2006), and Bugeja et al. (2012). The margin had a strong negative correlation with CEO compensation, implying firms would pay their CEOs more total cash compensation if they achieved a lower margin. The findings were not consistent with Grinstein and Hribar (2004), Coakley and Iliopoulos (2006), or Bugeja et al. (2012). The margin had no strong positive correlation with CEO compensation in model 1(2), which was consistent with the findings of Grinstein and Hribar (2004) and Coakley and Iliopoulos (2006). Stock return had strong negative correlations with CEO compensation, implying firms would pay their CEOs more total cash compensation if the stock returns decreased.

In terms of the control variables of corporate governance, there was no significant relationship between variables of CEO duality, board size, remuneration, supervisory board size, and independent ratio and CEO compensation. The findings
were consistent with those by, for instance, Wintoki (2007), Li et al. (2007), Buck et al. (2008), Liang et al. (1999), Chen et al., (2010), Ding et al., (2010), Wan (2009), Conyon and He (2012), and Li et al. (2006). The results showed that these corporate governance mechanisms did not have a significant influence on CEO compensation in Chinese listed firms. However, the variable of CEO share had a strongly positive influence on CEO compensation, at the 0.01 significant levels. The finding was consistent with those by, for instance, Mehran (1995), Cyert et al. (2002), Li et al. (2007), and Chen et al. (2010). The result was consistent with the argument by, for instance, Finkelstein and Hambrick (1989), that increasing stock ownership gave managers more control and power to enhance their pay. The block share was positively correlated to CEO compensation, at significant levels of 0.01, which was not consistent with previous findings that the block share was negatively correlated to CEO compensation, indicating that the block share might not be an effective monitoring mechanism in Chinese listed firms. In addition, the variable of political CEO had no strong influence on CEO compensation, showing that the CEO with a political background might not have a strong impact on CEO compensation.

Overall, in response to the first objective of whether CEO compensation was correlated with M&As decisions, the empirical analysis results provided above show that CEO compensation in Chinese firms was related to M&As completion when controlling factors as in the Anglo-Saxon countries. Also, CEO compensation in Chinese firms was related to M&As completion when controlling other corporate governance factors and factors related to the Chinese institutional environment, e.g. a
CEO’s political connections.

6.6. Summary

The main purpose of this chapter was to test the hypotheses relating to the relationship between CEO compensation and M&As. Before presenting the discussion of empirical findings, the data description was presented to provide an overall picture of the data. The dataset was then used to examine the distributions and undertake any transformations as necessary to meet the assumptions of the regression approach applied in the analysis. The results of univariate and multiple regression analysis are presented as follows.

In terms of data description, the treatment sample and a control sample were used in the analysis. Generally, the average executive compensation and firm size in acquiring firms in the treatment sample was significantly larger than firms in the control sample. Furthermore, the current study did not observe significant differences between acquiring and non-acquiring firms in terms of board and CEO characteristics. For example, board size, the number of independent director, supervisory board size, and the ratio of CEO duality in both the treatment and control sample was nearly the same. The descriptive results of board characteristics were consistent with the guidance of the China Securities Regulatory Commission (CSRC) and Company Law.

The importance of data normality for regression analysis was discussed. In order to test for deviations from normality, the Kolmogorv-Smirnov (KS) test was carried out. The results of the Kolmogorv-Smirnov test confirmed that the assumption of normality
for all variables was not completely met. Statistically, it is suggested that data
transformation helps in overcoming the problem of non-normality and outliers, thus
improving the normality of data. Consistent with previous literature, this study chose
to winsorize data, because to do so reduces the influence of extreme values at both ends
of the distribution without removing the observations, and so improves the distribution
of data. In this thesis, because of the outliers, the variables (sales growth, ROA, ROA
growth, margin, margin growth, stock return, and CEO shareholding) were winsorized
at the 5th and 95th percentile. Also, the natural logarithm of CEO compensation and
size was used because of their positive skewness and strong deviation from the
normality. After transforming the data, the skewness and the kurtosis were close to the
requirements, improving the normality.

After transforming the data, the univariate correlations between CEO
compensation and the independent variables were examined and have provided a first
understanding of how each independent variable relates to CEO compensation. They
were carried out on the transformed variables using the Spearman’s rho correlations,
which was appropriate for not perfectly normally distributed data. The results showed
the correlations of CEO compensation with M&As decisions and other factors. The
CEO compensation presented a significant positive relationship with size, sales growth,
ROA, ROA growth, margin, margin growth, board size, independent ratio, supervisory
size, block share, CEO share, remuneration, political CEO and ACQ and Lag ACQ, and
a significant negative relationship with stock return and market ratio. Importantly, CEO
compensation was positively related to the M&As decisions, indicating that the CEOs
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of firms involved in M&As were rewarded higher compensation from univariate analysis.

Multiple regression analysis is based on a number of assumptions in order to ensure validity of the results. These assumptions include normality, linearity, homoscedasticity, and independence of error terms. Additionally, multicollinearity of the data has to be ruled out. To test whether these assumptions were met, numerical methods were used. For the multicollinearity problem, the outcomes of Spearman’s rho correlations and the variance inflation factors (VIFs) indicated the high correlation in margin growth and ROA growth. Considering the multicollinearity problem, ROA growth and margin growth was separately put into two models. In terms of the assumption of homoscedasticity, Breusch-Pagan test and White tests were used to detect the problem of heteroscedasticity in this study. The findings of both tests illustrated that the problem of heteroscedasticity existed in model 1(1), model 1(2) and model 1(3). In addition, a Wooldridge test was used in this study since it is the most common technique for detecting the problem of autocorrelation for panel data. The results of this test showed that the assumption of independence of the error terms was met in model 1(1) and model 1(2), but was not met in model 1(3). Based on the results of tests for assumptions, the fixed effect (robust) regression became the main regression for model 1(1) and model 1(2) as it could address the problem arising from heteroscedasticity in model 1(1) and model 1(2). As a result of the problem of autocorrelation, the SGMM method was suggested by Arellano and Bond (1991) to address problems in dynamic panel data model.
After the methods were decided, the multivariate analysis was developed to address the first hypothesis of this study, of whether CEO compensation in Chinese listed firms was related to M&As decisions after controlling other factors. The results showed that M&As decisions were positively correlated to CEO compensation, indicating that Chinese acquiring firms paid higher CEO total compensation for acquisitions in the year of completing the M&As after controlling firm size, corporate performance, and corporate governance characteristics.

The main findings were consistent with those by, for instance, Grinstein and Hribar (2004), Coakley and Iliopoulou (2006), Guest (2009), and Bugeja et al. (2012). The results reflected the phenomenon in China that CEOs of acquiring firms were, on average, awarded higher compensation following the completion of acquisitions in the context of large amounts of M&As deals produced following the Non-tradable Share Reform in April 2005. Also the results were consistent with the argument by Zhang and Guo (2007) that CEOs owned the rights to execute M&As deal, which was the most important strategy of a firm’s resource allocation. The lack of efficient long-term incentive made CEOs concentrate on how to increase cash compensation. The cash compensation rewarded to CEOs was directly related to the firm’s profit and complexity of operation. M&As would bring firms complexity of operation, therefore, making M&As has been the preferable way for CEOs to expand their compensation.
Chapter Seven: Determination of CEO Compensation Following M&As

7.1. Introduction

In chapter 1, the second objective was to examine the factors influencing the determination of the CEO compensation following M&As in Chinese firms. The hypotheses detailing the relationship between CEO compensation and the factors were developed in chapter 4. The approach to testing these hypotheses was discussed in chapter 5 (research methodology). The purpose of this chapter is to present and discuss the results from the hypotheses testing as discussed in chapter 4.

The chapter is structured as follows: In section 7.2 the dataset used in testing the hypotheses is presented to provide an overall picture of the data. In section 7.3, the dataset used to examine the distributions and undertake any transformations as necessary to meet the assumptions of the regression approach applied in the analysis. Both the results of univariate and multivariate analyses are presented in section 7.4 and the findings discussed in section 7.5. In section 7.6, robustness checks are undertaken. Finally, section 7.7 summarises the chapter and provides concluding remarks.

7.2. Descriptive Statistics

As explained in chapter 4, two samples were used in the analysis: A treatment sample and a control sample. The treatment sample included 369 M&As deals that Chinese listed firms engaged in during the period 2006-2013. The control firms were those companies that did not engage in M&As in the same period. Although the
summarised statistics of variables for model 1 in the treatment and control sample have been presented in chapter six, the summarised statistics of other variables for model 2 in the treatment sample should be discussed in this chapter. Table 10 below presents the summarised statistics of other important variables for model 2.

From Table 10 below, the average state controller in acquiring firms in the treatment sample is 62%, which showed that 62% of firms have the state as the largest shareholder, while the average foreign controller in acquiring firms in the treatment sample was 2%, which showed that 2% of firms had a foreign entity as the largest shareholder. The findings were approximately consistent with the 55% of state controllers and 2% of foreign controllers from 2000-2010 reported by Conyon and He (2012). In terms of the M&As characteristics, the average deal size was around RMB 992 million, while the median figure was approximately RMB 234 million. The deal size was lower than developed western countries such as the UK (£254 million), US (£804 million) (Coakley & Iliopoulou, 2006), and Australia with $344 million (Bugeja et al., 2012). The market averagely reacted quite positively to the M&As announcement, having a positive cumulative abnormal return (CAR) of 0.03 over the event window, three days surrounding the announcement [-1,1], which was consistent with the findings of positive cumulative abnormal return in Asian countries, particularly in China (Ma et al., 2009; Wong et al., 2009), but not completely consistent with the mixed findings of western countries; some obtained the positive cumulative abnormal return, but others obtained a negative cumulative abnormal return (e.g. Moeller et al., 2003; Gaughan, 2005; Girma et al., 2006).
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 10 Descriptive Statistics

<table>
<thead>
<tr>
<th>Treatment Sample - Financial characteristics, Governance, Political connection and M&amp;As characteristics</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>25th quartile</th>
<th>Median</th>
<th>75th Quartile</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Size (¥mil)</td>
<td>14400.00</td>
<td>33.00</td>
<td>1100000.00</td>
<td>1600.00</td>
<td>3300.00</td>
<td>8000.00</td>
<td>65300.00</td>
</tr>
<tr>
<td>ROA</td>
<td>0.04</td>
<td>-0.42</td>
<td>0.47</td>
<td>0.02</td>
<td>0.04</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>Stock return</td>
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<td>-0.80</td>
<td>11.85</td>
<td>-0.26</td>
<td>0.11</td>
<td>0.92</td>
<td>1.44</td>
</tr>
<tr>
<td><strong>Board and CEO Characteristics</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board size</td>
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<td>0</td>
<td>18</td>
<td>9</td>
<td>9</td>
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</tr>
<tr>
<td>Independent director ratio</td>
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<td>0</td>
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<td>0.33</td>
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</tr>
<tr>
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<td></td>
</tr>
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<td>0.41</td>
<td>0.53</td>
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<td>Political CEO</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M&amp;As characteristics</strong></td>
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<td></td>
<td></td>
</tr>
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<td>Deal size(¥mil)</td>
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<td>2180</td>
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<td>-0.02</td>
<td>0.01</td>
<td>0.05</td>
<td>0.22</td>
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</table>
7.3. Normality Tests and Data Transformations

This section reports the results of the normality tests for both the dependent and the continuous independent variables for model 2. As discussed in the methodology chapter, in order to test for deviations from normality, skewness and kurtosis would be considered and the Kolmogorov-Smirnov (KS) test was carried out. From table 11, the results for skewness and kurtosis indicated that the variables were positively or right skewed, except for the ROA, board size and independent ratio that was negatively or left skewed, and all variables were thus non-normally distributed. However, other checks were applied to confirm these findings. The results of the Kolmogorov-Smirnov test in table 10 confirmed that the assumption of normality was not met.

As discussed in the methodology chapter, data transformation assists in overcoming the problem of non-normality and outliers by artificially making the data normally distributed, and it has been found that using this technique for improving the normality of data is a valuable statistical method. Winsorizing was chosen as the technique to transform the data for this study. When data is winsorized, the top and bottom ends of the distribution are set equal to a specified percentile or value of the data. In this thesis, the variables (CAR (-1,1), ROA, stock return, CEO shareholding) were winsorized at the 5th and 95th percentile; that is, values below the 5th were set to the value at the 5th percentile, and values above 95th percentile were set to the value at the 95th percentile. This study then used a natural logarithm of CEOCOM and size because of their positive skewness and strong deviation from normality. After transforming the data, the skewness and the kurtosis were close to ±1.96 and ±3
respectively, as indicated in Panel B in Table 11, which improved the normality.
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 11 Data Transformations

<table>
<thead>
<tr>
<th>Panel</th>
<th>Untransformed variables</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>25th quartile</th>
<th>Median</th>
<th>75th Quartile</th>
<th>Std</th>
<th>Skew.</th>
<th>Kurt.</th>
<th>K-S</th>
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</tr>
<tr>
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<td>110000.00</td>
<td>1600.00</td>
<td>3300.00</td>
<td>8000.00</td>
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<td>214.00</td>
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<tr>
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<td>ROA</td>
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<td>-0.42</td>
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<td>0.02</td>
<td>0.04</td>
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<td>0.11</td>
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<td>3.00</td>
<td>3.00</td>
<td>5.00</td>
<td>1.32</td>
<td>0.74</td>
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<td></td>
</tr>
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<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Political CEO</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>0.13</td>
<td>17300.00</td>
<td>57.10</td>
<td>234.00</td>
<td>822.00</td>
<td>2180.00</td>
<td>4.59</td>
<td>28.99</td>
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<td>-0.17</td>
<td>3.94</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.05</td>
<td>0.22</td>
<td>16.18</td>
<td>291.35</td>
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<table>
<thead>
<tr>
<th>Panel</th>
<th>Transformed variables</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>25th quartile</th>
<th>Median</th>
<th>75th Quartile</th>
<th>Std</th>
<th>Skew.</th>
<th>Kurt.</th>
<th>K-S</th>
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<tr>
<td>B:</td>
<td>CEOCOM (Ln)</td>
<td>13.05</td>
<td>10.52</td>
<td>15.74</td>
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<td>21.19</td>
<td>21.92</td>
<td>22.80</td>
<td>1.41</td>
<td>0.46</td>
<td>4.13</td>
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<td>5.13</td>
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<td>8.91</td>
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<td>2.96</td>
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<td>2.63</td>
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<tr>
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<td>0.02</td>
<td>0.04</td>
<td>0.06</td>
<td>0.04</td>
<td>0.34</td>
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<tr>
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<td>1.06</td>
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<tr>
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<td>0.00</td>
<td>0.00</td>
<td>0.02</td>
<td>3.17</td>
<td>11.76</td>
<td>0.000</td>
<td></td>
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</tbody>
</table>
Notes: $Ln$ means natural logarithm of the variables; $WS95$ means the variables were winsorized at the 5th and 95th percentile that is values below the 5th were set to the value at the 5th percentile, and values above 95th percentile were set to the value at 95th percentile.
7.4. Univariate Analysis

This section presents the results of investigating the univariate correlations between CEO compensation and the independent variables for model 2. The correlation between CEO compensation and each independent variable provided a first understanding of how each independent variable related to CEO compensation. In the previous section, the data was tested for normality and measures were taken, where appropriate, to obtain a more normal distribution of variables with normality violations, but not perfectly achieving normal distribution. Hence the analysis was carried out on the transformed variables using the Spearman’s rho correlations, which was appropriate for not perfectly normally distributed data (Field, 2009). Table 12 shows the Spearman’s rho correlations between the CEO compensation and the independent variables.

Table 12 shows correlations between CEO compensation and other factors following M&As. CEO compensation presented a significant positive relationship with size, ROA, block share, CEO share, political CEO, and deal size (p<0.01), and a significant negative relationship with stock return (p<0.01).
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 12 Correlations between CEO Compensation and Other Factors Following M&As

<table>
<thead>
<tr>
<th></th>
<th>CEOCOM</th>
</tr>
</thead>
<tbody>
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<tr>
<td>ROA</td>
<td>0.271***</td>
</tr>
<tr>
<td>Stock return</td>
<td>-0.127**</td>
</tr>
<tr>
<td>Board size</td>
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<td>Supervisory size</td>
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</tr>
<tr>
<td>Block share</td>
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</tr>
<tr>
<td>State controller</td>
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</tr>
<tr>
<td>Foreign controller</td>
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</tr>
<tr>
<td>CEO share (%)</td>
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</tr>
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<tr>
<td>Remuneration</td>
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<td>Political CEO</td>
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<tr>
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</tr>
<tr>
<td>Deal size</td>
<td>0.138***</td>
</tr>
</tbody>
</table>

7.5. Multiple Regression Analysis

While the correlation analysis provided some insights into the relationship between CEO compensation and other factors, one cannot conclude that relationships exist because the univariate analysis suffered from the omitted variables problem. In this case, the relationship observed might be a result of other variables not controlled for. In order to address this problem, multiple linear regression analysis was carried out.

7.5.1. Regression Assumptions

Multiple regression analysis is based on a number of assumptions to ensure validity of the results. These assumptions were discussed in chapter 4 including normality, linearity, homoscedasticity, and independence of error terms. Additionally,
multicollinearity of the data has to be ruled out. To test whether these assumptions were met, numerical methods were used.

For regression analysis, the main concern was multicollinearity among the independent variables. In Table 13, the Spearman’s rho correlations between the independent variables for model 2 identified whether a multicollinearity problem was presented. In Table 13, the outcomes indicated that there were many significant relationships ($p<.01$) among the independent variables. Although the correlations were significant, all were below 0.7 in model 2. Statistically, it was suggested that multicollinearity could damage or threaten regression analysis if the degree of correlation exceeded 80% (Gujarati, 2003; Hair et al., 1995). Therefore, multicollinearity was not considered to be a big problem. In addition, the current study also computed and examined the variance inflation factors (VIFs) for each independent variable of model 2. The VIFs for all independent variables were far below the critical value of 10 (Tabachnick & Fidell, 1996), suggesting multicollinearity was not a major problem.

With respect to the assumption of homoscedasticity, the widely-used Breusch-Pagan test (Null hypothesis: Constant variance) and White tests (Null hypothesis: homoscedasticity) were employed to detect the problem of heteroscedasticity. The findings of both tests illustrated that the problem of heteroscedasticity existed ($Prob > chi2 = 0.0000$) in model 2 (1) and model 2 (2). In addition, a Wooldridge test was used in this study since it is the most common technique employed to detect the problem of
autocorrelation for panel data. The results of this test showed that the assumption of independence of the error terms was met in model 2 (1) and model 2 (2).

In the presence of cross-sectional data sets, it is suggested the OLS estimates could be used for model 2. However, the problems of heteroscedasticity could not be handled using the OLS estimates. To address the problem arising from heteroscedasticity model 2 (1) and model 2 (2), t-statistics in the current study were computed with White’s (1980) heteroscedasticity-consistent covariance. This dealt with the problem of errors that were not identically distributed. The OLS (robust) regression became the main regression for model 2 (1) and model 2 (2).
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 13 Spearman’s rho Correlations among Independent Variables Model 2

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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<tr>
<td>Independent Ratio</td>
<td>0.056</td>
<td>-0.067</td>
<td>0.002</td>
<td>-0.291***</td>
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<td>0.427***</td>
<td>-0.083</td>
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<td>Block Share</td>
<td>0.303***</td>
<td>0.343***</td>
<td>-0.099*</td>
<td>0.052</td>
<td>0.001</td>
<td>0.032</td>
<td>1.000</td>
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<tr>
<td>CEO Share</td>
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<td>0.093*</td>
<td>0.004</td>
<td>0.060</td>
<td>-0.097*</td>
<td>0.017</td>
<td>-0.036</td>
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<td>0.000</td>
<td>0.004</td>
<td>-0.043</td>
<td>0.034</td>
<td>0.126**</td>
<td>0.094*</td>
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<td>Remuneration</td>
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<td>-0.074</td>
<td>-0.128**</td>
<td>0.014</td>
<td>0.023</td>
<td>0.059</td>
<td>0.043</td>
<td>-0.052</td>
<td>0.065</td>
<td>1.000</td>
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<td>Political CEO</td>
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<td>0.111**</td>
<td>-0.095*</td>
<td>0.035</td>
<td>-0.102*</td>
<td>0.058</td>
<td>0.104**</td>
<td>0.060</td>
<td>0.132**</td>
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<td>CAR(-1,+1)</td>
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<td>0.024</td>
<td>0.053</td>
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<td>-0.003</td>
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<td>-0.046</td>
<td>-0.040</td>
<td>-0.061</td>
<td>0.005</td>
<td>1.000</td>
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<td>Deal size</td>
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<td>0.174***</td>
<td>-0.153***</td>
<td>0.013</td>
<td>0.001</td>
<td>-0.005</td>
<td>0.325***</td>
<td>-0.055</td>
<td>0.070</td>
<td>0.042</td>
<td>0.034</td>
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<tr>
<td>State Controller</td>
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<td>-0.068</td>
<td>-0.017</td>
<td>0.157***</td>
<td>-0.034</td>
<td>0.084</td>
<td>0.047</td>
<td>0.030</td>
<td>-0.090*</td>
<td>0.066</td>
<td>0.101*</td>
<td>0.025</td>
<td>0.084</td>
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<td>Foreign Controller</td>
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<td>0.014</td>
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<td>0.082</td>
<td>0.042</td>
<td>-0.050</td>
<td>0.021</td>
<td>0.058</td>
<td>0.018</td>
<td>0.031</td>
<td>-0.112**</td>
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Table 14 VIF test for Model 2

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<td>Block share</td>
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<td>Board size</td>
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<td>ROA</td>
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<tr>
<td>State controller</td>
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<td>0.9</td>
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<tr>
<td>CEO share</td>
<td>1.11</td>
<td>0.9</td>
</tr>
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<td>Stock return</td>
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<td>CEO duality</td>
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<td>0.92</td>
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<tr>
<td>Political CEO</td>
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<td>0.93</td>
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<tr>
<td>Foreign controller</td>
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<td>0.95</td>
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<tr>
<td>Independent ratio</td>
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<td>0.96</td>
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<tr>
<td>Remuneration</td>
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<tr>
<td>CAR (-1,+1)</td>
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<td>Mean VIF</td>
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7.5.2. Empirical Results and Analysis for the Second Model: (Multivariate Analysis)

The main aim of model 2 was to examine the factors influencing the determination of CEO compensation following M&As in Chinese firms. The analysis tested the impact of the multi variables on CEO compensation as dependent variables. Therefore, a multiple regression was supposed to be relevant for this research.

Table 15 shows the empirical results of OLS (robust) regression of CEO pay against multi factors following M&As for model 2. Two separate sub-models for model 2 respectively on CEO compensation considering the industries effect had been developed; model 2(1) only considered the impact of block shareholders on CEO compensation, and model 2(2) also considered the impact of specific shareholder types on CEO compensation. The industry was based on 18 CSRC classifications of
industries. Table 15 presents $R^2$ of 0.307 for model 2(1) and 0.309 for model 2(2) respectively, showing that the model or the equation had a good fit.

The results of model 2(1) and model 2(2) showed that the size was positively related to CEO compensation, significant at level 0.01 in both models. There was a significantly positive relationship between CEO compensation and ROA, statistically significant at the 0.01 level in both models. The coefficient of the CEO shareholding was positive and significant at the 0.05 level in both models. Also, the coefficients on political CEO were positive and statistically significant at the 0.05 level in both models. However, the coefficients of stock return, CEO duality, board size, supervisory size, independent ratio, remuneration, block share, deal size, CAR (-1,+1), state controller, and foreign controller were not significant in either model, indicating that there was no strong relationship between those factors and CEO compensation.

7.5.3. Discussion of Results

According to agency theory, the optimally-designed compensation packages provide managers with incentives to devote more efforts to maximising shareholders’ benefits (Otten, 2008). Managerial effort can be measured in terms of firm performance and firm size (Ozkan, 2011; Conyon, 2014). The coefficient of the size variable was positive across all specifications, suggesting that the larger acquiring firms were more complex to operate and prone to pay higher CEO compensation (see Conyon, 2014). The findings were consistent with those by, for instance, Core et al. (1999), Bliss & Rosen, (2001), Wright et al. (2002), Conyon et al. (2009), and Cadman (2010). The
result was consistent with the previous argument that large firms had more growth opportunities and were complex operations that needed highly skilled managers who should devote more efforts and thus obtain higher compensation (Rosen, 1992; Conyon & Murphy, 2000).

There was a positive relationship between CEO compensation and ROA. The findings were consistent with those by, for instance, Grinstein and Hribar (2004), Cadman et al. (2010), Chen et al. (2010), Wang et al. (2011), Bugeja et al. (2012), and Conyon and He (2012). The results suggested that Chinese acquiring firms would pay their CEOs more total cash compensation if they had achieved a superior higher ROA. The result was consistent with agency theory that the optimal CEO compensation arrangement was designed to align the interests of shareholders, particularly providing managers with incentives to devote more efforts to maximising shareholders’ benefits (Otten, 2008). As agency theory suggested that moral hazard might occur when the shareholders could not directly observe managers’ behaviour, the managers would engage in activities that would harm the shareholders’ benefits. In this case, the shareholders were motivated to design compensation contracts to encourage the managers’ behaviour to align with their interests and maximize shareholders’ value; the compensation contract then has been seen as a vital and explicit mechanism to reduce moral hazard as the incentive compensation of managers can be correlated with the observable variables related to a manager’s performance, such as market returns or profitability (Holmstrom, 1979; Grinstein & Hribar, 2004). Therefore, in agency theory, executive compensation has to be tightly related to corporate performance, using profits
and share prices as measures (Dorff, 2005). The association between executive compensation and corporate performance demonstrated whether the compensation contract was optimal. The optimal contract would reward executives who worked hard and spend efforts enhancing corporate performance. However, in terms of other firm performance measures for this study, the regression result indicated that there were no statistically significant associations between stock return, deal size, and CAR (-1, +1), and CEO compensation. The finding of stock return was consistent with Grinstein and Hribar (2004); the finding of deal size was consistent with Bugeja et al. (2012); the finding of CAR (-1, +1) was consistent with Coakley and Iliopoulou (2006) and Bugeja et al. (2012).

According to Table 15 below, CEO share was positively correlated to CEO compensation, at the 0.05 significant levels, implying that CEOs obtained higher compensation when they owned higher ownership in Chinese acquiring firms. The finding was consistent with those by, for instance, Mehran (1995), Cyert et al. (2002), Li et al. (2007), and Chen et al. (2010). The result was consistent with the argument of managerial power theory, that increasing stock ownership gave managers more control and power to enhance their pay (Veprauskaitė & Adams, 2013). In terms of China, it was consistent with the argument that more ownership by management in Chinese listed firms indicated the more power that CEOs had, thus influencing the board and increasing possibility of entrenchment. Under the context of M&As, the higher CEO shareholding allowed CEOs to be more powerful and obtain higher compensation through making M&As.
Importantly, the political CEO was positively correlated to CEO compensation, at the 0.05 significant levels, implying that CEOs obtained higher compensation when CEOs have political connection for Chinese acquiring firms. The result was consistent with the managerial power theory combined with resource dependency theory. To reduce the uncertainty from the external environment and resource scarcities, firms endeavoured to look for resources which could assist in diminishing dependency between firms and the external environment (Pfeffer & Salancik, 1978), thus reducing transaction costs (Williamson, 1984), and become competitive in order to survive (Singh et al., 1986). In China, political connections as one typical *Guanxi* for firms tends to be an efficient method in business transactions and brings many resources and benefits. Therefore, firms tend to actively seek political connections through politically connected executives and board directors to obtain benefits and favourable treatment, such as acquiring tax reductions and bank loans (Firth et al., 2009) and loose regulations (Bunkanwanicha & Wiwattanakantang, 2009), thus enhancing corporate performance (Boubakriet et al., 2012). The need for political connections in Chinese firms encouraged firms to appoint CEOs who were politically connected with government. They were usually former government officials, who are in networks with the government and control information and resources, and may draw their power from political leaders (Fan et al., 2007), thus colluding with the state and using their interpersonal relationships and relative power within firms to acquire rents from shareholders (Chen, 2005). Importantly, those CEOs with political connections might be more capable of bringing benefits and better treatment to firms, which also allows
them to have more power and dominance (Pi & Lowe, 2011), thus obtaining more compensation.

The coefficients of stock return, CEO duality, board size, supervisory size, independent ratio, remuneration, block share, deal size, CAR (-1,+1), state controller, and foreign controller are not significant, indicating that there was no strong relationship between those factors and CEO compensation, which was not consistent with the hypothesis developed in chapter four.

There was no significant relationship between variables of CEO duality and CEO compensation for Chinese acquiring firms, indicating that the CEO who also held the position of chairman of the board could not influence their compensation. The finding was not consistent with the hypothesis that CEO duality increased the insider control problem in Chinese listed firms, thus making CEOs more powerful in setting compensation. The finding was consistent with the results of Conyon (1997), Conyon and Peck (1998), Li et al. (2007), Guest (2009), and Kumar et al. (2012).

In terms of board size, regression results indicated no statistically significant association between CEO compensation and board size, which was not consistent with the hypothesis. The findings showed that a larger board size did not increase CEO compensation, implying that a large board size does not appear to bring poor communication or weaken the control of directors, leading to CEOs becoming more powerful and increasing their compensation. The finding was consistent with the results of Li et al. (2007), Buck et al. (2008), Liang et al. (1999), Wintoki (2007), and Guest (2009).
The regression results also indicated that there was no statistically significant association between CEO compensation and supervisory size, which was not consistent with the hypothesis. The findings showed that a larger supervisory board size did not increase CEO compensation, implying that supervisory board size did not appear to corrupt supervisors over CEOs regarding compensation, and CEOs did not make use of a large supervisory board size to extract more compensation. The finding was consistent with the results of Li et al. (2007) and Chen et al. (2010). The result showed the limited function of the supervisory board suggested by, for example, Xi (2006) and Tam (1995). As the members of supervisory boards do not possess adequate qualifications – and suffer from a lack of professional knowledge or work experience – and the supervisory boards for Chinese firms cannot influence the executive decisions and have no right to select the directors, managers, and financial officers, they have limited responsibilities and monitoring role. In addition, because of the information asymmetric, the supervisory board lacks efficient information which is often controlled by CEOs. Therefore, supervisory boards in Chinese listed firms are ‘decorative’, and might not play an effective role in corporate governance in Chinese firms.

In terms of independent directors and remuneration committees, the regression results indicated that there was no statistically significant association between independent ratio, remuneration, and CEO compensation, which was not consistent with the hypothesis. The findings showed that more independent directors did not decrease CEO compensation, implying that independent directors did not appear to effectively monitor CEOs. The findings were consistent with the results of Wan (2009),
Guest (2009), and Conyon and He (2012). Additionally, the findings showed that having a remuneration committee did not decrease CEO compensation, implying a remuneration committee did not appear to effectively monitor CEOs. The results were consistent with the argument by Liao et al. (2009) that independent directors in Chinese listed firms might not play a monitoring role because of the low rate of independent directors in many Chinese listed firms. The statistic results showed that many Chinese listed firms had only one-third independent directors, the minimum required by law (Jiang & Kim, 2015). Also, the remuneration committees in Chinese firms were composed of a majority of independent directors. Therefore, the results for this study showed that the independent directors and remuneration committees might not effectively monitor CEOs.

In terms of ownership, the regression results indicated that there were no statistically significant associations between CEO compensation and three ownership variables (block share, state controller, and foreign controller), which were not consistent with the hypothesis. The finding of block share on CEO compensation was not consistent with Santerre and Neun (1986), Dyl (1988), Elston and Goldberg (2003), or Chen et al. (2010). The finding of state controller on CEO compensation was consistent with Chen et al. (2010) and Conyon and He, 2012; the finding of foreign controller on CEO compensation was not consistent with Firth et al. (2007), Li et al. (2007), or Conyon and He (2012). The non-significant relationship between CEO compensation and block share indicate that the block shareholding could not effectively monitor managers’ behaviour or protect shareholders’ benefits, particularly for those
countries with weak corporate governance suggested by La Porta (1998). The non-
significant relationship between CEO compensation and state controller was consistent
with the argument by Fan et al. (2007) that CEOs in firms with the state as a controlling
shareholder were mostly like to pursue political promotion rather than higher
compensation. In addition, the non-significant relationship between CEO compensation
and foreign controller showed that firms with foreign investors as controlling
shareholders did not increase CEO compensation, implying that foreign investors did
not bring competent CEOs of Chinese firms higher compensation.

Overall, regarding the determination of CEO compensation following M&As,
no theory could perfectly explain the determination of CEO compensation following
M&As. Some results were more consistent with the agency theory that the optimal CEO
compensation arrangement was designed to align the interests of shareholders; the
measure of firm performance and managerial efforts should be positively correlated to
CEO compensation, for example, empirical results showed that size and ROA were
significantly and positively correlated to CEO compensation. In addition, some results
were more consistent with managerial power theory. For example, the CEO
shareholding was significantly positively correlated to CEO compensation, showing
that CEO shareholding gave CEOs more power to obtain higher compensation. More
importantly, with regard to whether the CEO compensation of acquiring firms was
associated to a CEO’s political connections, the results of political CEO were consistent
with the managerial power theory combined with resource dependency theory.
Specifically, the positive relationship between CEO compensation and CEO political
connection showed that those CEOs who brought many benefits and preferential treatments to firms through political connections allowed them to have more power and dominance in firms, thus obtaining more compensation.
The Determination of CEO compensation following Mergers & Acquisitions in China

Table 15 empirical results of OLS (robust) regression of CEO pay against multi factors following M&As for Model 2.

<table>
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<tr>
<th></th>
<th>Model 2(1)</th>
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<td>CEOCOM</td>
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<td>Size</td>
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<td>ROA</td>
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<td>Stock return</td>
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<td>(-0.68)</td>
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<td>Board size</td>
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<td>Supervisory size</td>
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<td>R-sq</td>
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</table>

***. Significant at the 0.01 level (2-tailed), **. Significant at the 0.05 level (2-tailed), * Significant at the 0.1 level.
7.6. Summary

The main purpose of this chapter was to examine the factors influencing the determination of CEO compensation for Chinese acquiring firms. Before presenting the discussion of empirical findings, the data description was presented to provide an overall picture of the data. Then, the dataset used to examine the distributions and undertake any transformations as necessary to meet the assumptions of the regression approach applied in the analysis was presented. The results of univariate and multiple regression analysis are presented as follows.

In terms of data description, more summarised statistics of other variables in the treatment sample for model 2 are presented in this chapter. For example, the average state controller and foreign controller for acquiring firms were consistent with previous literature. In terms of the M&As characteristics, the deal size was lower than developed western countries such as the UK, US, and Australia. The market averagely reacted quite positively to M&As announcements, which was consistent with findings of positive cumulative abnormal return in Asian countries, particularly in China.

In terms of the data normality for regression, in order to test for deviations from normality, the Kolmogorv-Smirnov (KS) test was carried out. The results of the Kolmogorv-Smirnov test confirmed that the assumption of normality for all variables was not completely met. The variables CAR (-1, 1), ROA, stock return, CEO shareholding were winsorized at the 5th and 95th
percentile. After transforming the data, the skewness and the kurtosis were close to the requirements, greatly improving the normality.

After transforming the data, the univariate correlations between CEO compensation and the independent variables were examined and provide a first understanding of how each independent variable related to CEO compensation for model 2. They were carried out on the transformed variables using the Spearman’s rho correlations, which was appropriate for not perfectly normally distributed data. The results showed correlations between CEO compensation and other factors. CEO compensation presented a significantly positive relationship with size, ROA, block share, CEO share, political CEO and deal size (p<0.01), and a significantly negative relationship with stock return.

Multiple regression analysis was based on a number of assumptions in order to ensure validity of the results. These assumptions included normality, linearity, homoscedasticity, and independence of error terms. Additionally, multicollinearity of the data had to be ruled out. To test whether these assumptions were met, numerical methods were used. For the multicollinearity problem, the outcomes of Spearman’s rho correlations and the variance inflation factors (VIFs) indicated multicollinearity was not a major problem. In terms of the assumption of homoscedasticity, Breusch-Pagan tests and White tests were employed to detect the problem of heteroscedasticity in this study. The findings of both tests illustrated that the problem of heteroscedasticity existed in model 2 (1) and model 2 (2). In addition, a Wooldridge test was used in this study since
it is the most common technique employed to detect the problem of autocorrelation for panel data. The results of this test showed that the assumption of independence of the error terms was met in model 2 (1) and model 2 (2). Based on the results of tests for assumptions, it was suggested that the OLS estimates could be used in the presence of cross-sectional data sets for the model 2. However, the problems of heteroscedasticity could not be handled using the OLS estimates. To address the problem arising from heteroscedasticity model 2 (1) and model 2 (2); t-statistics in the current study were computed with White’s (1980) heteroscedasticity-consistent covariance; this dealt with the problem of errors that were not identically distributed. The OLS (robust) regression became the main regression for model 2 (1) and model 2 (2).

After the methods were decided, the multivariate analysis was developed to mainly address the hypothesis for model 2. Some of results were consistent with the expectations, but others were not. According to agency theory, the optimally-designed compensation packages provided managers with incentives to devote more efforts to maximising shareholders’ benefits (Otten, 2008). Managerial efforts could be measured, such as firm performance and firm size. The coefficient of the size variable was positive across all specifications, which was consistent with the hypothesis, suggesting that larger acquiring firms were more complex to operate and prone to pay higher CEO compensation. For firm performance, there was a positive relationship between CEO compensation and ROA, which was consistent with the hypothesis, suggesting that Chinese
acquiring firms would pay their CEOs more total cash compensation if they achieved a superior higher ROA. The results of firm size and ROA on CEO compensation were consistent with agency theory that the optimal CEO compensation arrangement was designed to align the interests of shareholders, particularly providing managers with incentives to devote more efforts to maximising shareholders’ benefits. However, in terms of other firm performance measures for this study, the regression result indicated that there were no statistically significant associations between stock return, deal size, and CAR (-1,+1) and CEO compensation, indicating that stock return, deal size, and CAR (-1,+1) had no influence on CEO compensation.

As expected, the CEO share was positively correlated to CEO compensation, implying that CEOs obtained higher compensation when they gained increased ownership of Chinese acquiring firms. The result was consistent with the managerial power theory argument that increasing stock ownership gave managers more control and power to enhance their pay.

Importantly, the political CEO was positively correlated to CEO compensation, implying that CEOs obtained higher compensation when they were CEOs with political connections for Chinese acquiring firms. The result was consistent with the managerial power theory combined with resource dependency theory. In order to reduce the uncertainty from external environment and resource scarcities, firms endeavoured to look for resources to assist with diminishing dependency between firms and the external environment, thus
adding value to the firm. In China, firms tend to actively seek political connections through politically connected executives and board directors, thus bringing many benefits and preferential treatment. The need for political connections in Chinese firms has encouraged firms to appoint many CEOs who are politically connected with government. Furthermore, those CEOs with political connections might be more capable of bringing benefits and better treatment to firms, which also allows those CEOs to have more power and dominance in firms (Pi & Lowe, 2011) and thereby obtaining more compensation. However, the coefficients of stock return, CEO duality, board size, supervisory size, independent ratio, remuneration, block share, deal size, CAR (-1,+1), state controller and foreign controller were not significant, indicating that there was no strong relationship between those factors and CEO compensation, which was not consistent with the hypothesis developed in chapter four.
Chapter Eight: Conclusion

8.1. Introduction

This thesis has investigated the relationship between CEO compensation and M&As decisions and the determination of CEO compensation following M&As. This chapter begins by restating a summary of research objectives and questions. This is followed by a summary of research methodology, research findings, implications of the study, contribution of the study, limitations of the study, and, finally, suggestions for future research.

8.2. Research Objectives and Questions

The main aim of this research is to investigate CEO compensation for acquiring firms following the completion of M&As in China, mainly using the agency theory and managerial power theory, resource dependency theory. Specifically, the research has two main objectives.

i. To explore the relationship between CEO compensation and M&As completion in Chinese firms.

ii. To examine the factors influencing the determination of the CEO compensation following the M&As in Chinese firms.

The thesis addresses the following research questions:

i. Is there a relationship between CEO pay and M&As completion in Chinese firms?

ii. Do corporate governance factors influence CEO pay following M&As completion.
iii. Does CEO pay in Chinese M&As link to corporate performance and CEO effort in completing the deal?

iv. Do the effects of CEO political connection influence CEO pay following M&As?

8.3. Summary of Research Methodology

The thesis is based on panel and cross-sectional analysis of a sample of 10,249 observations from 2006 to 2013. The time span of the data chosen from 2006 to 2013 is because of fact that M&As have grown significantly since the 2005 Non-tradable Share Reforms. The required data is accessible mainly from two databases in China: The China Stock Market and Accounting Research (CSMAR) and Centre for Economics Research (CCER) databases. Where data was unavailable from the CSMAR and CCER, annual reports were used. The CSMAR mainly provides the data at firm level in relation to M&As deals and financial information, while the CCER provides the data at the firm level of CEO compensation and CG indicators for this study. The annual report mainly provides the CEO profile that specifies whether the CEO had a political connection.

To answer the research questions, five empirical research models have been developed. The first three models are used to examine whether CEO compensation was correlated to the M&As decisions and addresses the first research question. Models 4 and 5 are used to examine the impact of a firm’s
performance, M&As deals, corporate governance, and political connection on CEO compensation, thus addressing research questions two, three, and four.

The measurements of independent variables (e.g. performance, corporate governance, political connection) were developed from prior studies (e.g. Core et al., 1999; Ozkan, 2007; Li et al., 2007; Chen et al., 2010; Conyon & He, 2012; Dai, 2014). The dependent variable was measured by the total CEO compensation, composed of salary and bonus.

The data analysis included the descriptive analysis, univariate, and multivariate analysis. The descriptive analysis of the sample for the dependent and independent variables provided a preliminary understanding of the data and its distribution. The data transformation was carried out when data of variables could not meet normality. The univariate analysis examined the correlations between the dependent and independent variables for each model, separately using Spearman’s rho correlations and to find the potential multicollinearity problems. Multivariate regression was used to test the hypothesis and to allow the isolation of the contribution of each independent variable to explain variation in the dependent variable by holding the effect of the other variables constant. Regression analysis was based on a set of assumptions which have to be tested before the analysis in order to ensure the validity of the results and the inferences drawn from the analysis. The assumptions refer to the normality, linearity, homoscedasticity, and independence of error terms. Various checks were discussed to examine the data of this study against the assumptions of the OLS
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(Ordinary Least Squares) regression model. This section ended with a consideration of the selected estimation methods and the statistical justifications for the selection, including the fixed effect and two-step SGMM (System Generalized Method of Moments) methods.

8.4. Research Findings

With regard to research question that is there a relationship between CEO pay and M&As completion in Chinese firms, the results of the empirical analysis showed that CEO compensation in Chinese firms was related to M&As completion when controlling factors as in the Anglo-Saxon countries (size, market ratio, ROA, ROA growth, margin, margin growth, sales growth, and stock return). Also, CEO compensation in Chinese firms was related to M&As completion when controlling other corporate governance factors and factors related to the Chinese institutional environment (board size, independent ratio, supervisory size, block share, CEO share, remuneration, and political CEO).

With regard to questions that do corporate governance factors influence CEO pay following M&As completion and does CEO pay in Chinese M&As link to corporate performance and CEO effort in completing the deal, None of the theories could perfectly explain the determination of CEO compensation following M&As. Some of the results were more consistent with the agency theory that the optimal CEO compensation arrangement was designed to align the interests of shareholders; the measure of firm performance and managerial
efforts should be positively correlated to CEO compensation, for example, the empirical results showed that size and ROA were significantly and positively correlated to CEO compensation. In addition, some of the results were more consistent with the managerial power theory. For example, the CEO shareholding was significantly positively correlated to CEO compensation, showing that the CEO shareholding gave the CEO more power to obtain higher compensation.

With regard to question that do the effects of CEO political connection influence CEO pay following M&As, the result of political CEO was consistent with the managerial power theory. Specifically, the positive relationship between CEO compensation and a CEO’s political connection shows those CEOs who brought benefits and treatments to firms through political connections allowed them to have more power and dominance, thus obtaining more compensation.

However, in terms of other firm performance measures for this study, regression result indicated that there were no statistically significant associations between stock return, deal size, and CAR (-1,+1) and CEO compensation. The finding of stock return implied firms would pay their CEOs more or less compensation if stock returns increase; the finding of deal size implied firms would pay their CEOs more or less compensation if the deal value increase; the finding of CAR (-1, +1) indicated that firms would pay their CEOs more or less compensation if the CAR (-1, +1) increased. Other corporate governance factors did not have a significant influence on CEO compensation following M&As.
For example, CEO duality, board size, supervisory size, independent ratio, remuneration, block share, state controller, and foreign controller was not significantly correlated to CEO compensation following M&As.

8.5. Implications of the Study

The findings of the thesis have plenty of implications for firms, regulators, and policy makers. These implications are discussed here.

The results of the empirical analysis showed that CEO compensation in Chinese firms was related to M&As completion when controlling factors as in the Anglo-Saxon countries. Also, CEO compensation in Chinese firms was related to M&As completion when controlling other corporate governance factors and factors related to the Chinese institutional environment. These results implied that a strong motivation for CEOs to make M&As was to increase their own compensation. Shareholders should strengthen monitoring on the motivation of CEOs to make M&As, and question whether it was to increase their own compensation or enhance the firm’s performance. In the meantime, the policymakers should initiate more regulations to approve M&As and pay more attention to examining the process of M&As to make sure CEOs would not extract excessive compensation.

Regarding to the determination of CEO compensation following M&As, the measures of efforts of making M&As (e.g. deal size, abnormal return around the announcement) do not have significant influence on CEO compensation, but the measure of managerial power, the CEO shareholding, is significantly
positively correlated to the CEO compensation, implying that the CEO shareholding gives CEO more power to obtain higher compensation though M&As. However, for this study, I could not find that internal corporate governance mechanisms have a strong effect on the CEO compensation. For example, CEO duality, board size, supervisory size, independent ratio, remuneration, block share, state controller, and foreign controller was not significantly correlated to CEO compensation following M&As, which indicate that these internal corporate governance mechanisms do not create effective influence in the Chinese context. Although Chinese regulators have made great efforts to enhance the corporate governance and attempt to make Chinese firms be in “best practice” corporate governance models, many of laws and corporate governance codes have been enacted. For example, the Corporate Governance Code issued by the China Securities Regulatory Commission (CSRC) in 2002 give the explanation of responsibility of board of directors, introducing compensation committees, supervisory board and independent directors. The results of this study shows that those internal and external governance mechanisms that have positive influence in developed countries seem to be less useful in China. Therefore, Chinese firms should pay more attention on designing their internal governance and regulators and policy makers with hints that firms should improve the corporate governance to monitor CEOs’ behaviour.

There is an important implication for the evidence that a CEO’s political connection is significantly correlated to CEO compensation following M&As.
Although the political connection of a CEO can bring useful resources and benefits to firms, they might use these abilities to become powerful and dominant on a company’s board and obtain excessive compensation. That is, central and local governments should keep reducing personnel connections in listed firms. The government should only take on the responsibility as the regulator instead of both regulator and the major market participant.

Furthermore, a truly independent judicial system is needed for Chinese listed firms, particularly, having the state as the regulator as well as the participant of the market results in the legal system not being genuinely independent, a situation which might violate the effectiveness of corporate governance.

8.6. Contribution of the Study

The research makes significant contributions to the literature in general, and to Chinese CEO Compensation in particular. The following contributions are presented:

i. This study provides a contribution to CEO compensation following M&As literature since it is the first to examine CEO compensation following M&As in China. The issue has been investigated in western developed countries in prior literature (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulou, 2006; Bugeja et al., 2012), but not in China. In the context of China, studies have focused on examining the
relationship between executive compensation and firm performance, and corporate governance mechanisms (e.g. Li et al., 2007; Buck et al., 2008; Conyon & He, 2008; Wan, 2009; Chen et al., 2010; Ding et al., 2010; Conyon & He, 2012). Therefore, this study extends Chinese literature on CEO pay by examining the determination of CEO compensation following M&As.

ii. Taking advantage of the institutional environment in China, this study provides contributions to literature by considering unique Chinese corporate governance factors and CEO political connections when examining the relationship between CEO compensation and M&As decisions and the determination of CEO compensation following M&As. Previous studies only controlled for firm performance, size, and corporate governance when investigating whether CEO compensation was correlated to an M&As decision (e.g. Grinstein & Hribar, 2004; Coakley & Iliopoulos, 2006; Guest, 2009; Bugeja et al., 2012). This study contributes to control more corporate governance factors (e.g. supervisory board and ownership characteristics) and CEO political connections. Also, by investigating the determination of CEO compensation following M&As in Chinese listed firms, this study contributes by providing an understanding of the influence of corporate governance factors (e.g. supervisory board and ownership characteristics) and CEO political connection on CEO compensation.
following M&As. The impact of these governance factors of CEO compensation following M&As have not been investigated in prior literature.

iii. On an international basis, this is the first study to examine the impact of CEO political connections on the determination of CEO compensation following M&As. The results demonstrating that politically-connected CEOs are rewarded higher compensation than non-politically-connected CEOs is new.

8.7. Limitations of the Study

There have been several limitations to this study which should be considered, however these limitations do not influence the value of the research.

1. Data and sample limitations

The study’s sample cannot randomly include all firms as many Chinese companies do not disclose information about CEO compensation, an individual’s profile, details of corporate governance, and M&As. For example, many Chinese firms do not release the completion date of M&As, which considerably reduces the sample size. Therefore, the non-randomly selected sample size might result in a bias of sampling and lead to a sample composition that is not perfectly accurate.

In addition, since there are different accounting practices and regulations in the financial industry, they are excluded from the sample of this study, which
might result in a problem in generalising the result to all industry sectors in China. Furthermore, the data of this study is specific only in China, which might lead to a problem in generalising findings into other countries, as other countries have different institutional environments, levels of capital markets, economic scales, cultures, and laws.

2. ** Constructs and Variables Limitations **

With regard to the dependent variable, this study only used the total CEO compensation measuring the CEO compensation, and did not use other components of CEO compensation, such as bonus, salary, stock options, and Long-Term Incentive Plans as other studies have identified because Chinese firms only release the total compensation CEOs received and do not disclose the details of equity-based deals. Solely using total CEO compensation as a measure of dependent variable might not be able to undertake a more comprehensive assessment of the relationship between CEO compensation and other determinants, particularly different components of CEO compensation have different influences on managerial behaviour.

**8.8. Suggestions for Future Research**

Even though this study has examined the impact of many corporate governance mechanisms, firm performance, and M&As features on CEO compensation, some other characteristics relevant to the determination of CEO compensation could be considered. For example, the composition of
remuneration committees might influence CEO compensation. The remuneration committee generally consists of independent directors, which could effectively monitor management and restrain excess CEO compensation. Since not all Chinese firms currently disclose the details of composition of remuneration committees, it could be examined in future research when Chinese firms release information of composition of remuneration committee.

Furthermore, because of resource and time constraints at the data collection stage, the time span of this study only covered 8 years from 2006 to 2013 and excluded the following years. As the number of M&As increased quickly after 2013 for Chinese firms, it would be interesting to undertake another study using a different data set including the following years (i.e. 2014-2016) to see whether the findings were consistent with this study.

Also, this research excluded financial and investment firms because of the different accounting practices and regulations. It provided further research with an opportunity to examine only the financial and investments firms on the issue of determination of CEO compensation following M&As.

This study focused on the issue of CEO compensation following M&As only for Chinese firms. In future research, it would be interesting to undertake a comparative study between China and developed Anglo-Saxon countries on the issue of CEO compensation following M&As. Also, it would be interesting to conduct a comparative study between the one-tier and two-tier board systems on the issue of CEO compensation following M&As.
In recent years, Chinese firms have conducted an increased number of cross-border M&As; the number of cross-border M&As increased from 206 cases in 2011 with total value of $42.5 billion to 382 cases in 2015 with $67.4 billion (created from Qingke Database). An interesting area for future research would be in conducting a study to examine the issue of CEO compensation following cross-border M&As for Chinese firms, particularly the motivation of undertaking cross-border M&As for CEOs and the determination of CEO compensation following cross-border M&As.
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Appendix

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<th>Abbreviations and Definition of Terms</th>
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