Does Say-on-Pay Rule Affect M&A Decisions?

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Abstract

This study investigates how the adoption of say-on-pay (SoP) regulation impacts the propensity and profitability of merger and acquisitions (M&A) activities with a sample of S&P 1500 firms (2005 – 2016). We examine both (a) macro-economic effect induced by the adoption of S&P regulation in 2011, impacting all firms across the board, and (b) firm-level effect due to variation in SoP voting approval percentage in different firms. We propose and examine two relevant hypotheses: (i) 'SoP governance' hypothesis – to explain the impact of SoP rule adoption, and (ii) 'reliable CEO' hypothesis – to explain the impact of SoP voting approval percentage.

'SoP governance' hypothesis predicts that in the post-SoP period, CEOs will be more cautious in pursuing M&A deals – which have a high risk of failure. This should lead to a *lower* probability of acquisition and better acquisition performance. On the other hand, 'reliable CEO' hypothesis proposes that CEOs with higher SoP voting approval percentage, enjoy more shareholder confidence and are encouraged to take risky ventures to increase shareholders wealth. This should lead to a *higher* probability of acquisition, with better acquisition performance. Our results find partial support for 'SoP governance' hypothesis – that SoP rule adoption is associated with a lower probability of acquisition but does not have any significant association with acquisition performance. While examining the effect of SoP voting approval percentage, we further find support for 'reliable CEO' hypothesis. Our results show that SoP voting approval percentage has a significant and positive association with acquisition probability and acquisition performance. Finally, we find that SoP voting results do not have any significant moderating effect on the relationship between (i) CEO incentive pay and M&A decisions, and (ii) CEO pay slice and M&A decisions.

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Dedications

To my parents, who have given me endless support and love.

Chapter 1. Introduction

In January 2011, the Securities and Exchange Commission (SEC) adopted a new rule called "say on pay" (SoP), which requires US public companies to grant their shareholders advisory voting rights to approve or reject executive compensation proposals. Since say on pay allows shareholders to express their views on executive-pay practices, it is expected that this rule will facilitate the alignment of shareholders' interests with those of corporate directors and senior managers (Correa & Lel, 2016; Kimbro & Xu, 2016). In other words, SoP may act as an effective governance mechanism (Davis, 2007). The main intention of SoP regulation is to improve the internal governance of the corporations to which it applies[1]. In this study, we examine the ways in which and the degree to which SoP regulation influences one of the most significant classes of corporate decisions, namely those pertaining to mergers and acquisitions (M&A).

The ineffective governance problem between a CEO and shareholders may occur due to the separation of ownership and managerial control (Fama, 1980; Jensen & Meckling, 1976). Private interests may encourage executives to favour own wealth over those of shareholders through managerial decision-making process. Earlier studies have shown that CEOs may pursue M&A activities to fulfil their own personal gains rather than to increase shareholders' wealth (Roll, 1986). While M&A activities change the size and the scope of the company (Yanxue Liu, 2013),

[1] Masulis et al. (2007) show that corporate governance mechanisms affect the intensity and profitability of firm acquisitions. Their study considers a number of governance mechanisms, namely market for corporate control (i.e. anti-takeover provisions), overall governance indexes (e.g. G-Index) and individual board characteristics (e.g. CEO duality, board size and independence) and find support for their conjecture. Although these governance mechanisms are important instruments that shape a firm's managerial decisions, they do not necessarily reflect shareholders' more recent voice. Most of these traditional governance mechanisms are largely static in nature and do not reflect current shareholders' concern. While Say-on-Pay vote gives an opportunity to the shareholders to express their opinion on a CEO's compensation, Fisch et al. (2018) show that SoP voting results also reflect shareholders' opinion on CEO performance and can influence other exiting governance behaviors, such as board decisions. Thus, SoP voting may act as an added governance mechanism to influence CEO actions.

it involves large amount of capital investment. It is argued that M&As can bring significant synergistic benefits to a firm, but these are quite risky events; apparently, majority of M&A deals fail. Yet, managers are interested in pursuing M&A deals that might help in increasing their overall compensation level. Earlier studies have shown that firm size is the key determinant of CEO pay (Hallock, 2011) and a rule of thumb is that "for every 10% increase in company's size, the CEO's pay goes up 3%" (Wessel, 2006). Through acquisitions, a firm can increase its size, which in turn can lead to higher CEO compensation. This gives an incentive for the managers to get engaged into more acquisition activities, even though such activities might destroy shareholders' wealth. In this study we examine the role of SoP regulation in containing self-fulfilling behavior of CEOs through M&A activities. We explore two mechanisms associated with the introduction of SoP regulation in 2011: (a) macro-economic or industry-wide impact, and (b) firm-level impact through actual SoP voting outcomes.

Adoption of SoP rule sends a message to the top managers of all listed firms that shareholders now have a say on how CEOs are being compensated, which in turn, puts a CEO's actions and performance under added scrutiny (Fisch et al. 2018). Therefore, the introduction of SoP regulation is likely to impose a governance pressure on all firms across the board. We term this as ***'SoP governance' hypothesis***. This hypothesis proposes that in the post-SoP regulation period, CEOs will be less inclined to make investment decisions that involve a significant risk of failure. Given a high rate of failure in M&A deals, we expect to see a negative association between SoP rule adoption and probability of M&A deals. A similar argument further suggests an improvement in M&A performance in the post-SoP period, as the CEOs are likely to be more cautious with their M&A decisions.

While the 'SoP governance' hypothesis may explain the role of firm-specific SoP voting

approval percentage on M&A decisions and outcomes, there is an alternate viewpoint that may govern the relationship. CEOs with higher SoP voting approval percentage enjoy more shareholder confidence. SoP voting results do not create pressure for these CEOs, rather higher voting results 'legitimizes' CEOs actions and establish their 'reliability' to the shareholders. These CEOs will be less ambivalent towards pursuing risky M&A activities and likely to be more prudent in selecting better M&A deals, generating higher long-term shareholder values. We term this as ***'reliable CEO' hypothesis***. Given there is a strong and established association between risk and financial reward, the 'reliable CEO' hypothesis proposes that CEOs with a higher level of SoP voting approval percentage, are more likely to engage in M&A activities, albeit more carefully. This should lead to better M&A performances.

Although the expected industry-wide governance pressure of the SoP rule adoption on M&A decisions look quite plausible (i.e. 'SoP governance' hypothesis), *ex-ante*, it is not clear whether SoP voting approval percentage will have its intended influence as predicted by 'reliable CEO' hypothesis. In other words, it is unclear whether SoP voting results are conducive in terms of CEOs making long-term value enhancing decisions. Fisch et al. (2018) have expressed this concern by stating that, "…to the extent that the shareholder vote influences board behavior, granting shareholders another forum for signaling their dissatisfaction with a firm's economic performance may be counterproductive. If investors are signaling concerns over near-term stock performance through their say on pay votes, they may be increasing director incentives to focus on short-term stock performance rather than firm value" (p. 1). M&A activities are associated with short-term stock performance as well as have long-term value implications for a firm. M&A activities lead to short-term market reactions at the time of deal announcements, which are generally based on the long-term prospect of the deals. As the majority of M&A deals fail - causing

a significant level of shareholder value destruction - CEOs focussing on short-term stock performance due to SoP voting pressure would more likely refrain from pursuing M&A activities ('SoP governance' hypothesis). On the other hand, successful M&A activities can lead to significant long-term value creation, prompting 'reliable CEOs' to undertake more prudent M&A decision ('reliable CEO' hypothesis). To the best of our knowledge, no study has examined the role of SoP on M&A probability and profitability. This study aims to fill this gap.

More specifically, we intend to extend the literature on corporate governance and M&A as follows. First, the corporate-governance literature suggests that effective governance mechanisms enable firms to select and undertake better M&A deals, specifically deals that are viewed more favourably by market participants. Furthermore, better corporate-governance practices are likely to restrict and discourage CEOs from undertaking value-destroying M&A deals. Accordingly, we examine whether the introduction of the SoP rule and the percentage of SoP approved votes has increased the propensity and profitability of M&A in light of 'SoP governance' hypothesis and 'reliable CEO' hypothesis. Second, the literature discusses a number of factors that can influence corporate decisions negatively or positively from the perspective of shareholders. For example, powerful CEOs may make more self-enriching corporate decisions (e.g., the selection of poor M&A deals) that ultimately lead to the destruction of shareholder wealth (Bebchuck et al., 2011). SoP voting can serve as a checking mechanism and thus can discourage a powerful CEO from making a poor M&A decision. Some other factors, such as CEOs' incentive pay and pay-for-performance sensitivity, are likely to encourage these individuals to make better M&A decisions (Krolikowski, 2016). In this study, we further investigate the ways in which the SoP rule and the SoP voting percentage has helped to moderate the relationship between (i) CEO power and M&A decisions/profitability and (ii) CEO incentive pay and M&A decisions/profitability.

We examine the above research questions by using the relevant information on a set of merger and acquisition deals undertaken by S&P 1500 publicly listed firms during the period from 2005 to 2016. Our results show that SoP rule adoption (proxied by post-SoP indicator variable) lowers the probability of making a M&A deal. However, we do not find any significant association between SoP rule adoption and M&A performance. It implies that while SoP rule adoption makes CEOs more cautious about undertaking M&A deals, it does not make any systematic difference in terms of choosing the 'right or more successful' M&A deal. These results show partial support for the 'SoP governance' hypothesis. Subsequently, we examine the association between SoP voting approval percentage and M&A decisions to have a better insight on the firm-level SoP dynamics. We find that SoP voting approval percentage is positively associated with (i) the probability of making a M&A deal in the subsequent year, and (ii) the performance of M&A deals. It implies that CEOs with higher shareholder approval rating (i.e. 'reliable CEOs), do not shy away from undertaking M&A deals and these deals are viewed more positively by market participants - leading to shareholder value creation. These results support the views of 'reliable CEO' hypothesis.

Finally, we find that SoP voting results do not have any significant moderating effect on the relationship between (i) CEO incentive pay and M&A decisions/outcomes, and (ii) CEO pay slice (i.e. CEO power) and M&A decisions/outcomes. It appears that SoP voting approval percentage does not have any significant influence on other relationship between concurrent or pre-exiting governance structure (e.g. CEO pay structure, CEO power) and takeover decisions and outcomes.

Overall, this study extends the current literature on corporate governance and M&A activities. Earlier studies (e.g. Cai and Walkling (2011); Ferri and Maber (2013); Kimbro and Xu (2016)) show that SoP is able to create an alignment between CEO compensation and firm

performance. Our study shows the effectiveness of SoP rule adoption and SoP voting approval percentage in the context of M&A decisions and outcomes.

The analysis of this study is organized as described hereunder. Chapter 2 reviews the literature pertaining to SoP laws, CEO power, CEO pay, pay for performance, CEO pay structures, and M&A decision-making and performance. Chapter 3 describes the data and the methodology. Chapter 4 presents the results of the regression tests. Finally, Chapter 5 provides the conclusion, discusses the limitations of this thesis and offers suggestions for future research.

Chapter 2. Literature Review

Recent studies have examined the effects of different kinds of corporate governance structures and policies on M&A decision-making and performance by comparing the changes in pre- and post-M&A activities' abnormal returns around the announcement date. Based on their analyses of the relationship between governance and firm performance, many scholars have come to the conclusion that a strong governance structure mitigates managerial inefficiency in the separation of ownership and control. For example, closer monitoring by shareholders and an optimal compensation structure may create powerful incentives for CEOs to maximize shareholder interests. This section reviews the prior literature on corporate governance and M&A and identifies the research gap that this study attempts to address.

2.1 Background Information on Say-on-Pay

In 2003, the United Kingdom (UK) became the first country in the world to adopt a say-on-pay regulation. During the period from 2002 to 2012, 11 countries enacted SoP laws (Correa & Lel, 2016). For example, on January 25, 2011, the Securities and Exchange Commission of the United States implemented new SoP rules. Furthermore, under the *Dodd-Frank Act* all public companies are required to grant their shareholders a non-binding advisory vote on executive compensation, and shareholders are allowed to decide the frequency of say-on-pay votes. The SoP rule also requires companies to make additional executive-compensation disclosure to shareholders in the context of M&A deals (Kimbro & Xu, 2016). In another notable example, in March 2013 Switzerland enacted SoP legislation and thus ensured shareholders' right to have a say on executive pay.

Why have many countries enacted laws on compensation policy in general and on SoP in

particular? By granting shareholders a right to vote on executive compensation, a SoP regulation can act as "an effective mechanism of corporate governance." Such provisions are likely to increase transparency, raise the management's level of accountability to shareholders, and align executive compensation with firm performance (L. Bebchuk, Friedman, & Friedman, 2007; Davis, 2007; Deane, 2007). Based on a cross-country analysis, Correa and Lel (2016) present a set of results that support the merits of implementing a rule on SoP. Using a large sample of firms drawn from 38 countries over the 2001–2012 period, their study reports that:

> …following the adoption of say on pay (SoP) laws, chief executive officer (CEO) pay growth rates decline and the sensitivity of CEO pay to firm performance improves. These changes are concentrated in firms with high excess pay and shareholder dissent, long CEO tenure, and less independent boards. Further, the portion of top management pay captured by CEOs is lower in the post-SoP period, which is associated with higher firm valuations. Overall, these results suggest that SoP laws are associated with significant changes in CEO pay policies (Correa & Lel, 2016, p. 500).

After the UK implemented its SoP regulation, Ferri and Maber (2013) examined the market reaction to the new rule and this rule's effect on CEO compensation structures. They concluded that UK firms change the structure of CEO compensation due to the high frequency of SoP dissent. In extending the literature on SoP voting and CEO pay in the UK, Alissa (2015) recently found that shareholders are more likely to vote against an overall executive remuneration package when the CEO receives a relatively large salary. Similarly, M. Conyon and Sadler (2010) show evidence that CEO pay takes on a decreasing trend as the level of shareholder dissent increases. Thus, the SoP law can act as a "value-creating mechanism" to avert an egregious compensation arrangement when a firm experiences poor performance (Alissa, 2015; Carter & Zamora, 2007; Cheffins & Thomas, 2001; Ferri & Maber, 2013).

Further, mandated SoP votes can increase the sensitivity of CEOs' pay to firm performance.

These results are consistent with the international evidence presented by Correa and Lel (2016). Using the US SoP data, Kimbro and Xu (2016) confirm that SoP voting dissent improves CEO compensation structures and that SoP voting is associated with higher firm performance. Indeed, "Firms with high SoP approval have better performance and returns, higher CEO ownership, lower institutional ownership, lower CEO compensation, lower return volatility, and better accounting quality than do firms with high SoP dissent" (Kimbro & Xu, 2016, p. 19). Consistent with these studies, Iliev and Vitanova (2013) show that SoP votes have positive effects on performance sensitivity. In contrast, one of their findings does not support the conclusion that SoP decreases the level of CEO compensation as the latter actually increased by 14% in the firms that hold SoP votes. They believe that compliance with SoP laws incurs extra risks for CEOs whose pay should increase in proportion with risk levels while also leading to the higher sensitivity of pay to performance.

On the other hand, opponents of SoP raise questions about the effectiveness of this type of regulation. Since shareholders are generally unfamiliar with executive pay policies and do not have the same access to private information and managerial knowledge as the members of the board, shareholders are at risk of making uninformed decisions while voting about executive compensation and even of destroying an optimal compensation structure (Correa & Lel, 2016). Since the board in general and the compensation committee in particular have access to all of the key information related to executive incentives and performance, it arguably is better to encourage CEOs to serve the maximization of shareholder value by using the compensation provided by the board and the compensation committee (Bainbridge, 2009). SoP voting could be impacted by board members who seek to persuade shareholders to support the CEO by voting in favour of CEO compensation, either for good performance or bad performance (Levit & Malenko, 2011; Morgan,

Poulsen, & Wolf, 2006).

Berrone and Gomez-Mejia (2009) draw on institutional theory and management environment to explore inefficiencies of the governance committee in terms of managing companies with biased information about CEO compensation and in terms of taking "merely symbolic actions" (p. 120). Brunarski, Campbell, and Harman (2015) find consistent evidence for proposing the window-dressing hypothesis. For instance, executives are supposed to conduct themselves in response to the typically low SoP voting percentage; yet, they tend to take steps to satisfy their shareholders without making efforts in the decision-making process that are actually in accordance with shareholder interests, thus causing these behaviours, which are at variance with the primary goal of SoP regulation, to lead to managerial governance issues. For example, a high percentage of SoP voting tends to be in favour of lucrative CEO compensation even if the pay does not align with firm performance; this occurs as long as the shareholders are persuaded to consent to this pay structure by the board of directors. Thus, it is possible for a higher level of SoP support to lead to an unoptimized compensation setting regardless of whether the CEO actually succeeds in maximizing shareholder value (Brunarski et al., 2015; M. Conyon & Sadler, 2010). In summary, the prior literature is mixed in regard to the effects of SoP regulation, and none of these studies assess the impact of SoP on M&A deals and its interaction with other institutional proxy factors that affect corporate governance.

2.2 Corporate Governance, M&A Decisions and Performance

Masulis et al. (2007) undertake a comprehensive study that examines the connection between corporate governance practices and acquirer returns: "It establishes a causal link that goes from antitakeover provisions to shareholder value, and provides a partial explanation for the

findings in Gompers, Ishii, and Metrick (2003) and several subsequent studies that firms with more takeover defenses are associated with lower shareholder value" (p. 1884). In their study, Masulis et al. (2007) consider a number of governance mechanisms, namely the market for corporate control (i.e., anti-takeover provisions), overall governance indexes (e.g., G-Index) and individual board characteristics (e.g., CEO duality, board size and independence), and find support for their conjecture that better governance leads to positive acquirer returns.

In a recent study, Yan Liu, Padgett, and Varotto (2017) create a new index, the corporate governance index (CGI), to measure the strength of corporate governance and demonstrate that CEO compensation is significantly related to shareholder interests. Their finding is consistent with an optimal contracting hypothesis in which CEO interests are aligned with firm value, thus maximizing shareholder benefits. The elimination of managerial inefficiencies between the management and the shareholders while CEOs take steps to protect and defend the interests of shareholders is at the core of the concept of the optimal contract. In other words, according to this perspective, CEO salaries have significantly positive effects on firm gains (Core, Holthausen, & Larcker, 1999). Further, Anderson, Becher, and Campbell II (2004) show that synergistic returns after an acquisition depend on the efficiency of managerial governance. The results in Yan Liu et al. (2017) indicate that the larger CEO cash bonuses tend to induce weak corporate governance, which is a cause of poor firm performance. Thus, all of these studies point to the conclusion that the strength of corporate governance is positively associated with a company's returns on its assets (P. A. Gompers & Metrick, 2001; Hagendorff, Collins, & Keasey, 2007; Yan Liu et al., 2017; Masulis, Wang, & Xie, 2007).

In their examination of a sample of US firms covering the period between 1990 and 2004, Wang and Xie (2008) propose that changes in corporate control, as a method of improving the

governance structure, have a positive relationship with a firm's value because the enhancement of shareholder rights helps to ensure the close monitoring of the management and the diminution of agency problems. They also use the corporate governance index proposed by P. Gompers et al. (2003) to measure the strength of the company's shareholder rights and the difference between the respective shareholder rights of the acquirer and of the target. By having stronger shareholder rights, acquirers are in a stronger position to satisfy their own interests by squeezing the target firm's value. As such, they uncover a greater difference between the respective shareholder rights of the acquirer and of the target, thus leading to more synergistic gains from the M&A.

Despite the fact that most of the extant research papers focus on the impact of shareholders on share earnings, governance structures and/or operations, the result in Karpoff (2001) challenges the conclusion that there exists a positive association between shareholder monitoring and firm gains in financial performance; he argues that closer supervision by shareholders does not dramatically improve managerial efficiency. Instead, he argues that stronger shareholder rights may have only minor influences on target firm wealth.

2.2.1 Firm size, M&A decisions and performance

Many corporate leaders prefer to conduct M&A deals to expand the size of their firm even though they understand that there exists a distinct possibility that the deal will not yield the desired results. It appears that one of the primary reasons why they do this notwithstanding the risk is that they are likely to be financially rewarded for this action over the short and medium terms. A number of researchers have observed the existence of a strong link between company size and CEO compensation (Kostiuk, 1990; Murphy, 1999; Roberts, 1956; S. Rosen, 1990; Zhou, 2000). After controlling for deal and firm characteristics, Hallock (2011) analyzed more than 2,300 US

companies and reported that CEOs tend to obtain higher compensation in larger organizations; this conclusion is consistent with the hypothesis proposed by Zhou (2000) who, using data on Canadian firms covering the period from 1991 to 1995, found that firm size has a positive effect on CEO pay. Indeed, hubris in the managers of the large company can, in fact, lead them to pursue more M&A deals in order to increase firm size which enlarges compensation (Moeller, Schlingemann, & Stulz, 2004, 2005). Also, private interests may encourage executives to favour own interests over those of shareholders through managerial decision-making process. Through acquisitions, a firm can increase its size, which in turn can lead to higher CEO compensation. This gives an incentive for managers to get engaged into more acquisition activities even though those activities might destroy the value of firm. Several studies provide evidence. For example, Boyd (1994) finds no association between firm size or profitability on the one hand and CEO compensation on the other hand. Further, Moeller et al. (2004, 2005) show the small companies have experienced better returns than large companies. Comparing with the abnormal return following acquisitions for small companies, the abnormal return following acquisitions for large companies is lower by 2.24 percentage points. Large companies also tend to pay more premiums to managers for acquisitions. With high premiums, the synergy gains of large firms are significantly lower than the synergy gains of small firms. This is consistent with previous studies that managers, serve in large companies, receive more payment in M&A activities.

The management of the highly valued firm has the power to move forward with acquisitions notwithstanding poor performance, an approach that neglects shareholder interests and tends to induce financial losses (Jensen, 2004; Moeller et al., 2004, 2005). According to Dutta, MacAulay, and Saadi (2011), there are two scenarios that can contribute to modifying a CEO's individual interest: firstly, Core et al. (1999) find that executives obtain higher compensation by

expanding the firm; secondly, CEOs who have the motivation to steal or expropriate could perceive opportunities to maximize own profits (La Porta, Lopez‐de‐Silanes, Shleifer, & Vishny, 2002). Nonetheless, Dutta et al. (2011) argue that powerful CEOs prefer to expand their firm by conducting more M&A activities rather than by stealing or expropriating in countries that have well-established legal systems and law-enforcement mechanisms. By using CEOs' excess compensation to gauge levels of CEO power, Dutta et al. (2011) show that high-power CEOs tend to make more acquisition decisions in order to expand their firm's size, a strategy that is positively related to CEO compensation as, of course, CEOs generate a significant amount of personal income through M&A deals.

2.2.2 CEO power, M&A decisions and performance

CEOs' managerial power plays a significant role in driving the composition of executive compensation. For example, as one of the most senior members of the board and in many cases the chairman of the same, the CEO is in a strong position to shape his or her own compensation composition and to act in accordance with his or her self-interest, a pattern that drives executive compensation 20 percent to 40 percent higher than the overall average payment (Cyert, Kang, & Kumar, 2002). While CEO compensation increases as a function of his or her managerial power, this compensation is relatively less sensitive to actual firm performance (L. A. Bebchuk & Fried, 2005). Executives receive a larger salary when the board's power is relatively weak in comparison with that of the CEO (Boyd, 1994). When the board is large, it tends to be quite challenging for outside directors who have been appointed by CEOs to hold opinions that are the opposite of or even are significantly different from those articulated by the CEO (Core et al., 1999). Indeed, it has been found that the greater the proportion of appointed directors in a firm, the higher the level

of CEO compensation (Lambert, Larcker, & Weigelt, 1993). Moreover, Oler, Olson and Skousen (2009) note that M&A deals have an intricate relationship with CEO power and corporate governance because CEO power exerts a substantial if not a decisive influence on a firm's M&A deal-making, a phenomenon that varies according to the source of governance ownership. Therefore, in order to protect shareholder wealth, the board of directors needs to be independent and to monitor the senior management team as closely as possible (Lorsch & Young, 1990; Monks & Minow, 1991). This finding is reinforced by Cooper (2009) whose study of the banking industry explores the impact of managerial power on payment packages and concludes that a stronger and more independent role for the board is more conducive to setting an optimal compensation arrangement for the CEO and the other senior executives.

A number of other studies have also explored the relationship between corporate governance and M&A decisions/performance by examining the linkages among (i) the relative size of CEO pay and M&A decisions/performance; (ii) CEO pay-for-performance sensitivity and M&A decisions/performance; and (iii) CEO pay structures and M&A decisions/performance.

2.3 CEO Pay, M&A Decisions and Performance

There are many empirical studies that have examined the relationship between CEO pay and M&A activities. For example, in their study comparing the compensation of CEOs whose firms have and have not undergone the experience of acquisition, M. J. Conyon and Gregg (1994) found that CEOs who pursue M&A decisions receive greater compensation. Furthermore, Anderson et al. (2004) provide evidence indicating that acquiring companies pay generous amounts of money in cash and in other forms of compensation to CEOs as part of their salary package. In their respective examinations of UK bidding firms, Bertrand and Mullainathan (2003);

Girma, Thompson, and Wright (2006) indicate that their results are consistent with other studies' conclusions about the effects of acquisition activity and M&A deals on CEO compensation. The likelihood of conducting an acquisition increases in a firm that has already engaged in M&A deals and that has provided their CEO with lucrative compensation during and following those acquisitions. According to Grinstein and Hribar (2004), it is difficult to align the salaries of top executives with firm value. Regardless of whether a firm generates synergistic gains or suffers negative stock-price reactions after the conclusion of an M&A deal, 88% of US CEOs continue to receive lavish rewards as there tends to be no meaningful relationship between a firm's returns on its assets and its M&A-related bonuses. In other words, poor firm performance tends not to lead to lower bonus payments following M&A activities while at the same time the managerial control power of CEOs tends to increase as a result of the acquisition. Thus, R. J. Rosen (2005) concludes that the management is more likely to engage in merger and acquisition programs aimed at maximizing their personal self-interest, a phenomenon that engages the managerial agency problem. While the mounting literature shows the impact of M&A activity on post-merger compensation, Bliss and Rosen (2001) report consistent findings that the growth in the size of CEO payments following a merger or an acquisition argues against value creation or productivity improvements within the firm.

The relationship between CEO compensation and firm value has been examined by other related studies by means of a variety of methodologies. For instance, Bebchuk, Cremers, and Peyer (2011) propose a new metric – CEO Pay Slice (CPS) – to measure "the fraction of the aggregate compensation of the firm's top-five executive team captured by the CEO" (p. 200) and they link this new metric with M&A activities. They show that the market reacts negatively to the acquisition decisions made by high-CPS companies as a result of the agency (governance) problem.

In order to avert potential conflicts of interest between CEOs and shareholders, boards should align CEO compensation with shareholder wealth by increasing managerial incentive pay.

2.4 CEO Pay Structure, M&A Decisions and Performance

Typically, CEO compensation consists of a combination of "salary, bonus, restricted stock, stock options and other payments" (Yanxue Liu, 2013, p. 11). The structure of compensation can be designed as a means of aligning executive wealth with shareholders' interests (Anderson et al., 2004), and this in turn can have a substantial influence on M&A decision-making. Being highly correlated with the value of the firm, optimal compensation arrangements in the wake of an M&A deal can motivate CEOs to build shareholder value by providing rewards for strong performance (Hall & Liebman, 1998; Murphy, 1999). Using a sample of mergers from 1993 to 1998, Datta, Iskandar‐Datta, and Raman (2001) confirm the existence of a strong positive relationship between acquiring managers' equity-based compensation (EBC) and stock-price performance around the time of the acquisition announcement. Higher equity-based compensation leads to favourable stock announcement returns. More recently, Minnick, Unal, and Yang (2010)'s work supports the results of previous studies. They find that incentive-based compensation mitigates the conflicts of interest that can arise between CEOs and shareholders. Since higher-PPS firms are encouraged to promote value-enhancing acquisitions and to maximize shareholder value, the stock market reacts significantly to their deals.

Agrawal and Mandelker (1987) argue that executive compensation arrangements that include significant common-stock and options holdings align the interests of the executives with those of the firm and reduce the agency problem that exists between managerial control and ownership. In particular, they find that the manager who has large common-stock and stock-option

holdings has a powerful incentive to make profitable corporate decisions on behalf of shareholders. Consistent with Datta et al. (2001), Boulton, Braga‐Alves, and Schlingemann (2014) find that equity-based compensation has a positive impact on the probability that the executives will make an acquisition decision. Using the incentive ratio to measure "the share of the CEO's compensation that would result from a 1% increase in her company's share price due to exercisable options, unexercisable options, and common stock" (p. 269), they point out that the probability of a firm pursuing an acquisition in subsequent years will increase by 8.7%, while the incentive ratio of a firm that does not experience acquisition activity will increase by one standard deviation. Examining the sample from 1993 to 2001, they also demonstrate a relationship between firms' abnormal returns and equity-based compensation by emphasizing "the sensitivity of CEO's equity-based compensation to changes in firm's stock price" (p. 292). Nevertheless, Masulis et al. (2007) fail to support the position that there exists a significant correlation between equity-based compensation and abnormal returns.

Unfortunately, self-interest is not the only factor that can lead to managerial inefficiency. Indeed, reputation concerns may induce CEOs to prefer investment projects that offer the prospect of immediate returns; these are opportunities to highlight their personal capabilities and to improve their own reputation within a relatively short period of time. In situations of this kind, a hybrid arrangement comprised of profit-based and stock-based compensation encourages managers to serve shareholder interests. If a CEO has a tendency to conduct investment activities based on short-term corporate performance, the shareholders can alter the composition of the salary package by reducing the proportion of profit-based compensation; on the other hand, in order to strengthen the alignment of their interests with those of the senior managers, the shareholders need to increase the proportion of stock allocated within the overall executive compensation package (Khoroshilov

& Narayanan, 2008).

There are similar studies that explore the effects of new governance regulation on M&A performance. For example, in 2002 the US government enacted the *Sarbanes-Oxley Act* (SOX) in order to improve internal corporate governance practices. Krolikowski (2016) examines how the adoption of SOX has affected the relationship between pay-for-performance sensitivity and acquirer returns during the pre- and post-SOX periods. The study finds that pay-for-performance has a significant positive effect on acquirer returns and that it has led to the payment of lower merger premiums during the pre- and post-SOX periods. These results suggest that the introduction of new regulations did not diminish the influence of pay-for-performance sensitivity on acquisition performance.

2.5 CEO Pay-for-Performance Sensitivity, M&A Decisions and Performance

Using a large M&A sample over the 1991–2005 period, Minnick, Unal, and Yang (2010) examined the relationship between managerial incentive payment and acquisition decision-making in the banking industry. They found that high pay-for-performance sensitivity (PPS) occurs when acquiring firms experience greater abnormal stock returns, these being 1.43% larger than the returns of the lower-PPS firms within the three-day window surrounding the announcement. Since PPS is significantly related to firms' stock return on M&A deals, the CEOs of high-PPS firms prefer to avoid value-destroying acquisitions and instead tend to opt for value-enhancing investments. In addition, while firms' performance is directly related to pay-for-performance, Andrade, Mitchell, and Stafford (2001) point out that executives in acquiring firms with high pay-for-performance have incentives to enhance shareholder value during acquisitions; but if CEOs do not have incentive payments, their companies may experience poor managerial performance and

negative synergistic returns.

Several research studies on pay-for-performance show significant differences. Pay-for-performance sensitivity does not create value in M&A activities to the same extent as in other investments because CEO salaries do not suffer a profit loss as a result of value destruction caused by negative subsequent market reactions and stock returns, whereas the components of compensation increase as a result of value-enhancing acquisitions (Core et al., 1999; Harford & Li, 2007; Yim, 2013). The academic literature on CEO compensation observes a significant negative relationship between top executive payments and firm performance (Bliss & Rosen, 2001; Core et al., 1999). Further, the reputation of managers increases as a function of short-term yields and private benefits; therefore, due to concerns about reputation, when corporate managers have access to private and internal information pertaining to their decisions, they have incentives to act in accordance with the maximization of short-term performance rather than with the long-term best interests of shareholders (Narayanan, 1985). Therefore, as a result of the agency problem, in order to align senior management compensation with shareholder value, Harford and Li (2007) report that closer monitoring, as a strong governance mechanism, could be used to improve the efficacy of pay-for-performance sensitivity even when a firm is suffering a dollar loss in performance.

Chapter 3. Data and Methodology

3.1 Data

This study includes all completed US mergers with an announcement date between January 1, 2005 and December 31, 2016, which cover US M&A events in both pre- and post-SoP periods. We treated January 1, 2005 to December 31, 2011 as the pre-SoP period and January 1, 2012 to December 31, 2016 as the post-SoP period. The M&A data were collected from the Securities Data Company (SDC) US M&A database. The financial and accounting data were collected from the Compustat database, and the executive-compensation data were collected from the Execucomp database. We collected firm-specific say-on-pay voting data from 14A filings.

One important contribution of this research study is the hand-collected SoP voting data, which complement other datasets as stated above. We hand-collected the SoP voting data for S&P 1500 firms (2012-2016) from DEF 14K filings, which are disclosed in the Electronic Data Gathering, Analysis, and Retrieval system (EDGAR). In the process of collecting these data, we found that the annual reports show the results of shareholders' SoP voting results for the previous year. However, at the previous year's annual meeting, the shareholders' votes in favour or in opposition were based on the executive compensation for the year preceding the previous year. For example, if we want to collect SoP voting data for 2012, we need to check the 14K report for 2013, which is generally released in the subsequent year (i.e. 2014) because a firm discloses the executive compensation for 2012 at the 2013 annual shareholders' meeting and because all of the decisions and results generated at the 2013 annual meeting are incorporated into the 2013 annual report, published a year later. In this hypothetical example, after the shareholders reviewed the 2012 executive compensation arrangement at the 2013 annual meeting, they had the right to express their opinion by voting in favour of or against that compensation arrangement. For instance,

Globus Medical Inc. had a stable say-on-pay voting rate from 2012 to 2016, as is seen in Appendix B. Figure 1 indicates that the shareholders of that company were satisfied with the state of CEO compensation. Some of the firms are like Globus Medical Inc. and KBR Inc. (see Appendix B, Figure 2), which had a consistently high percentage of approval SoP voting over the five-year period, but there are some firms that experienced a low percentage of approval SoP voting, such as Shuterfly Inc. (see Appendix B, Figure 3).

3.2 Methodology

This study investigates the effects of say-on-pay on M&A decisions and performance using a US sample over 2005 – 2016 period. We organize our empirical analysis under three broad categories, to examine three sets of research questions.

3.2.1 SoP rule adoption and acquisition probability/performance

First, we examine the following research questions using relevant multivariate regression analyses:

Research Question 1. *How does the introduction of SoP rule affect M&A propensity (in the pre- and post-SoP periods)?*

We use the following panel data logit model to investigate this research question. All variables are described in Appendix A.

$$\text{M\&A Dummy}_{(t+1)} = \alpha_0 + \beta_1 \text{ SOP Dummy} + \beta_2 \text{ Incentive to Total CEO Pay} + \beta_3 \text{ Pay Slice} + \beta_4 \text{ CEO Age} + \beta_5 \text{ CEO Tenure} + \beta_6 \text{ Firm Size} + \beta_7 \text{ Market to book value} + \beta_8 \text{ Long Term Debt to Asset} + \beta_9 \text{ Board Size} + \beta_{10} \text{ Independent Board Member Ratio} + \beta_{11} \text{ Sales Growth} + \beta_{12} \text{ ROA} + \beta_{13} \sigma_{(RETit)} + e_{it} \quad (1)$$

The dependent variable, 'M&A dummy' is an indicator variable. It takes a value of 1, if the firm makes at least one acquisition in the subsequent year.

Research Question 2. *How does the introduction of SoP rule affect M&A performance (in the pre- and post-SoP periods)?*

We use the following panel data OLS regression model (random effect) to investigate this research question. Since some of the independent variables of interest are time-invariant (e.g. SoP dummy) or does not change significantly over time for a specific firm (e.g. SoP voting approval %, board characteristics), we prefer random effect model to fixed effect model. All variables are described in Appendix A.

$$\text{M\&A performance}_{(t+1)} = \alpha_0 + \beta_1 \text{ SOP Dummy} + \beta_2 \text{ Incentive to Total CEO Pay} + \beta_3 \text{ Pay Slice} + \beta_4 \text{ CEO Age} + \beta_5 \text{ CEO Tenure} + \beta_6 \text{ Firm Size} + \beta_7 \text{ Market to book value} + \beta_8 \text{ Long Term Debt to Asset} + \beta_9 \text{ Board Size} + \beta_{10} \text{ Independent Board Member Ratio} + \beta_{11} \text{ Sales Growth} + \beta_{12} \text{ ROA} + \beta_{13} \sigma_{(RETit)} + e_{it} \quad (2)$$

M&A performance refers to the aggregate performance of all M&A deals pursued in a firm-year. We use two measures as a proxy for M&A performance: (i) Ratio of positive acquisition (number of positive acquisition to total acquisition). An acquisition is defined as a position acquisition if CAR (-2 to +2) is positive for that particular deal. (ii) Yearly average CAR: average of the CARs (-2 to +2) of all the deals undertaken in a firm-year.

3.2.2 SoP voting approval percentage and acquisition probability/performance

Second, we examine the following research questions using relevant multivariate regression analyses:

Research Question 3. *How does SoP voting approval percentage affect M&A propensity (in the post-SoP period)?*

We use the following panel data logit model to investigate this research question. All variables are described in Appendix A.

$$\text{M\&A Dummy}_{(t+1)} = \alpha_0 + \beta_1 \text{ SOP voting approval\%} + \beta_2 \text{ Incentive to Total CEO Pay} + \beta_3 \text{ Pay Slice} + \beta_4 \text{ CEO Age} + \beta_5 \text{ CEO Tenure} + \beta_6 \text{ Firm Size} + \beta_7 \text{ Market to book value} + \beta_8 \text{ Long Term Debt to Asset} + \beta_9 \text{ Board Size} + \beta_{10} \text{ Independent Board Member Ratio} + \beta_{11} \text{ Sales Growth} + \beta_{12} \text{ ROA} + \beta_{13} \sigma_{(RETit)} + e_{it} \quad (1)$$

The dependent variable, 'M&A dummy' is an indicator variable. It takes a value of 1, if the firm makes at least one acquisition in the subsequent year.

Research Question 4. *How does SoP voting approval percentage affect M&A performance (in the post-SoP period)?*

We use the following panel data OLS regression model (random effect) to investigate this research question. Since some of the independent variables of interest are time-invariant (e.g. SoP dummy) or does not change significantly over time for a specific firm (e.g. SoP voting approval %, board characteristics), we prefer random effect model to fixed effect model. All variables are described in Appendix A.

$$\text{M\&A performance}_{(t+1)} = \alpha_0 + \beta_1 \text{ SOP voting approval\%} + \beta_2 \text{ Incentive to Total CEO Pay} + \beta_3 \text{ Pay Slice} + \beta_4 \text{ CEO Age} + \beta_5 \text{ CEO Tenure} + \beta_6 \text{ Firm Size} + \beta_7 \text{ Market to book value} + \beta_8 \text{ Long Term Debt to Asset} + \beta_9 \text{ Board Size} + \beta_{10} \text{ Independent Board Member Ratio} + \beta_{11} \text{ Sales Growth} + \beta_{12} \text{ ROA} + \beta_{13} \sigma_{(RETit)} + e_{it} \quad (2)$$

M&A performance refers to the aggregate performance of all M&A deals pursued in a firm-year. We use two measures as a proxy for M&A performance: (i) Ratio of positive acquisition (number of positive acquisition to total acquisition). An acquisition is defined as a position acquisition if CAR (-2 to +2) is positive for that particular deal. (ii) Yearly average CAR: average of the CARs (-2 to +2) of all the deals undertaken in a firm-year.

3.2.2 Moderating effect of SoP voting approval percentage

Finally, we investigate the ways in which and the degree to which the SoP voting percentage has helped to moderate the relationship between (i) CEO power and M&A decisions/profitability and (ii) CEO incentive pay and M&A decisions/profitability.

Research Question 5. *How does SoP voting approval percentage affect the relationship between (i) CEO incentive pay and M&A decisions/profitability and (ii) CEO pay slice and M&A decisions/profitability (in the post-SoP period)?*

We use the following panel data OLS regression models (random effect) to investigate this research question. Since some of the independent variables of interest are time-invariant (e.g. SoP dummy) or does not change significantly over time for a specific firm (e.g. SoP voting approval %, board characteristics), we prefer random effect model to fixed effect model. All variables are described in Appendix A. The interaction effects in the following models capture the moderating effect of SoP voting approval %.

(i) CEO incentive pay and M&A decisions/profitability

Number of Positive Acquisition = $\alpha_0 + \beta_1$ SOP Voting Approval% × Incentive to Total CEO Pay + β_2 SOP Voting Approval% + β_3 Incentive to Total CEO Pay + β_4 Pay Slice + β_5 CEO Age + β_6 CEO Tenure + β_7 Firm Size + β_8 Market to book value + β_9 Long Term Debt to Asset + β_{10} Board Size + β_{11} Independent Board Member Ratio + β_{12} Sales Growth + β_{13} ROA+ β_{14} $\sigma_{(RETit)}$ + e_{it} (3)

Ratio of Positive Acquisition = $\alpha_0 + \beta_1$ SOP Voting Approval% × Incentive to Total CEO Pay + β_2 SOP Voting Approval% + β_3 Incentive to Total CEO Pay + β_4 Pay Slice + β_5 CEO Age + β_6 CEO Tenure + β_7 Firm Size + β_8 Market to book value + β_9 Long Term Debt to Asset + β_{10} Board Size + β_{11} Independent Board Member Ratio + β_{12} Sales Growth + β_{13} ROA+ β_{14} $\sigma_{(RETit)}$ + e_{it} (4)

Yearly average CAR = $\alpha_0 + \beta_1$ SOP Voting Approval% × Incentive to Total CEO Pay + β_2 SOP Voting Approval% + β_3 Incentive to Total CEO Pay + β_4 Pay Slice + β_5 CEO Age + β_6 CEO Tenure + β_7 Firm Size + β_8 Market to book value + β_9 Long Term Debt to Asset + β_{10} Board Size + β_{11} Independent Board Member Ratio + β_{12} Sales Growth + β_{13} ROA+ β_{14} $\sigma_{(RETit)}$ + e_{it} (5)

(ii) CEO pay slice and M&A decisions/profitability (in the post-SoP period)

Number of Positive Acquisition = $\alpha_0 + \beta_1$ SOP Voting Approval% × Pay Slice + β_2 SOP Voting Approval% + β_3 Incentive to Total CEO Pay + β_4 Pay Slice + β_5 CEO Age + β_6 CEO Tenure + β_7 Firm Size + β_8 Market to book value + β_9 Long Term Debt to Asset + β_{10} Board Size + β_{11} Independent Board Member Ratio + β_{12} Sales Growth + β_{13} ROA+ β_{14} $\sigma_{(RETit)}$ + e_{it} (6)

Ratio of Positive Acquisition = $\alpha_0 + \beta_1$ SOP Voting Approval% × Pay Slice + β_2 SOP Voting Approval% + β_3 Incentive to Total CEO Pay + β_4 Pay Slice + β_5 CEO Age + β_6 CEO Tenure + β_7 Firm Size + β_8 Market to book value + β_9 Long Term Debt to Asset + β_{10} Board Size + β_{11} Independent Board Member Ratio + β_{12} Sales Growth + β_{13} ROA+ β_{14} $\sigma_{(RETit)}$ + e_{it} (7)

$$CAR = \alpha_0 + \beta_1 \text{ SOP Voting Approval\%} \times \text{Pay Slice} + \beta_2 \text{ SOP Voting Approval\%} + \beta_3 \text{ Incentive to Total CEO Pay} + \beta_4 \text{ Pay Slice} + \beta_5 \text{ CEO Age} + \beta_6 \text{ CEO Tenure} + \beta_7 \text{ Firm Size} + \beta_8 \text{ Market to book value} + \beta_9 \text{ Long Term Debt to Asset} + \beta_{10} \text{ Board Size} + \beta_{11} \text{ Independent Board Member Ratio} + \beta_{12} \text{ Sales Growth} + \beta_{13} \text{ ROA} + \beta_{14} \sigma_{(RETit)} + e_{it} \quad (8)$$

3.3 Summary Statistics

Table 1 presents the descriptive statistics of the variables used in this study. From Panel A2, we find that the mean value of SoP voting approval percentage is approximately 91%. While this approval rating is quite high, there is still a significant level of variations in voting results across firms (standard deviation is approx. 10%). From Panel A2, we further find that, among the acquiring firms, on average a firm makes two acquisitions per year and majority of the acquisitions are characterized as positive acquisitions.

Table 2 presents the correlation matrix of the relevant variables. Panel A shows that SoP Dummy variable is significantly and positively associated with Acquisition Dummy – which is contrary to the prediction of 'SoP governance' hypothesis. However, bi-variate correlation coefficient and related significance level could be misleading as they do not consider the effect of other covariates. Further, SoP Dummy variable is positively associated with other M&A performance measures (namely, Yearly positive acquisitions, Ratio of positive acquisition, and yearly average CAR (-2 to +2)).

Table 2 (Panel B) shows that SoP voting approval% variable is significantly and positively associated with Acquisition Dummy – which supports the views of 'reliable CEO' hypothesis. However, bi-variate correlation coefficient and related significance level could be misleading as they do not consider the effect of other covariates. We further find that, SoP voting approval percentage variable is positively associated with other M&A performance measures (namely, Yearly positive acquisitions, Ratio of positive acquisition, and yearly average CAR (-2 to +2)).

Table 1. Summary Statistics

This table presents the summary statics of the variables used in the study. Appendix A includes all variable descriptions.

Panel A. Acquisition and SoP voting variables

A1. Include all firm-year observations

Variable	Obs	Mean	Std. Dev.	Min	Max
Yearly Total Acquisition	19457	0.664	1.486	0	36
Yearly Negative Acquisition	19457	0.141	0.462	0	9
Yearly Positive Acquisition	19457	0.176	0.508	0	8
Ratio of Positive Acquisition	19457	0.120	0.312	0	1
Yearly Average CAR (-2 to +2)	19457	0.002	0.020	-0.074	0.104
SoP Voting Approval Percentage	4928	91.627	10.276	48	99.5

A2. Include the firm-year observations with at least one acquisition

Variable	Obs	Mean	Std. Dev.	Min	Max
Yearly Total Acquisition	6423	2.012	1.996	1	36
Yearly Negative Acquisition	6423	0.427	0.724	0	9
Yearly Positive Acquisition	6423	0.532	0.770	0	8
Ratio of Positive Acquisition	6423	0.362	0.456	0	1
Yearly Average CAR(-2 to +2)	6423	0.006	0.035	-0.074	0.104
SoP Voting Approval Percentage	1906	91.783	10.243	48	99.5

Panel B. CEO Pay variables (in '000s)

Variable	Obs	Mean	Std. Dev.	Min	Max
Incentive pay $_{(t+1)}$	18620	4205.71	4684.69	0	24668.03
Total Pay $_{(t+1)}$	18620	5474.44	5330.46	192.729	29073.17
Incentive to Total Pay	19412	0.623	0.277	0	0.954

Panel C. Other firm specific variables

Variable	Obs	Mean	Std. Dev.	Min	Max
CEO Age (in years)	19457	55.706	7.063	39	75
CEO Tenure (in years)	19457	8.133	6.806	1	34
Market value of equity (Firm Size) (in m$)	18721	7662.629	18980.780	24.65	137446.00
ln (Firm Size)	18721	7.540	1.674	3.20	11.83
Market to Book Value	18719	2.761	3.485	-8.98	22.06
LT Debt to Asset	18974	0.201	0.192	0	0.851
Board Size	15022	9.006	2.270	5	16
Independent Board Member Ratio	15022	0.761	0.153	0	1
Sales Growth	18651	0.100	0.243	-0.489	1.338
ROA	19003	0.078	0.096	-0.317	0.369
Std. Dev of Last 5Yr Stock Return	17831	0.585	1.006	0.068	8.143

Table 2. Correlation Matrix

Panel A. Correlation matrix with Post SoP Dummy variable (Full Sample)

Table 2 (Panel A) reports the correlation coefficients among different variables used in this study. P-values are reported in the parentheses. This correlation matrix is based on full sample.

	Acquisition Dummy	Yearly Total Acquisition	Yearly Positive Acquisition	Ratio of Positive Acquisition	Yearly Average CAR (-2 to +2)	SoP Dummy
Acquisition Dummy	1					
Yearly Total Acquisition	0.6378	1				
	(0.000)					
Yearly Positive Acquisition	0.4869	0.4846	1			
	(0.000)	(0.000)				
Ratio of Positive Acquisition	0.5432	0.3567	0.8335	1		
	(0.000)	(0.000)	(0.000)			
Yearly Average CAR (-2 to +2)	0.0759	0.04	0.2986	0.3972	1	
	(0.000)	(0.000)	(0.000)	(0.000)		
SoP Dummy	0.0272	0.004	0.0197	0.0287	0.0149	1
	(0.000)	(0.588)	(0.007)	(0.000)	(0.042)	

Panel B. Correlation matrix with SoP voting approval percentage variable (post SoP period)

Table 2 (Panel B) reports the correlation coefficients among different variables used in this study. P-values are reported in the parentheses. This correlation matrix is based on post SoP regulation sample (i.e. it covers post 2011 period). SoP voting approval % data is available only for the post 2011 period.

	Acquisition Dummy	Yearly Total Acquisition	Yearly Positive Acquisition	Ratio of Positive Acquisition	Yearly Average CAR (-2 to +2)	SoP Voting Approval%
Acquisition Dummy	1					
Yearly Total Acquisition	0.643	1				
	(0.000)					
Yearly Positive Acquisition	0.4957	0.4786	1			
	(0.000)	(0.000)				
Ratio of Positive Acquisition	0.5503	0.365	0.8419	1		
	(0.000)	(0.000)	(0.000)			
Yearly Average CAR (-2 to +2)	0.0741	0.0291	0.2355	0.3129	1	
	(0.000)	(0.013)	(0.000)	(0.000)		
SoP Voting Approval%	0.0307	-0.0023	0.0325	0.0375	0.0261	1
	(0.032)	(0.872)	(0.023)	(0.008)	(0.067)	

Chapter 4. Empirical Results

4.1 SOP Rule Adoption and the Probability of Acquisition

In Table 3, we present the results that examine that the relation between SoP rule adoption and acquisition probability. We use an indicator variable 'SoP dummy' to examine this relationship. 'SoP dummy' is an indicator variable equaling 0 for observations over the period 2005–2011 (pre-SoP period) and equalling 1 for observations over the period 2012–2016 (post-SoP period).

Model 1 includes the SoP dummy and one control variable, the logarithm of firm size, which is denoted by the market value of equity. Further, we also controll ed for the year fixed effect and for the industry fixed effect. The results indicate that the SoP dummy has a negative and significant association with the probability of acquisition in the post-SoP period, with a coefficient of -0.2564 (p-value < 0.01). SoP regulation subjects CEOs to closer scrutiny, thus making them more cautious during the decision-making process. This implies that SoP regulation is having a governance effect that is reducing the probability of acquisition activities.

We found similar results in Model 2, which includes more control variables even though the level of statistical significance is somewhat reduced from the 1% level to the 10% level. We also find that a number of other independent variables have a significant effect on M&A probability. Model 2 indicates that the coefficient on the incentive to total CEO pay is positive and significant. The incentive to total CEO pay is the incentive pay divided by total CEO pay. A higher value indicates that companies provide CEOs with more remuneration through options, stocks or other payment methods in order to create incentives and rewards for better performance. The probability of making acquisitions increases with CEOs' incentive-oriented compensation because the members of the senior management team are likely to receive bonus payments as rewards following an acquisition, thus leading them to undertake more M&A deals. CEO pay slice is

denoted as the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, and Peyer, 2011); this measure serves as a proxy for CEO power. The coefficient on the CEO pay slice variable is significant at the 10% level; therefore, high (low) CEO power is related to more (fewer) acquisition activities. Executives with more CEO power have a significant influence on managerial decision-making within their firm, so these individuals are in a stronger position to make acquisition decisions based on the personal benefits that are likely to flow to them, such as increased compensation and enhanced reputation, with the result of a greater tendency to neglect shareholder value. Given the fact that incentives based on total CEO pay and based on the CEO pay slice have positive associations with the total number of acquisitions, executives generally tend to take more risks when firms pay them more money; in particular, these executives are more willing to undertake acquisitions in order to maximize their own wealth. More specifically, the larger firms have a positive relationship with the probability of acquisitions because they have access to more resources and more private information related to M&A deals, and so they are likely to make more acquisitions in accordance with their privileged access. Debt to asset is a measure of leverage; it is a measure of the perceived risk level by the debtholder.

If debt holders have a higher investment in a firm, they are likely to want the firm to avoid undertaking more risky ventures. As risk-averse stakeholders in a company, the debt holders want the company to make interest and principal payments on time. If the company undertakes too many acquisition activities that involve high levels of uncertainty and risk, it might experience value destruction and dollar losses as a result of those activities and thus it might lack sufficient funds to pay its debt holders; thus, there is a negative association between debt to assets and the probability of acquisitions. Return on assets (ROA) is a measure of firm performance and is highly significant in Model 2. Companies that have relatively high performance generally tend to pursue more

acquisitions. To measure companies' governance structure, we included the independent board member ratio, which aligns with the SoP dummy, thus suggesting that companies that have a stronger and more independent board become more concerned with the pursuit of acquisitions.

Table 3: SOP Rule Adoption and Probability of Acquisition

Table 3 presents results based on the panel data logistic regressions that examine the effects of the SoP rule adoption (SoP dummy) on the probability of acquisition. The dependent variable in this regression is the acquisition dummy, which is a binary variable that takes the value of 1 if the CEO completed at least one merger activity during the subsequent firm year. Model 1 presents a base model result that includes only firm size as the control variable, whereas Model 2 includes a more comprehensive set of control variables.
SoP dummy, which is the main independent variable of interest, is an indicator variable that equals 0 for observations during the period 2005–2011 (pre-SoP) and equals 1 for observations during the period 2012–2016 (post-SoP). Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

VARIABLES	(1) Model	(2) Model
SOP Dummy	-0.2564***	-0.4582*
	(0.091)	(0.234)
Incentive to Total CEO Pay		0.3407***
		(0.127)
Pay Slice		0.4575*
		(0.253)
CEO Age		-0.0162***
		(0.005)
CEO Tenure		0.0063
		(0.005)
Ln (Firm Size)	0.4376***	0.4058***
	(0.022)	(0.028)
Market to Book Value		0.0010
		(0.001)
LT Debt to Asset		-0.3771**
		(0.174)
Board Size		0.0116
		(0.015)
Independent Board Member Ratio		-0.3549*
		(0.212)
Sales Growth		-0.0001
		(0.001)

ROA		1.3168***
		(0.319)
Std. Dev of Last 5Yr Stock Return		-0.0006
		(0.001)
Constant	-4.2851***	-3.2853***
	(0.248)	(0.381)
Year Fixed Effect	Yes	Yes
Industry Fixed Effect	Yes	Yes
Observations	17,893	13,695
Number of Unique Firms	2,366	1,980
Chi sqr	637.045	663.706

4.2 SOP Rule Adoption and Acquisition Performance

Table 4 presents the effects of the introduction of SoP laws on the performance of acquisitions. We use two measures of acquisition performance: (i) ratio of positive acquisitions, and (ii) yearly average CAR. 'Ratio of positive acquisitions' is defined as the number of positive acquisitions divided by number of yearly total acquisitions. An M&A deal is defined as a positive deal, if the CAR (-2 to +2) is positive around the deal announcement date. 'Yearly average CAR' refers to the average of cumulative abnormal returns over -2 to +2 days around the announcement date (CAR (-2 to +2)) for all the acquisitions announces in a firm-year.

Table 4 results indicate that the SoP dummy does not have any significant association with the acquisitions' performance. This implies that acquisition performance did not vary significantly before and after the introduction of the SoP rule. While SoP rule adoption lowers the probability of making an acquisition (as we find in Table 3), it appears that the SoP rule itself does not make any significant difference in terms of selection a better M&A deal.

Table 3 and 4 results, together, show a partial support for 'SoP governance' hypothesis.

Table 4: SOP Rule Adoption and Acquisition Performance

Table 4 presents the results of panel data ordinary least squares (OLS) regression models that estimate the relation between SoP rule adoption and acquisition performance. Model 1 uses the ratio of positive acquisition as the dependent variable and Model 2 uses yearly average CAR (-2, +2) as the dependent variable. CAR (-2, +2) is calculated as the 5-day cumulative abnormal return (CAR) during the window covered by the event day (-2, +2), where the event day 0 is the date of the acquisition announcement.
SoP dummy, which is the main independent variable of interest, is an indicator variable that equals 0 for observations during the period 2005–2011 (pre-SoP) and equals 1 for observations during the period 2012–2016 (post-SoP). Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

	Ratio of Positive Acquisition	Yearly Average CAR (-2, +2)
	(1)	(2)
VARIABLES	Model	Model
SOP Dummy	-0.0352	0.0025
	(0.029)	(0.004)
Incentive to Total CEO Pay	0.0341**	0.0022
	(0.014)	(0.002)
Pay Slice	0.0176	-0.0016
	(0.029)	(0.004)
CEO Age	-0.0016***	-0.0001*
	(0.001)	(0.000)
CEO Tenure	0.0010*	0.0000
	(0.001)	(0.000)
Ln (Firm Size)	0.0186***	-0.0011***
	(0.003)	(0.000)
Market to Book Value	0.0002**	0.0000
	(0.000)	(0.000)
LT Debt to Asset	-0.0187	0.0014
	(0.018)	(0.002)
Board Size	0.0008	0.0003
	(0.002)	(0.000)
Independent Board Member Ratio	-0.0405*	-0.0022
	(0.023)	(0.003)
Sales Growth	-0.0000	-0.0000

	(0.000)	(0.000)
ROA	0.0618**	-0.0020
	(0.031)	(0.004)
Std. Dev of Last 5Yr Stock Return	-0.0000	-0.0000
	(0.000)	(0.000)
Constant	0.0795**	0.0162***
	(0.041)	(0.004)
Year Fixed Effect	Yes	Yes
Industry Fixed Effect	Yes	Yes
Observations	13,695	13,695
Number of Unique Firms	1,980	1,980
R2 within	0.011	0.002
R2 between	0.060	0.008
R2 overall	0.027	0.004

4.3 SOP Voting Approval Percentage and Acquisition Decisions

Next, we examine the association between SoP voting approval percentage and the probability of acquisition. Table 5 presents the relevant results. Model 1 includes only one control variable, whereas Model 2 includes a more comprehensive set of independent/control variables. We find that in Model 2, the SoP voting approval % variable has a positive yet weaker significant association with the probability of acquisition. This result shows limited support for the view that 'reliable CEOs' who enjoy more support from the shareholders' are more likely to make at least one acquisition in a firm-year. This result shows limited support for the 'reliable CEO' hypothesis. Do 'reliable CEOs' make more frequent acquisition? Again, 'reliable CEO' hypothesis predicts that CEOs with more shareholder support are likely to make more prudent decisions with respect to M&A activities. We test this prediction using two models, as presented in Table 6. We use yearly total number of acquisitions as the dependent variable. The coefficient of SoP voting approval %

is insignificant in both models. These results indicate that 'reliable CEOs' are not more likely to make acquisitions compared to 'less reliable' CEOs (who receive a lower SoP voting approval %). These results imply that if 'reliable CEOs' think that the opportunities are good, they are likely to undertake more acquisitions; otherwise, they are likely to undertake fewer acquisitions. Thus, the SoP voting percentage is not systematically related to the total number of acquisitions. We explore this conjecture more explicitly in our next set of tests.

Table 5: SOP Voting Approval Percentage and Probability of Acquisition

Table 5 presents the results based on the panel data logistic regressions that test the influences of SoP voting approval percentage on the probability of acquisition. In this regression, the dependent variable is the acquisition dummy, which is a binary variable that takes the value of 1 if the CEO completed at least one merger activity during the subsequent firm year. Model 1 presents a base model result that includes only firm size as the control variable, whereas Model 2 includes a more comprehensive set of control variables.
SoP Voting Approval% is defined as the number of votes cast for the SOP proposal scaled by the total number of votes cast. Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

VARIABLES	(1) Model	(2) Model
SOP Voting Approval%	0.0041	0.0080*
	(0.004)	(0.005)
Incentive to Total CEO Pay		0.4002
		(0.292)
Pay Slice		0.5266
		(0.526)
CEO Age		-0.0308***
		(0.009)
CEO Tenure		0.0171*
		(0.009)
Ln (Firm Size)	0.3396***	0.3725***
	(0.034)	(0.049)
Market to Book Value		0.0007
		(0.001)
LT Debt to Asset		0.3054
		(0.290)
Board Size		-0.0308
		(0.029)
Independent Board Member Ratio		-0.7797**
		(0.392)
Sales Growth		0.1363
		(0.090)
ROA		-0.2855
		(0.700)

Std. Dev of Last 5Yr Stock Return		0.0004
		(0.001)
Constant	-3.7177***	-2.1095**
	(0.522)	(0.829)
Year Fixed Effect	Yes	Yes
Industry Fixed Effect	Yes	Yes
Observations	4,899	3,458
Number of Unique Firms	1,476	1,308
Chi sqr	187.060	174.891

Table 6: SOP Voting Approval Percentage and Yearly Total (Number) of Acquisition

Table 6 reports the panel data OLS regressions results studying the association between SoP voting approval percentage and the probability of acquisition. The dependent variable in this regression is the yearly total (number) of acquisition. Model 1 presents a base model result that includes only firm size as the control variable, whereas Model 2 includes a more comprehensive set of control variables.
SoP Voting Approval% is defined as the number of votes cast for the SOP proposal scaled by the total number of votes cast. Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

VARIABLES	(1) Model	(2) Model
SOP Voting Approval%	-0.0028	-0.0010
	(0.002)	(0.002)
Incentive to Total CEO Pay		0.1141
		(0.150)
Pay Slice		-0.1173
		(0.267)
CEO Age		-0.0101*
		(0.005)
CEO Tenure		0.0143***
		(0.005)
Ln (Firm Size)	0.1854***	0.2304***
	(0.021)	(0.031)
Market to Book Value		-0.0004
		(0.000)
LT Debt to Asset		-0.0769
		(0.190)
Board Size		-0.0338*
		(0.017)
Independent Board Member Ratio		-0.3484
		(0.248)
Sales Growth		0.0323
		(0.039)
ROA		0.2587

		(0.410)
Std. Dev of Last 5Yr Stock Return		-0.0001
		(0.001)
Constant	-0.6016**	-0.0524
	(0.288)	(0.492)
Year Fixed Effect	Yes	Yes
Industry Fixed Effect	Yes	Yes
Observations	4,899	3,458
Number of Unique Firms	1,476	1,308
R2 within	0.008	0.012
R2 between	0.065	0.073
R2 overall	0.060	0.067

4.4 SOP Voting Approval Percentage and Acquisition Performance

Next, we examine the association between SoP voting approval percentage and acquisition performance. The results are presented in Table 7, which shows that SoP voting approval percentage is significantly and positively associated with number of positive acquisitions (Model 1), ratio of positive acquisitions (Model 2) and yearly average cumulative abnormal return (CAR) (Model 3). In other words, a higher (lower) percentage of the SoP voting approval rate is related to more (fewer) positive acquisitions, a higher (lower) ratio of positive acquisitions and a higher (lower) yearly average CAR. When shareholders approve the CEO compensation arrangement, they implicitly indicate that they trust that the CEO is capable of enhancing the value of the company. It appears that CEOs tend to honour shareholders' trust affirmatively by making better M&A deals.

Table 7: SOP Voting Approval Percentage and Acquisition Performance

Table 7 presents the panel data OLS regressions results testing the association between SoP voting approval percentage and acquisition performance. Model 1 uses the number of positive acquisition as the dependent variable. Model 2 uses the ratio of positive acquisition as the dependent variable and Model 3 uses yearly average CAR (-2, +2) as the dependent variable. Number of positive acquisition is the number of acquisitions with positive returns that CEOs make. CAR (-2, +2) is calculated as the 5-day cumulative abnormal return (CAR) during the window covered by the event day (-2, +2), where the event day 0 is the date of the acquisition announcement.
SoP Voting Approval% is defined as the number of votes cast for the SOP proposal scaled by the total number of votes cast. Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

	Number of Positive Acquisition	Ratio of Positive Acquisition	Yearly Average CAR (-2, +2)
	(1)	(2)	(3)
VARIABLES	Model	Model	Model
SOP Voting Approval%	0.0025***	0.0015***	0.0001**
	(0.001)	(0.001)	(0.000)
Incentive to Total CEO Pay	-0.0373	-0.0076	0.0062
	(0.055)	(0.034)	(0.005)
Pay Slice	0.1245	0.0359	-0.0070
	(0.102)	(0.064)	(0.008)
CEO Age	-0.0022	-0.0020*	-0.0000
	(0.002)	(0.001)	(0.000)
CEO Tenure	0.0035**	0.0019*	0.0000
	(0.002)	(0.001)	(0.000)
Ln (Firm Size)	0.0376***	0.0176***	-0.0058***
	(0.009)	(0.005)	(0.002)
Market to Book Value	0.0002	0.0003**	0.0000***
	(0.000)	(0.000)	(0.000)
LT Debt to Asset	0.0381	-0.0140	-0.0143*
	(0.056)	(0.033)	(0.009)
Board Size	-0.0076	-0.0018	0.0001
	(0.006)	(0.003)	(0.001)
Independent Board Member Ratio	-0.0112	0.0060	-0.0069
	(0.076)	(0.045)	(0.010)
Sales Growth	-0.0016	-0.0015	-0.0044***
	(0.014)	(0.009)	(0.002)

ROA	-0.0827	0.0088	0.0195
	(0.134)	(0.081)	(0.015)
Std. Dev of Last 5Yr Stock Return	0.0000	0.0001	-0.0000
	(0.000)	(0.000)	(0.000)
Constant	-0.0465	-0.0272	0.0483**
	(0.161)	(0.098)	(0.023)
Year Fixed Effect	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes
Observations	3,468	3,458	3,458
Number of Unique Firms	1,309	1,308	1,308
R2 within	0.007	0.004	0.015
R2 between	0.069	0.046	0.013
R2 overall	0.037	0.023	0.008

4.5 Moderating Effect of SOP Voting Approval Percentage on the Relationship Between (a) Pay Structure and M&A and (b) Pay Slice and M&A

Finally, we examine whether SoP voting approval percentage results moderate the relationship between: (i) CEO pay structure (incentive to total pay) and M&A performance, and (ii) CEO pay slice and M&A performance. Panel A contains results for CEO pay structure, while Panel B includes results for CEO pay slice. In both panels, we use three M&A performance measures, namely, (a) number of positive acquisitions, (b) ratio of positive acquisitions, and (c) yearly average CAR. These measures are described in Appendix A. Our results from Panel A and Panel B do not show any significant result for the interaction effects, indicating an insignificant moderating effect of SoP voting approval percentage.

Table 8: SOP Voting Approval Percentage and Acquisition Performance - Moderating Effect of 'Incentive to Total CEO Pay Ratio' and 'Pay Slice'

Panel A: Moderating Effect of Incentive to Total CEO Pay Ratio

This table reposts the panel data OLS regressions results studying the moderating effects of incentive to total CEO pay ratio on the relation between SoP voting approval percentage and acquisition performance. Model 1 uses the number of positive acquisition as the dependent variable. Model 2 uses the ratio of positive acquisition as the dependent variable and Model 3 uses yearly average CAR (-2, +2) as the dependent variable. Number of positive acquisition is the number of acquisitions with positive returns that CEOs make. CAR (-2, +2) is calculated as the 5-day cumulative abnormal return (CAR) during the window covered by the event day (-2, +2), where the event day 0 is the date of the acquisition announcement.
SoP Voting Approval% is defined as the number of votes cast for the SOP proposal scaled by the total number of votes cast. Interaction term SoP Voting Approval% × Incentive to Total CEO Pay Ratio represents the interaction of SoP Voting Approval% variable and incentive to total CEO pay ratio variable. Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

	Number of Positive Acquisition	Ratio of Positive Acquisition	Yearly Average CAR (-2, +2)
	(1)	(2)	(3)
VARIABLES	Model	Model	Model
SOP Voting Approval% × Incentive to Total CEO Pay	0.0040	-0.0006	-0.0002
	(0.004)	(0.002)	(0.000)
SOP Voting Approval%	-0.0010	0.0020	0.0003
	(0.003)	(0.002)	(0.000)
Incentive to Total CEO Pay	-0.3446	0.0487	0.0265
	(0.341)	(0.216)	(0.025)
Pay Slice	0.0374	0.0365	-0.0070
	(0.102)	(0.064)	(0.008)
CEO Age	0.0002	-0.0020*	-0.0000
	(0.002)	(0.001)	(0.000)
CEO Tenure	0.0005	0.0019*	0.0000
	(0.002)	(0.001)	(0.000)
Ln (Firm Size)	0.0465***	0.0176***	-0.0058***
	(0.009)	(0.005)	(0.002)
Market to Book Value	-0.0001	0.0003**	0.0000***

	(0.000)	(0.000)	(0.000)
LT Debt to Asset	0.1895***	-0.0137	-0.0144*
	(0.056)	(0.033)	(0.009)
Board Size	-0.0074	-0.0018	0.0001
	(0.006)	(0.003)	(0.001)
Independent Board Member Ratio	-0.2615***	0.0066	-0.0065
	(0.076)	(0.046)	(0.010)
Sales Growth	0.0066	-0.0016	-0.0044***
	(0.014)	(0.009)	(0.002)
ROA	-0.2411*	0.0087	0.0198
	(0.134)	(0.081)	(0.015)
Std. Dev of Last 5Yr Stock Return	0.0000	0.0001	-0.0000
	(0.000)	(0.000)	(0.000)
Constant	0.2184	-0.0686	0.0327
	(0.296)	(0.185)	(0.030)
Year Fixed Effect	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes
Observations	3,468	3,458	3,458
Number of Unique Firms	1,309	1,308	1,308
R2 within	0.008	0.004	0.015
R2 between	0.069	0.045	0.013
R2 overall	0.037	0.023	0.008

Panel B: Moderating Effect of Incentive to CEO Pay Slice

This table reposts the panel data OLS regressions results studying the moderating effects of incentive to total CEO pay slice on the relation between SoP voting approval percentage and acquisition performance. Model 1 uses the number of positive acquisition as the dependent variable. Model 2 uses the ratio of positive acquisition as the dependent variable and Model 3 uses yearly average CAR (-2, +2) as the dependent variable. Number of positive acquisition is the number of acquisitions with positive returns that CEOs make. CAR (-2, +2) is calculated as the 5-day cumulative abnormal return (CAR) during the window covered by the event day (-2, +2), where the event day 0 is the date of the acquisition announcement.
SoP Voting Approval% is defined as the number of votes cast for the SOP proposal scaled by the total number of votes cast. Interaction term SoP Voting Approval% × Incentive to Total CEO Pay Slice represents the interaction of SoP Voting Approval% variable and incentive to total CEO pay slice variable. Incentive to total CEO pay is defined as the ratio of incentive payments divided by total CEO compensation. CEO pay slice denotes the ratio of total annual compensation divided by the average pay of the firm's top five executives (Bebchuk, Cremers, & Peyer, 2011) and serves as a proxy for CEO power. 'CEO age' describes CEO age at the time of the acquisition announcement. 'CEO tenure' is the length of time that the CEO has this position. 'Firm size' is measured by companies' market value. 'Market to book value' is market capitalization divided by net book value. 'LT Debt to Asset' is the long-term debt to total assets ratio. 'Board size' is the total number of directors on the board. 'Independent board member ratio' is the ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members. 'Sales Growth' is the difference in log sales from year t-1 to t. 'ROA' is the accounting return on assets. 'Std. Dev of Last 5Yr Stock Return' is the standard deviations of stock return, computed over the prior 5 years. The model is estimated using all S&P 1500 firms over the entire sample period 2005 to 2016. Corresponding p-values from Huber-White robust standard errors are reported in brackets. * indicates significance at the 10% level, ** indicates significance at the 5% level, and *** indicates significance at the 1% level.

	Number of Positive Acquisition	Ratio of Positive Acquisition	Yearly Average CAR (-2, +2)
	(1)	(2)	(3)
VARIABLES	Model	Model	Model
SOP Voting Approval% × Pay Slice	0.0037	0.0069	0.0003
	(0.007)	(0.004)	(0.000)
SOP Voting Approval%	0.0003	-0.0014	0.0000
	(0.003)	(0.002)	(0.000)
Incentive to Total CEO Pay	0.0121	-0.0104	0.0063
	(0.055)	(0.034)	(0.005)
Pay Slice	-0.2867	-0.5734	-0.0317
	(0.616)	(0.392)	(0.043)
CEO Age	0.0002	-0.0020*	-0.0000
	(0.002)	(0.001)	(0.000)
CEO Tenure	0.0004	0.0019*	0.0000
	(0.002)	(0.001)	(0.000)
Ln (Firm Size)	0.0467***	0.0175***	-0.0059***
	(0.009)	(0.005)	(0.002)
Market to Book Value	-0.0001	0.0003**	0.0000***
	(0.000)	(0.000)	(0.000)
LT Debt to Asset	0.1902***	-0.0159	-0.0144*
	(0.056)	(0.033)	(0.009)
Board Size	-0.0075	-0.0019	0.0001
	(0.006)	(0.003)	(0.001)
Independent Board Member Ratio	-0.2575***	0.0061	-0.0071
	(0.076)	(0.045)	(0.010)
Sales Growth	0.0061	-0.0012	-0.0044***
	(0.014)	(0.009)	(0.002)
ROA	-0.2406*	0.0115	0.0195
	(0.134)	(0.081)	(0.015)
Std. Dev of Last 5Yr Stock Return	-0.0000	0.0001	-0.0000
	(0.000)	(0.000)	(0.000)
Constant	0.0990	0.2427	0.0594**
	(0.314)	(0.198)	(0.030)
Year Fixed Effect	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes
Observations	3,468	3,458	3,458
Number of Unique Firms	1,309	1,308	1,308
R2 within	0.007	0.004	0.015
R2 between	0.070	0.048	0.013
R2 overall	0.037	0.024	0.008

Chapter 5. Discussion and Conclusion

5.1 Motivation and Findings

In order to avert potential agency/governance problems in the separation of ownership and managerial control and in order to protect firm values, the Securities and Exchange Commission of the United States introduced new say-on-pay (SoP) rules in 2011. Most recent studies, such as Cai and Walkling (2011); Ferri and Maber (2013); Kimbro and Xu (2016), find that the SoP regulation is an effective mechanism for requiring public firms to grant their shareholders a non-binding advisory vote on executive compensation and thus for aligning CEO compensation with shareholders' wealth gains. However, other scholars have contrasting ideas regarding the impact of the SoP rule (Armstrong, Gow, & Larcker, 2013; Correa & Lel, 2016; Levit & Malenko, 2011). Recent research studies into the adoption of SoP laws have focused on the effects of SoP on firms' overall performance and have yielded mixed results.

This study investigates how the adoption of say-on-pay (SoP) regulation impacts the propensity and profitability of merger and acquisitions (M&A) activities with a sample of S&P 1500 firms (2005 – 2016). We examine both (a) macro-economic effect induced by the adoption of S&P regulation in 2011, impacting all firms across the board, and (b) firm-level effect due to variation in SoP voting approval percentage in different firms. We propose and examine two relevant hypotheses: (i) 'SoP governance' hypothesis – to explain the impact of SoP rule adoption, and (ii) 'reliable CEO' hypothesis – to explain the impact of SoP voting approval percentage.

'SoP governance' hypothesis predicts that in the post-SoP period, CEOs will be more cautious in pursuing M&A deals – which have a high risk of failure. This should lead to a *lower* probability of acquisition and better acquisition performance. On the other hand, 'reliable CEO' hypothesis proposes that CEOs with higher SoP voting approval percentage, enjoy more

shareholder confidence and are encouraged to take risky ventures to increase shareholders wealth. This should lead to a *higher* probability of acquisition, with better acquisition performance. Our results find partial support for 'SoP governance' hypothesis – that SoP rule adoption is associated with a lower probability of acquisition, but does not have any significant association with acquisition performance. While examining the effect of SoP voting approval percentage, we further find support for 'reliable CEO' hypothesis. Our results show that SoP voting approval percentage has a significant and positive association with acquisition probability and acquisition performance. Finally, we find that SoP voting results do not have any significant moderating effect on the relationship between (i) CEO incentive pay and M&A decisions, and (ii) CEO pay slice and M&A decisions.

This study makes multiple contributions to the literature on corporate governance, M&A and regulatory change. First, it is the first empirical study to use US data to investigate whether changes in M&A activities resulted from the implementation of the SoP rule. A number of prior studies examined the influence of various corporate governance mechanisms on M&A deals without examining the impact of the new rule, specifically the SoP laws; as a result, the earlier literature offers limited insight into the ways in which and the degree to which SoP regulation and SoP voting patterns can affect M&A decision-making and performance. Second, in this study we further examined the ways in which the introduction of the SoP rule and the SoP voting percentage have moderated the relationship between (i) CEO incentive pay and M&A decisions/profitability, and (ii) CEO power and M&A decisions/profitability.

5.2 Limitations and Recommendation for Future Research

In the current study, we only considered S&P 1500 firms, and therefore other firms that

were not considered in this study might show different trends in their results. The sample size can be extended to all firms listed on the New York Stock Exchange (NYSE) because smaller companies' governance structures are likely to be weaker than those of larger companies. The SoP voting rate may have a less impact on large firms because they already have better governance practices, and so the new rule may not affect them. Thus, future studies could test the effects of SoP using a data set that includes all firms. Further, this study can be extended using a cross-country dataset. The literature shows that corporate governance practices vary across countries (Balsam, Boone, Liu, & Yin, 2016; Ferri & Maber, 2013; Gregory‐Smith, Thompson, & Wright, 2014; Sanchez-Marin, Lozano-Reina, Baixauli-Soler, & Lucas-Perez, 2017). Therefore, it would be worthwhile to conduct a cross-country study in order to examine implications of the SoP rule for M&A deals in an international setup.

Appendix A. Definition of Variables

Board size: The number of members serving on the board.

CEO pay slice: A proxy for CEO power. as the ratio of total annual compensation divided by average pay of the firm's top 5 executives (Bebchuk, Cremers, and Peyer, 2011).

CEO age: CEO age at the time of the acquisition announcement.

CEO tenure: The number of years that CEO serving in the company.

Cumulative abnormal return (CAR, +2, -2): Calculated as the 5-day cumulative abnormal return (CAR) during the window covered by the event day (+2, -2), where the event day 0 is the date of the acquisition announcement.

Firm size: Companies' market value.

Independent Board Member Ratio: The ratio of the number of board members who do not have a material or pecuniary relationship with company or related persons to the number of total board members

Incentive to total CEO pay: The ratio of incentive payment divided by total CEO compensation.

LT Debt to Asset: The long-term debt to total assets ratio.

Market to book value: The ratio of market capitalization divided total book value.

Return on asset (ROA): The accounting return on assets.

Sales growth: The difference in log sales from year t-1 to t.

SoP Dummy: It is an indicator variable. It takes a value of 1, if the firm-year observation is from pre-SOP regulation period (that is till 2011), and '0' (zero) otherwise (for post-SoP period).

SoP voting approval percentage: the number of say-on-pay (SoP) approval votes over the total number of favour plus against SoP voting cast by shareholders.

SOP Voting Approval% × Incentive to Total CEO Pay: The interaction of SOP Voting Approval% variable and incentive to total CEO pay variable.

SOP Voting Approval% × Pay Slice: The interaction of SOP Voting Approval% variable and pay slice variable.

Std. Dev of Last 5Yr Stock Return: The standard deviation of past 5 years stock returns.

Yearly total acquisitions: Number of acquisitions made in a firm year.

Yearly positive acquisitions: Number of positive acquisitions made in a firm year. An M&A deal is defined as a positive deal, if the CAR (-2 to +2) is positive around the deal announcement date.

Ratio of positive acquisition: Number of positive acquisitions divided by number of yearly total acquisitions.

Yearly average CAR: Average of cumulative abnormal returns over -2 to +2 days around the announcement date (CAR (-2 to +2)) for all the acquisitions announces in a firm-year.

Appendix B.

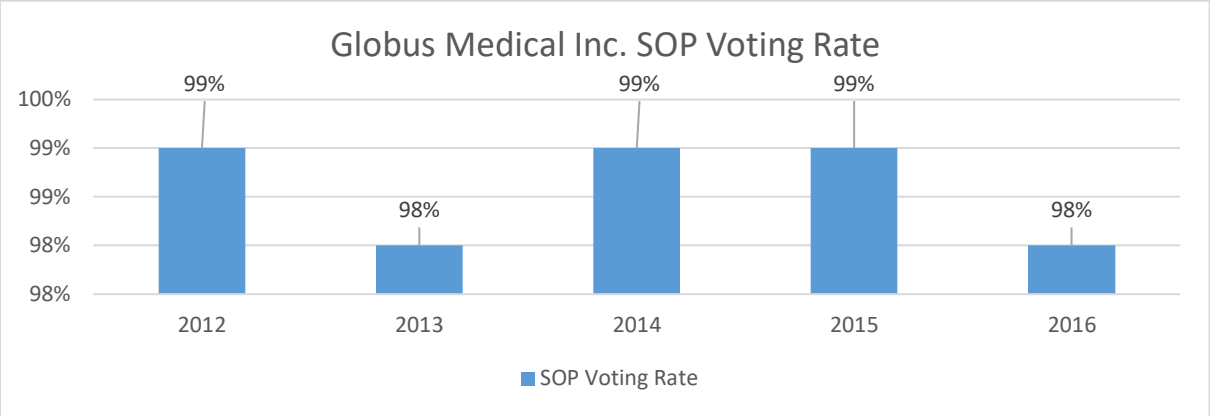

Figure 1 Globus Medical Inc.

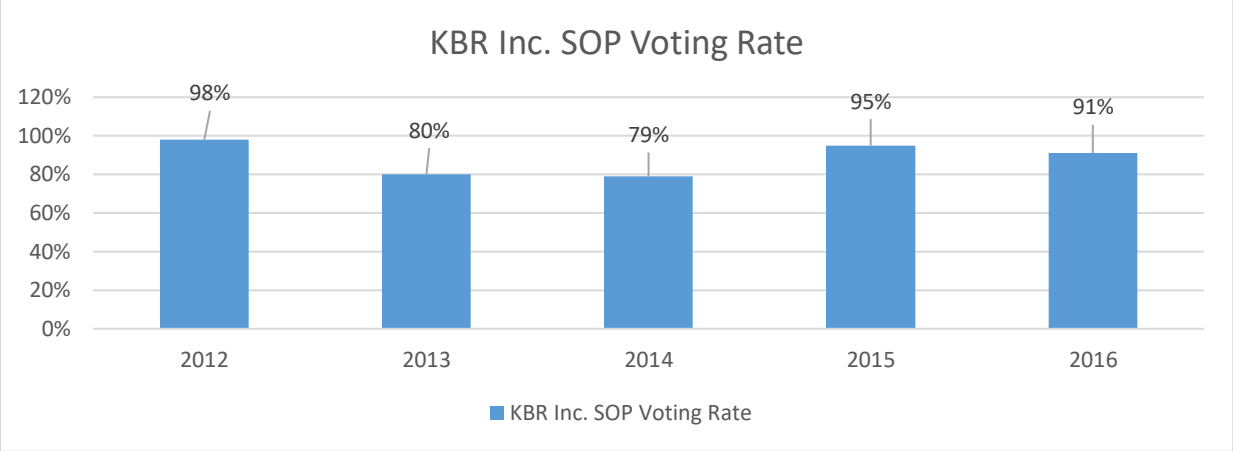

Figure 2 KBR Inc.

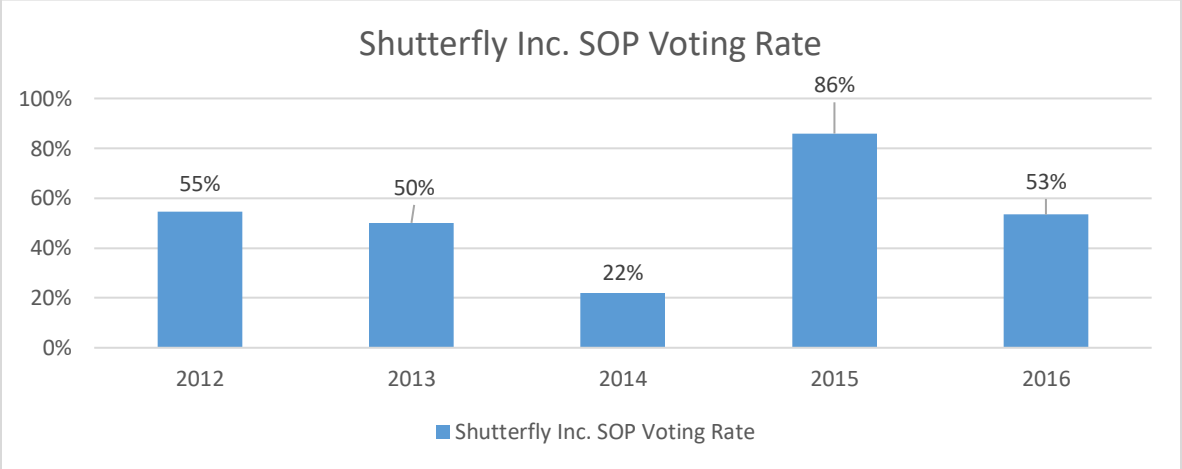

Figure 3 Shutterfly Inc.

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