THE UNIVERSITY OF HULL

Say-on-Pay Votes and their Impact on CEO Power, Firm Performance and Firm Strategic Policies

Evidence from Anglo-Saxon Economies

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DEDICATION

I heartily dedicate this work to the three most important and inspirational people in my life. *Firstly*, to the two most important love of my life my father and my mother. *Secondly*, to the person who has inspired and re-energised my life, the person who has made me more mature and, soon, will make me a proud father, my beautiful loving wife. *Thirdly*, to the three who have changed my life and personality, my kids *Ola*, *Ali* and *Fatima*. *Finally*, to my brothers and sisters who always support me.

ABSTRACT

This thesis aims to provide additional insights into the understanding and the importance of various types of SOP votes. Motived by a new regulation called “Pay Ratio Disclosure” in the UK and the USA, and the subsequent changes of SOP regulation in Australia and the UK, which have not been covered in previous studies, *this thesis aims to investigate the impact of SOP votes on CEO power as measured by the ratio of CEO pay to the average employee pay; on firm performance; and on firm strategic policies*

A data is obtained for a sample 1931 listed firms in the four countries, namely, Australia, Canada, the UK and the USA during the period from 2012 to 2015 in Australia and Canada, from 2014 to 2016 in the UK, and from 2011 to 2015 in the USA. These periods are different since they are based on the date of adopting the SOP law. By employing a Limited Information Maximum Likelihood (LIML) estimator, the findings of the empirical analyses show that CEO power is negatively impacted by SOP votes in the four countries. This indicates that shareholders’ voice is successful in reducing managerial power, regardless of the nature of votes.

Furthermore, the current research suggests that efficiency improvement may come via some other mechanisms, for example, the pressure from shareholders’ active monitoring. In addition, multiple evidences that emerged from this study suggest that stock market returns are driven by factors beyond the control of corporate managers. This study also finds that the varying effects of SOP votes on firms’ strategic policies might be ascribed to either the adoption of a specific SOP practice or the effectiveness of the board . The thesis’s findings have several implications for shareholders, firms, government and policymakers.

Chapter 1: Introduction

1.1 Background

Executive remuneration and excessive termination packages have become a focus of public and regulatory attention in recent years. Four-fifths of people across Europe and the USA believe that business executives in their countries are rewarded too much. In Australia, for example, 79 per cent of people believe that executive compensations should be capped; nine in ten respondents believe that chief executive officers (CEOs) are highly paid; four in five believe a high level of executive pay package does not improve company performance; and almost two-thirds of people believe that higher manager pay leads to higher risk-taking behaviour (Mason et al., 2016).

Investors and regulators have, therefore, devoted a significant effort to debating and advocating various solutions to this issue. Among the byproducts of the argument have been proposals that shareholders should have a greater say on executives' compensation and thus there is a need for specific mechanisms to be in place to monitor managerial behaviour and to ensure it is in the firm's interests (Alissa, 2015; Stathopoulos and Voulgaris, 2016). Notable scandals accurred in Enron in 2001 and WorldCom in 2002 and the UK government at the time believed that the directors' remuneration disclosure laws did not achieve compliance with the transparency, accountability and performance linkage principles set out in the Greenbury Report (1995). All these issues and effors led the UK Department of Trade and Industry (DTI) to submit say-on-pay (SOP) regulations to Parliament, which approved them on July 25, 2002, effective for fiscal years ending on and after December 31, 2002 (Directors_ Remuneration Report Regulations, 2002) (Ferri and Maber, 2013).

According to the SOP regulation 2002, quoted companies are required to publish a directors' compensation report as part of their annual reporting cycle, and to disclose within the report details of individual directors' pay packages, the company's forward-looking statement on the pay policy, and the role of the board and compensation committee in this area. In contrast, stockholders should express their approval or disapproval of CEO pay proposals put forward by the boards using a voting process (Alissa, 2015). The aims of the SOP regulation are to reinforce transparency; improve managers' accountability for firm performance; encourage shareholders to participate in corporate governance; protect stockholders' rights to the company's residual income; limit excessive CEO pay; and decrease executives' incentives to chase short-term profits (Mason et al. 2016).

The SOP rule had numerous proponents and opponents. On the one hand, the supporters argue that general shareholder voting has the ability to improve transparency, accountability and governance, which, in turn, should lead to greater efficiency and social responsiveness (Kimbro and Xu, 2016). Proponents of SOP also believe that the regulation will increase executives' willingness to listen to and to dialogue with stockholders. Even though shareholders' votes on compensation are advisory on the board, supporters maintain that managers will be motivated to confer with shareholders to avert the embarrassment of shareholders' disapproval votes. Furthermore, managers are more likely to feel pressure to respond to non-binding votes to keep their seats on the board (Pagnattaro and Greene, 2011).

Critics of SOP, on the other hand, debate that shareholders are unable to discern and accurately evaluate pay plans, as the board of directors actually do their jobs by properly aligning their interests to those of stockholders and are better at determining CEO pay since they have private information. Another argument against the SOP rule notes that institutional investor activism and union pension funds could be led by ‘‘political agendas" instead of the funds' benefit and so the value of SOP could be damaging or, at best, neutral value (Kimbro and Xu, 2016). Moreover, opponents of SOP maintain that the provision could have unintended consequences such as promoting the flight of the most talented managers to private firms that are not subject to the rules and spurring firms to take a "one size fits all" approach to pay without regard to the circumstances and facts of the business (Pagnattaro and Greene, 2011). In addition, critics claim that voting rights are problematic because noninstitutional shareholders lack sufficient incentives, information or knowledge necessary to make firm value-increasing business decisions and even if they did, shareholders may not cast their votes strategically (Carter and Zamora, 2007).

The United Kingdom was the first country to adopt a mandatory SOP law to strengthen shareholders' rights. Australia (2004), the Netherlands (2004), Japan (2005), Denmark & Finland and Switzerland (2007), France (2005), South Africa (2009), Italy, the USA and Spain (2011), Canada and Belgium (2012) and France (2014) followed with the introduction of similar legislation. However, in 2013 the Enterprise and Regulatory Reform Act (Department for Business Innovation and Skills, 2013) made SOP voting binding, rather than advisory, thereby providing shareholders with the capacity to block a proposed manager compensation package. Additionally, the two-

strike rule was adopted in Australia, which became effective from 1 July 2011 (Stathopoulos andVoulgaris, 2016). The first strike occurs when a firm's compensation report receives 25% or more negative votes by stockholders at the annual general meeting, and then the board of directors is required to clarify in the subsequent pay report how the owners' concerns regarding the preceding remuneration report were addressed. The two-strike occurs if the pay report of a company receives 25% or more disapproval votes for two consecutive years, when the boards might face re-election except for the CEO (Monem and Ng, 2013).

The SOP regulation is adopted to give shareholders the ability to vote on how much managers employed by the firm should be compensated. Hence, the impact of SOP on the level of executive pay has been tested by an enormous body of studies, and some of them show SOP ineffectiveness (See, Murphy and Jensen, 2018)). One possible explanation for these findings might result from managerial power theory, which argues that managers make at least several billion dollars per year in profits (and avoided losses) because of their access to inside information. It also adds that the amount of CEO pay is positively linked to CEO stock ownership. In this thesis, therefore, one focus will be on the role of SOP rule in decreasing (increasing) managerial power.

To avoid the low level of SOP votes support at the annual general meeting (AGM), which will influence the level of CEO compensation, the executive should increase the firm's value and maximise shareholders' wealth. This could be achieved in two ways: *First*, increasing firm performance; if SOP implies a stricter alignment of pay-performance, these improved incentives would make the manager more active in creating higher profits, while if the SOP law facilitates more effective monitoring, the annual vote on SOP might act as a vote of confidence in the executive, giving enough pressure to deliver better performance at the risk of being discharged if the vote does not pass (Cunat et al. 2016). *Second*, adopting several firm's strategic policies; executives that work in the shareholders' interests could seek more optimal decisions by applying several policies (e.g., firm's investment, firms' financial debt, firm's profitability and firm's liquidity) which may lead to increasing the firm's performance while reducing its costs such as cost of debt. Therefore, the impact of SOP on firm performance will be examined by adding new performance measures, namely; return on invested capital and economic profit.

Furthermore, agency cost arises from the separation between shareholders and managers. With such separation, executives may take actions, which are beneficial to themselves but disadvantageous to stockholders, if the two parties hold unaligned goals or have different levels of risk aversion (Tricker and Tricker, 2012:60). Thus, contracts and incentive schemes are some examples of monitoring techniques, which comprise executive compensation contracts and/or debt covenants; the latter may require the management to provide additional information in the annual report, for instance, which will add costs to the process of accounting, which allocates all conversion and prime costs to a process. However, after adopting the SOP regulation, which gives shareholders more power on CEO pay packages, managers have attempted to adopt various corporate policies (e.g., financial strategies) to achieve shareholders' interests and their own interests. By changing the firm's policies, the company performance may be better; and the conflict between stockholders and CEOs may be reduced. This could result in managers being awarded higher remuneration because they receive higher SOP votes support at the AGM. Hence, in this thesis, the influence of SOP votes on firm's strategies will be investigated as well.

1.2 Research objectives and questions

The above argument lays the foundation for fulfilling the following purposes. The first target of this research is to explore the managerial power and its role in deciding the level of compensation as well as explore the factors that undermine the effectiveness of the SOP regulation. This investigation is vital because it can provide insights and deeper understanding of the role of SOP in several countries with adopt various types of votes. By testing the impact of SOP on managerial power, one of two theories can be identified; managerial power theory or optimal contracting theory. Consequently, the second objective is to explore whether the firm performance (economic, business, and market) is improved after adopting SOP voting. The third objective is to investigate whether the SOP regulations have an impact on corporate policies, to explore which kind of strategies are used to reduce the conflict between shareholders and executives by creating more company value and promoting shareholders' interests. So that, managers will receive higher compensation and avoid lower SOP voting support at the AGM. The final objective is to employ statistical methods, which have not been used in the prior studies, such as the LIML estimator, which can deal with the endogeneity issue and achieve unbiased results. Therefore, this thesis attempts to answer the following

Table 0.1 The key questions, samples, methodology and results

Chapter topic	Questions	Sample and time period	Methodology	The key results
Chapter 2 (Say-on-pay votes and their impact on CEO power)	1. Do shareholders' votes have an impact on managerial power as measured by CEO total pay to average workers' salaries? 2. Can ineffective SOP rule be attributed to weak corporate governance mechanisms?	1931 listed firms from four countries, namely; Australia (2012-2015, Canada (2012-2015, the UK (2014-2016) and the USA (2011-2015).	LIML estimator as a sophisticated statistical regression to deal with the endogeneity issue	1. This study finds that powerful executives are negatively impacted by SOP rules because they have become more vigilant regarding their decisions. 2. This study also concludes that weak corporate governance mechanisms undermine the role of SOP regulation.
Chapter 3 SOP votes and firm performance	1. Does say-on-pay enhance pay-for-performance? 2.Do corporate governance meachanisms improve management efficiency and firm performance? 3.Does stock market performance improve management efficiency?	1931 listed firms from four countries, namely; Australia (2012-2015, Canada (2012-2015, the UK (2014-2016) and the USA (2011-2015).	LIML estimator as a sophisticated statistical regression to deal with the endogeneity issue	1. Our regression analyses show that firm performance is improved especially in Canada, the UK and the USA as well as the management efficiency sensitivity of executive pay (MES) is positive and significant only for the UK sample and the market performance sensitivity of executive pay (MPS) is negative and significant for all except for the UK sample 2. Corporate governance mechanisms do not- in general- improve management efficiency and firm performance 3. Stock market performance need not truthfully reflect management efficiency - still holds.

Chapter 4 (The impact of say on pay votes on firms' strategic policies)	1. Does SOP reduce managers' appetite for business risk and lead to lower long-term investments? 2. Does SOP lessen managers' appetite for financial risk and give rise to lower leverage ratio hence potentially more expensive investment capital? 3. Does SOP encourage myopic behaviour and results in executives focusing on short-term profitability? 4.Does SOP attenuate managers' exposure for operational risk and bring on a higher level of liquidity?	1931 listed firms from four countries, namely; Australia (2012-2015, Canada (2012-2015, the UK (2014-2016) and the USA (2011-2015).	LIML estimator as a sophisticated statistical regression to deal with the endogeneity issue	1. Managers aim to increase firm value by investing in long term projects. 2. Executives tend to adopt lower leverage level, perhaps to shed financial and solvency risks. 3. Managers concentrate on short-term profitability rather than long-term profitability. 4. This study also finds that the high level of liquidity plays a less important role in increasing shareholders' approval votes in Canada.

important questions by using a sample of firms listed in Australia's S&P/ASX 200 Index, Canada's S&P/TSX, the UK's FTSE 350 and the USA's S&P 1500.

Why were Australia, Canada, the UK and the USA selected?

Anglo-Saxon economies comprise Australia, Canada, New Zealand, the UK and the USA. However, New Zealand firms are excluded because data regarding SOP votes is not available except for a handful of companies. Therefore, several reasons lead to adopting these countries as context. *First*, they are currently among the most active markets and have recently experienced significant reforms aimed at promoting shareholder engagement and empowerment (Buchanan et al., 2012). *Second*, these countries have adopted various types of SOP voting. The Australian government, for example, adopted the two-strike rule, voluntary & advisory votes are used in Canada; the UK has changed the SOP law from advisory to binding, and mandatory & advisory votes are applied in the USA. *Third*, some types of SOP votes have been changed, especially in Australia and the UK. In the later, for example, the type of vote is altered from *mandatory & advisory* to mandatory & binding since October 2013. *Fourth*, they all reflect the Anglo-Saxon model and thus have similar characteristics such as a single tier-board.

However, corporate governance disclosure regimes differ among the four countries. On the one hand a "comply or explain" governance disclosure regime has been adopted in Australia, Canada and the UK. This regime allows corporates to either voluntarily adopt regulator-endorsed "best practices" or to explain why they have adopted an alternative practice that achieves the underlying governance principle embedded in the endorsed best practice. On the other hand, the governance system of the Sarbanes-Oxley Act of 2002 or SOX is adopted in the USA and prescribes one set of practices for all companies (Luo and Salterio, 2014). Another difference is that these countries differ significantly in the number of codes that have been created (Aguilera and Cuervo-Cazurra, 2009). The UK and the USA have a higher number of codes compared to Australia and Canada. Aguilera et al. (2006) and Buchanan et al (2012) also state that the roles of the board of directors within the institutional and regulatory frameworks differ in these countries, and they have different types of institutional investors. Investment companies (mutual funds) and investment advisors (i.e. money management companies) are the largest investors in the USA, while insurance

companies and pension funds predominate in the UK. It is very important to distinguish among sorts of institutions, as they have significantly different performance policies, which impose distinct pressures on the company and its shareholders.

1.3 The contributions of the study

This study contributes to the existing SOP regulation literature in several ways. *Firstly*, unlike previous studies (e.g. Correa and Lel, 2016) who examine the influence of SOP on CEO pay slice (CPS) as a managerial power measure and found that the level of pay is reduced after adopting the SOP rule, this research aims to investigate the impact of SOP votes on managerial power as measured by the ratio of CEO pay to average workers' pay. This measure is better indication of CEO power than CPS (CEO pay/top five executives pay or top four managers without CEO); it is also better than the ratio of CEO pay to earnings before interest and taxes (EBIT) when firm performance is controlled because the regression results indicate that the CEO pay to average employees' pay produces the best fit. Therefore, in the USA, the Securities and Exchange Commission (SEC) requests companies to disclose the ratio of their median employee pay to that of their CEO or equivalent officer starting with the fiscal year beginning on or after January 1, 2017 (Bloom, 2018). Similarly, the UK's biggest companies with over 250 employees will have to disclose and explain every year their top bosses pay and the gap between that and their average workers'pay.[1]

Secondly, the influence of SOP on performance has been investigated by a number of studies (see. Ferri and Maber, 2013; Cunat et al. 2016; and Correa and Lel, 2016), which adopted different performance proxies such as ROA, ROE and Tobin's Q. However, these measures cannot provide a clear picture of corporate performance because these proxies reflect accounting and market measures and thus they do not cover other aspects of firm performance such as economic and business performance. Therefore, unlike prior literature, non-traditional performance measures are used as performance proxies, namely; return on invested capital (ROIC) and economic profit (EP). These measures play an important role in setting executive's compensation and increasing shareholders' wealth (Tang and Liou, 2010). For example, EP is a good performance measure to evaluate the efficacy of business strategy in generating value; EP should not be highly volatile; it is not easily manipulated (Institute for Governance

[1] https://www.gov.uk/government/news/new-executive-pay-transparency-measures-come-into-force

of Private and Public Organisations IGOPP, 2012) and outcome of shareholder votes is greatly driven by EP (Fisch et al. 2018). In addition, ROIC is an appropriate measure to assess the efficacy of production activities, Research and development (R&D) activities and marketing activities, which are highly associated to production capability, R&D capability and marketing capability respectively (Lin et al. 2014). Additionally, Oh and Park (2015) argue that ROIC measures the exact profitability that a firm generates through business.

Thirdly, this study aims to test the impact of SOP votes on firm strategic policies. After adopting SOP laws, shareholders have become more powerful and thus they can influence the level of executive pay packages by providing lower SOP votes support at the AGM if the firm's value is minimised. Thus, managers' reaction tends to change firms' policies such as investment policy; capital structure level; and focusing on short-term profit rather than long-term profit, to increase corporate performance and thereby increasing shareholders' wealth. As a result, the level of CEO pay will be increased because shareholders are satisfied with CEOs'efforts and policies. Unlike previous studies (e.g., Brunarski et al. 2015; Kimbro and Xu, 2016), whose evidence comes from one context and one type of SOP regulation (advisory in the USA), this evidence comes from international contexts, which adopt different sorts of SOP votes: in Australia, the *two-strike rule*; in Canada, *voluntary & advisory* SOP votes and in the UK, *binding* SOP votes.

Finally, due to the endogeneity problem, the results of OLS regression, Random Effect model and Fixed effect model will be biased and inconsistent. Endogeneity can be found when there is a link between the error term and one or more regressors because of (i) measurement errors in the regressor (s), (ii) omitted variable bias, (iii) simultaneous equation bias, and (iv) dynamic regression model with serial correlation in the error term (Gujarati, 2012:324). To mitigate such issues, a superior estimation technique is needed such as generalized method of moments (GMM) and two-stage least squares (2SLS) estimations. These estimators can work effectively with valid and strong instruments. If instrumental variables are weak, then the results from GMM and 2SLS will be unreliable. Because some samples are small, the GMM estimation will be biased. Therefore, the current research displays the results by employing LIML estimation, which can deal with the endogeneity issue and small samples as well (Bascle 2008; Baltagi, 2013:171)

1.4 The significance of this thesis

The lack of transparency regarding the CEO pay package, the scandals of Enron, WorldCom and others early in this century and the recent financial crisis (2008) led to outrage from regulators, the public and governments. Therefore, many countries in the world have adopted SOP regulations (e.g., the UK, Netherlands, Japan, Australia, Germany, South Africa, the USA, Italy and France) (Kaplan, 2012). Such regulation is not solely to regulate the level of pay given to CEO and non-CEO directors, but also to make sufficient information available to stockholders to evaluate the fairness/appropriateness of the company's pay policy (Alissa, 2015).

SOP regulations have been a controversial topic since they were adopted in many countries around the world. While some studies find that the level of CEO pay is decreased after adopting SOP regulation (see. Correa and Lel, 2016) other empirical studies such as Armstrong et al. (2013) conclude that CEO compensation packages are still higher. This suggests that the SOP rule has become a less effective shareholders' mechanism. In a recent study, Murphy and Jensen (2018) support this view and argue that SOP regulation inherently concentrates on narrow aspects of remuneration; leaving plenty of scope for firms to circumvent rules by altering other less-regulated components of compensation. In addition, they demonstrate that most firms listed in Russel 3000 are satisfied with current CEO pay compensation. Therefore, this study sheds light on the factors that might minimise the role of SOP regulations and prevent them from achieving its aims. Moreover, this study tries to provide a clear picture regarding factors that undermine the role of SOP regulations, such as managerial power, firm performance and firm strategic policies, in order to show how these policies play an important role in decreasing or increasing the goal of SOP regulations.

1.5 The structure of the thesis

This chapter has displayed the overall purposes of the thesis based on the theoretical perspectives regarding the conflict between shareholders and managers in companies. The chapter also has argued the background and rationale for the research, and highlighted the reasons for selecting the research context. *Finally* the thesis's contributions have been summarised. The rest of this thesis is organised as follows. *Chapter two* presents previous studies that test issues regarding the relation between SOP regulation and CEO compensation. This chapter provides a critical review of the different measures of CEO power and identifies the managerial power measurements as

well as identifies the gaps in the literature. *The third chapter* shows the debate between optimal contract and managerial power theories, by casting a fresh light on the new corporate era of say-on-pay as well as new performance measures, namley; economic and business performance, to display how management efficiency is improved. These measures have the ability to evaluate a firm's efficiency than others (for example, return on assets ROA). In addition, a theoretical and empirical discussion is provided and is followed by the study's hypotheses. This chapter also shows the final sample and its conditions. Also, the results for each empirical model are presented and the best statistical estimator in this study is justified.

Chapter four presents and discusses the companies' strategic policies and their effects as a result of adopting the SOP regulation. The chapter starts with the background of prior literature, and is followed by the research hypotheses. Descriptive statistics show the characteristics for each variable such as mean and median, and a correlation matrix is used as well. Moreover, the results of hypotheses testing are displayed and compared with prior studies, and differences, if any, are clarified and, if possible, justified. This thesis ends with the *fifth chapter,* which presents the thesis's conclusion and provides a summary of the study and highlights the implications of the results. Additionally, this chapter provides recommendations for future studies. *Finally*, based on the thesis results, this chapter provides some implications for shareholders, regulators and government, which can improve the effectiveness of SOP regulation and might provide clear evidence on the high level of CEO pay.

Chapter 2: Say-on-pay Votes and their Impact on CEO Power: Evidence from Anglo-Saxon Economies

2.1 Introduction

Powerful CEOs and other top executives can often impact the decision process relating to the structure and level of their remuneration packages (Bebchuk and Fried, 2003). One way to capture CEO power more objectively is to examine CEO relative pay among top managers (Chintrakarn et al., 2014). Bebchuk et al., (2011) debate that CEO pay slice (hereafter, CPS), which is the fraction of the aggregate compensation of the top-five executives team captured by the CEO, reflects the relative significance of a CEO in terms of contribution, abilities, or power within company. In other words, a valuable proxy for the relative centrality of CEO in the top management team can be represented by CPS. The authors also argue that CPS is better manifestation of the managerial power (which SOP ought to curtail). In addition, Zagonova and Salganik-Shoshan (2018) document that CPS as a proxy of CEO power has explanatory power for a variety of corporate outcomes, relating negatively to corporate value, accounting profitability and credit ratings, and positively to cost of equity and debt. The growth rate of executive pay has, however, recently induced much debate among investors, academics, and regulators (Brunarski et al. 2015). This indicates that CEOs have become increasingly powerful. Although regulators in many countries have increased the level of corporate disclosures on compensation policies and packages, shareholders are also seeking to obtain greater influence over executives' compensation decisions, thereby reducing the power of executives (Thomas and Van der Elst, 2015).

The UK was considered to have one of the best corporate disclosure systems in the world even before the implementation of SOP regulation, even though it did not achieve conformity with the three main principles of directors' remuneration: performance linkage, transparency and accountability (Alissa, 2015). The purpose of the SOP rule is not only to regulate the level of pay packages given to managers and directors but also to make adequate information available to stockholders to enable them to evaluate the fairness/appropriateness of the firm's pay policy (Alissa, 2015). After the collapses of some companies such as Enron Corporation in 2001, shareholders persisted in exerting pressure on governments to change the status quo (Gregory-Smith et al. 2014). This led the UK government to introduce the SOP regulation in 2002. After that, many nations around the world followed suit and embraced the SOP regulation. These include the Netherlands, Australia, Japan, Denmark, Norway, Switzerland, South Africa, the USA, Spain, Belgium and France (Stathopoulos and Voulgaris, 2016). The

main reason for adopting this corporate governance mechanism (e.g., SOP) is to minimise managerial excess and reduce concerns that remuneration packages are not designed in shareholders' best interests (Conyon and Sadler, 2010).

Advocates of the SOP regulation assert that shareholders benefit from the obligation which it places on boards of directors to work more effectively by providing manager contracts which are better aligned with owners' interests. Moreover, the lines of communication between shareholders and managers can be increased by the input from shareholders. In addition, proponents of SOP suggest that, even if SOP votes are advisory, the outcomes of negative votes should compel boards to improve the efficiency of manager contracting (Brunarski et al., 2015). Opponents of SOP regulation argue, however, that allowing stockholders to provide input on CEO pay will increase economic costs as also known opportunity costs, which do not involve spending money; rather, they involve opportunities to earn money that are abandoned in a financial decision, thereby decreasing shareholders' wealth. They also argue that owners are unable to understand, distinguish and correctly assess alternative remuneration plans, and that boards can determine the best approach to executive compensation because they have special information (Ferri and Maber, 2013).

Since the adoption of SOP regulations in a number of countries in the world, many studies have tested the influence of shareholders' votes on the level of executives' pay, particularly in the UK and the USA. A number of these show that high voting dissent on the CEO's pay can lead to changes in compensation plan in the UK (Gregory-Smith et al., 2014; Alissa, 2015) and in the USA (Brunarski et al., 2015; Stathopoulos and Voulgaris, 2016; Cuñat et al. 2016; Kimbro and Xu, 2016). In contrast, other studies on UK companies (e.g., Conyon and Sadler, 2010; Ferri and Maber, 2013) and on American companies (e.g., Burns and Minnick, 2013; Kronlund and Sandy, 2014) conclude that the level of growth of CEO compensation is not in general influenced by the SOP ruling.

However, Murphy and Jensen (2018) argue that SOP votes have become a less effective mechanism, and their argument may be explained by the managerial power theory established before the introduction of the SOP rules. Managerial power theory argues that executives are able to influence their remuneration, and managers with more power have greater capacity to attract excessive pay or to extract rents (Bebchuk et al.,

2002). In addition, Core et al. (1999) conclude that executives' excessive pay is related to greater CEO power and weaker corporate governance structure. This view is supported by Henderson et al. (2010), who find that managerial power has a crucial impact on executive pay. Thus, CEO power plays a vital role in designing their contracts and their gaining extremely high levels of pay, especially in the absence of active corporate governance mechanisms such as outside directors.

Rather than looking at the absolute CEO pay, as was done in the above studies, Bebchuk et al. (2011) find that CPS has a strong explanatory power for a set of critical company aspects, including corporate value as gauged by Tobin's q, stock market reactions to acquisition announcements and accounting profitability. Correa and Lel (2016), by using a large sample of companies from 38 nations over the period from 2001 to 2012, find that the adoption of the SOP laws led to the reduction in CPS, providing evidence that supports the effectiveness of the SOP laws.

This study argues, however, that *CPS is unlikely to reflect the true executive power, as the basis of measurement itself is a biased reflection of the pay scale applicable to the general corporate employees*. Furthermore, the study period of Correa and Lel (2016) does not take into account changes in the SOP regulation in Australia, where the two-strike rule became effective from 1 July 2011(in Australia, there are two types of SOP regulation). The first-strike occurs when a firm's compensation report receives 25% or more negative votes by stockholders at the AGM, and then the board of directors is required to clarify in the subsequent pay report how the owners' concerns regarding the preceding remuneration report were addressed. The two-strike occurs if the company's remuneration report receives 25% or more disapproval votes for two consecutive years, in which case the boards might face re-election, except for the CEO (Monem and Ng, 2013); and in the UK, the SOP regulation changed from *advisory* to *binding*, thereby providing stockholders with the ability to block the proposed executive pay package (Stathopoulos and Voulgaris, 2016) .

Why are Australia, Canada, the UK and the USA selected?

Anglo-Saxon economies comprise Australia, Canada, New Zealand, the UK and the USA. However, firms listed in New Zealand are excluded because data regarding SOP votes is not available except for a handful of companies. The other four countries are, therefore, chosen for several reasons. *Firstly*, these four countries have adopted different

types of SOP regulations, and they are currently among the most active markets, and they have recently experienced significant reforms aimed at promoting shareholder engagement and empowerment (Buchanan et al.2012). *Secondly*, these countries share a common law system, which has more flexible legislation and offers the strongest protection for shareholders (Weimer and Pape, 1999). *Thirdly*, under the prevailing corporate regulations, companies in these countries have a unitary board system (one-tier), which comprises executive and outside directors. The latter constitute at least two-thirds of members under corporate governance codes and practices in these countries. *Finally*, corporate governance systems in these countries are characterised by dispersed equity holding and broad delegation to management of corporate responsibilities. Also, the mechanisms of executive pay have to do with bonus and stock options plans to align the interests of shareholders and managers (Cernat, 2004; García-Sánchez et al. 2015). Such similarity allows us to tease out other country and firm-specific factors affecting the effectiveness of SOP voting.

Nonetheless, there are some interesting differences among these countries; (i) the size of market is different in the four countries, where the US market in the largest; (ii) the numbers of corporate governance codes and the key provisions within them are different. The UK and the USA, for instance, have issued the highest number of governance codes (Cuomo et al.,2016); (iii) although the SOP legislation has been adopted by the four countries, the nature of SOP votes are various across sample countries. The Australian government, for example, adopted the two-strike rule, voluntary & advisory votes are applied in Canada, the UK has changed the SOP law from advisory to binding, and mandatory & advisory votes are used in the USA; (iv) legislated mandatory governance models are also different. While the Sarbanes-Oxley Act (SOA) (2002) prescribes one set of practices for all companies in the USA, the "comply or explain" approach applied in other countries. Such a regime allows companies either to voluntarily adopt regulator-endorsed "best practices" or to explain why they have adopted alternative practices that achieve the underlying governance principles embedded in the endorsed best practices (Luo and Salterio, 2014); and (v) the role of the board of directors differs within the institutional and regulatory frameworks in these countries and they have different types of institutional investors. Investment companies (mutual funds) and investment advisors (i.e. money management companies) are the largest investors in the USA, while insurance companies and pension funds

predominate in the UK. It is very important to distinguish among sorts of institutions as they have significantly various performance policies and, hence, place offer distinct pressures on the company and its shareholders (Aguilera et al., 2006; Buchanan et al., 2012).

Based on samples of 1931 firms from Australia, Canada, the UK and the USA respectively, and using the LIML estimator, this research documents a negative impact of SOP votes on CEO power in the four countries. This suggests that CEOs have less significant power over their compensation contracts even after the implementation of the SOP rules. In addition, by controlling for corporate governance (CG) mechanisms, the study finds evidence that weak CG mechanisms undermine the effectiveness of shareholders' votes and lead to powerful executives. Jensen (1993) and Thomas (2004) argue that, when boards become larger, coordination among board members is more difficult, thereby making boards less effective in monitoring managers. This is supported by our empirical results, which confirm a positive and significant impact of board size on CEO power in Australia, Canada, the UK and the USA. In addition, Carcello et al. (2011) find some evidence that the monitoring benefits of board independence and expertise become less effective when the CEO is formally involved in selecting the firm's board members. This study shows that a higher ratio of independent directors does not curtail CEO power in the sample countries, despite their intended role to improve monitoring, strengthen board efficiency, and provide compatible remuneration incentives to executives. Higher compensation committee independence, however, does not reduce CEO power in the four countries. These results, thus, suggest at least tentatively that, to minimise managerial power, shareholders need to ensure that the company's CG mechanisms are more efficient.

Therefore, this research makes contributions to the existing studies in a number of ways. *First*, this is the first study investigating the impact of the SOP regulation on CEO power, as measured by the ratio of CEO pay to the average workers' pay. This measure is a fairer indication of CEO power than CPS, used by earlier studies, as it accounts for the pay of the average employee. Furthermore, Zagonov and Salganik-Shoshan (2018) argue that CPS implicitly makes restrictive assumptions regarding the distributional structure of pay among the top managers. CPS discounts the valuable information contained in the data on remuneration of the executives in the top team other than the CEO, which might result in a deceptively high (low) CPS score assigned to a relatively

weak (strong) CEO. Consequently, the application of CPS as a measure of CEO power exposes researchers to the risk of drawing misleading conclusions. *Second*, the chosen samples cover different time periods. While the study of Correa and Lel (2016) tests the SOP regulation in Australia (2005) and the UK (2002) and thus does not cover the subsequent changes in both countries, this study covers the time periods [Australia and Canada (2012-2015), the UK (2014-2016) and the USA (2011-2015)] during the changes of SOP regulations that occurred in Australia and the UK. The latter has adopted the binding of the SOP vote since October 2013 for large and medium companies, while the two-strike rule has become effective in Australia from 1 July 2011 (Monem and Nq, 2013; Stathopoulos and Voulgaris, 2016). These changes are essential in mitigating CEO power, and thus the current study makes a timely contribution to this field. *Finally*, unlike previous studies (e.g., Core et al., 1999; Grinstein and Hribar, 2004; Choe et al. 2014; Correa and Lel, 2016), the LIML estimator is employed as a way to deal with the endogeneity issue.[2] This estimator is better than GMM and 2SLS estimators, especially when instrumental variables are weak and the sample size is small (Bascle, 2008). Baltagi (2013:171) also reports that the LIML bias is smaller than GMM estimator and Fixed Effect Model bias when $T < N$. Failure to control for endogeneity may result in biased estimations and spurious correlations.

Motivated by the subsequent changes of the SOP regulation in Australia (the *two-strike rule*) and the UK (*binding votes*) as well as new legislation in the UK and the USA called "Pay Ratio Disclosure". This new rule has been adopted after the ratio between CEOs and employees' pay became larger (Magnan and Martin, 2018) as well as after considerable arguments especially between unions and investors (Mantel, 2015).[3] The ratio of CEO pay to workers' salaries is very important because employees contribute to the creation of firm profits and thus demand a claim on the profits. Furthermore, due to concerns over potential labour disputes and the difficulties facing collective bargaining negotiations in the future, organised labour can directly exert pressure on management and shareholders to decrease the level of CEO pay (Shin, 2014). Thus, this study aims to examine the impact of the SOP regulation on CEO power.

[2] Endogeneity occur if one or more independent variables is correlated with the error term (Gujarati, 2012:320).
[3] http://businessresearcher.sagepub.com/sbr-1645-96551-2688702/20150720/executive-pay

The remainder of this chapter is organised as follows. Section 2.2 contains a literature review and hypothesis development. Methodology and sample selection are discussed in Section 2.3. Section 2.4 reports regression results. Section 2.5 debates and concludes the chapter.

2.2 Literature review and hypothesis development

2.2.1 Literature review

Managerial power theory assumes that CEO compensations reflect the actions of powerful managers, who can affect the terms of their own pay package, and they do so in a way that camouflages pay, thereby reducing external public/media scrutiny and criticism (Murphy, 2002). Moreover, Bebchuk and Fried (2003) present an extra type of cost that they denote as *outrage cost,*[4] which occurs when there are costs to the executives and directors from the public reaction to executive compensation that is perceived excessively high (Weisbach, 2007).The existence of excessive compensation indicates that managers are able to extract rents due to their positional power. Thus, the managerial power theory asserts that there is a positive association between rents and managerial power. Executive power also depends in large part on a company's ownership structure, which in turn depends on corporate governance mechanisms, organisation, composition of the board and the number of independent directors and inside directors (Bebchuk et al., 2002).

Bebchuk and Fried (2003) demonstrate that executives tend to have more power when i) there are a small fraction of institutional shareholders; ii) the board is relatively inefficient or weak; iii) there is no large outside shareholder, or iv) executives are protected by anti-takeover arrangements. Each of these factors impacts compensation arrangements in the way expected by the managerial power theory. A larger concentration of institutional shareholders, for example, might produce greater scrutiny and monitoring of executives and boards. Executive compensation packages are also larger; when the board of directors is relatively weak or inactive vis-a-vis the executive; when the board of directors is large, which makes it more difficult for members to organise in opposition to the manager; when more of the outside directors have been employed by the CEO; and when outside directors serve on three or more boards, and

[4] Bebchuk and Fried (2003) refer to negative reactions by outsiders as "outrage," and to the costs that reactions imposes on managers and directors as "outrage costs.

thus they are more likely to be distracted. Moreover, the adoption of anti-takeover provisions makes executives less vulnerable to a hostile takeover (Bebchuk et al., 2002).

A number of empirical studies have examined the relationship between CEO remuneration and managerial power, with the latter measured in various ways. Core et al. (1999), for example, investigate whether there is a relationship between the level of executive pay and the quality of companies' corporate governance practices. They document that executive pay is greater when the CEO is working as the board chair (managerial power) and that CEO remuneration is higher when independent directors are 70 or older, and a director works on more than three other boards. Likewise, Grinstein and Hribar (2004) find that managers, who have more power, affect board resolutions and gain considerably larger bonuses. The authors suggest that CEO power (managerial power measured by three proxies a CEO who is also the chairman, who is on the nominating committee, and who is on a relatively small board) plays a vital role in ruling merger and acquisition (M&A) bonuses.

In the same vein, Choe et al. (2014) find that the implied link between managerial power as calculated by three measurements (CPS, the proportion of executive directors on the board, and CEO duality) and CEO pay is largely supported. Their findings also indicate the relevance of the managerial power theory in clarifying the link between power and pay when the concentration is on managerial bargaining power. According to Van Essen et al. (2015), when executives have power over the pay-setting process, they tend to extract higher levels of total cash and total compensation, while managers, on the other hand, receive lower total cash and total compensation, particularly when boards are anticipated to have more powers. These results are consistent with the argument that managerial power is an essential driver of executive pay (Bebchuk et al., 2002).

In contrast, Bugeja et al. (2017) provide further insight into the efficient contracting versus managerial power debate on executive pay, and they conclude that most companies with excess CPS decrease it in the following year (or two years). The authors also argue that CPS is mostly consistent with an efficient contracting explanation of executive pay, as opposed to the explanation of managerial power theory. In addition, they find no evidence that newly appointed executives can capture boards

and raise CPS over time, neither do they find a statistical difference between CPS of previous CEOs and CPS of newly appointed CEOs.

Under the optimal contracting theory, a firm's board is supposed to design compensation to give executives adequate incentives to increase shareholders' value. Restricted stock and options are often awarded to managers, in a way that gives them incentives, and as a way to deal with an agency dilemma. Moreover, this theory adopts different formal models, which assumes that the boards will choose an optimal compensation structure that is acceptable to the shareholders. The compensation committee seeking to amend the plan of executive compensation would aspire to: (1) engage and keep high-quality managers, (2) give managers the incentives to exert adequate effort and to serve the interests of shareholders, and (3) reduce overall costs (Bebchuk and Fried, 2003; Weisbach, 2007).

2.2.2 Hypothesis Development:

2.2.2.1 SOP votes and CEO power

The level and structure of the executive pay contract can depend on various factors such as the demand-supply interactions in the manager labour market, CEO talent and CEO power. A fundamental assumption of the managerial power theory is that executives'effect on pay-setting process can lead to an executive pay contract that favours the CEO at the cost of outside shareholders (Choe et al., 2014).

Popular outrage at excessive executive pay has led several countries (the UK, Australia, Netherlands, Japan and the USA) to institute the SOP rule, which gives shareholders the capacity to vote on their companies' pay policies. The key aims of the SOP rule are to limit the seemingly excessive levels of executive pay, to tighten the link between company performance and manager pay, and to increase the disclosure of executive pay packages in remuneration reports. In addition, Correa and Lel (2016) argue that shareholders' votes can empower the boards to negotiate better terms with the executive through explicit shareholder support. The impact of the adoption of the SOP law on CPS has been empirically tested by Correa and Lel (2016) whose study covers a large sample of companies from 38 countries over the 2001–2012 period. The authors follow Bebchuk et al. (2011) in measuring managerial power by using CPS and conclude that the adoption of SOP has negatively impacted on CPS and considerable changes in CEO pay policy have followed its adoption.

Nonetheless, the high level of executives' compensation, which reflects the managerial power, is still a controversial issue, especially in the UK and the USA. The UK government, for example, announced that it would require firms to publish the ratio between CEO remuneration and that of the average workers' pay (O'Connor, 2017). Moreover, Skapinker (2017) argues that the benchmark ratio of 1:10-20 could be sufficient; however, the prevailing 154-times ratio for UK listed companies is indeed a cause of concern. In the USA, for instance, 500 of the highest-paid senior executives received approximately 1000 times the pay of average American workers in 2014. Similarly, the Securities and Exchange Commission (SEC) has adopted rule on Pay Ratio Disclosure, which requires all listed companies to report the ratio of CEO pay to median workers' pay for their first fiscal year beginning in or after January 2017.[5]

In the current study, the effectiveness of SOP is investigated in the four countries after recent changes in the SOP rule. This study differs from Correa and Lel (2016) in terms of (a) CEO power measurement, (b) estimation method, and (c) the time period corresponding to different SOP votes. More specifically, this research examines the impact of shareholders' votes on CEO power, measured by the ratio of CEO pay to the average workers' pay and focuses on a unique time period when important changes occurred to the SOP regulation in two countries. On the basis of the above theoretical and empirical arguments, it can be argued that the purpose of SOP is to curtail excessive executive power. As a result, the following hypothesis is developed:

Hypothesis 1: SOP votes reduce CEO power (as measured by CEO pay divided by the average workers'salaries)

2.2.2.2 Corporate governance mechanisms and SOP votes

From the managerial power theory, executives may have more power if the corporate governance mechanisms are weak or ineffectual. Bebchuk et al. (2002) argue that CEOs have more power when the firm's board is larger (less cohesive), which makes it more difficult for board members to organise in opposition to managers. Furthermore, they argue that managerial power is existent when a less effective role is played by outside director because some of them may be supported by CEOs, who will tend to prefer directors who are unlikely to challenge their pay packages. An outside director also may follow the executive's interests because he/she is the CEO's friend or is beholden to the

[5] https://www.sec.gov/news/statement/reconsideration-of-pay-ratio-rule-implementation.html

CEO for placing him/her on firm's board. As a consequence of weak corporate governance mechanisms, CEOs are more likely to take this position to negotiate a higher pay package with the board (Bebchuk and Fried, 2003). Moreover, Frydman and Saks (2010) argue that poor corporate governance has allowed executives to extract rents in forms of compensation that are more difficult for stockholders to observe or value; this explanation also provides a plausible justification for the recent growth in use of stock options. Additionally, Kaplan (2012) demonstrates that there have been corporate governance failures and pay outliers, where managerial power is surely exercised. Thus, this hypothesis suggests shareholders' voice might be less effective when corporate governance is weaker and direct monitoring is poor.This leads to the second hypothesis, in the context of the SOP rules:

*Hypothesis 2***:** Weak CG mechanisms undermine the effectiveness of SOP votes.

2.3 Data and research design

2.3.1 Sample:

Our initial sample contains all companies included in S&P/ASX 200, S&P/TSX, FTSE 350, S&P500, S&P600 and S&P400. The sampling period is selected based on the SOP rule; which it spans from 2012 to 2015 for Australia and Canada, from 2014 to 2016 for the UK, and from 2011 to 2015 for the USA. To be included in the sample, the company had to meet the following requirements. *First*, companies had to have sufficient data during the period of study, particularly data about shareholders' votes for all years. *Second*, companies with mergers and acquisitions (M&A) are dropped from the sample due to missing data regarding the original companies. The initial sample consists of 200 firms listed on S&P/ASX 200, 122 firms listed on S&P/TSX, 350 companies quoted on the FTSE 350 and 1,500 firms listed on S&P500, S&P600 and S&P400. From this initial sample, 30 companies are dropped from S&P/ASX, 26 firms from S&P/TSX, 34 firms from FTSE 350 list and 151 companies from the lists of S&P400, S&P500 and S&P600. In addition, the value of each variable included in the statistical analysis is restricted to be between the 1st and the 99th percentile to avoid the extreme value problem, leaving the final sample with 170 firms in Australia, 96 in Canada, 316 in the UK and 1349 in the USA. The sample selection is shown in Table 2.1.

To assemble the panel data, CEO total remunerations, governance mechanisms and financial characteristics are gathered from Bloomberg, while average workers' wages are collected from Thompson Eikon (formerly DataStream). In addition, country-level data is obtained from World Governance Indicators (WGI). All missing data, especially CEO total pay and corporate governance variables, are collected manually from firms' annual reports.[6] Further, since some companies have considerable interests in more than one area, for example, Ford and General Electric as US companies have substantial interests in finance, all samples include both financial and non-financial companies.

Table 2.1 Sample selection

	Australia	Canada	UK	USA
Initial sample	200	122•	350	1500
Missing firms data••	30	26	34	151
Final sample	170	96	316	1349
Time of period•••	2012-2015	2012-2015	2014-2016	2011-2015

•Although the S&P/TSX index comprises 250 firms, the number of companies that adopted the SOP regulation is 122 firms.

•• Firms are excluded because SOP votes' data are not available; they are merged with others, or a firm has been listed for one year during the period of study.

••• The time is different among the four countries due to the year of adopting the SOP rule and subsequent changes. In Australia, for example, the two-strike rule is active from July 2011; in Canada, advisory voting is approved from 2012; in the UK, a binding vote has become effective from October 2013; and in the USA, advisory voting is adopted from 2011.

The sample period for each country is selected, which covers the time period surrounding the SOP regulation changes. In the UK, from October 2013, the nature of the shareholders' vote changed from *advisory* to *binding,* and the selected time span covers three years after the change. Canada adopted a *voluntary & advisory* SOP votes policy in 2012[7] and the sample period spans four years after this adoption. In Australia,

[6] For US companies, the missing data of CEO compensation is obtained from SEC filings and for Canadian firms, CEO pay and governance mechanisms are collected from management information circular. [Although most of the companies rewarded their executives in local currencies, such as Australian dollar, Canadian dollar or UK sterling, there are some managers who are rewarded in different currencies (i.e. US dollars and Euros). To standardise the sample and to facilitate comparison, all pay and other variables such as CEO pay and market capitalisation, when not denominated in local currencies, are converted into local currencies, i.e Australian dollar (James Hardie Industries PLC, Fortescue Metals Group Ltd, Brambles Ltd and Rio Tinto Ltd), Canadian dollar (Agnico Eagle Mines Ltd, Agrium Inc, Encana Corp and Gildan Activewear Inc), and UK sterling (Anglo American plc, AstraZeneca plc, Carnival plc and Cairn Energy plc)].

[7] Stathopoulos and Voulgaris (2016) point out that the SOP policy was adopted by Canadian firms in 2012, although the SOP votes policy was recommended by the Canadian Coalition for Good Governance (CCGG) in September 2010. However, the number of companies that adopted this policy was smaller in 2011 compared to 2012. Thus, 2012 is documented as the year of SOP policy adoption in Canada.

Mandatory & non-binding votes on pay package reports became effective on 1 July 2004, but from 1 July 2011 a new legislation called the *two-strikes rule* became active. Our sample thus covers four years after the two-strike rule became effective. In the USA, The Dodd-Frank Act of 2010 required large publicly traded firms to provide their shareholders with the opportunity to cast an advisory vote on executive compensation since January 2011.[8] The US sample covers five years after the implementation of non-binding SOP votes (Balsam et al. 2016; Stathopoulos and Voulgaris, 2016).

2.3.2 Model and main variables:

To test the impact of SOP votes on managerial power, the below model is tested by employing the LIML estimator:

$$CEO\ power_{it} = \quad a_0 + a_1 SOP\ FOR_{it} + a_2\ SOPFOR * CEO\ pay + a_3 CG\ mechanisms_{it} + a_4 specific\ financial\ charactrictics_{it} + a_5 RQ_{it} + YEAR + \text{INDUSTRY} + e_{it}$$

Where:

Dependent variable:

The primary explained variable is the ratio of CEO total pay to average employees' salaries.[9] Since the raw CEO pay ratio has significant outliers, a logarithm of this ratio is used.[10] However, because data regarding workers' wages for all samples during the period of the current study is limited or not available, this study uses average workers' wages at the country level, which represents all industries. The importance of the ratio of CEO pay to workers' wages is that employees contribute to the creation of company profits and thus demand a claim on profits. Pay inequity within organisations can trigger psychological and behavioural reactions from employees, such as dissatisfaction, sense of relative deprivation, decisions to leave, and reduced loyalty (Shin, 2014). As a result, it is expected that firm value is likely to be decreased and thereby negatively affect shareholders' wealth.

8 smaller companies, which have less than $75 million of the market value of common equity, were allowed a two-year delay until 2013 to implement say-on-pay

9 To get workers' salaries paid for the whole year, workers' wages are multiplied by 52 weeks.

10 The managerial power has been measured by a number of proxies such as CEO pay to EBIT, CEO to firm's net income, CEO pay to top 5 executives, CEO pay to top 4 executives (with CEO excluded) and CEO pay to average workers' pay. The regression results indicate that the CEO pay to average employees' pay produces is better than other measures. However, because of data limitations about firm's workers' wages, the CEO pay ratio is calculated as CEO total pay scaled by average workers' wages for all industries.

Independent variables:

The main independent variable is the percentage of SOP votes FOR, which is calculated by the number of votes FOR executive compensation divided by total votes *for* and *against*. Moreover, the interaction variable between SOP FOR and executive pay is included to see how executive compensation is influenced by the SOP rule as well as it is very important because the SOP votes are directly realted to CEOs compensation and thus this regulation might impact the managerial power. In terms of corporate governance mechanisms, board size, independent director and compensation committee independence are included in the analysis. According to agency theory, these factors should play an essential role in enhancing monitoring and efficiency when managers have limited power (Salama and Putnam, 2013). This study also controls firm financial characteristics, which are firm size as measured by the natural logarithm of market capitalisation; firm growth as gauged by market to book ratio; firm performance (stock return); firm risk (stock volatility); financial risk (leverage) and capital expenditure (firm investments). These financial factors play an important role in reducing or increasing the CEO dominance. For example, increasing firm growth is more likely to rise firm's profit and performance and thereby encouraging managers to require a higher level of pay packages. Furthermore, corporate governance indictors on the country level, which are voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; the rule of law; and control of corruption, are also used, but due to the multicollinearity problem across country-level variables, only the regulatory quality measure is used in the main analysis. These indicators display the quality of governance provided by a large number of companies, citizen and expert survey respondents in industrial and developing countries (World Bank). YEAR and INDUSTRY are included to prevent the results beingdriven bytime series andindustry effects, respectively. Table 2.2 summarises the definitions of the variables used in this research and data sources as well.

In the presence of an endogeneity problem, the results of OLS regression might be biased and inconsistent, and this problem can be explored by employing the Durbin–Wu–Hausman (DWH) test. In addition, several statistical methods can deal with the endogeneity problem, such as GMM and 2SLS, as they use valid and strong instruments in tackling endogeneity. *However, how can instrumental variables be identified?* Finding good instruments for accounting and finance studies is difficult, but a good

instrumental variable, however, should not be correlated with the error term of the original equation; that is, it must be exogenous (Chen et al., 2010). Many authors in accounting and finance research (see. De Andres and Vallelado, 2008; Nguyen et al., 2014) have tackled this issue by employing the lagged value of dependent and independent variables. *Ammann et al. (2011), for example, argue that utilising lagged variables as instruments for the present values of these variables controls for potential simultaneity and reverse causality.* Because the sample size is small the GMM and 2SLS are not the best estimators in dealing with endogeneity. This study, therefore, employs the LIML estimator, which was originally pioneered by Anderson and Rubin (1949, 1950) for the classical simultaneous equation problem (Akashi and Kunitomo, 2012). Bascle (2008) reports that the advantage of the LIML estimator is that (i) it has an unbiased median: the median of its sampling distribution is generally close to the population parameter; (ii) the LIML is unbiased in the presence of weak instruments, and (iii) it is more efficient than 2SLS estimator when there are many instrumental variables (Bascle, 2008; Wansbeek and Prak, 2017). In the following section, descriptive statistics are reported.

Table 2.2 Definition of variables and sources

Variables	Definition	Source
CEO power as measured by the LN ratio of CEO pay to average employees' pay	CEO power is computed as the ratio of CEO pay to the average workers' salaries in a given country.	DataStream CN172126 UKWAGES.B USWKPV..B AUWAGES.A
SOP votes FOR	the number of votes for executive compensation divided by total votes for and against CEO pay.	Bloomberg database and firms' annual reports
SOP FOR*CEO pay	Interaction variable between SOP FOR and the level of CEO pay.	
Ln board size (Ln BSIZE)	The natural logarithm of the number of Directors on the company's board.	Bloomberg database and firm's annual reports
Independent director (INDDIR)	The proportion of Independent Directors on the company's board.	Bloomberg database and firm's annual reports
Compensation committee independence (CCI)	The proportion of independent directors in the compensation committee on the board size	Bloomberg database and firm's annual reports
Ln market capitalisation (Ln MC) (Firm size)	The total current market value of all of a company's outstanding shares stated in the pricing currency	Bloomberg database

Stock return (SR)	Calculated by (stock price at the end of year t minus the stock price at the end of year t-1 plus dividends per share) / stock price at the end of year t-1	Bloomberg database
Market to book ratio (M/B)	The ratio of the stock price to the book value per share	Bloomberg database
Stock volatility (SV)	The standard deviation of day to day logarithmic price changes	Bloomberg database
Leverage (LEV)	The ratio of the total amount of debt relative to assets	Bloomberg database
Capital expenditure (CAPEX)	The amount the company spent on purchases of tangible fixed assets divided by total assets	Bloomberg database
Regulatory Quality (RQ)	Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	World bank indicators

2.3.3 Descriptive Statistics

Table 2.3 shows, means, median, standard deviations, minimum and maximum values for each relevant variable. The trends of CEO power as gauged by the ratio of CEO total pay to the average employees' salaries are also illustrated in Figure 2.1. As is shown in Table 2.3, the highest mean and median arise from the US sample (208, 148 times), which is followed by the Canadian (144, 107 times), the UK (104, 72 times) and the Australian sample (58, 40 times). Mean values of CEO total pay to the average employees' implies that managers in US firms are relatively more powerful, while Australia's CEOs are the least powerful out of the four sample countries. Among CG mechanisms, board size ranges between a minimum of 4 to a maximum of 17 directors, with mean values of 7, 10, 9 and 10 directors in Australia, Canada, the UK and the USA respectively. The median values are identical to their respective means. These average values are within the range recommended by Lipton and Lorsch (1992), particularly for the Australian and UK samples (Haniffa and Hudaib, 2006). However, De Andres and Vallelado (2008) argue that large boards lead to problems of control, coordination, and flexibility in decision-making, give excessive control to executives and harm efficacy.

Moreover, the statistics in Table 2.3 show that the mean values for the percentage of independent directors on board are between 63% and 89 %. Outside directors are less likely to be influenced by the executive and they are expected to be better monitors of top managers. The existence of independent directors can, therefore, strengthen board effectiveness and improve a firm's monitoring and performance (Salama and Putnam, 2013). Similarly, the mean and median values of compensation committee independence (CCI) are 46%, 42%, 46% and 43% in Australia, Canada, the UK and the USA respectively. CCI is vital in promoting shareholder value as it represents the

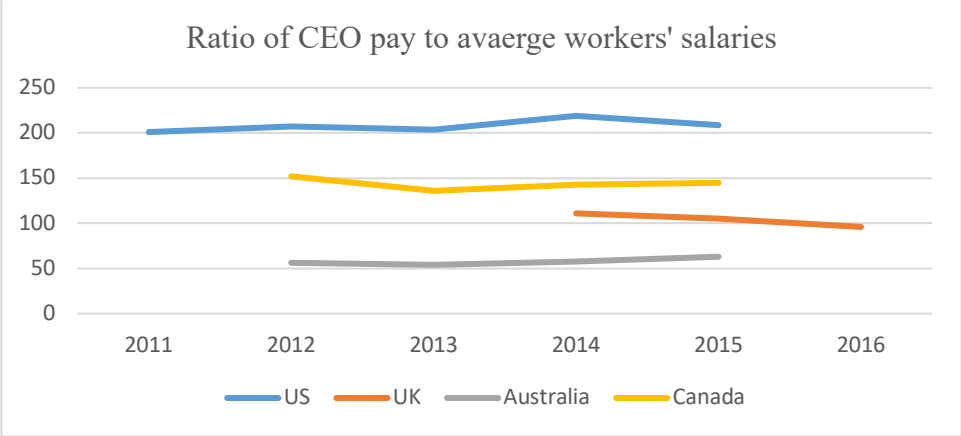

Figure 2.1: The Trends of CEO power as measured by the CEO pay to average workers' salaries for all samples

proportion of non-executives on compensation committees. Thus, in 2003 the SEC adopted new listing laws which make it obligatory for all companies traded on NASDAQ, NYSE and AMEX to have compensation committees containing fully independent non-executive directors. Governance practices can substantially be improved by the compensation committee in two ways. *First*, over its role in setting the remuneration plans for executive and top managers. *Second*, effective compensation committees will design and implement compensation arrangements that could align with the interests of shareholders and executives (Salama and Putnam, 2013).

Firm financial characteristics also vary among the four samples. The mean value of firm market capitalisation in Australia, Canada, the UK and the USA amounts to $ 8130, $ 16400, £ 6690 and $ 11200 million respectively, with the lowest being $ 115 million in Australia and the highest $ 178000 million in the USA. These results suggest that US firms tend to be larger than their counterparts in the other three countries. In fact, US-listed firms include the biggest companies in the world, such as Apple and Amazon.[11] Table 2.3 also reveals that the market to book ratio of the UK sample (3.99 times) is larger than those from other samples. Firm performance as measured by stock return is also higher in the UK compared to firms in other countries. Furthermore, the stock volatility as a firm risk proxy is higher among Australian and US companies with a mean estimate of 32-33 per cent.

Interestingly, while the mean leverage of Australian, Canadian and UK samples ranges between 19% and 22%, the descriptive statistics show that US firms have lower

[11] The market capitalisation report in local currency for each country. However, when we compare this value among the four countries by using US dollars, the US companies have higher values.

Table 2.3 Descriptive statistic for all study samples

	Australia					Canada					UK					USA				
Variables	mean	median	SD	min	max	mean	median	SD	min	max	mean	median	SD	min	max	mean	median	SD	min	max
CEO power (Times)	58	40	51	4	252	144	107	111	18	580	104	72	100	9	576	208	148	194	12	1059
SOP FOR	0.921	0.969	0.108	0.482	0.999	0.830	0.937	0.250	0.148	0.996	0.936	0.975	0.095	0.505	0.990	0.916	0.962	0.118	0.396	0.998
SOP FOR* CEO pay	13.49	13.89	1.75	6.06	16.34	12.79	14.25	3.86	2.01	16.27	13.50	13.82	1.52	6.64	16.30	14.14	14.61	1.87	5.71	17.25
BSIZE	7	7	1.88	4	12	10	10	2.54	5	17	9	9	2.19	5	16	10	9	2.29	5	16
INDDIR	0.73	0.78	0.16	0.25	1.00	0.84	0.89	0.09	0.55	0.94	0.63	0.64	0.13	0.25	0.89	0.82	0.86	0.10	0.54	0.93
CCI	0.46	0.44	0.15	0.10	0.83	0.42	0.40	0.11	0.19	0.78	0.46	0.44	0.14	0.17	0.75	0.43	0.40	0.12	0.20	0.83
MC (million)	8130	1810	20200	115	124000	16400	6160	22700	570	116000	6690	1870	13800	155	80400	11200	2610	25900	184	178000
SR	0.22	0.18	0.47	-0.63	2.46	0.46	0.19	0.83	-1.34	3.71	0.10	0.06	0.35	-0.60	2.03	0.14	0.11	0.33	-0.58	1.32
M/B	2.88	1.84	2.84	0.40	14.45	1.85	1.56	1.87	-0.40	12.03	3.99	2.54	5.33	0.41	37.72	0.92	0.16	1.94	-0.71	11.99
SV	0.33	0.31	0.13	0.13	0.84	0.28	0.25	0.13	0.11	0.71	0.30	0.27	0.12	0.16	0.94	0.32	0.30	0.12	0.14	0.67
LEV	0.22	0.21	0.15	0	0.65	0.20	0.18	0.17	0	0.63	0.19	0.17	0.18	0	0.84	0.11	0.07	0.13	0	0.68
CAPEX	0.05	0.03	0.08	0	0.60	0.06	0.06	0.06	0	0.26	0.04	0.03	0.05	0	0.31	0.05	0.03	0.05	0	0.27
Ln CEO pay	14.66	14.66	0.88	12.39	16.51	15.47	15.45	0.75	13.63	17.17	14.42	14.41	0.83	12.33	16.50	15.42	15.47	0.93	12.84	17.45
QR	0.97	0.97	0.01	0.97	0.98	0.96	0.95	0.01	0.94	0.98	0.97	0.97	0.01	0.95	0.99	0.89	0.89	0.02	0.87	0.92

Notes: The table reports the summary statistics for all variables. ***The dependent variable*** is managerial power as measured by CEO pay/ average workers pay. ***Independent variable*** is SOP FOR, which is calculated as (the number of votes for executive compensation divided by total votes for and against CEO pay); SOP FOR*CEO pay (interaction variable between SOP FOR and CEO compensation). ***Corporate governance mechanisms are;*** BSIZE (board size), INDDIR (independent directors), and CCI (compensation committee independence) . ***Firm financial characteristics*** are; MC (market capitalisation, which is the total current market value of all of a company's outstanding shares stated in the pricing currency), SR (stock return), M/B (market to book ratio), SV (stock volatility), LEV (leverage), and CAPEX (capital expenditure ratio). ***CEO pay level;*** Ln CEO pay, which is calculated as the natural logarithm of the sum of salary, bonus, other annual, the total value of restricted stock granted, stock options granted, Long-term incentive payouts, and others. And RQ (regulation quality), which captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

leverage 11% compared to others. This perhaps partly explains the excessive pay enjoyed by US top executives. Jiraporn et al. (2012) point out that more powerful executives tend to adopt lower leverage, probably to avoid the disciplinary mechanisms linked with debt financing. In addition, the average and median of capital expenditure ratio, which is the amount invested in fixed assets, range between 4% and 6% in the four countries. The means and medians of regulatory quality as one of the six world governance indicators are between 89% and 97%. This Regulatory Quality indicator captures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

The correlation matrices of all variables are reported in Tables A.1-A.4 in Appendix A. According to Gujarati and Porter (2010:254), multicollinearity might impact the regression analysis if the degree of correlation between two variables exceeds 80 %. As can be seen from Tables A.1-A.4, the highest simple correlation coefficient is less than the recommended threshold of 80%. In addition, this study applies the Variance Inflation Factor (VIF) and tolerance tests for all variables. O'Brien (2007) suggests that a VIF of more than 10 and tolerance of less than 0.10 indicate a multicollinearity problem. The tests of VIF and tolerance conducted when running the OLS estimation, show that multicollinearity is not a cause for concern (see Table A.5 in the Appendix A).

2.4 Regression results

This section presents the empirical results on the impact of shareholders' votes on CEO power. The analysis is based on series of panel data regression models. First, the appropriate estimation methods are discussed. Following that, the LIML estimation results are critically analysed. Finally, a robustness test is reported.

2.4.1 Detecting endogeneity problem as well as testing the relevance and validity of instruments

Recent literature has been widely concerned with the endogeneity problem in applied econometric analysis. Endogeneity arises when one or more independent variables are correlated with the error term (Baltagi, 2008:137). This can be caused by (i) measurement errors in the regressors; (ii) omitted variable bias; (iii) simultaneous equation bias; and (iv) serial correlation in the error term in a dynamic regression model (Gujarati, 2012:300). Endogeneity can be identified by using the DWH test in the OLS

regression. This test can be implemented by following three steps: *First,* to check whether an explanatory variable, say board size, is endogenous or exogenous, board size is predicted using all other regressors in the original model plus selected instruments. Residuals are computed from this regression. This is the first step of the DWH test. *Second*, residuals from the previous step are included in the original regression model. The coefficient of the residual in this regression is tested for significance. The null of the test is that the coefficient is zero (board size is exogenous). A significant test statistic of DWH indicates that the variable is endogenous, i.e. board size is correlated with the residual (error term).[12] *Finally*, the above steps are repeated for the rest of regressors.

In the current study, the DWH test shows that two regressors, namely, leverage and market capitalisation are endogenous. As a result, the OLS estimation may be biased and inconsistent. In this event, estimators such as GMM should not be used when the sample size is less than 700 observations (Bascle, 2008). Following Larcker and Rusticus (2010) and Ammann et al. (2011), this study employs the LIML estimator and uses the lag of some independent variables as instruments. After that, it is very important to check the instruments' strength and validity but, as mentioned earlier, the instrumental variables should not be correlated with the error term (validity), and at the same time, they should correlate with endogenous variable(s) (instrument relevance; i.e., strong vs weak instruments) (Baum et al. 2003).

By using the Andersen–Rubin (AR) test (test of over-identifying restrictions[13]) to check the validity of instruments after running the LIML estimator, the significant test statistic could represent either an invalid instrument or an incorrectly specified structural equation. In addition, to detect whether the instruments are weak or not, we need to compare either the value of the F test in the first-stage regression or the value of the minimum eigenvalue statistic with critical values obtained from the Tables in Stock and Yogo (2005); if the two tests are higher than the critical values, then the instruments are strong and vice versa.

[12] See DWH test procedures in STATA at https://www.stata.com/support/faqs/statistics/durbin-wu-hausman-test/

[13] This test can be shown when the number of instruments exceeds the number of endogenous regressors (Larcker and Rusticus, 2010).

2.4.2 LIML Estimator Results

The result from the LIML estimation is reported in Table 2.4, which shows that shareholders' votes have a negative and significant impact on CEO power in Australia, Canada, the UK and the USA at the 5 %, 10% and 1% levels of significance. This suggests that the SOP rule, regardless the type of vote, is successful in constraining executive power, although the interaction variable (SOP FOR* CEO pay) in Australia, Canada and USA shows a positive relation between SOP support votes and the level of CEO compensation, which means that stockholders are satisfied with the level of executive pay packages in these countries. The summary statistics also displayed in Figure 2.1 and Table 2.3 shows that Australian managers are relatively less powerful than their peers in other countries. These results are in line with Correa and Lel (2016) who conclude that the level of CEO compensation growth is reduced in the period following the adoption of the SOP regulation and thus CEOs have become less powerful compared to the period without the SOP rule.Thus, *the first hypothesis (SOP votes reduce CEO power) can be accepted* in the four countries.

Table 2.4 also shows a positive effect of board size on managerial power in all samples at the 1% significance level, although the interaction variable (SOPFOR*BSIZE) for the UK and US samples is negative, while in the other two countries it is positive. This suggests that the board plays a less active role in curtailing the executive power. This is consistent with the notion that large boards are often deemed inactive, especially in the USA, because they may suffer from coordination and communication problems, thereby decreasing their ability to monitor and control executives. Powerful executives will, therefore, take advantage of this inefficiency to maximise their personal benefits, resulting in suboptimal design of pay contracts (Bebchuk and Fried, 2003; Salama and Putnam, 2013).

A large positive and significant effect of independent directors is also found in the four countries. This suggests that the implementation of the SOP did not enhance the vigilance of outside directors. These findings are not in line with the study of Correa and Lel (2016), who report a positive impact of independent directors on CEO power, with CEO power being measured by CPS. Managers may have a considerable impact on the choice of outside directors and they may tend to choose directors who are less likely to challenge their pay (Bebchuk et al., 2002). Mollah and Zaman (2015) also explain

that the less effective role played by independent directors may have resulted from the fact that either the market for high performing outside directors is limited or outside directors are selected merely to conform to regulatory requirements.

On the other hand, the coefficient of CCI is positive except for the Canadian sample, but statistically significant only in the UK. In comparison, Conyon (1997) found that the growth in CEO pay was lower when the compensation committee was introduced by UK companies. More recently, Conyon (2014) concludes that there is little evidence that remuneration committees result in a higher level of executive pay for US firms. This suggests that CCI is an ineffective mechanism in curtailing excessive CEO compensation, especially in the UK. Taking these findings together, the second hypothesis, which is that weak CG mechanisms undermine the effectiveness of shareholders' vote, cannot be rejected.

Moving to firm financial characteristics, the findings indicate that firm size, as measured by Ln market capitalisation, has a positive impact on CEO power in the four countries. It is also the only predictor variable, which is universally significant, and one of the most important sources of CEO power among the factors considered across all the samples. These findings are consistent with Jiraporn et al. (2012) and Correa and Lel (2016), who report a positive link between firm size (as measured by Ln total assets and log net sales) and managerial power (as measured by CPS). The usual rationale behind this positive association is that larger companies require more talented managers who are worth more in the job market (Frydman and Saks, 2010).

A company' growth potential, gauged by the market to book ratio, has a significant and negative impact on CEO power in the US sample at 1%, and a negative but non-significant impact in Australia and Canada, but the effect is positive for the UK sample. This finding is in contrast with Choe et al. (2014) who argue that growth opportunity is a strong predictor of stock-based pay. In addition, Bugeja et al. (2017) suggest that the decision authority is spread across a number of managers in high growth companies to encourage the pursuit of value increasing opportunities that have to be acted upon quickly. Consequently, higher growth potential is associated with weaker CEO power.

Table 2.4 The impact of SOP votes on CEO power

	Australia	Canada	UK	USA
Dependent variable	**CEO power**			
Independent variable				
SOP FOR	-0.494**	-0.653***	-0.486**	-1.761***
	(0.230)	(0.207)	(0.248)	(0.118)
SOP FOR*CEO pay	0.021	0.015	-0.042	0.035*
	(0.055)	(0.071)	(0.039)	(0.018)
CG mechanisms				
Ln BSIZE	0.725***	0.741***	0.561***	0.138***
	(0.181)	(0.198)	(0.156)	(0.051)
SOP*BSIZE	0.029	0.060	-0.002	-0.021*
	(0.039)	(0.056)	(0.028)	(0.012)
INDDIR	0.746***	1.496***	0.339	0.843***
	(0.197)	(0.389)	(0.245)	(0.107)
SOP*INDDIR	-0.006	-0.059	-0.005	0.049***
	(0.024)	(0.045)	(0.030)	(0.011)
CCI	0.0649	-0.125	0.538**	0.025
	(0.277)	(0.365)	(0.228)	(0.080)
SOP*CCI	-0.0001	0.051	0.009	-0.008
	(0.027)	(0.047)	(0.029)	(0.013)
Firm financial characteristics				
Ln MC	0.291***	0.309***	0.310***	0.440***
	(0.026)	(0.037)	(0.028)	(0.008)
M/B	-0.010	-0.037	0.001	-0.037***
	(0.013)	(0.023)	(0.003)	(0.008)
SR	-0.0376	-0.0340	0.203***	-0.011
	(0.059)	(0.059)	(0.076)	(0.032)
SV	-0.186	0.529	-0.783***	0.697***
	(0.229)	(0.394)	(0.223)	(0.101)
LEV	0.730***	0.079	0.304**	0.368***
	(0.171)	(0.238)	(0.152)	(0.091)
CAPEX	0.107	0.150	-0.203	-0.680***
	(0.345)	(0.672)	(0.631)	(0.181)
World Governance indicator				
RQ	-2.445	-2.054	2.128	3.297***
	(4.113)	(2.467)	(4.398)	(1.235)
Constant	-1.946	-2.924	-5.760	-7.182***
	(4.121)	(2.674)	(4.322)	(1.078)
Years effect	Yes	Yes	Yes	Yes
Industry effect	Yes	Yes	Yes	Yes
Observations	495	259	577	4,801
R-squared	0.648	0.606	0.524	0.621
Valid instruments tests				
Anderson–Rubin test (p value)	0.29	0.52	0.50	0.89
F-stat first stage (Prob)	0.000	0.000	0.000	0.000
Weak instruments tests				
Min eigenvalue statistics	891	1603	5010	156955
LIML size of nominal 5%	8.68	8.68	8.68	8.68

Note. This table displays the results of LIML estimator between SOP votes and CEO power. Definitions for all variables are provided in Table 2.2. *, **, and *** indicate significance at the .10, .05, and .01 levels, respectively. Parenthesis represents the standard error.

Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments.

LIML size of nominal 5% (is critical value from Stock and Yogo, 2005)

A significant and positive association between CEO power and firms' market performance as measured by stock returns is only found in the UK; this relationship is found to be negative and insignificant in Australia, Canada and the USA. The results with a significant positive sign support the view that CEOs of UK firms are necessarily rewarded for performance, unlike their peers in other countries. Moreover, a positive relation is found between firm risk (stock volatility) and CEO pay ratio in Canada and the USA, but a significant and negative relation in the UK sample. As the volatility of stock returns reflect the underlying risks of the company, the result is suggestive that powerful executives in the USA are more likely to take risks. This is in line with Lewellyn and Muller-Kahle (2012) who argue that powerful executives are encouraged to take risks others would avoid and weaker boards with more powerful executives tend to result in resolutions that largely reflect executives' desires.

Interestingly, leverage is found to have a positive and significant effect on CEO power in three countries as shown in columns 2, 4, and 5 but a statistically insignificant impact in Canada. This finding is in line with Chao et al. (2017) *who report a positive relationship between CEO power and leverage* and argue that, since debt serves as an active disciplining device, it can limit the managerial flexibility and, therefore, a higher level of leverage tends to be associated with companies managed by less powerful CEOs. To put it differently, powerful CEOs may exercise their influence and make capital structure decisions that are beneficial to themselves but are not necessarily in the shareholders' best interests. These arguments are further supported by the descriptive statistics shown in Table 2.3, which reveals that the average and median leverage among the US sample is much lower than those in the other countries.

The link between capital expenditure ratio and CEO power is negative in the UK and the USA for, but positive and statistically insignificant in Australia and Canada. These results are similar to the finding of Jiraporn et al. (2012), who report a negative relationship between capital expenditure and CEO dominance. *Finally*, the regulatory quality, as one of the world governance indicators, has a positive influence on CEO power in the UK and US samples, but its impact is negative and insignificant for the others. Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development (World Bank).

2.4.3 Robustness Test

To check the robustness of these results, an additional analysis is conducted by including other regressors after checking multicollinearity. *First*, the firm size measure is changed from market capitalisation to total assets. *Second*, gross domestic product (GDP) growth is included as a control variable. Then, the original model is rerun with the new variables. Table 2.5 shows that the findings of the robustness tests, which are related to additional variables, are unchanged after including other explanatory variables. The sings of coefficients are still similar to the results in Table 2.4 and statistically significant in Australia, Canada, the UK and the USA. The results in Table 2.5 show that powerful CEOs play a less essential role in these countries. In other words, the SOP rules have succeeded in achieving their aims, particularly minimising CEO dominance.

2.5 Discussion and conclusion

The main goal of the current study is to examine the effectiveness of introducing different types of SOP regulation on curtailing managerial power as measured by the ratio of CEO to the average workers' pay. This research is motivated by recent changes in the type of SOP regulation, such as the *two-strike rule* adopted in Australia and *mandatory & binding* votes approved in the UK. The empirical results are based on unbalanced panel regression models. The results show that CEO power is negatively affected by various types of SOP votes. Recall that, in the concerned regulatory transition, the UK has moved to binding votes, making it necessary for companies to react to shareholders' concerns regarding the high level of pay packages; while the USA has adopted advisory votes; hence response by corporations is optional. The form of the SOP regulation causes CEO power to drop in the respective country. This suggests that shareholders' voice is successful in mitigating CEO dominance and achieving their purposes.

This study also reveals that corporate governance mechanisms play a less effective role. The managerial power theory suggests that the board's monitoring efficacy is weak when the CEO has more power. This is because a powerful executive can influence the appointment of outside directors, who are further affected by board dynamics that make it difficult for them to deal with CEOs in a truly arm's length way, especially when other directors have no interest in confronting executives over their compensation

Table 2.5 The impact of SOP votes on CEO power (Robustness test)

	Australia	Canada	UK	USA
Dependent variable		**CEO power**		
Independent variable				
SOP FOR	-0.568**	-0.683***	-0.481**	-1.577***
	(0.241)	(0.201)	(0.243)	(0.127)
SOP FOR*CEO pay	0.020	0.028	-0.059	0.028
	(0.055)	(0.070)	(0.038)	(0.019)
CG mechanisms				
Ln BSIZE	0.696***	0.624***	0.709***	-0.063
	(0.172)	(0.181)	(0.173)	(0.058)
SOP*BSIZE	0.020	0.031	0.011	-0.024*
	(0.041)	(0.054)	(0.028)	(0.013)
INDDIR	0.534***	1.100***	0.682***	0.794***
	(0.202)	(0.377)	(0.252)	(0.111)
SOP*INDDIR	-0.006	-0.072	-0.006	0.057***
	(0.024)	(0.044)	(0.031)	(0.011)
CCI	0.191	-0.150	0.581**	-0.124
	(0.268)	(0.345)	(0.241)	(0.089)
SOP*CCI	-0.008	0.043	0.022	0.003
	(0.028)	(0.047)	(0.029)	(0.014)
Firm financial characteristics				
Ln TA	0.244***	0.298***	0.187***	0.389***
	(0.022)	(0.030)	(0.023)	(0.008)
SR	0.045***	-0.006	0.017***	-0.009
	(0.011)	(0.029)	(0.005)	(0.009)
M/B	-0.035	0.077	0.327***	0.219***
	(0.061)	(0.049)	(0.073)	(0.034)
SV	-0.744***	0.316	-1.447***	-0.368***
	(0.212)	(0.353)	(0.233)	(0.099)
LEV	0.466***	-0.340	0.164	0.457***
	(0.174)	(0.231)	(0.160)	(0.099)
CAPEX	0.171	1.523**	0.079	0.526***
	(0.340)	(0.650)	(0.634)	(0.200)
Macroeconomic environment				
GDP growth	-31.46	-5.385	5.354	11.74***
	(33.05)	(4.857)	(27.65)	(2.238)
Constant	-2.312**	-3.888***	-1.525**	-3.205***
	(1.030)	(0.721)	(0.764)	(0.238)
Years effect	Yes	Yes	Yes	Yes
Industry effect	Yes	Yes	Yes	Yes
Observations	495	259	577	4,802
R-squared	0.644	0.629	0.484	0.568
Valid instruments tests				
Anderson–Rubin test (p value)	0.48	0.50	0.34	0.10
F-stat first stage (Prob)	0.000	0.000	0.000	0.000
Weak instruments tests				
Min eigenvalue statistics	844	2372	8297	93740
LIML size of nominal 5%	8.68	8.68	8.68	8.68

Note. This table displays the results of LIML estimator between SOP votes and CEO power. Definitions for all variables are provided in Table 2.2. *, **, and *** indicate significance at the .10, .05, and .01 levels, respectively. Parenthesis represents the standard error.

Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments.

LIML size of nominal 5% (is critical value from Stock and Yogo, 2005)

(Bebchuk et al., 2002). Among the US firms, which are generally perceived to have the most powerful CEOs, while large boards have no significant impact on relative CEO pays, independent directors do promote CEO power, contrary to their purpose.

On the other hand, evidence for compensation committee independence suggests that information quality relating to executive remuneration has substantially improved, especially in the UK. Among all the samples, compensation committee independence has not failed to reduce powerful CEOs in three countries. Conyon (2014) argues that the effectiveness of the compensation committee depends on a number of factors. Inside information is provided by employees in the Human Resources department, who may supply advice favourable to the incumbent executive; whereas outside recommendations are provided by compensation consultants, who are more likely to be neutral.

With respect to firm financial characteristics, while in general larger firm size and low growth potential causes CEO power to rise, neither firm performance nor firm risk has any clear effect on CEO power in Australia; CEOs in the UK are rewarded for lower firm risk, but the reverse is true for their Canadian and US counterparts. Previous studies (see Smith and Watts, 1992; Cyert et al., 1997; Core et al., 1999) have argued that companies with larger size, higher growth, and more complex operations will require higher-quality executives with higher compensation. However, *a positive relation between CEO dominance and firm performance in the UK suggests that the top executives in the UK are necessarily rewarded for managerial skills rather than managerial power.*The relatively stronger CEO power in the USA is also evidenced by the relationship among leverage ratio, CEO power and the effectiveness of SOP on CEO power at the different levels of leverage. US firms, on average, have a lower leverage ratio (11% as opposed to 19-22% in others), and the evidence in Table 2.4 suggests that, on average, raising the leverage ratio will cut CEO power and enhance the effectiveness of the SOP regulation in the USA in general.

Multiple evidence emerging from this study suggests that less CEO power lies at the heart of the explanation of why the SOP rules have achieved the expected sweeping success. Further, on average, CEOs in US firms are much more powerful than their peers in other parts of the world. For example, among US firms, independent directors

are not necessarily independent because they might be influenced by powerful top executives; CEOs are not necessarily rewarded for high performance and low risk, but they might adopt some strategies, which lead to increase firm value, such as adopting lower leverage to avoid outside disciplines and decrease financial costs. While multiple evidence emerged from this study suggest that the type and nature of SOP law may have affected its effect, the more important message delivered by this evidence is that the effectiveness of the SOP regulation might be directly or indirectly undermined by pre-existing CEO power. On a positive note, the researcher notices that compensation committee independence does appear to have achieved its intended purpose among the UK firms, which they have less powerful CEOs. This can be attributed to the quality of information in that country.

Finally, these findings have several implications for shareholders, firms, government and policymakers. The role of the SOP regulation is less effective in the absence of an active board. Independent directors constitute most of the directors on the board, and they should be more vigilant in their monitoring role. Consequently, the managerial power level will be negatively related to the monitoring level. These findings also indicate that the type and nature of the SOP law plays an important role in reducing CEO power and achieving the purposes of SOP regulations. In addition, an effective SOP rule motivates CEOs to be more vigilant when they take decisions that increase shareholders' wealth, such as adopting lower leverage or issuing resolutions about risky investments. As a result, the conflict between shareholders and managers would be reduced. Hence, the outside directors are the active hub of corporate governance mechanisms and with more efficient monitoring and vigilance lead to more effectiveness of the SOP regulation. Future research may expand the current study with wider coverage of countries if data from other countries can be obtained.

Chapter 3: SOP Votes and Firm Performance: Evidence from Anglo-Saxon Economies

3.1 Introduction

The corporate governance literature of pay-for-performance has been well established, both theoretically and empirically. This literature is led by two dominant postulations, the optimal contract theory and the managerial power theory. Optimal contract theory views managers' pay contracts as a free-market product created from negotiations between effective company boards and senior managers. It suggests that compensation packages, thus, negotiated efficiently take together the interests of both top executives and shareholders. Optimal contract theory anticipates company performance to bear close relation to executive compensation.

Managerial power theory, on the other hand, suggests that CEO compensations are set without the interests of shareholders in mind, as they often result from negotiations between dependent boards and influential executives. Managerial power theory implies two distinct agency conflicts. *First*, corporate executives have some degree of control over boards of directors who set executives' pay. *Second*, corporate executives are capable of leveraging their power over boards to obtain higher compensation. Managerial power theory expects no correlation between pay and performance, although it is possible for executives to be rewarded for 'luck' (i.e. for improved performance outside CEO dominance, such as political environment and general improvement in the broader macroeconomy) (Ntim et al., 2017).

Existing empirical studies have produced no overwhelming support for either of the above two theories, and the exorbitant level of pay for top corporate managers has triggered considerable debate in recent years (See for example, Jensen and Murphy, 1990; Core et al., 1999; Zhou, 2000; Firth et al., 2006; Buck et al., 2008; Bebchuk et al., 2011; Clarkson et al., 2011; Matolcsy and Wright, 2011; Van Clieaf et al., 2014; Forbes et al., 2016; Alves et al., 2016; Ntim et al., 2017; Kent et al., 2018). The corporate scandals of Enron and WorldCom in 2001 and 2002, the economic collapse in 2008 and some hotly debated cases of "pay for failure" have raised shareholders' concerns and put the spotlight back on the optimality of CEOs' pay contracts (Pagnattaro and Greene, 2011; Cuñat et al., 2016).

The controversies around CEO compensation have brought about the introduction of the SOP regulation in many countries. The UK was the first country to mandate an annual non-binding shareholder vote on executive remuneration. Following the lead of the UK, SOP legislation that gives shareholders "voices" has been embraced by many

other countries such as Australia, the Netherlands, Norway, Sweden and the USA (Conyon and Sadler, 2010; Ferri and Maber, 2013). The stated purposes of SOP are to improve managers' accountability for company performance, enhance transparency, spur shareholder participation in corporate governance, assure shareholders' rights to firms' residual income, limit extreme CEO pay, and discourage executives from chasing short-term profits (Mason et al., 2016).

Proponents of SOP argue that it is a good corporate governance (CG) mechanism, and shareholders have incentives to uphold proposals that advance their wealth. In contrast, opponents of SOP regard the legislation as problematic because non-institutional shareholders, in general, lack sufficient incentives, information or knowledge necessary to make value-increasing business decisions; hence, they may not cast their votes strategically. Both arguments are based on the supposition that a firm's board reacts to voting results which thereby impacting company policies and plans that, in turn, influence corporate value (Carter and Zamora, 2007).

Cuñat et al. (2016) argue that there are at least two reasons why performance might grow when companies adopt the SOP law. *Firstly*, if SOP implies a stricter alignment of pay and performance, the improved incentive would encourage executives to be more effective at creating higher profits. *Secondly*, if it facilitates more active monitoring, the annual general meeting vote on SOP might work as a vote of confidence in the managers, providing sufficient pressure on them to deliver better performance or they risk being dismissed if the vote does not pass.

So far, there are only a handful of studies investigating the effectiveness of SOP in promoting pay-for-performance in the corporate world. Ferri and Maber (2013), by analysing the 750 largest UK firms, conclude that investors have utilised (advisory & non-binding) SOP to pressure companies to raise the sensitivity of executive compensation to weak performance. Similarly, Cuñat et al. (2016), by using a sample of 250 firms listed on S&P 1500 over the period 2006-2010, test the influence of adopting SOP on firm performance and conclude that companies passing SOP have higher ROA, return on operating assets, ROE and Tobin's Q. Correa and Lel (2016) is another influential study along this line of investigation. They select Tobin's Q as a performance proxy, and report that Tobin's Q is positively affected by the SOP regulation in the 38 countries they investigated. An Australian study by Monem and Ng (2013) also offers evidence of an improved link between executive pay and stock returns.

Earlier studies examining the impact of the SOP regulation on pay-for-performance often employ a variety of performance measures, but draw no distinction between measures that are closely aligned with management efficiency and those that are not. For example, Cuñat et al. (2016) test firm performance using ROA, ROE, Tobin's Q, EPS and labour productivity, whereas Ferri and Maber (2013) select only ROA as a performance proxy for their UK study. Tobin's Q as a performance proxy has been widely employed, not only by studies related to SOP but also by those investigating the link between corporate governance mechanisms and firm performance (e.g., Brown and Caylor, 2009; Ammann et al. 2011; Adams and Mehran, 2012).

In this study, performance measures reflecting management efficiency should be explicitly distinguished from those reflecting stock market performances. This distinction is necessary because r*esearchers in experimental psychology and in finance have found that most people/investors tend to "overreact" to unexpected and dramatic news events (*see for example, De Bondt and Thaler, 1985; Daniel et al., 1998). Furthermore, *stock market movements are significantly influenced by industry and market factors outside the control of managers*. Thus, performance measures based on stock market returns, such as Tobin's Q, EPS and total shareholder return (TSR), are not the most appropriate measures of management efficiency or business strategy success.

That leaves us with only accounting based performance metrics for the purpose of measuring management efficiency. Van Clieaf et al. (2014), however, criticise traditional accounting-based performance measures claiming that they fail to account for invested capital level, capital cost, or future value built into enterprise valuation. IGOPP (Institute for Governance of Private and Public Organisations, 2012) recommend that return on invested capital (ROIC) and economic profit (EP) are better measures of long-term corporate health. In line with IGOPP, Van Clieaf et al. (2014) also point out that ROIC and EP are more appropriate as a long-term performance gauge for long-term CEO pay.

Apart from measurement issues, the research design of previous empirical studies also did not account for the mechanism through which SOP votes influence management efficiency sensitivity of executive pay (e.g., Ferri and Maber, 2013; Correa and Lel, 2016). In other words, prior research examines the direct link between SOP and firm performance, while failing to explicitly investigate the intermediate stage through which SOP votes influence management efficiency via the pay contract, as was intended by regulators and policy makers.

This study contributes to the debate between optimal contract and managerial power theories, by offering fresh evidence from the new corporate era of SOP. The four Anglo-Saxon economies, namely, Australia, Canada, the UK, and the USA are selected as the focus of this study because these four countries have embraced different forms of the SOP rule, thus providing a specimen for each. Based on a sample of 1931 publicly listed companies, the findings of the current study show that optimal contract theory prevails over managerial power theory only in the UK and the USA. One explanation is that the UK is the only country which has a *binding* SOP law among the sampled countries. However, this explanation is dropped in view of Ferri and Maber (2013), who examine the period when the UK had advisory SOP votes and found that the rule succeeded in raising the performance sensitivity of executive pay. Another possible explanation, with reference to managerial power theory, is that UK companies have a distinctively low average CEO duality ratio among the boards (1%, instead of 4%, 10% and 45% in Australia, Canada and the USA respectively).

This study also provides evidence that although SOP does not strengthen the pay-efficiency link directly, it does promote management efficiency in Canada, the UK and the USA by at least one of the efficiency measures. With reference to Cuñat et al. (2016), it is be speculated that this efficiency improvement comes because of the pressure from shareholders' active monitoring. Furthermore, multiple evidence emerging from this study suggests that stock market returns are driven by factors beyond the control of corporate managers. Thus, empirical studies that rely on market-based performance measures are likely to give a distorted picture of management efficiency, the optimality of pay contracts and the effectiveness of the SOP rule.

3.2 Letirature Review and Hypothesis Development

3.2.1 Literature review

Although there are few studies examining how SOP regulation affects firm performance via its influences on executive pay, the literature on pay-for-performance has been well established. This literature is led by two important postulations, the optimal contracting and the managerial power theories (Bebchuk and Fried 2003). On the one hand, optimal contracting theory views contracts for manager pays as a free market product created from negotiations between effective company boards and senior managers, leading to compensation packages that efficiently take together the interests of top executives and shareholders. If this theory holds, one would anticipate a close association between

executive compensation and firm performance. On the other hand, managerial power theory suggests that CEO compensations often results from negotiations between dependent boards and influential executives, hence increase managerial rather than shareholders' interests.

Managerial power theory implies two distinct agency conflicts. First, corporate executives have some degree of control of their board of directors who sets executive pay. Second, corporate executives are able to leverage their power over their boards to obtain excessive compensation. Managerial power theory expects no correlation between pay and performance, although it is possible for executives to be rewarded for 'luck' (i.e. for improved performance outside the executive control, such as a general improvement in the broader macroeconomic and political environment) (Ntim et al. 2017).

Although, the internal workings of the top management team, and their importance for company performance, are hard to quantify or observe (Bebchuk et al. 2011), it is possible to test the relationship between CEO pay and firm performance with necessary controls for the influences of other variables. Existing empirical studies investigating pay-for-performance has produced mixed results (See, Zhou, 2000; Buck et al. 2008; Matolcsy and Wright, 2011; Ntim et al. 2017; and Kent et al. 2018). Jensen and Murphy (1990), for example, using a sample of 1049 US firms and conclude that CEO wealth shifts $3.25 for every $1,000 change in shareholder wealth. Hubbard and Palia (1995), using stock return as a performance proxy, also find a strong pay-performance relation in deregulated interstate banking markets.

Firth et al. (2006) investigate CEO compensation in 549 China's listed companies during 1998-2000. Similar to Jensen and Murphy (1990); Ntim et al. (2017), they found a positive relationship between executive compensation and company performance as measured by both accounting and shareholder wealth terms. The coefficients are however statistically insignificant for companies having a State agency as the major shareholder, implying that these firms do not use performance related pay. Additionally, Buck et al. (2008) collected a sample of 601 Chinese companies to test whether China's unique institutional environment has produced outcomes consistent with those from developed economies. Their findings show that CEO pay and corporate performance mutually influence each other through both reward and motivation.

In contrast, Bebchuk et al. (2011) examine the link between the CEO Pay Slice (CPS) and firm value as measured by Tobin's Q. By using OLS regression, their analysis indicates a negative relationship between CPS and Tobin's q as well as they report that CPS is related to lower accounting profitability. However, Forbes et al. (2016) test the impact of inequality in executive pay awards on firm performance. Their result points out that the influence of CEO compensation inequality on shareholders' returns depends on the board size, where large firms have large board of directors and thus they have higher level of CEOs compensations.

According to the argument above CEO compensation is still a source of controversy. Therefore, many countries in the world adopted the SOP regulation, particularly in the UK as the first nation introduced this law, following by Australia, the US as a rule and Canada as a policy. This regulation allows shareholders the right to vote on executives' remuneration at annual general meeting.

The impact of SOP on CEO compensation has been tested by many studies (e.g., Conyon and Sadler, 2010; Ferri and Maber, 2013; Monem and Ng, 2013; Burns and Minnick, 2013; and Balsam et al., 2016). However, in order to avoid negative shareholders' votes on firms' compensation plan and an awful reputation in the labour market, executives have incentives to improve corporate performance (Brunarski et al. 2015). In addition, SOP law makes enough pressure on managers to be more active in generating large profits and improving performance (Cuñat et al. 2016).

However, to date, there is a handful of studies have investigated the impact of adopting SOP on firm performance (see, for example, Ferri and Maber, 2013; Cun˜at et al. 2015; and Correa and Lel, 2016). Ferri and Maber (2013) by analysing 750 largest UK firms conclude that investors have utilised SOP to pressure companies to rise the sensitivity of executive compensation to weak performance. Using a sample of 250 firms listed on S&P 1500 over the period 2006-2010, Cuñat et al. (2016) test the influence of the adoption of SOP on firm performance. By using a regression discontinuity (RD), they conclude that companies passing SOP have a 5.1% higher ROA, a 4.7% higher return on operating assets, higher Tobin's Q (16%) and ROE (7.5%). In addition, Correa and Lel (2016) investigate whether SOP regulations are associated with shifts in company value around the world. By selecting Tobin's q as

performance proxy, they report that a stronger link between executive compensation and enterprise performance.

The literature cited above shows that the relation between CEO pay and performance and their findings are mixed as well as the empirical evidence on the impact of SOP on firm performance is scant, especially a few studies focus the effect of shareholders' votes on performance.

3.2.2 Hypothesis Development

Prior academic papers related to CEO pay and SOP votes gauged performance by employing proxies mainly based on accounting and market measures. For example, Cuñat et al. (2016) test firm performance by using ROA, ROE, Tobin's Q, EPS and labour productivity, whereas Ferri and Maber (2013) selected only ROA as a performance proxy for their UK study. Tobin's Q as performance proxy has been widely employed by previous empirical studies, not only in studies on the impact of SOP on performance (see Cuñat et al. 2016; Correa and Lel, 2016) but also in studies interested in the link between corporate governance mechanisms and firm performance (e.g., Brown and Caylor, 2009; Ammann et al. 2011; and Adams and Mehran, 2012).

Howevere, Van Clieaf et al. (2014) criticised the traditional performance measures which do not take into account invested capital level, capital cost, or future value built into enterprise valuation. They further argue that EPS and TSR (total shareholder return) are not reliable measures of management efficiency or business strategy success, because they are significantly influenced by industry and market factors outside the control of the managers. IGOPP (Institute for Governance of Private and Public Organisations, 2012) also argues that quantitative performance indicators should not be stock-price related, but be of the sort which measures the long-term corporate health such as ROIC and EP. Therefore, In line with IGOPP, Van Clieaf et al. (2014) point out that ROIC or EP are more appropriate as a long-term performance gauge for long-term CEO pay. Fisch et al. (2018) also find that a critical driver of low stockholder support for CEO pay packages is the issuer's economic profit. They demonstrate that negative SOP votes reflect, to a significant degree, dissatisfaction with corporate performance in terms of economic profit. In addition, they show that Institutional Shareholder Services (ISS) recommendation are driven by an issuer's economic profit.

Based on the discussions above, I proceed to examine whether or not SOP votes have a significant impact on firm performance proxies. The hypotheses are stated as follows:

Hypothesis 1a: SOP votes have a positive impact on EP (economic profit).

Hypothesis:1b. SOP votes have a positive impact on ROIC (business performance).

Hypothesis:1c. SOP votes have a positive impact on Tobin's Q (market performance).

Moreover, as discussed earlier, there are two competing theories exploring the proposition of pay-for-performance: the optimal contract theory and the managerial power theory. Under optimal contract theory, pay packages are designed by boards or directors to incentivise CEOs to exert effort, exploit growth opportunities, and reject wasteful projects, while minimising the cost of doing so. However, empirical facts may appear inconsistent with optimal contract. For example, CEO wealth appears to bear little relation to firm performance. Such observation leads to the opposing managerial power theory, which states that compensation is decided by executives themselves, who seek to maximise their own wealth rather than shareholder value (Bebchuk and Fried, 2003). This highly influential view has sparked calls for major reforms in corporate governance to increase shareholder power. SOP is one such reform.

Under optimal contract, the interest of the CEO is aligned with those of shareholders, and the CEO maximises shareholder wealth to maximise their own pay. In this scenario, the performance of company is highly sensitive to executive pay; SOP will have no effect on this sensitivity. Thus, the following hypotheses are proposed:

Hypothesis 2a: There is a positive relationchip between CEOs pay and management efficiency (Optimal contract theory prevails);

Hypothesis 2b: SOP has no effect on the management efficiency sensitivity of CEO pay (MES) (Either optimal contract theory prevails, or the effectiveness of SOP is hindered by other unknown factors).

On the contrary, under managerial power, CEOs set their pay level, which bears no relation to the performance of the company they run. In such an event, SOP would put pressure on the management to improve company performance. Thus, it is hypothesized that:

Hypothesis 3a: CEOs' pay is not related to their management efficiency (Managerial power theory prevails);

Hypothesis 3b: SOP improves the management efficiency sensitivity of CEO pay (MES) (Managerial power theory prevails).

Further, given the argument earlier that the stock market tends to overreact to news and stock market returns are influenced by factors beyond the control of company executives, the following hypotheses are proposed:

Hypothesis 3a: The compensation package of a CEO is not related to the market performance of the company they manage (Stock market returns are influenced by factors beyond the control of company executives);

Hypothesis 3b: In response to the SOP regulation, the market performance sensitivity of CEO pay (MPS) may or may not change in the same direction as MES; and when in the same direction, MPS will change to a greater extent than MES. (Stock returns do not truthfully reflect management efficiency because they are influenced by factors beyond the control of company executives and they overreact to news).

3.3 Data and methodology

3.3.1 Sample

Mason et al. (2016) suggest that the major factor that makes it difficult to interpret the findings of previous SOP studies is that these studies make no distinction between the *'many forms'* in which SOP is implemented. Based on this consideration, a comparative study is conducted to cover the four Anglo-Saxon economies that have implemented different types of the SOP legislation in recent years.

In 2002, the UK began requiring an *advisory* shareholder vote on the annual executive and non-executive director compensation practices of UK-incorporated quoted companies. In 2013, the *Enterprise and Regulatory Reform Act* made SOP voting *binding* rather than *advisory* in the UK, thus providing shareholders with the capability to block a proposed excessive managerial compensation package. In July 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), providing for an *advisory* SOP vote for most large US public companies since January 2011 (smaller companies, which have less than $75 million market value of common equity, were allowed a two-year delay until 2013) (Balsam et al. 2016; Stathopoulos and Voulgaris, 2016). In Australia, *mandatory and advisory* votes on pay packages became effective on 1 July 2004, but a new rule called the *two-strike regulation* took effect from 1 July 2011 onwards. Canadian policy does not currently require public companies to give their shareholders

an advisory (or non-binding) vote on executive pay. According to Stathopoulos and Voulgaris (2016), although the SOP votes policy was recommended by the Canadian Coalition for Good Governance (CCGG) in September 2010, its adoption is, however, voluntary. Such voluntary votes may be binding or non-binding, as determined by the board, and may be specified in internal corporate policy. As the number of companies that adopted SOP policy was small in 2011 compared to in 2012, the Canadian sample starts in 2012.

Table 3.1 Sample selection

	Australia	Canada	UK	USA
Initial sample	200	122•	350	1500
Missing firms data••	30	26	34	151
Final sample	170	96	316	1349
Time of period•••	2012-2015	2012-2015	2014-2016	2011-2015

•Although the S&P/TSX index comprises 250 firms, the number of companies that have adopted SOP regulation is 122 firms.

•• Firms are excluded because SOP votes' data are not available; they are merged with others, and a firm has been listed for one year during the period of study.

••• The time is different among the four countries due to the year of adopting the SOP rule and subsequent changes. In Australia, for example, the two-strike rule is active from July 2011; in Canada advisory vote is approved from 2012; in the UK, a binding vote became effective from October 2013; and in the USA, advisory voting is adopted from 2011.

To be included in this study, a company must have the required SOP voting data in the sample period. In addition, firms are excluded if they were unlisted from the relevant index or merged with or acquired by another firm or listed for only one year during the period of study. The initial sample consists of 200 firms listed in S&P/ASX 200, 250 firms in S&P/ TSX, 350 companies in FTSE 350, and 1500 firms in S&P400, S&P500 and S&P600. From this initial sample, 30 companies are dropped from S&P/ASX, and 26 from S&P/TSX due to missing SOP voting data or some essential financial data. Also 34 firms are excluded from FTSE 350, and 151 firms from S&P400, S&P500 and S&P600 due to lack of data on SOP votes and/or M&A activities. Furthermore, the value of each variable included in the statistical analysis is restricted to be between the 1st and the 99th percentile to avoid the extreme values problem, leaving the final sample with 170 firms from Australia, 96 from Canada, 316 from the UK and 1349 from the USA. No distinction has been made between financial and non-financial firms as some non-financial conglomerates have considerable interests in more than one

area of business. For example, Ford and General Electric has substantial exposure to financing business. The above discussions are summarized in Table 3.1.

3.3.2 Main variables

Measuring performance

A distinctive feature of this study is that performance measures related to management efficiency are distinguished from those that reflect market performance. For management efficiency, ROIC,and EP are employed, while for market performance, Tobin's Q is adopted. The efficiency of a management team is commonly assessed by its ability to maximise surplus for given resources deployed. By definition, ROIC is the net operating profit after tax (NOPAT) expressed as a percentage of total invested capital. Since NOPAT is calculated as sales revenue subtracted by cost of goods sold (COGS), by operating cost which includes selling, general and administrative expenses (SG&A) and by research and development expenses (R&D), ROIC can be expressed in terms of three accounting ratios: COGS/sales, SG&A/sales and R&D/sales. These ratios respectively indicate a firm's production efficiency, marketing efficiency and R&D efficiency. Thus, it can be argued that ROIC is an appropriate measure in assessing the efficiency of a management team in allocating the capital under its control (also see Tang and Liou 2010; Lin et al.,2014; Van Clieaf et al., 2014; Oh and Park 2015, for a discussion of ROIC suitability).

Economic profit (EP) is another measure adopted here to evaluate the efficacy of the management team's business strategy in generating value. EP is calculated by subtracting the cost of all capital from NOPAT. Its emphasis is on value creation, rather than accounting profit, which accounts only for the cost of debt but ignores the cost of equity capital. Positive accounting profit does not necessarily mean value creation, but a positive EP would mean that the management has done well in creating wealth for shareholders. Long-term cumulative negative economic profit would mean that a company is facing significant challenges with its economic model, business strategy and/or executive leadership (Van Clieaf et al. 2014). There are two other reasons to adopt this proxy. *Firstly*, the IGOPP (2012) suggests that EP should not be highly volatile, and it is not easily manipulated. *Secondly*, the outcome of shareholder votes is greatly driven by EP; stockholders appear to vote against CEO pay packages primarily in firms that are suffering from poor economic profit (Fisch et al., 2018). In other

words, economic profit plays a vital role in the rejection or approval of executive compensation packages.

Following earlier studies (e.g. Chen et al., 2010; Conheady et al., 2015), this study adopts Tobin's Q as a market performance measure. Tobin's Q is a forward-looking measurement that reflects the market valuation of the company's assets (Isakov and Weisskopf, 2014). It is also a sign of the wealth position of the company's stockholders and creditors (Haniffa and Hudaib, 2006; Carter et al., 2010), hence signalling the attractiveness of the company for new fund providers. Mollah and Zaman (2015) also suggest that Tobin's Q provides a market valuation of both tangible and intangible assets of a company, such as goodwill and market power. The intangible asset element should affect both accounting and market-based returns. A priori, given evidence on market overreaction, the researcher would expect the market to overreact to news related to both types of assets; but given the difficulties of assessing a company's intangible assets especially in a changed regulatory environment, much of such overreaction should be related to the intangible part of the company's assets. This possibility will be tested later in the empirical analysis.

Measures of independent variables

The key independent variables of interest are CEO pay and SOP votes and their interaction term. However, following earlier studies (e.g. Elshandidy and Neri 2015), four corporate governance (CG) mechanisms are employed as control variables. These are board size, board independence, compensation committee independence (CCI) and CEO duality. Board size is the number of directors serving on the board, and board independence reflects whether the directors are related to the top company managers and/or have business transactions with the firm. CEO duality occurs when the CEO also holds the position of the chairman of the board; and CCI indicates the number of independent directors serving on the compensation committee. Also employed as control variables are firm financial characteristics: firm size, stock return, stock volatility, market to book ratio, free cash flow, leverage, and capital expenditure ratio. In general, the firm performance is expected to increase with firm size, firm growth, free cash flow, stock return and firm investements. However, firm performance might rise by leverage and firm risk depends on firm's strategies. In addition, GDP growth is used as a variable to control for macroeconomic environment. YEAR and INDUSTRY

Table 3.2 Definition of variables

Variables	Exp signs	Definition	Source
		Dependent variables	
Economic profit (EP)		EP is calculated as [Net operating profit after tax (NOPAT) minus capital charge] / [total assets]	Bloomberg database
Return on invested capital (ROIC)		ROIC is calculated as [Net operating profit after taxes (NOPAT) divided by invested capital].	Bloomberg database
Tobin's Q		Tobin's Q= equals (Market Capitalisation + total liabilities + preferred equity + minority interest) / total assets.	Bloomberg database
		Key independent variable of interests	
Ln CEO total pay (CEOpay)	+	CEO total pay is calculated as the sum of salary, bonus, other annual, the total value of restricted stock granted, stock options granted, long-term incentive pay-outs, and others.	Bloomberg database and firm's annual reports
SOP votes for (SOPfor)	+	The number of votes for executive compensation divided by total votes for and against CEO pay	Bloomberg database and firms' annual reports
SOPfor*CEOpay	+	Interaction variable between SOP FOR and CEO pay.	n.a.
		Control for CG mechanism	
Ln board size (board size)	+	The number of directors over the company's board size	Bloomberg database and firms' annual reports
Compensation committee independence (CCI)	+	The percentage of independent compensation committee members over board size.	Bloomberg database and firms'annual reports
CEO duality	?	Duality is coded one if the chair and the CEO are the same person and zero otherwise	Bloomberg database
		Control for firm financial characteristics	
Market capitalisation (Firm size)	+	The total current market value of all of a company's outstanding shares stated in the pricing currency.	Bloomberg database
Stock return (SR)	+	Calculated as (stock price at the end of year t minus the stock price at the end of year t-1 plus dividends per share) / stock price at the end of year t-1.	Bloomberg database
Market to book ratio (M/B)	+	The ratio of the stock price to the book value per share.	Bloomberg database
Stock Volatility		The standard deviation of the day to day logarithmic price changes and expressed in percentage of the day before the current.	Bloomberg database
Free cash flow ratio (FCF)	+	Free cash flow (FCF) represents the cash that a company can generate after laying out the money required to maintain or expand its asset base scaled by total assets.	Bloomberg database
Leverage (LEV)	?	The ratio of the total amount of debt relative to assets.	Bloomberg database
Capital expenditure (CAPEX)	+	The amount the company spent on purchasing tangible fixed assets divided by total assets.	Bloomberg database
Intangible assets ratio (IAR)	+	IAR is calculated as total intangible assets scaled by total assets.	Bloomberg
		Control for macroeconomic environment	
GDP growth		The GDP growth rate measures how fast the economy is growing	World Bank

Notes: This table reports the variables' definition and their measures as well as the data's source.

are included to prevent the results beingdriven bytime series andindustry effects, respectively. Table 3.2 above summarises the definitions and sources of all variables used in this research.

3.3.3 Empirical design

The following three empirical models are set up to test the hypotheses constructed in section 3.2 and to examine the influence of SOP votes on EP and ROIC as firms' management efficiency; and Tobin's Q as firms'market performance. The same set of control variables is employed for all three equations (see Table 3.2 for variable definitions).

$$EP_{it} = a_0 + a_1 SOPfor_{it} + a_2 CEOpay_{it} + a_3 SOPfor_{it} * CEOpay_{it} + a_4 CG\ mechanisms_{it} + a_5 financial\ charactrictics_{it} + a_6 GDP\ growth + YEAR + \text{INDUSTRY} + e_{it} \quad (1)$$

$$ROIC_{it} = a_0 + a_1 SOPfor_{it} + a_2 CEOpay_{it} + a_3 SOPfor_{it} * CEOpay_{it} + a_4 CG\ mechanisms_{it} + a_5 financial\ charactrictics_{it} + a_6 GDP\ growth + YEAR + \text{INDUSTRY} + e_{it} \quad (2)$$

$$Tobin'sQ_{it} = a_0 + a_1 SOPfor_{it} + a_2 CEOpay_{it} + a_3 SOPfor_{it} * CEOpay_{it} + a_4 CG\ mechanisms_{it} + a_5 financial\ charactrictics_{it} + a_6 GDP\ growth + YEAR + \text{INDUSTRY} + e_{it} \quad (3)$$

As SOP is intended to improve pay-for-performance, it is expected that with the introduction of the SOP regulation, management efficiency will become more sensitive to CEO pay. This improvement may express itself via a_3 , which captures the direct interaction between SOP and CEO pay; or via a_1 , which captures other channels of interaction such as pressures on the management via increased shareholder monitoring. Thus, the total effect of SOP on management efficiency (mitigated by the existing level of CEO pay) is given by $a_1 + a_3 \times CEOpay$. The effect of SOP on market performance can be derived similarly.

MES and hence the test for optimal contract or managerial power is reflected by a_2 in equations (1) and (2), while MPS is captured by a_2 in equation (3). With the mitigating effect of SOP, the total degree of association between management efficiency (market performance) and CEO pay is $a_2 + a_3 \times SOPFOR$.

3.3.4 Methodology and data description

It is argued that the coefficient estimates may be unstable if the degree of correlation among the independent variables exceeds 80% (Gujarati and Porter 2010:254). The correlation analysis shows that the highest correlation coefficient in the study's sample is less than the recommended threshold of 80% (see Tables A.6, A.7, A.8 and A.9 in the Appendix A). In addition, this study applies the Variance Inflation Factor (VIF) and tolerance tests for all variables. O'Brien (2007) suggests that a VIF of more than 10 and tolerance of less than 0.10 indicate a problem of multicollinearity. The results of these tests suggest that multicollinearity is not a concern (see Table A.10 in the Appendix A).

The empirical models are estimated using panel data and the LIML estimator. Researchers are nowadays more conscious of the endogeneity problem when dealing with regression models (Wansbeek and Prak, 2017). Endogeneity can happen when there is a link between the error term and one or more independent variables, and its presence will cause the OLS estimator to fail.

The endogeneity problem can be detected by using the Hausman specification test, also called the Durbin–Wu–Hausman (DWH) test. The procedures proposed by Beiner et al. (2006) and Schultz et al.(2010), are followed and described below:

1) Regress each explained variable on all other regressors and control variables to produce the relevant residuals.
2) To identify if X_{1it} is endogenous or exogenous, this variable is now included as an explained variable rather than the independent variable.
3) For each regressor in the model (For example, X_{1it}), residuals are estimated by utilising the generic STATA command, '*predict new* X_{1it}*, residual*'. The null hypothesis states that the independent variable is exogenous hence uncorrelated with the residuals.[14]
4) If the DWH test rejects the null, then the independent variable is correlated with the residuals (error term).

In this study, DWH tests indicate that *Ln market capitalisation* as a firm size measure is an endogenous variable.

Estimators such as GMM, 2SLS and LIML have all been suggested for dealing with the endogeneity issue. The LIML estimator has been selected as Bascle (2008) demonstrates that the advantages of the LIML estimator are that: (i) it is virtually unbiased even with weak instruments, and it may perform better than the 2SLS

[14]. See DWH test procedures in STATA at https://www.stata.com/support/faqs/statistics/durbin-wu-hausman-test/

estimator; (ii) it is median unbiased; (iii) in the case of small sample, LIML has been characterized as "the most reliable". Baltagi (2013:171) also reports that LIML bias is always smaller than that of GMM estimator and Fixed Effect Model when T < N.

Like GMM and 2SLS, the LIML estimator relies on instruments which satisfy two primary assumptions: i) The instrument Z is (sufficiently) correlated with the endogenous variable X (the relevance restriction); ii) The instrument z affects dependent variable y only through X. In other words, Z itself does not cause y (the exclusion restriction). Despite its importance, the validity of an exclusion restriction cannot be tested as the condition involves an unobservable residual. Exclusion restrictions are often imposed intuitively by the researcher based on plausible theories (Baum et al., 2003).

Earlier researchers, in general, resort to employ the lagged values of dependent and independent variables as instruments (see for example De Andres and Vallelado, 2008; Nguyen et al., 2014). This is a valid practice with respect to the exclusion restriction if we believe that history does not directly cause the current outcome of interests but relates to the latter via its contemporary causal factors. Specifically, this study uses the lagged values of market capitalisation, independent directors, and GDP growth as instruments.

The Anderson–Rubin (AR) test and F test of the first-stage regression[15] are used to test the relevance and instruments' validity. Both test two different things simultaneously. One is whether the instrumental variables are uncorrelated with the error term, the other is that the equation is misspecified and that one or more of the excluded exogenous variables should, in fact, be included in the structural equation. Hence, a significant AR statistic represents either an invalid instrument(s) or an incorrectly specified structural equation. Significance of the F test, on the other hand, indicates the validity of the instrument(s) (Baum et al. 2003). In addition, weak instruments can be identified via a minimum eigenvalue statistic, which has a value identical to that of the F statistic. The concern for weak instruments is increased if the F statistic is below 10. If the minimum eigenvalue statistic is higher than the critical

[15] The first stage regressions are reduced form regressions of the endogenous variables *X1* on the full set of instruments *Z*; the relevant test statistics here relate to the explanatory power of the excluded instruments *Z1* in these regressions. A statistic commonly used is the R^2 of the first-stage regression with the included instruments "partialled-out" (Baum et al., 2003).

values based on the LIML size, then the instrument(s) is (are) not weak and vice versa[16] (see. Stock and Yogo, 2005).

The results of testing for valid and weak instruments are displayed at the end of Tables 3.4 & 3.5, along with the regression coefficients and R-squares. As can be seen, the *F test* of first-stage regression is statistically significant at 1% and takes values which are higher than 10, and the AR test statistics are statistically insignificant. This indicates that our instrumental variables are valid. Furthermore, the minimum eigenvalue statistics are higher than the critical values and therefore our instruments are not weak.

Table 3.3 shows descriptive statistics for key variables employed in the analysis. As presented in the table, the median of economic profit (EP) is AUS$ -11 million in Australia, CA$ -42 million in Canada, and US$-7 million in the USA but in the UK is 19 million. This suggests that firms in these three countries – Australia, Canada & the USA- have a significant challenge with its economic model, business strategy and/or executive leadership. The median value of ROIC ratio is 8%, 5%, 10% and 8% in Australia, Canada, the UK and the USA respectively. Van Clieaf et al. (2014) argue that a positively ROIC is a powerful indicator that a firm has a winning strategy, a competitive advantage, and execution quality. Thus, by ROIC, UK firms performed the best in this peer group. Table 3.3 also displays that the median value of Tobin's Q for the selected samples from the four countries is respectively 1.42, 1.36, 1.50 and 1.52. By this measure, the median firms in the UK and US were on a par with each other in performance. The values of Tobin's Q suggest that the market value of the median firm is larger than its amortised historical cost of all assets in these countries (Carter et al. 2010).

Further, the median of SOP FOR ranging between 93.7 % and 97.5 %. Such suggests that higher SOP votes support indicates that shareholders are satisfied on firm performance. In addition, the interaction variable between SOP votes and CEO pay has average between 12.79 and 14.14.This variavle is included in this research because the SOP regulatin is directly associated with executives pay. With respect to corporate governance mechanisms, the mean and median values are quite close for each of the CG mechanisms. As reported in Table 3.3, the mean (and median) of board size is 7, 10, 9

[16] https://www.stata.com/manuals13/rivregresspostestimation.pdf

and 10 directors respectively. Canadian and US firms have, on average, larger boards compared to their peers in the other three countries. Beiner et al. (2006) demonstrate that small boards might be more effective than large boards because of decreasing coordination and communication problems. On an average (median) they show that the percentage of independent with the minimum of 63% and maximum of 89%, which indicates that Canadian firms boards have higher proportion of independent directors, on average and median, compared to others as well as the independent director plays an

Table 3.3 Descriptive statistic for all samples described in Table 3.1

	Australia					Canada					UK					USA				
Variables	mean	median	SD	min	max	mean	median	SD	min	max	mean	median	SD	min	max	mean	median	SD	min	max
EP (million)	-280	-11	1287	-14064	5800	-513	-42	3087	-21740	26160	-266	19	3681	-42401	64133	-107	-7	2978	-72911	72173
ROIC	0.08	0.08	0.13	-0.43	0.51	0.02	0.05	0.12	-0.27	0.37	0.12	0.10	0.14	-0.23	0.76	0.09	0.08	0.10	-0.25	0.48
Tobin's Q	1.95	1.42	1.60	0.64	9.39	6.93	1.36	9.39	0.89	25.41	1.89	1.50	1.27	0.76	8.91	1.89	1.52	1.15	0.81	7.38
SOP FOR	0.921	0.969	0.108	0.482	0.999	0.830	0.937	0.250	0.148	0.996	0.936	0.975	0.095	0.505	0.990	0.916	0.962	0.118	0.396	0.998
SOP FOR* CEO pay	13.49	13.89	1.75	6.06	16.34	12.79	14.25	3.86	2.01	16.27	13.50	13.82	1.52	6.64	16.30	14.14	14.61	1.87	5.71	17.25
BSIZE	7	7	1.88	4	12	10	10	2.54	5	17	9	9	2.19	5	16	10	9	2.29	5	16
INDDIR	0.73	0.78	0.16	0.25	1.00	0.84	0.89	0.09	0.55	0.94	0.63	0.64	0.13	0.25	0.89	0.82	0.86	0.10	0.54	0.93
CCI	0.46	0.44	0.15	0.10	0.83	0.42	0.40	0.11	0.19	0.78	0.46	0.44	0.14	0.17	0.75	0.43	0.40	0.12	0.20	0.83
CEO duality	0.04	0	0.19	0	1	0.10	0	0.30	0	1	0.01	0	0.12	0	1	0.45	0	0.50	0	1
MC (million)	8130	1810	20200	115	124000	16400	6160	22700	570	116000	6690	1870	13800	155	80400	11200	2610	25900	184	178000
SR	0.22	0.18	0.47	-0.63	2.46	0.46	0.19	0.83	-1.34	3.71	0.10	0.06	0.35	-0.60	2.03	0.14	0.11	0.33	-0.58	1.32
M/B	2.88	1.84	2.84	0.40	14.45	1.85	1.56	1.87	-0.40	12.03	3.99	2.54	5.33	0.41	37.72	0.92	0.16	1.94	-0.71	11.99
SV	0.33	0.31	0.13	0.13	0.84	0.28	0.25	0.13	0.11	0.71	0.30	0.27	0.12	0.16	0.94	0.32	0.30	0.12	0.14	0.67
FCF	0.05	0.04	0.10	-0.30	0.39	0.01	0.01	0.06	-0.21	0.20	0.05	0.04	0.08	-0.17	0.38	0.05	0.05	0.07	-0.19	0.27
LEV	0.22	0.21	0.15	0	0.65	0.20	0.18	0.17	0	0.63	0.19	0.17	0.18	0	0.84	0.11	0.07	0.13	0	0.68
CAPEX	0.05	0.03	0.08	0	0.60	0.06	0.06	0.06	0	0.26	0.04	0.03	0.05	0	0.31	0.05	0.03	0.05	0	0.27
Ln CEO pay	14.66	14.66	0.88	12.39	16.51	15.47	15.45	0.75	13.63	17.17	14.42	14.41	0.83	12.33	16.50	15.42	15.47	0.93	12.84	17.45
GDP growth	0.03	0.03	0.00	0.02	0.04	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.00	0.02	0.03

Notes: The table reports the summary statistics for all variables. ***Dependent variables*** are: Economic profit (EP), Return on invested capital (ROIC) and Tobin's Q. ***Independent variable*** is SOP FOR, which is calculated as (the number of votes for executive compensation divided by total votes for and against CEO pay); SOP FOR*CEO pay (interaction variable between SOP FOR and CEO compensation). ***Corporate governance mechanisms are:*** BSIZE (board size), INDDIR (independent directors), CCI (compensation committee independence), and CEO duality (Indicates whether the company's Chief Executive Officer is also Chairman of the Board or not). ***Firm financial characteristics*** are: MC (market capitalisation, which is the total current market value of all of a company's outstanding shares stated in the pricing currency), SR (stock return), M/B (market to book ratio), SV (stock volatility), FCF (free cash flow ratio), LEV (leverage), and CAPEX (capital expenditure ratio). ***CEO pay level;*** Ln CEO pay, which is calculated as the natural logarithm of the sum of salary, bonus, other annual, the total value of restricted stock granted, stock options granted, long-term incentive pay-outs, and others. And ***GDP growth*** (Gross domestic product (GDP) growth, which is macroeconomic level and measures how fast the economy is growing.

important role to ensure transparent financial reporting (Erkens et al. 2012). Moreover, the median of the percentage of independent directors on compensation committee are (44%, 40%, 44% and 40%) in Australia, Canada, the UK and the USA respectively. An effective compensation committee will design and implement pay arrangements that align the interests of shareholders and executives managers, as a result, lead to stronger firm performance (Salama and Putnam, 2013). The Table 3.3 also reports the average of CEO duality, which is (4 %, 10%, 1% and 45%) in the four countries. However, the monitoring role of board is compromised when a manager controls partially or fully the board (Bai et al., 2004). This result indicates that the UK firms have the lowest managerial power compared to other countries and this result is consistent with the recommendations of corporate governance in the UK but the US executives are more power than other managers and thus they might restrict the role of board.

With related to the firm financial characteristics for all samples in Australia, Canada, the UK and the USA are; firm's market capitalisation, on average, is ($ 8,130, $16,400, £6,690 and $11,200 million). As can be seen, firms listed in the USA have the higher company value, which suggests that large companies can be affected by having more capacity to create internal funds, having a greater variety of capabilities and having issues of coordination which might negatively impact performance (Rashid et al. 2010). Another financial characteristic is stock return, which is, on median, (18%, 19%, 6 and 11%) in Australia, Canada, the UK and the USA respectively as well as the result points out that the stock performance is highest in the UK, following by Australia, USA, Canada and. In addition, firm's growth, on median, is (1.84, 1.56, 2.54 and 0.16) times, which shows that the growth of UK companies is greater than others. This finding also suggests that companies listed in FTSE 350 can increase their business very quickly but profitability might be achieved in long-term. Furthermore, the ratio of free cash, on median, is 2% in Canada, which is lower than other samples and thereby Canadian firms have less ability to pursue opportunities that enhance shareholder value.

Debt structure as measured by leverage is lower in the USA compared to other countries. The median leverage is (21%, 20%, 19% and 7%). Jensen (1986) debates that higher level of leverage might generate financial distress, which can restrict a company's ability to exploit growth opportunities as well as he suggests that higher leverage can rise performance by decreasing agency conflicts associated with having excess cash flows by opportunistic managers.

Last financial characteristic is the ratio of capital expenditure, which is larger in Canada and lower in the other countries. This implies new projects or investments are undertaken by Canadian firms and whereby the free cash flow ratio in Canada is lower than others. The Table 3.3 also shows the natural logarithm of CEO total pay as control variable has an average of (14.66, 15.47, 14.42, 15.42) in Australia, Canada, the UK and the USA respectively. Finally, the mean of GDP growth as macroeconomic level is (3%, 2%, 2% and 2%) in Australia, Canada, the UK and the USA respectively, showing that Australian economy is higher growing than other three economies.

3.4 Messages from panel regression and simple statistics

3.4.1 Does say-on-pay improve firm perofrmnce measures ?

Panels A, B and C of Table 3.4 display the findings from LIML estimation of the SOP votes impact on performance (EP, ROIC & Tobin's Q). In panel A, the results of the first model show that the influence of SOP votes on performance as measured by EP is negative and statistically insignificant in Canada but positive and insignificant in Australia. A positive and significant impact of SOP votes on economic profit is found in the UK and the USA at 5% and 10% respectively. The findings of panel B in Table 3.4 indicate that the impact of SOP votes on ROIC is statistically significant and positive in Canada, the UK, and the USA at 1% and 10% but insignificant for the Australian sample. These results suggest that SOP votes have improved the business performance of firms. A significant and positive influence of SOP votes on Tobin's Q is identified in the USA at 1% but positive for others and statistically insignificant. Thus, this study concludes at this stage that there is overwhelming evidence that SOP rules have a positive impact on firms' performance in three out of the four countries examined.

3.4.2 Does say-on-pay enhance pay-for-performance?

Table 3.4 displays regression coefficients and a battery of model test statistics for two models of management efficiency (panels A & B) and one model of market performance (panel C). The regression analyses in columns 4 and 8 show that the management efficiency sensitivity of executive pay (MES) is positive and significant only for the UK sample, and the market performance sensitivity of executive pay (MPS) is negative and significant for all except for the UK sample in column 12, even when the direct interaction effect between CEO-pay and SOP-FOR is accounted for. Based on

MES and MPS, one might be tempted to conclude that, except for the UK companies, shareholders are not really concerned about pay-for-performance; either performance means the underlying fundamental management efficiency or the market perceives management efficiency. However, given the positive, statistically significant and economically non-negligible coefficient of SOP-FOR in most cases, pay-for-performance is at work, possibly via other mechanisms such as shareholders' monitoring pressures rather than directly via MES or MPS.

Three groups of variables are also included as controls: corporate governance mechanisms, firm financial characteristics, and macroeconomic environment. The following sections discuss their relevance for management efficiency and market performance.

3.4.3 The role of corporate governance mechanisms

As can be seen in Table 3.4, four corporate governance mechanisms are included in the model. Board size has a positive impact on EP and ROIC as both measures of management efficiency for Canadian and US samples in columns 3,5,7 and 9 , but negative and significant for Australia and insignificant for the UK. On the other hand, when Tobin's Q is performance proxy, this coefficient is negative and significant for all sampled countries except for Australia and Canada, and large in absolute value, indicating that market-viewed board efficiency may not necessarily reflect its actual efficiency. These findings are in line with a number of earlier studies. For example, Cheng (2008) and Mollah and Zaman (2015) found that board size has a negative effect on firm performance because the lack of coordination and communication among directors; in contrast, De Andres and Vallelado (2008), and Pathan and Faff (2013) find that board size has a positive impact on performance. Furthermore, the coefficients of independent director in the regression models for both EP and ROIC (management efficiency) and Tobin's Q (market performance) are nearly all negative and significant across all samples, implying that independent directors in the board do not promote management efficiency and are detrimental to market performance. These results are consistent with Carter et al. (2010) and Mollah and Zaman (2015), which suggest that while independent directors improve the monitoring, they may lack sufficient company-specific information for optimal decisions (Liang et al. 2013)This outcome supports the view that independent directors may not know enough of the business to benefit its operation.

Table 3.4 Test for the impact of shareholders' votes on management efficiency and market performance by LIML estimator

	Panel A: (Economic profit)				Panel B: (ROIC)				Panel C: (Tobin's Q)			
Variables	Australia	Canada	UK	USA	Australia	Canada	UK	USA	Australia	Canada	UK	USA
Independent variable												
SOP FOR	0.012	0.011	0.064*	0.015*	-0.004	0.154***	0.102**	0.051***	0.417	2.845*	0.122	0.313***
	(0.038)	(0.047)	(0.034)	(0.008)	(0.037)	(0.031)	(0.049)	(0.010)	(0.316)	(1.616)	(0.284)	(0.104)
Ln CEO pay	0.001	0.022	0.010**	-0.004***	-0.008	-0.022	0.019**	-0.002	-0.328***	-2.317***	-0.001	-0.153***
	(0.008)	(0.024)	(0.005)	(0.001)	(0.008)	(0.013)	(0.008)	(0.002)	(0.095)	(0.650)	(0.052)	(0.024)
SOP FOR* CEO pay	-0.003	-0.004	-0.005	-0.0002	0.003	-0.014**	-0.003	0.001	-0.042	-0.713*	-0.031	-0.046**
	(0.004)	(0.008)	(0.003)	(0.0008)	(0.005)	(0.006)	(0.004)	(0.001)	(0.057)	(0.372)	(0.024)	(0.019)
CG mechanisms												
Ln BZISE	-0.076***	0.126**	-0.010	0.022***	-0.049*	0.121***	-0.029	0.013**	-0.387	-2.383	-0.642***	-0.637***
	(0.027)	(0.055)	(0.018)	(0.004)	(0.026)	(0.039)	(0.034)	(0.006)	(0.294)	(1.733)	(0.209)	(0.068)
INDDIR	-0.058*	-0.210*	-0.037	-0.015	-0.006	-0.190**	-0.076*	-0.021*	-1.031***	-12.41***	0.031	-0.405***
	(0.029)	(0.107)	(0.025)	(0.009)	(0.032)	(0.082)	(0.043)	(0.012)	(0.262)	(3.997)	(0.256)	(0.140)
CCI	-0.050	0.115*	0.049*	0.037***	-0.041	0.029	0.129***	0.049***	0.196	-0.659	0.286	-0.200*
	(0.034)	(0.059)	(0.026)	(0.008)	(0.039)	(0.067)	(0.045)	(0.011)	(0.371)	(2.344)	(0.291)	(0.111)
CEO duality	0.003	0.012	0.046	0.0003	0.004	-0.002	0.055	0.003	0.001	-0.281	0.729*	0.019
	(0.014)	(0.031)	(0.037)	(0.002)	(0.017)	(0.023)	(0.041)	(0.002)	(0.175)	(0.970)	(0.377)	(0.025)
Firm financial characteristics												
Ln MC	-0.0001	-0.037***	-0.004	0.005***	-0.003	-0.009	-0.001	0.007***	0.136**	1.880***	0.039	0.219***
	(0.005)	(0.012)	(0.003)	(0.001)	(0.005)	(0.007)	(0.007)	(0.001)	(0.067)	(0.371)	(0.043)	(0.018)
SR	0.021**	0.007	0.013	0.018***	0.042***	-0.002	0.029**	0.040***	0.045	6.235***	0.161*	0.491***
	(0.010)	(0.012)	(0.009)	(0.003)	(0.011)	(0.010)	(0.013)	(0.005)	(0.091)	(0.616)	(0.093)	(0.056)
M/B	0.005***	0.005	0.005***	0.002***	0.008***	0.009*	0.012***	0.005***	0.373***	-1.148***	0.141***	0.124***
	(0.002)	(0.006)	(0.001)	(0.001)	(0.002)	(0.005)	(0.002)	(0.001)	(0.042)	(0.270)	(0.021)	(0.017)
SV	-0.390***	-0.936***	-0.128***	-0.109***	-0.174***	-0.168**	-0.075	-0.103***	1.178***	19.55***	-0.613**	0.816***
	(0.059)	(0.163)	(0.029)	(0.011)	(0.051)	(0.066)	(0.096)	(0.016)	(0.425)	(3.123)	(0.265)	(0.184)
LEV	-0.048*	0.138**	-0.050***	0.039***	-0.056*	-0.071	-0.145***	0.020	-1.506***	-10.23***	-1.267***	0.250
	(0.027)	(0.064)	(0.017)	(0.009)	(0.029)	(0.052)	(0.045)	(0.015)	(0.272)	(2.344)	(0.197)	(0.189)
FCF	0.525***	0.138	0.169***	0.504***	0.833***	0.208	0.306***	0.820***	1.313	4.415	3.145***	7.983***
	(0.056)	(0.169)	(0.056)	(0.019)	(0.073)	(0.139)	(0.095)	(0.028)	(1.010)	(6.064)	(0.748)	(0.414)
CAPEX	0.218***	0.293	0.220***	0.286***	0.199***	0.093	0.409***	0.516***	0.528	2.389	4.454***	6.648***
	(0.062)	(0.273)	(0.071)	(0.025)	(0.070)	(0.175)	(0.115)	(0.033)	(0.419)	(7.387)	(0.730)	(0.396)

Macroeconomic environment												
GDP growth	-6.959	-1.454	0.036	0.401**	-2.371	2.122**	0.330	0.722***	71.34	61.65	20.57	14.90***
	(5.035)	(1.253)	(3.213)	(0.195)	(5.281)	(0.863)	(3.948)	(0.272)	(48.79)	(43.21)	(21.08)	(3.138)
Constant	0.437**	0.509**	-0.089	-0.131***	0.430**	0.312**	-0.229	-0.205***	2.090	16.07**	1.138	-0.707**
	(0.177)	(0.241)	(0.108)	(0.023)	(0.177)	(0.136)	(0.178)	(0.029)	(1.525)	(7.503)	(0.831)	(0.357)
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	495	259	568	4,802	495	259	577	4,797	494	259	577	4,802
R-squared	0.497	0.489	0.384	0.387	0.557	0.504	0.374	0.449	0.734	0.810	0.610	0.491
Valid instruments tests												
Anderson–Rubin test (*p* value)	0.21	0.66	0.44	0.96	0.97	0.83	0.68	0.17	0.19	0.74	0.62	0.11
F-stat first stage (Prob)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Weak instruments tests												
Min eigenvalue statistics	5292	1067	3928	8785	5292	1067	4126	8730	5353	1067	4126	8785
LIML size of nominal 5%	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68

Notes. i)This table reports the results of LIML estimation of the impact of *SOP votes* on *firms' management efficiency (panel A & B) and market performance (panel C)*. Definitions for all variables are provided in Table 3.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error.

ii) Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments.

iii) LIML size of nominal 5% (is critical value from Stock and Yogo, 2005)

Table 3.5 Test for the impact of shareholders' votes on management efficiency and market performance by LIML estimator - with intangible asset

	Panel A: (Economic profit)				Panel B: (ROIC)				Panel C: (Tobin's Q)			
Variables	Australia	Canada	UK	USA	Australia	Canada	UK	USA	Australia	Canada	UK	USA
Independent variable												
SOP FOR	0.015	-0.007	0.076**	0.015*	0.005	0.134***	0.090*	0.053***	0.411	2.595	0.245	0.338***
	(0.039)	(0.048)	(0.034)	(0.008)	(0.037)	(0.030)	(0.049)	(0.010)	(0.315)	(1.626)	(0.303)	(0.106)
Ln CEO pay	0.001	0.022	0.010**	-0.004***	-0.008	-0.020	0.018**	-0.001	-0.329***	-2.172***	0.002	-0.142***
	(0.008)	(0.024)	(0.005)	(0.001)	(0.008)	(0.014)	(0.008)	(0.002)	(0.096)	(0.652)	(0.058)	(0.025)
SOP FOR* CEO pay	-0.003	-0.005	-0.005	-0.000	0.003	-0.015***	-0.003	0.001	-0.043	-0.763**	-0.030	-0.047**
	(0.004)	(0.008)	(0.003)	(0.001)	(0.005)	(0.006)	(0.004)	(0.001)	(0.057)	(0.366)	(0.026)	(0.019)
CG mechanisms												
Ln BZISE	-0.079***	0.144**	-0.015	0.021***	-0.057**	0.146***	-0.046	0.009	-0.409	-1.912	-0.710***	-0.656***
	(0.027)	(0.058)	(0.017)	(0.005)	(0.026)	(0.040)	(0.032)	(0.006)	(0.296)	(1.825)	(0.227)	(0.069)
INDDIR	-0.054*	-0.262**	-0.038	-0.009	0.004	-0.232***	-0.056	-0.009	-1.008***	-12.630***	-0.103	-0.352**
	(0.029)	(0.112)	(0.026)	(0.009)	(0.033)	(0.082)	(0.045)	(0.013)	(0.266)	(4.034)	(0.270)	(0.145)
CCI	-0.054	0.099	0.047*	0.035***	-0.049	0.058	0.106**	0.041***	0.162	1.820	0.279	-0.255**
	(0.033)	(0.065)	(0.027)	(0.008)	(0.038)	(0.069)	(0.046)	(0.011)	(0.375)	(2.515)	(0.306)	(0.113)
CEO duality	0.002	0.011	0.043	-0.001	0.003	0.011	0.051	0.0002	-0.007	0.163	0.676*	0.005
	(0.014)	(0.031)	(0.038)	(0.002)	(0.017)	(0.024)	(0.038)	(0.002)	(0.174)	(0.958)	(0.391)	(0.025)
Firm financial characteristics												
Ln MC	0.000	-0.043***	-0.002	0.005***	-0.002	-0.007	-0.000	0.007***	0.137**	1.943***	0.0447	0.217***
	(0.005)	(0.013)	(0.004)	(0.001)	(0.005)	(0.008)	(0.007)	(0.001)	(0.066)	(0.387)	(0.046)	(0.018)
SR	0.019*	0.008	0.014	0.018***	0.040***	0.0006	0.029**	0.041***	0.038	6.388***	0.162	0.498***
	(0.010)	(0.012)	(0.010)	(0.003)	(0.011)	(0.010)	(0.013)	(0.005)	(0.091)	(0.573)	(0.098)	(0.057)
M/B	0.005***	0.004	0.005***	0.002***	0.007***	0.006	0.011***	0.005***	0.372***	-1.191***	0.135***	0.125***
	(0.002)	(0.006)	(0.001)	(0.001)	(0.002)	(0.005)	(0.002)	(0.001)	(0.042)	(0.291)	(0.021)	(0.017)
SV	-0.402***	-0.987***	-0.144***	-0.113***	-0.200***	-0.195***	-0.169*	-0.122***	1.102**	20.070***	-0.754**	0.706***
	(0.059)	(0.165)	(0.034)	(0.012)	(0.052)	(0.068)	(0.091)	(0.016)	(0.433)	(3.160)	(0.297)	(0.184)
LEV	-0.043	0.111*	-0.055***	0.041***	-0.037	-0.0561	-0.170***	0.0328**	-1.537***	-8.905***	-1.434***	0.319*
	(0.028)	(0.062)	(0.018)	(0.009)	(0.031)	(0.052)	(0.041)	(0.015)	(0.283)	(2.230)	(0.219)	(0.192)
FCF	0.531***	0.184	0.218***	0.504***	0.848***	0.272**	0.375***	0.822***	1.341	0.357	3.189***	7.987***
	(0.056)	(0.158)	(0.057)	(0.019)	(0.073)	(0.138)	(0.094)	(0.028)	(1.018)	(5.881)	(0.788)	(0.413)
CAPEX	0.205***	0.328	0.215***	0.275***	0.167**	0.152	0.389***	0.452***	0.474	1.477	5.597***	6.254***
	(0.062)	(0.263)	(0.082)	(0.026)	(0.070)	(0.175)	(0.126)	(0.034)	(0.423)	(7.375)	(0.808)	(0.403)

IAR	-0.039**	-0.082	-0.029**	-0.015***	-0.084***	0.014	-0.076***	-0.062***	-0.216	4.938**	0.368*	-0.396***
	(0.017)	(0.055)	(0.014)	(0.004)	(0.024)	(0.048)	(0.021)	(0.006)	(0.172)	(2.140)	(0.195)	(0.069)
Macroeconomic environment												
GDP growth	-7.012	-1.604	0.192	0.479**	-2.623	1.870**	-0.689	0.823***	70.49	59.70	23.18	15.61***
	(5.049)	(1.253)	(3.802)	(0.198)	(5.235)	(0.887)	(4.879)	(0.275)	(48.960)	(42.940)	(25.580)	(3.207)
Constant	0.442**	0.699***	-0.118	-0.134***	0.432**	0.237	-0.134	-0.208***	2.232	9.648	1.079	-0.760**
	(0.178)	(0.218)	(0.120)	(0.023)	(0.176)	(0.144)	(0.186)	(0.030)	(1.527)	(7.396)	(0.943)	(0.361)
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	492	250	515	4,676	492	250	523	4,671	491	250	523	4,676
R-squared	0.500	0.528	0.414	0.388	0.566	0.520	0.439	0.460	0.735	0.820	0.589	0.491
Valid instruments tests												
Anderson–Rubin test (*p* value)	0.19	0.53	0.47	0.99	0.92	0.96	0.56	0.18	0.18	0.61	0.44	0.14
F-stat first stage (Prob)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Weak instruments tests												
Min eigenvalue statistics	5241	982	3605	8457	5241	982	3822	8402	5301	982	3822	8457
LIML size of nominal 5%	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68

Notes. i) This table reports the results of LIML estimation of the impact of *SOP votes* on *firm performance*. Definitions for all variables are provided in Table 3.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error.

ii) Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments.

iii) LIML size of nominal 5% (is critical value from Stock and Yogo, 2005)

In addition, the coefficient of CCI is positive and significant in columns 4,5,8 and 9 for both the UK and US samples, but negative and significant in the model for market performance for the USA, suggesting again that market performance does not necessarily reflect management efficiency. At positive signs, this result is in line with Bozec et al. (2010) and Jermias and Gani (2014), who also report a positive association between CCI and company performance. Furthermore, CEO duality has a positive and significant relation only with Tobin's Q for the UK sample. This suggests that less CEO power lead to improve firm performance as UK firms have the lowest managerial power compared to their peers in other countries. This finding is partly in line with the prior literature (see Haniffa and Hudaib, 2006; Mollah and Zaman, 2015).

3.4.4The influences of firm financial characteristics

Moving to the financial characteristics of the companies, the impact of firm size as measured by market capitalisation is positive and significant on Tobin's Q (market performance) for all samples. When EP and ROIC (management efficiency) are dependent variables, the impact of firm size is negative for Australian, Canadian and UK samples in columns 2-4 and 6-8 but positive and significant for the US sample. On a positive sign, this result is in line with earlier studies such as Isakov and Weisskopf, 2014, and Black et al. (2015) which find a positive relation between firm size and performance. However, the negative impact of size on EP and ROIC is consistent with the notion of Salama and Putnam (2013) which suggest that executives tend to grow company size for prestige and power rather than for profitability. In the regression model, stock return (SR) is significantly and positively associated with EP and ROIC (management efficiency) only in Australia and the USA in columns 2 and 5 and significantly and positively associated with Tobin's Q (market performance) in all except for Australian and UK samples. The coefficients are far larger in the model for Tobin's Q. This suggests that higher stock returns, which top executives are pressured to maintain, are necessarily good for companies' performance.

Firm growth, gauged by the market to book ratio, is positively related to EP, ROIC and Tobin's Q except Canadian sample in column 11, which is negative and significant at 1%. These findings are consistent with prior studies (see, Beiner et al. 2006; and Peni andVähämaa, 2012) and indicate that firms with higher growth increase the attractiveness of holding shares, thereby increasing the source of external financing and hence reducing the cost of capital (Beiner et al. 2006). As expected, stock volatility

(SV) is significantly and negatively associated with EP and ROIC (management efficiency). The coefficient of SV in the model for market performance is not straightforward – it is positive for Australia, Canada and the USA, corroborating the common understanding of higher return for higher risk; it is negative, however, for the UK which is somewhat puzzling. These observations, along with the fact that UK firms appear to have the most effective pay contracts among the sampled countries, is consistent with the view that stock markets are driven by factors outside the control of the company executives. This result is consistent with a number of studies (for example, Peni and Vähämaa, 2012; Wintoki, et al. 2012) and makes sense intuitively.

The empirical impact of leverage on EP and ROIC as reflected a management efficiency, in the current case, appears to be negative for Australian and UK firms, but positive for US firms. Leverage ratio has a much larger negative association with market performance for Australia, Canadia and the UK, but this association coefficient is insignificant for the US sample. Henry (2008) reports that the sign of the leverage variable is probably ambiguous as a positive association might signal value related to an efficient debt usage or the solution of agency problems, while a negative sign would be consistent with the growing capital cost and financial distress arguments. This outcome can, thus, be attributed to the low leverage ratios among the US firms. Moreover, FCF has a large positive and significant association with both management efficiency and market performance in all samples except the Canadian sample. The association of FCF with Tobin's Q is far greater than its association with EP and ROIC, which again suggests that market-based measures tend to overstate the case. Such result is consistent with Brush et al. (2000) who reason that the FCF allows CEOs to pursue value-enhancing objectives without having to go to the bond or equity markets.

The median ratio of capital expenditure (CAPEX) in the Canadian sample is twice those in the other three samples. This perhaps explains why there is a significant and large positive association between CAPEX and management efficiency for the other three samples, whether management efficiency is measured by EP or ROIC. In the case of Canada, this association is only marginally insignificant with the three performance proxies. Although the association of CAPEX with Tobin's Q is also positive, it is much larger in magnitude and significant only for the UK and the US samples. This outcome suggests there might be an optimal level of investment which maximises management efficiency and evokes market approval; but the market-perceived impact of CAPEX on

performance is likely to be overestimated. These findings are consistent with other studies such as Haniffa and Hudaib (2006) and Hamadi and Heinen (2015).

3.4.5 The effect of intangible assets

As discussed in section 3.1, researchers suggested that Tobin's Q includes market valuation of both the tangible and intangible assets of a company (Mollah and Zaman 2015), and it can be argued that the value of intangible assets should be reflected in EP and ROIC as well. In view of evidence of market overreaction (De Bondt and Thaler, 1985; Daniel et al., 1998), and given the difficulty of assessing a company's intangible assets, the researcher suspects that intangible assets could explain why Tobin's Q responds differently, either in sign or magnitude, from EP and ROIC. The three models are, thus, augmented to see whether this difference will disappear when intangible assets are explicitly accounted for. The outcome is displayed in Table 3.5, which shows that a key message – that stock market performance need not truthfully reflect management efficiency - still holds.

3.4.6 Another control variable

GDP growth rate is also included in the models as a control for the macroeconomic environment. GDP growth rate, in mean or in median, is 2% across Canada, the UK and the USA and 3% in Australia. In the USA, there is a significant large positive association between GDP growth rate and management efficiency (by both measures); the association of GDP growth with firm market performance is also positive but to a far greater degree in Table 3.4. Among the Australian and the UK samples, the coefficient of GDP is negative, however, and insignificant when EP is used to gauge management efficiency. The reasons behind this cross-country difference can be very complex, given that many companies have an international presence.

3.4.7 Robustness test

After checking for multicollinearity among explanatory variables, the three models are re-estimated by using the natural logarithm of total assets (TA) as a proxy for firm size instead of the natural logarithm of market capitalisation. The number of corporate mechanisms is also increased to include audit committee independence (ACI). Table 3.6 shows that the results remain similar and the signs of the key explanatory variables are everywhere the same as those in Table 3.4.

Table 1.6 Robustness test (test of the impact of shareholders' votes on management efficiency and market performance by LIML Estimator)

	Panel A: (Economic profit)				Panel B: (ROIC)				Panel C: (Tobin's Q)			
Variables	Australia	Canada	UK	USA	Australia	Canada	UK	USA	Australia	Canada	UK	USA
Independent variable												
SOPFOR1	0.016	0.014	0.061*	0.018**	-0.010	0.155***	0.100**	0.062***	0.492	3.191**	0.108	0.714***
	(0.039)	(0.048)	(0.033)	(0.008)	(0.039)	(0.031)	(0.047)	(0.010)	(0.321)	(1.465)	(0.266)	(0.110)
LnCEOtotalcomp1	0.002	0.0006	0.016***	-0.003**	-0.005	-0.021	0.033***	0.010***	-0.175**	0.698	0.176***	0.262***
	(0.007)	(0.022)	(0.005)	(0.001)	(0.008)	(0.014)	(0.008)	(0.002)	(0.084)	(0.694)	(0.053)	(0.026)
interaction1	-0.004	-0.007	-0.004	-0.0004	0.004	-0.014**	-0.002	0.0006	-0.055	-0.606**	-0.018	-0.048***
	(0.004)	(0.008)	(0.003)	(0.001)	(0.005)	(0.006)	(0.004)	(0.001)	(0.059)	(0.308)	(0.023)	(0.018)
CG mechanisms												
Lnboradsize1	-0.063**	0.088	0.021	0.019***	-0.049*	0.121***	0.043	0.038***	0.079	3.627*	0.212	0.194***
	(0.028)	(0.064)	(0.017)	(0.005)	(0.029)	(0.039)	(0.029)	(0.007)	(0.327)	(1.882)	(0.169)	(0.073)
INDDIR1	-0.068**	-0.159	-0.005	-0.016*	-0.004	-0.179**	-0.001	-0.027**	-1.110***	-17.000***	0.969***	-0.551***
	(0.035)	(0.103)	(0.023)	(0.009)	(0.037)	(0.080)	(0.037)	(0.012)	(0.309)	(3.870)	(0.237)	(0.139)
ACI1	0.037	0.042	0.028	-0.001	-0.010	-0.021	0.062	0.025*	0.490	-2.494	0.606	0.242*
	(0.043)	(0.081)	(0.035)	(0.010)	(0.053)	(0.068)	(0.069)	(0.013)	(0.421)	(3.511)	(0.462)	(0.136)
CCI1	-0.063*	0.097	0.019	0.037***	-0.026	0.043	0.062	0.037***	0.068	1.056	-0.383	-0.311**
	(0.038)	(0.072)	(0.033)	(0.009)	(0.043)	(0.073)	(0.063)	(0.013)	(0.351)	(3.204)	(0.396)	(0.130)
CEOduality1	0.003	-0.003	0.038	0.001	0.003	-0.003	0.035	0.005**	0.027	1.393	0.561	0.104***
	(0.014)	(0.031)	(0.036)	(0.002)	(0.018)	(0.022)	(0.048)	(0.002)	(0.162)	(1.053)	(0.412)	(0.025)
Firm financial characteristics												
LnTA1	-0.002	-0.011	-0.013***	0.004***	-0.004	-0.008	-0.023***	-0.006***	-0.040	-1.464***	-0.248***	-0.224***
	(0.003)	(0.011)	(0.003)	(0.001)	(0.004)	(0.007)	(0.004)	(0.001)	(0.039)	(0.409)	(0.033)	(0.016)
Stockreturn1	0.021**	0.001	0.012	0.019***	0.043***	-0.005	0.027**	0.042***	0.024	5.803***	0.161*	0.521***
	(0.010)	(0.013)	(0.009)	(0.003)	(0.012)	(0.011)	(0.013)	(0.005)	(0.088)	(0.808)	(0.085)	(0.055)
MB1	0.005***	0.003	0.004***	0.002***	0.005***	0.009*	0.010***	0.006***	0.376***	-1.314***	0.126***	0.129***
	(0.002)	(0.006)	(0.001)	(0.001)	(0.002)	(0.005)	(0.002)	(0.001)	(0.043)	(0.322)	(0.019)	(0.017)
Volatility1	-0.392***	-0.852***	-0.119***	-0.117***	-0.228***	-0.166**	-0.0692	-0.143***	0.799**	10.14***	-0.625***	-0.527***
	(0.055)	(0.155)	(0.029)	(0.011)	(0.049)	(0.065)	(0.090)	(0.016)	(0.352)	(3.620)	(0.237)	(0.154)
Leverage1	-0.045*	0.172**	-0.040**	0.039***	-0.047	-0.062	-0.127***	-0.009	-1.430***	-9.853***	-1.077***	-0.176
	(0.027)	(0.071)	(0.017)	(0.009)	(0.029)	(0.051)	(0.045)	(0.013)	(0.265)	(2.325)	(0.181)	(0.160)
FreeCF1	0.523***	0.135	0.145***	0.529***	0.834***	0.174	0.262***	0.828***	1.694***	-4.203	2.694***	7.956***

	(0.058)	(0.181)	(0.054)	(0.019)	(0.080)	(0.138)	(0.089)	(0.029)	(1.041)	(6.992)	(0.683)	(0.410)
Capexpend1	0.220***	0.167	0.174**	0.313***	0.180**	0.0283	0.321***	0.535***	0.493	0.622	3.483***	6.834***
	(0.063)	(0.288)	(0.072)	(0.026)	(0.072)	(0.181)	(0.114)	(0.033)	(0.441)	(8.351)	(0.710)	(0.394)
Macroeconomic environment												
GDPgrowth1	-6.722	-0.988	-0.393	0.437**	-3.699	2.129**	-0.720	0.724***	48.310	25.230	7.579	14.69***
	(4.824)	(1.262)	(3.303)	(0.195)	(5.325)	(0.846)	(4.145)	(0.273)	(45.380)	(46.270)	(23.920)	(3.156)
Constant	0.418**	0.257	-0.0374	-0.128***	0.489***	0.289**	-0.0846	-0.166***	2.844*	34.60***	3.101***	0.871***
	(0.165)	(0.234)	(0.104)	(0.023)	(0.174)	(0.146)	(0.153)	(0.030)	(1.498)	(7.672)	(0.756)	(0.329)
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	495	259	568	4,802	495	259	577	4,801	494	259	577	4,806
R-squared	0.497	0.471	0.403	0.386	0.541	0.502	0.398	0.445	0.724	0.791	0.657	0.494
Valid instruments tests												
Anderson–Rubin test (*p* value)	0.24	0.52	0.37	0.90	0.81	0.72	0.99	0.27	0.34	0.32	0.76	0.33
F-stat first stage (Prob)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Weak instruments tests												
Min eigenvalue statistics	3496	1369	7291	8794	3909	1377	7354	57857	3830	1681	7356	58189
LIML size of nominal 5%	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68	8.68

Notes. i) This table reports the results of LIML estimation of the impact of SOP votes on firm performance. Definitions for all variables are provided in Table 3.2. *, **, and *** indicate significance at the .10, .05, and .01 levels, respectively. Parenthesis represents the standard error.

ii) Min eigenvalue statistics (Stock and Yogo, 2005) tests the null hypothesis of weak instruments. LIML size of nominal 5% (is the critical value from Stock and Yogo, 2005)

3.5 Summary of key findings and conclusion

The analyses in the preceding section show that SOP votes have a positive (negative) influence on firm performance measures, especially in Canada the UK and the USA on different dimensions of performance (economic, business and market). A possible explanation resides in the differences in the nature or type of SOP regulation. An advisory vote in the USA, for example, means that firms are not required to respond on shareholders' concerns regarding executive pay, whereas binding vote in the UK means that companies must take action on stockholder concerns. Executives' behaviour may be affected by the type of SOP votes and thereby impacting positively (negatively) on firm performance. Thus*, H1a cannot be rejected for the UK and US samples*; *H1b is accepted for Canadian the UK and US samples*; and *H1c cannot be rejected for Canadian, and US samples*. The analyses also show that, the with or without the influence of SOP, only UK companies appear to be paying their CEOs for management efficiency, with efficiency gauged by either EP or ROIC. Thus, Hypothesis 2a CEOs *are paid for their management efficiency* cannot be rejected for the UK sample and Hypothesis 3a, "*CEOs' pay is not related to their management efficiency"* cannot be rejected for the Australian, Canadian and the US samples, *suggesting that both optimal contracting theory and managerial power theories find support in some markets, but managerial power theory prevails over optimal contract theory within the scope of the current investigation*. The explanation for the above divergence possibly lies in the corporate governance mechanism, CEO duality. The average of CEO duality in the UK is 1%, in contrast to 4%, 10% and 45% in Australia, Canada and the USA respectively.

Market performance, as gauged by Tobin's Q, either has no significant association with CEO pay (as is the case of the UK), or has a negative association with the latter (in the case of the rest), thereby supporting Hypothesis 4a, "*The compensation package of a CEO is not related to the market performance of the company they manage"* and providing evidence for the notion that market returns are influenced by factors beyond the control of company executives.

Further, the SOP regulation does not directly improve the management efficiency sensitivity of CEO pay (MES) in the sampled countries. Given the insignificance of the interaction term between SOP-FOR and CEO-pay in the two models with EP and ROIC as the explained variables, Hypothesis 2b, "*SOP has zero effect on the management efficiency sensitivity of CEO pay"* cannot be rejected, while Hypothesis 3b, *"SOP*

improves the management efficiency sensitivity of CEO pay" can be rejected. This outcome would not directly support the optimal contract theory, as the effectiveness of SOP on improving the process of contracting may be hindered by other complex factors, which the empirical design of the current study cannot tease out. To understand what affects the effectiveness of the SOP regulation requires further research on both theoretical and empirical fronts.

SOP also does not directly improve the market performance sensitivity of CEO pay (MPS) in all countries sampled. The interaction term, SOP-FOR*CEO-pay, is either insignificant (in the case of Australia and the UK) or negative (in the case of Canada and the USA). Thus, Hypothesis 4b,*" In response to SOP regulation, MPS may or may not change in the same direction as MES; and when in the same direction, MPS will change to a greater extent than MES."* cannot be rejected, supporting the observation that stock returns do not truthfully reflect management efficiency because they are influenced by factors beyond the control of company executives and they overreact to news.

A repeated message revealed in the previous section is that market performance does not necessarily reflect management efficiency; and when it does, it often overstates the case by a very large margin. This is not only evident from the direct test for Hypothesis 4a&b, but also through the parameter estimates of the control variables. For one example, despite having the most effective pay contracts and the highest management efficiency among the sampled countries, UK firms generate the lowest stock market returns. For another, while there is evidence suggesting that the large size of Canadian firms has a negative impact on their management efficiency, size appears to have a large positive impact on their market performance. These evidences raise questions on the conclusions reached by earlier studies on the effectiveness of SOP that rely only on stock market-based performance measures (e.g. Correa and Lel, 2016).

Despite the above somewhat negative outcome regarding the effectiveness of SOP, this study suggests that SOP does promote pay-for-performance, possibly via other mechanisms rather than directly via MES or MPS. There is a significant and positive association between management efficiency and SOP-FOR across all samples except for Australia. This significant positive association is also present between market performance and SOP-FOR in the Canadian and the USA samples, and the degree of this association is much stronger in terms of magnitude in comparison with that between management efficiency and SOP-FOR, corroborating the notion of market overreaction.

Ultimately, the results of this research have several important implications for shareholders, boards and policymakers. *First*, ROIC and EP should be considered along with Tobin's Q when evaluating the efficiency of firm executives, as these two measures reflect how exactly a company is utilising all its capital to increase firm value. *Second*, the effectiveness of SOP votes will be undoubtedly constrained by the lower quality of CG mechanisms. *Finally*, the effectiveness of SOP may depend on its form.

Chapter 4: The Impact of Say on Pay Votes on Firms' Strategic Policies: Evidence from Anglo-Saxon Economies

4.1 Introduction

The level of executive pay has been a controversial issue since the 1990s. The advent of the 2008 global financial crisis has further subjected CEO pay to a greater degree of media scrutiny and soaring public anger (Monem and Ng, 2013). Consequently, many countries have adopted the say-on-pay (SOP) regulation, which enables stockholders to vote on the suitability of CEO pay at an annual general meeting (AGM). For that purpose, executives must make relevant and enough information available for shareholders to evaluate the fairness/appropriateness of their pay policies (Alissa, 2015). The UK was the first country in the world to embrace the *advisory* SOP rule in 2002 but, in 2013, the *Enterprise and Regulatory Reform Act* made SOP voting *binding* rather than *advisory*, thus providing shareholders with capability to block a proposed excessive managerial compensation package. Other countries such as Australia, the Netherlands, Japan, South Africa, and the USA have followed this move with the approval of similar legislation, in 2004, 2004, 2005, 2009 and 2011 respectively (Stathopoulos and Voulgaris, 2016).[17]

Evidence on the effectiveness of SOP votes is unclear to date. Existing studies typically concentrate, with mixed results, on the impact of SOP vote on CEO compensation, or stock price reaction, or performance, ignoring the underlying mechanisms through which such influence may propagate and culminate (see, Carter and Zamora, 2007; Ferri and Maber, 2013; Armstrong et al., 2013). In a recent work , Murphy and Jensen (2018) argue that the proponents of the SOP rule are likely to be disconcerted with the outcome of this regulation – more than 98% of the Russell 3,000 firms reporting SOP votes in the year ending April 2017, have received more than 50% approval rate, while the approval rate exceeded 90% for over 70% of the companies. These findings raise serious doubts about the efficacy of the SOP regulation. It is possible that firms' top executives may, in reaction to the SOP regulation, pursue specific strategies, which are more likely to lead to support for higher pay. That is, the adoption of the SOP rule may impact on the behaviour of managers, who are often perceived as having their own *"styles"* when making financing, investment, and other strategic decisions, thereby imprinting their personal mark on the firms they manage (Bertrand and Schoar, 2003). Recent literature in financial economics also shows that

[17] In Canada, SOP was adopted as a policy, not regulation, in 2012 (Stathopoulos and Voulgaris, 2016).

individual executives have a significant influence on companies' strategic directions in terms of accruals (Dejong and Ling, 2013). This line of investigation, looking into the mechanisms beneath rather than at the surface symptoms, is desirable but scarce to date. Thus, the current study aims to shed new light on the virtue of the SOP regulation through examining whether major firm policies have been affected by the adoption of this rule; and if so, in what way.

In the context of the USA, Brunarski et al. (2015) investigate how overcompensated managers respond to lower SOP votes' support. By using a sample of firms from S&P 1,500 over the period 2011-2012, they show that managers avoid more negative SOP votes through increasing dividends, reducing leverage and increasing corporate investment. Their study, however, only covers the US market, where the SOP vote is *advisory*, unlike those adopted in other countries. In the UK, for example, the type of vote is *binding*, in Australia, there is *advisory two-strike rule*, and in Canada, the vote is *voluntary & advisory* (Stathopoulos and Voulgaris, 2016). Mason et al. (2016) argue that the major factor that hinders the success of SOP research is the *'many forms'* in which it is implemented. Furthermore, their evidence comes from cross-sectional regression, which will not capture the longer-term impact of SOP votes on firm strategies.

Motivated by recent changes in the SOP regulation in Australia and the UK, and by the lack of evidence coming from the international context, the current study asks the question *whether SOP regulation induces managerial behaviour that may increase shareholders' approval rate but hinder firms' long-term growth potential*; and *whether the form of SOP regulation matters or makes any difference.* More specifically, under the four sampled types of SOP*, i) does SOP reduce managers' appetite for business risk, reflected by lower long-term investments? ii) does SOP lessen managers' appetite for financial risk, exemplified by lower leverage ratio and hence potentially more expensive investment capital? iii) does SOP encourage myopiac behaviour, epitomised by a focus on short-term profitability? And iv) does SOP attenuate managers' exposure to operational risk, manifested by a higher level of liquidity?*

To pursue the above questions, the researcher selects unbalanced panel data of 1932 publicly listed firms from the four countries, 170 firms listed on S&P/ASX200 in Australia, 96 on S&P/TSX250 in Canada, 316 on FTSE 350 in the UK, and 1349 on

S&P 1,500 in the USA. There are several reasons for choosing these countries: (i) these countries have approved different forms of SOP votes, each of which has its own characteristics. For example, advisory SOP votes are very different from binding SOP votes. The latter requires companies to respond to stockholders' concerns regarding CEO pay, whereas the former does not (Monem and Ng, 2013); (ii) the levels of senior executive pay in these countries are higher compared to those in other countries, making them more interesting subjects of study for our purpose (Lu and Melin, 2016); (iii) they have a high standard of corporate governance, which will potentially enhance to efficacy of the SOP regulation ; and (iv) they all reflect the Anglo-Saxon model and have analogous characteristics, such as a single-tier board, a common law system, and well-developed capital market, hence eliminating potential differences accounted for by such institutional variances.

By using the LIML estimator, the analysis indicates that, with the regulatory change, US firms have tilted towards long-term investment. This practice necessitates that managers take on more profitable projects, thereby raising their level of pay, but it also leads to increased business risk. This study also finds that the leverage ratio as a proxy of financial risk, has been notably reduced in Australia and the USA, despite the fact that the average leverage level was already low in these four countries. The regression results further indicate that top executives in the USA favoured strategies favouring short-term profitability; while evidence from the other three countries is unclear. Additionally, the firm's liquidity has a negative impact on the SOP voting outcome in Canada, implying that higher liquidity is not favoured by shareholders.

The current research makes several contributions to the literature. *First*, this study is the first attempt to examine the influence of SOP on the firm's strategic policies that may have important ramifications on its long-term growth. *Second*, using the international context allows the researcher to compare different forms of SOP, which Mason et al. (2016) argue are vital determinants of research outcomes. Furthermore, the evidence comes after the subsequent changes in SOP legislation, notably in Australia and the UK. *Third*, unlike prior related literature (see. Brunarski et al., 2015), this research has adopted a panel data rather than cross-sectional regression approach, as it provides more informative data, more variability, less collinearity among variables, more degrees of freedom and more efficiency (Gujarati, 2012:290). *Finally*, this is the first study in this branch of literature adopting the LIML estimator, which is less biased

compared to the Generalized Method of Moments (GMM) and Two-Stage Least Squares (2SLS) estimators, especially when instrumental variables are weak and the sample size is small (Bascle, 2008; Baltagi, 2013:171).

The remainder of this chapter is organised as follows. Section 4.2 comprises a literature review and hypothesis development. Section 4.3 discusses the data and methodology. Section 4.4 presents the empirical outcomes, and finally, the conclusion of this study is in Section 4.5.

4.2 Literature review and hypothesis development

The shareholder-CEO conundrum has been rigorously scrutinised by the well-known agency theory. The theory argues that, with the separation of ownership and management, a company's executive may take actions which are beneficial to him/herself but disadvantageous to stockholders, when the two parties hold unaligned goals or have different levels of risk aversion (Tricker and Tricker, 2012:60). The theory further suggests that the manager's pay package, if appropriately designed, may incentivise the CEO to align his/her interests with that of shareholders (O'Reilly III et al., 2014).

It is, however, recognised in literature that powerful executives have a significant influence over how their pay packages are set, possibly via manipulating corporate performance, managerial turnover, and strategic decision-making process, etc. (Finkelstein et al. 2009:330; Hutzschenreuter et al. 2012). Such a view is supported by Balsam et al. (2011) who argue that CEOs - in practice rather than theory - have a role in setting company policies, possibly through submitting their proposals to the firm's board for approval. Similarly, Wasserman et al. (2010:29-30) and Dejong and Ling (2013) show that managers have a strong likelihood of causing significant changes in corporate policies. Thus, when shareholders are concerned about strategy distortions by executives, they could simply reward them with the correct incentives at the beginning, and the conflicts would be mitigated (Dow and Raposo, 2005).

There is sizable literature regarding the executive impact on firm policies (see, for example, Rotemberg and Saloner, 2000; Graham and Harvey, 2001; Malmendier and Tate, 2005). Corporate financial strategies, which comprise policies such as the sourcing of funds, the determination of capitalisation and the distribution of dividends, have an important influence on a firm's capacity to invest for value creation, affect its

key performance indicators, and determine the stockholders' share in the value generated (Mallette, 2006). However, corporate finance practices and accounting policies vary significantly across companies, attributable to managers' personal styles. Bertrand and Schoar (2003), for instance, demonstrate that a significant degree of heterogeneity in investment, financial and organizational practices of firms can be explained by differences in "style" across managers. In the same vein, Dittmar and Duchin (2015) found that corporates run by managers who experienced distress saved more cash, had less debt and invested less than other companies.

Numerous academic studies have tested the relation between corporate strategies and CEO compensation. Balkin et al. (2000), for example, find evidence that CEO compensation is related to innovation and R&D expenditure. Bertrand and Schoar (2003) also show that management style, which greatly influences various corporate strategies, is a significant fixed effect in explaining performance and CEO compensation. Furthermore, Balsam et al. (2011) conclude that a carefully designed pay package becomes another tool for stockholders to encourage active implementation of good corporate policies.

It is, thus, conceivable that, after the adoption of the SOP rule, managers have become more vigilant and may try to placate shareholders through manipulating company strategies. As can be seen from the figure 4.1, in agency theory, executives run corporates on behalf shareholders, and each side has its own interests; while shareholders aim to increase their wealth, managers aims to increase their benefits through getting higher compensation. However, both parties may have various aims and thereby raising conflict between shareholders and managers. Recently shareholders have become more powerful since adoption of the SOP regulation, while one of the objectives of which is to allow shareholders to vote on CEO pay packages at the AGM, while managers seek to increase company value by employing some financial strategies such as firm investments and capital structure. These policies lead to improve corporate performance and thus increase shareholders' wealth, and meanwhile the level of CEO pay will be increased. Dow and Raposo (2005), for example, state that one feature of CEO pay is the fact that the contract is adjusted over time to reflect the evolution of the company's strategic direction and its performance. In addition, Balsam et al. (2011) conclude that compensation committees link manager pay-packages to firm strategies. Hence, executives are capable of influencing stockholders' behaviour by selecting firm

policies which lead to higher SOP support, and higher levels of executive compensation can be attributed to corporate strategies more than executives' efforts (Dow and Raposo, 2005).

From the above discussion, it is reasonable to argue that, to raise shareholders' support for their pay, managers may respond differently to the SOP regulation change, depending on their incentives and personal styles. The researcher, further, argues that response differences may also arise from the type of SOP votes and the existing external institutional environment, such as the effectiveness of the firm's board. The latter two are little explored in SOP literature, and this study endeavours to provide some evidence.

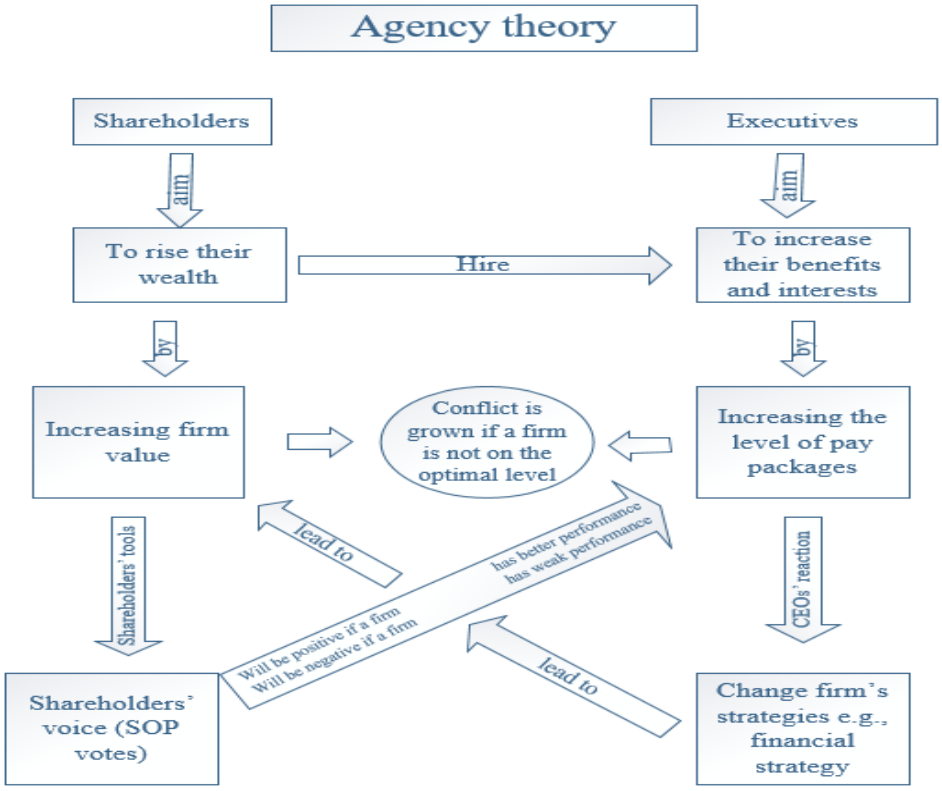

Figure 4.1: The relation between SOP votes and the firm's strategies

Source (design): The researcher

4.2.1 Hypothesis development

Managers may follow specific strategies to influence shareholder votes that may undermine the ultimate objective of SOP, which is to encourage managers to act in the best interests of the owners. According to agency theory, CEO pay incentives and firm

strategic policies are endogenously determined. Fundamental conflicts regarding these strategies exist between shareholders and executives because of incongruities in risk preferences. Further, moral hazard may increase agency dilemma and thereby influencing firm policy when firm performance relies on costly but unobservable managerial effort. Conflicts may also arise when firm performance influences executives' reputation in terms of ability or capacity (Kang et al., 2006). It is thus conceivable that, after adopting SOP, managers have become more vigilant since any adverse decision may result in disapproval of executive pay packages at the AGM.

Some evidence supporting the above conjecture has emerged from Brunarski et al. (2015), who find that overcompensated executives in the USA react to low SOP support by lowering leverage, increasing investment, and raising dividends (possibly beyond the optimal levels). Yet, their study is related to one specific form of the SOP regulation introduced in the USA (advisory votes) and based on cross-sectional regression only. Evidence in this regard from other parts of the world, which have introduced different types of SOP, is still lacking. The current study, thus, endeavours to fill this gap and examines, in an international context, how different forms of SOP affect firms' strategic policies involving investment, financing, profitability horizon and liquidity. The panel data method is used, as it allows the investigation to be based on more observations, cross-section and over time.

4.2.1.1 SOP votes and long-term investment (capital expenditure)

The overall and long-term influence of investements on a company is important. Rational investment decision will help to improve a firm value (Liao et al. 2016). However, since long-term investment increases expected return and business risk, investment decisions may influence SOP voting outcomes at the AGM. Brunarski et al. (2015) suggest that agency problems are exacerbated among US firms following the introduction of SOP, as overpaid managers make suboptimal investment decisions to win higher SOP support. The authors also argue that an increase in capital expenditure tends to be risk reducing as execuitves can use it to decrease risk by purchasing risk-diversifying assets as well as an increase in capital expenditure could positively impact firm value and performance if the finds are invested in positive net present value (NPV) projects. In addition, Fisch et al. (2018) debate that the SOP votes could contribute to excessive risk-taking due to the correlation between risk and stock market performance.

As a result, a firm value and performance will be increased and thus the level of managers pay will be higher as well. Based on the above arguments, the following hypotheses are developed:

Hypothesis 1a: SOP vote discourages managers from engaging in long-term investment, which increases business risk but is crucial for the firm's growth;

Hypothesis1b: Riskier long-term investment discourages shareholders from supporting executives' compensation at the AGM;

Hypothesis1c: The influence of the SOP vote on long-term investment varies by the type of SOP regulation;

Hypothesis1d: The influence of the SOP vote on long-term investment is affected by the effectiveness of the board.

4.2.1.2 SOP vote and financial risk (capital structure)

Financial risk, arising from the use of debt financing, can influence the agency relationship between managers and shareholders, thereby affecting managers' pay packages. Earlier researchers argue that debt can mitigate agency problems by inducing lenders to monitor managers, and hence discouraging the latter group from adopting value-destroying corporate strategies (see for example Grossman and Hart, 1982; Jensen, 1986; Ortiz-Molina, 2007). John and John (1993) also suggest that when stockholder-bondholder conflicts regarding risk choices are severe, shareholders of a leveraged firm may design a compensation package with low pay-performance sensitivity, to reduce the agency cost of debt. Ortiz-Molina (2007) finds that financial leverage indeed plays an important role in the determination of pay-performance sensitivity of managerial compensation packages. For example, the pay of the CEO in a debt-free firm is much more responsive (positively) to performance, in comparison with peers in leveraged firms. That is, more leveraged firms have lower pay-performance sensitivities. It is, thus, conceivable that leverage level is an important instrument for top executives who wish to increase the SOP votes support on their pay packages.

Evidence in this regard is inconclusive and sparse so far and concentrated on US firms. Fisch et al. (2018) report that the leverage ratio has no significant influence on the institutional shareholder services (ISS) recommendation among the S&P 1500

companies. Brunarski et al. (2015), on the other hand, find that CEOs among the S&P 1500 companies tend to decrease leverage to avoid low SOP votes support. Kimbro and Xu (2016) also document that leverage as a firm risk is negatively related to SOP votes support among Russell 3000 companies. To offer further evidence in an international context, the current study examines the following hypotheses:

Hypothesis2a: The SOP vote discourages managers from taking financial risks, which leads to reduce leverage ratio;

Hypothesis2b: Adopting a lower level of leverage leads to a higher rate of SOP approval at the AGM;

Hypothesis2c: The influence of the SOP vote on financial risk-taking varies by the type of SOP regulation;

Hypothesis2d: The influence of the SOP vote on financial risk-taking is affected by the effectiveness of the board.

4.2.1.3 SOP votes and firm's profitability horizon:

Profitability is an important determinant of firm value. It is widely acknowledged that pay-for-performance is the key to ensure executives are motivated to pursue value-enhancing strategies (Jensen and Murphy, 1990; Core et al., 1999; Clarkson et al., 2011; Monem and Ng, 2013; Amzaleg et al., 2014; Balsam et al., 2016; Kimbro and Xu, 2016;). Agency theory, which relies on the assumption of rational utility maximising decision-making, suggests that shareholders' voting decisions are strongly influenced by the alignment between CEO pay and performance. Accordingly, shareholders are less likely to vote in favour of a manager's pay package that has weak pay-performance alignment than for one with a strong pay-performance link (Liang et al., 2018). Fong et al. (2010) argue that overpaid managers tend to increase effort toward profitability, as such an action is congruous not only with norms of fairness but also with their motivational needs. Yet, evidence is sparse as to how firm profitability affects shareholders' voting outcomes.

Moreover, Dill et al. (2014) argue that companies exposed to the Anglo-Saxon capital markets may be pressured to concentrate on short-term profitability instead of long-term value. Kang et al. (2006) show that US executives overemphasise short-term profits at the expense of long-term value creation in order to push up the current price of

the stock and to reduce the risk of takeover. In the same line, Fisch et al. (2018) report that stockholders who unduly focus on short-term profitability might pressure managers to cut the R&D cost, which is crucial for long-run value-creation, but Brunarski et al. (2015) suggest that low SOP votes support is ineffective as a means of improving short-term profitability. Based on the above discussion, the third set of hypotheses is developed below:

Hypothesis 3a: The SOP vote encourages managers to focus on strategies generating short-term profit rather than creating long-term value;

Hypothesis3b: Firm profitability in short term, plays an essential role in approving an executive's compensation package;

Hypothesis3c: The influence of the SOP vote on firm profit strategy varies by the type of SOP regulation;

Hypothesis3d: The influence of the SOP vote on firm profit strategy is affected by the effectiveness of the board.

4.2.1.4 SOP votes and firm's liquidity

According to Senior Supervisors Group (SSG), weak compensation design is one of the factors that increase liquidity risk thereby negatively influencing business performance. As a result, the level of pay will be reduced.[18] Liquidity management is also a vital part of company policy (Ghosh et al., 2011). CEOs tend to arrange their liquidity management policies to provide the flexibility to react to unexpected changes in their company's cash flows or investment opportunity set, as well as to hedge different risks (Lins et al. 2010; Denis, 2011). Moreover, Elyasiani and Zhang (2015) argue that executives tend to adopt strategies, that diminish the liquidity risk and default risk of their company, in quest of a secure job and safer assets that they hold in the form of stocks and stock options of the firm they manage.

Opler et al. (1999) state that managers may also hold liquidity to achieve their own interests at the expense of stockholders. In this view, Yun (2008) argues that CEOs will attempt to hold as much liquidity as possible as long as they can avert takeovers. Higher liquidity also gives executives more discretion by authorising the using of funds without necessitating stockholders' preapproval. Thus, the researcher expects that the

[18] https://www.bis.org/fsi/fsipapers10.pdf

shareholders' voting outcome might be affected by the firm's liquidity. The final hypotheses are proposed as follows:

Hypothesis4a: The SOP regulation encourages managers to choose a more liquid balance sheet to reduce a key source of operational risks;

Hypothesis 4b: The influence of the SOP vote on firm liquidity varies by the type of SOP regulation;

Hypothesis 4c: The influence of the SOP vote on firm liquidity is affected by the effectiveness of the board.

4.3 Data and methodology

4.3.1 Sample

This study utilises data that covers all firms included in S&P/ASX 200, S&P/TSX, FTSE 350, S&P1,500, and first obtained from *Bloomberg.* The initial sample includes 2300 companies. When there were missing observations on some variables, such as CEO total pay or corporate governance mechanisms, the missing values are collected from other sources such as *DataStream* or the corresponding firm's annual report.[19] In addition, to cut the influence of outliers, the value of each variable included in the statistical analysis is restricted between the 1st and the 99th percentile. The final sample consists of an unbalanced panel with 170 firms from Australia, 97 from Canada, 316 from the UK and 1349 from the USA. Further, to standardise the sample and to facilitate comparison, variables (e.g. total assets) that were not denominated in local currencies are converted into local currencies. The sample selection is shown in Table 4.1.

Table 4.1 Sample selection

	Australia	Canada	UK	USA
Initial sample	200	122•	350	1500
Missing firms data••	30	26	34	151
Final sample	170	96	316	1349
Time of period•••	2012-2015	2012-2015	2014-2016	2011-2015

•Although the S&P/TSX index comprises 250 firms, the number of companies that adopted the SOP regulation is 122 firms.

[19] For US companies, the missing data of CEO compensation is obtained from *SEC filings* and for Canadian firms, CEO pay and governance mechanisms are collected from *Management Information Circular*.

•• Firms are excluded because SOP votes' data are not available; they are merged with others, and a firm has been listed for one year during the period of study.

••• The time is different among the four countries according to the year of adopting SOP rule and subsequent changes. In Australia, for example, the two-strike rule is active from July 2011; in Canada advisory voting is approved from 2012; in the UK, binding voting became effective from October 2013; and in the USA, advisory voting is adopted from 2011.

The sample period for each country is chosen according to the time of the SOP regulation adoption or their subsequent changes. In the UK, from October 2013, the nature of the shareholders' vote changed from *advisory* to *binding,* and the selected time span covers three years after the change. Canada adopted a *voluntary & advisory* SOP votes policy in 2012.[20] Our sample period spans four years after the adoption. In Australia, *mandatory & nonbinding* votes on pay package reports became effective on 1 July 2004, but from 1 July 2011 a new legislation called (the *two-strikes law)*[21] became active. Our sample covers four years after the two-strike rule became effective. In the USA, the Dodd-Frank law asked large publicly traded firms to provide their shareholders with the opportunity to cast an advisory vote on executive compensation since January 2011 (smaller companies, which have less than $75 million of the market value of common equity, were allowed a two-year delay until 2013 to implement SOP). Moreover, under this rule, shareholders are required to provide the remuneration of the company's CEO, the chief financial officer (CFO), and three other most highly paid executives of the firm (Balsam et al., 2016; Stathopoulos and Voulgaris, 2016). The US sample covers five years after the implementation of non-binding SOP votes.

4.3.2 Methodology

With the endogeneity problem,[22] the outcome of Ordinary Least Squares (OLS) regression, fixed effect (FE) model and random effect (RE) model might be unreliable. Therefore, GMM and 2SLS are used to mitigate the endogeneity dilemma, but both estimators need valid and strong instruments to work effectively. *However, how can instrumental variables be identified?* Finding good instruments for accounting and finance studies is difficult, but a good instrument should have a correlation with the endogenous variable and at the same time should not be correlated with the error term

[20] Stathopoulos and Voulgaris (2016) point out that SOP policy was adopted by Canadian firms in 2012, although the SOP votes policy was recommended by the Canadian Coalition for Good Governance (CCGG) in September 2010. However, the number of companies that adopted this policy was smaller in 2011 compared to 2012. Thus, 2012 is documented as the year of SOP policy adoption in Canada.

[21] Two strike' happens when a firm's compensation report in the following year (after the 'first strike') also receives 'no' votes of 25% or more (Monem and Ng, 2013).

[22] One or more independent variables is correlated with the error term (Baltagi, 2008:137)

of the original equation; that is, it must be exogenous (Chen et al. 2010). Moreover, many authors (see, De Andres and Vallelado, 2008; Nguyen et al., 2014) in accounting and finance research have tackled this issue by employing the lagged value of dependent and independent variables. *Ammann et al. (2011), for example, argue that utilising lagged variables as instruments for the present values of these variables controls for potential simultaneity and reverse causality.* Hence, the lags of independent variables are used as instruments. However, Bascle (2008) recommended that GMM estimation should not be used if the sample size is smaller than 700 observations.

As a remedy for both endogeneity and weak instruments, the LIML estimator is adopted, which was originally pioneered by Anderson and Rubin (1949, 1950) for the classical simultaneous equation problem (Akashi and Kunitomo, 2012). Bascle (2008) also reports that the advantages of the LIML estimator are that (i) it is median unbiased: the median of its sampling distribution is generally close to the population parameter; (ii) LIML is unbiased with weak instruments; and (iii) it performs better than 2SLS estimator when there are many instrumental variables (Bascle, 2008; Wansbeek and Prak, 2017). LIML is also known as the Least Variance Ratio (LVR) method because it can be obtained by reducing a two variances ratio or equivalently the ratio of two residual sums of squares (Arellano, 2004:171; Baltagi 2013:171). In the following section, the econometric estimation results are presented.

4.3.3 Models specification and variables construction

SOP voting outcomes may influence firms' strategic policies; on the other hand; the voting results may, in turn, depend on company strategies. Therefore, the five pairs of simultaneous equations are formulated, respectively corresponding to the four sets of hypotheses, to explore whether voting outcomes impact on firms' practices and vice versa. (The following abbreviations are used in the equations below: ln = natural logarithm; CAPEX = capital expenditure ratio; SOP FOR = say-on-pay support; SOP FOR* CEO pay= interaction variable; FsFC = firm financial characteristics; CGM=corporate governance mechanism; SMI = stock market index; LEV = Leverage ratio; CROA = cumulative return on asset; liquidity, measured by Current Ratio. SMI is used in addition to FsFC, CGM and CEO pay to control for general financing environment.) INDUSTRY is included to prevent the results being driven by industry effects.

$$CAPEX_{it} = a_0 + a_1 SOPfor_{it} + a_2 \text{SOP FOR} * \text{CEO pay} + a_3 FsFC_{it} + a_4 CGM_{it} + a_5 \ln SMI_{it} + a_6 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (1a)$$

$$SOPfor_{it} = a_0 + a_1 CAPEX_{it} + a_2 FsFC_{it} + a_3 CGM_{it} + a_4 \ln SMI_{it} + a_5 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (1b)$$

$$LEV_{it} = a_0 + a_1 SOP\ FOR_{it} + a_2 \text{SOP FOR} * \text{CEO pay} + a_3 FsFC_{it} + a_4 CGM_{it} + a_5 ln\ SMI_{it} + a_6 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (2a)$$

$$SOP\ FOR_{it} = a_0 + a_1 LEV_{it} + a_2 FsFC_{it} + a_3 CGM_{it} + a_4 \ln\ SMI_{it} + a_5 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (2b)$$

$$ROA_{it} = a_0 + a_1 SOP\ FOR_{it} + a_2 \text{SOP FOR} * \text{CEO pay} + a_3 FsFC_{it} + a_{43} CGM_{it} + a_5 ln\ SMI_{it} + a_6 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (3a)$$

$$SOP\ FOR_{it} = a_0 + a_1 ROA_{it} + a_2 FsFC_{it} + a_3 CGM_{it} + a_4 \ln SMI_{it} + a_5 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (3b)$$

$$CROA_{it} = a_0 + a_1 SOP\ FOR_{it} + a_2 SOP\ FOR * CEO\ pay + a_2 FsFC_{it} + a_3 CGM_{it} + a_4 \ln SMI_{it} + a_5 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (4a)$$

$$SOP\ FOR_{it} = a_0 + a_1 CROA_{it} + a_2 FsFC_{it} + a_3 CGM_{it} + a_4 \ln SMI_{it} + a_5 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (4b)$$

$$Liq_{it} = a_0 + a_1 SOP\ for_{it} + a_2 SOPfor * CEO\ pay + a_3 FsFCs_{it} + a_4 CGM_{it} + a_5 ln\ SMI_{it} + a_6 lnCEOpay_{it} + \text{INDUSTRY} + e_{it} \quad (5a)$$

$$SOP\ FOR_{it} = a_0 + a_1 Liq_{it} + a_2 FsFCs_{it} + a_3 CGM_{it} + a_4 \ln SMI_{it} + a_5 lnCEO\ pay_{it} + \text{INDUSTRY} + e_{it} \quad (5b)$$

All variable definitions, measures, and sources are displayed in Table 4.2.

Table 4.2 Variables' definitions and measures.

Variables	Definition	Source
Capital expenditure ratio (long-term investment)	The amount the company spent on purchases of tangible fixed assets divided by total assets	Bloomberg database
Leverage ratio	The ratio of the total amount of debt relative to assets	Bloomberg

(financial risk)		database
Return on assets (ROA) (short-term profit proxy)	Return On assets is an indicator of how profitable a company is relative to its total assets, in percentage.	Bloomberg database
Cumulative ROA (long-term profit proxy)	A cumulative return is the aggregate amount of profitability has gained or lost over time, independent of the period of time involved.	Data-stream
SOP votes FOR	the number of votes for executive compensation divided by total votes for and against CEO pay	Bloomberg database and firms' annual reports
Ln board size	Number of Directors on the company's board	Bloomberg database and firms' annual reports
Compensation committee independence (CCI)	The percentage of compensation committee independence on board size	Bloomberg database and firms' annual reports
Audit committee independence (ACI)	The percentage of Audit committee independence on board size	Bloomberg database and firms' annual reports
CEO-duality	Duality is coded one if the chair and CEO are the same person and zero otherwise	Bloomberg database
Transparency business index (RBI)		Data stream
Total assets (Firm size)	The natural logarithm of the total of all short and long-term assets	Bloomberg database
Stock return (SR)	Calculated by (stock price at the end of year t minus stock price at the end of year t-1 plus dividends per share) / stock price at the end of year t-1	Bloomberg database
Tobin's Q	Tobin's Q= equals (Market Capitalisation + total liabilities + preferred equity + minority interest) / total assets.	Bloomberg database
Stock Volatility (SV)	The standard deviation of day to day logarithmic price changes, expressed as a percentage of the day before the current	Bloomberg database
Free cash flow ratio (FCF)	Free cash flow (FCF) represents the cash that a company can generate after laying out the money required to maintain or expand its asset base scaled by total assets	Bloomberg database
(Current ratio) Liquidity	The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year.	Data-stream
Ln CEO total pay	CEO total pay is calculated as the sum of salary, bonus, other annual, the total value of restricted stock granted, stock options granted, Long-term incentive payouts, and others.	Bloomberg database and firms' annual reports
Ln market stock index (SMI)	is an index that measures a stock market, or a subset of the stock market, that helps investors compare current price levels with past prices to calculate market performance.	Data-stream database

4.3.4 Descriptive statistics

This section summarises the descriptive statistics of the variables used in the econometric analysis below. During the sampling period, the mean (median) of capital expenditure ratio was respectively 5%(3%), 6%(6%), 4%(3%) and 5%(3%) in Australia, Canada, the UK and the USA, indicating that Canadian firms have higher capital expenditure than their peers in the other three countries. In addition, the mean (median) current ratio is respectively 1.95 (1.50), 2.40 (1.34), 1.56(1.32), and 2.41 (1.94) in the four countries, suggesting that the average Canadian and US firms have higher ability than their peers in Australia and the UK to pay short-term obligations. Looking at profitability, the mean and median (M&M) Canadian firms are not doing any better in both short-term and long-term, measured respectively by ROA and cumulative ROA in comparison with their peers in the other three countries. This is perhaps not surprising given the higher capital expenditure that the mean and median Canadian firms incurred in the sample period. The median shareholder consent rates in SOP votes are similar across the four countries, ranging between 83% and 94%, but the mean consent rate in Canada is noticeably lower. The voting outcome suggests that shareholders, in general, are satisfied with the companies' situation.

Among the corporate governance control variables, the average US firm has a CEO duality ratio of 45%, compared to 4% in Australia, 10% in Canada and 1% in the UK. The differences in M&M board size, independent director ratio, and audit committee independence are less visible, though the M&M Australian firms have a board which is 20-30% smaller than their peers, while the M&M UK firms have slightly lower ratios of independent directors on the boards. In addition, the interaction variable between transparency business index (TBI) and compensation committee independence (CCI) has a higher value in the UK samples (on average, 1.63, 1.26, 2.28, and 1.36 in Australia, Canada, the UK and the USA), implying a lower information asymmetry in the UK firms.

In the selected set of controlling financial characteristics, the mean firms across the four countries have similar size as measured by ln total assets (21.56, 22.96, 21.78 and 21.98) and have similar CEO pay and stock volatility. Nevertheless, the average Canadian firm has a far higher Tobin's Q (6.93, compared to less than three among its

Table 4.3 Descriptive statistics for all study samples.

	Australia					Canada					UK					USA				
Variables	mean	median	SD	min	max	mean	Median	SD	min	max	mean	Median	SD	min	max	mean	Median	SD	min	max
SOP FOR	0.92	0.97	0.11	0.48	1	0.83	0.94	0.25	0.15	1	0.94	0.97	0.09	0.51	1	0.92	0.96	0.12	0.40	1
CAPEX	0.05	0.03	0.08	0	0.60	0.06	0.06	0.06	0	0.26	0.04	0.03	0.05	0	0.31	0.05	0.03	0.05	0	0.27
LEV	0.22	0.21	0.15	0	0.65	0.20	0.18	0.17	0	0.63	0.19	0.17	0.18	0	0.84	0.11	0.07	0.13	0	0.68
ROA	0.05	0.05	0.11	-0.40	0.41	0.02	0.03	0.07	-0.30	0.22	0.06	0.05	0.08	-0.19	0.34	0.05	0.05	0.07	-0.19	0.27
Cumulative ROA	0.13	0.11	0.25	-0.66	1	0.07	0.06	0.15	-0.62	0.43	0.13	0.09	0.17	-0.33	0.80	0.22	0.15	0.30	-0.51	1.48
Ln BSIZE	1.96	1.95	0.26	1.39	2.48	2.32	2.30	0.24	1.61	2.83	2.18	2.20	0.24	1.61	2.77	2.23	2.20	0.25	1.61	2.77
INDDIR	0.73	0.78	0.16	0.25	1	0.84	0.89	0.09	0.55	0.94	0.63	0.64	0.13	0.25	0.89	0.82	0.86	0.10	0.54	0.93
ACI	0.49	0.50	0.14	0.20	0.83	0.44	0.43	0.10	0.25	0.78	0.43	0.43	0.11	0.20	0.73	0.43	0.43	0.11	0.23	0.80
TBI*CCI	1.63	1.56	0.51	0.35	2.92	1.26	1.20	0.33	0.56	2.33	2.28	2.22	0.69	0.83	3.75	1.36	1.28	0.40	0.64	2.67
CEO duality	0.04	0	0.19	0	1	0.10	0	0.30	0	1	0.01	0	0.12	0	1	0.45	0	0.50	0	1
Ln TA	21.56	21.42	1.92	17.76	27.42	22.96	22.57	1.68	20.32	27.57	21.78	21.50	1.76	18.23	27.43	21.98	21.88	1.68	18.70	26.39
Tobin's Q	1.95	1.42	1.60	0.64	9.39	6.93	1.36	9.39	0.89	25.41	1.89	1.50	1.27	0.76	8.91	1.89	1.52	1.15	0.81	7.38
M/B ratio	2.88	1.84	2.84	0.40	14.45	1.85	1.56	1.87	-0.40	12.03	3.99	2.54	5.33	0.41	37.72	0.92	0.16	1.94	-0.71	11.99
SR	0.22	0.18	0.47	-0.63	2.46	0.46	0.19	0.83	-1.34	3.71	0.10	0.06	0.35	-0.60	2.03	0.14	0.11	0.33	-0.58	1.32
FCF	0.05	0.04	0.10	-0.30	0.39	0.01	0.01	0.06	-0.21	0.20	0.05	0.04	0.08	-0.17	0.38	0.05	0.05	0.07	-0.19	0.27
DPS	0.38	0.20	0.57	0	3.30	1.01	0.88	0.82	0	3.80	0.29	0.15	0.37	0	1.88	0.67	0.37	0.87	0.00	4.60
Current ratio (Liq)	1.95	1.50	1.58	0.24	10.11	2.40	1.34	4.13	0.38	33.12	1.56	1.32	1.09	0.28	7.10	2.41	1.94	1.69	0.50	10.00
Ln CEO pay	14.66	14.66	0.88	12.39	16.51	15.47	15.45	0.75	13.63	17.17	14.42	14.41	0.83	12.33	16.50	15.42	15.47	0.93	12.84	17.45
SV	0.33	0.31	0.13	0.13	0.84	0.28	0.25	0.13	0.11	0.71	0.30	0.27	0.12	0.16	0.94	0.32	0.30	0.12	0.14	0.67
Ln SMI	8.55	8.58	0.06	8.44	8.60	9.51	9.52	0.06	9.43	9.59	9.44	9.69	0.45	8.74	9.80	7.02	7.20	0.46	6.03	7.63

Note: The table reports the summary statistics for all variables. Definitions for all variables are provided in Table 4.2.

peers), and also a far higher annual rate of stock return (46% as compared to 22% or less). The free cash flows of the mean Canadian firms (1% compared to 5%) are much lower than their peers, again understandable given their high capital expenditure. The stock market index, a measurement of the movement and performance of market segments, is also, on average, slightly lower in the USA (7.02) than those in the other three countries. Finally, dividend per share is higher for the Canadian firms ($1.01), while the UK companies have the lowest dividend (£0.29) among the four countries.

The findings of the Spearman rank correlation between dependent and independent variables show that some of the correlation coefficients are statistically significant at 5% in Tables A.11-A.30 (in the Appendix A). According to Gujarati and Porter (2010:254), multicollinearity might threaten or damage the regression analysis if the degree of correlation exceeds 80 %. Correlation results indicate that the highest simple correlation coefficient is less than the recommended threshold of 80%. The Variance Inflation Factor (VIF) and tolerance tests in Tables A.31-A.34 in the Appendix A also show that multicollinearity is not a concern (O'Brien, 2007).

4.3.5 Detecting the endogeneity problem and testing the relevance and instruments' validity

The endogeneity issue occurs when one variable or more on the right-hand side is correlated with the error term, and this is known as the case of an endogenous regressor (Baltagi, 2008:137; Gujurati, 2012;324). There are three reasons why the right-hand side variable(s) might be correlated with the error term: (i) measure errors in the independent variable(s), (ii) omitted variable bias, (iii) and simultaneous equation bias. The Durbin–Wu–Hausman (DWH) test is usually used to disclose endogeneity among explanatory variables in the OLS regression. For more explanation on the procedures of the DWH test, also see Beiner et al. (2006) and Schultz et al. (2010).

According to the DWH test, the endogeneity issue is existent in this study and the results of OLS and FE model might be biased, inconsistent and unreliable. Thus, adopting a more appropriate technique is needed to provide consistent estimates and at the same time to dealing with endogeneity. Econometrically, GMM and 2SLS estimations mitigate the endogeneity problem, but with small sample size, GMM should not be used (Bascle, 2008). Also, LIML is known to be more robust to the weak instrument problems than 2SLS (Baltagi, 2013:171). Hence, the LIML estimator is applied in the current study by following Ammann et al. (2011), who use the lag of

independent variables as instruments, after identifying endogenous variables, which are the firm size as measured by total assets and capital structure (leverage). However, for the results of LIML to be unbiased, an instrument must satisfy two requirements: it must be associated with the endogenous variable(s), and orthogonal to the error process. The former condition might be readily examined by testing the fit of the first-stage regressions. A statistic commonly used for this is the *F test* of the joint significance of the Z instruments in the first-stage regression (Baum et al. 2003); also Anderson and Rubin's (AR) test,[23] is used to check the validity; A statistically significant result on this test indicates that the instrument (s) may not be valid.

Moreover, under strong instruments, the LIML is asymptotically unbiased. Stock and Yogo (2005) proposed commonly utilised pretests for weak instruments under the assumption of conditionally homoscedastic, serially uncorrelated model errors. These tests reject the null hypothesis of weak instruments when the statistic exceeds a given threshold. The null hypothesis of weak instruments can be defined in terms of either estimator bias or test size distortions (Pflueger and Wang, 2015). In other words, to evaluate whether instruments are weak or strong, the decision is based on the comparison of critical values[24] with the minimum eigenvalue statistics; if it is larger than the critical value there is evidence of strong instruments and vice versa (Vieira et al. 2012). *In the current study, because the LIML is used as explained earlier, the results are based on test size distortions*.

4.4 The findings of LIML estimator

4.4.1 The impact of SOP votes on a firm's long-term investments (business risk)

The results of models 1a and 1b are reported in Table 4.4. In panel (a), the dependent variable is capital expenditure ratio (CAPEX), which captures a firm's long-term investment; while panel (b) has SOP-vote-for as the explained variable. As shown in Table 4.4(a), only among the US firms did SOP support have a positive and significant impact on capital expenditure; also the interaction variable between SOP votes and executive pay is positive for US firms. This indicates that the SOP regulation is not succeeded in exerting pressure on managers by directly influencing CEO pay (a positive coefficient 0.000 in column 5). On the other hand, capital expenditure has an influence

23 The Anderson–Rubin (1950), AR test of overidentifying restrictions for use after the LIML estimator

24 The critical values for the Stock and Yogo (2005) test depends on the IV estimator used, the number of endogenous regressors, the number of instruments,
and how much bias or size distortion the researcher is willing to accept.

on SOP support in all countries examined except for the UK sample. This impact is significant and positive in both Australia and the USA. This outcome suggests that, in general, capital expenditure, as an essential growth factor, is a key aspect considered by shareholders when they vote at the AGM, and this factor to a certain extent affects the managerial decision on capital expenditure, at least in the USA. This finding is in line with Brunarski et al. (2015), who argue that managers in the USA increase capital expenditure to avoid low SOP votes approval. *Thus, H1a is rejected for the US sample and H1b for Australia and the USA samples. However, H1b cannot be rejected for the UK sample*. Additionally, the results in Table 4.4 suggest that the influence of the SOP vote on long-term investment differs by the type of SOP rule in the four countries. *H1c cannot, hence, be rejected*.

When it comes to the effect of the corporate governance (CG) mechanisms on firm long-run investment, board size has a negative relation with CAPEX in Australia and the USA and positive in Canada and the UK but statistically insignificant. None of the CG variables appears to matter for long-run investment among UK companies. CEO duality is significant at 10%, with a positive sign, in Australia and the USA but has a negative coefficient in Canada. In addition, the interaction term between business transparency index and compensation committee independence is also positive and insignificant in Australia and Canada while negative for others, indicating that information transparency promotes long-run investment, possibly because it allows independent compensation committee members to better read into companies' situations when designing pay packages for top executives. The above findings in part agree with Kor (2006) who argues that healthy negotiations between executives and directors can contribute to the quality of the strategic decisions, while conflicts and power struggles can create negative dynamics and an inappropriate decision-making environment. *Thus, the evidence form the four countries is unclear.*

Concerning firm financial characteristics and long-term investment, there is little difference between the UK and the US companies. As can be seen, firm size (as measured by ln total assets), stock return, stock volatility, free cash flow (FCF), and current ratio are all negatively associated with capital expenditure ratio. On the other hand, leverage is positively and significantly associated with CAPEX in the UK and the USA.Among all coefficients, however, only that of FCF is economically significant.

Table 4.4 SOP votes and firm's investment (capital expenditure)

		Panel A				Panel B				
	Exp signs	Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable		Long investments (capital expenditure)				***Dependent variable***		SOP votes		
Independent variable						***Independent variable***				
SOPFOR	+	0.028	-0.002	-0.019	0.021***	CAPEX	0.132***	0.156	-0.038	0.082**
		-0.018	-0.015	-0.022	-0.007		-0.042	-0.259	-0.109	-0.037
Ln CEO pay	+	-0.002	0.012**	-0.001	-0.001	***CG mechanisms***				
		-0.006	-0.006	-0.003	-0.001	Ln BSIZE	-0.038	0.182**	-0.037	0.041***
SOPFOR*CEO pay	+	-0.004	-0.003	-0.001	0.000		-0.038	-0.082	-0.030	-0.011
		-0.003	-0.003	-0.002	-0.001	INDDIR	0.026	0.124	0.009	0.107***
CG mechanisms							-0.044	-0.144	-0.038	-0.021
Ln BSIZE	+	-0.012	0.020	0.006	-0.007	CEO duality	-0.044	-0.004	0.048*	-0.013
		-0.021	-0.017	-0.011	-0.004		-0.022	-0.048	-0.026	-0.003
CEO duality	?	0.067*	-0.005	0.012	0.002*	TB*CCI	0.025	-0.009	-0.009	0.010**
		-0.034	-0.009	-0.018	-0.001		-0.043	-0.041	-0.007	-0.005
TB*CCI	+	0.039	0.010	-0.003	-0.002	***Firm financial characteristics***				
		-0.023	-0.008	-0.003	-0.002	Ln TA	0.0109*	0.005	-0.002	0.006***
Firm financial characteristics							-0.006	-0.012	-0.004	-0.002
Ln TA	+	-0.006	-0.007	-0.007	-0.005	SR	0.022*	0.024*	-0.005	0.042***
		-0.005	-0.005	-0.002	-0.001		-0.011	-0.013	-0.012	-0.005
SR	+	0.008	-0.002	-0.016	-0.003	M/B	-0.001	-0.003	0.001	-0.002*
		-0.008	-0.005	-0.006	-0.002		-0.002	-0.009	-0.001	-0.001
SV	?	-0.030	-0.048	0.035*	0.003	SV	-0.066	-0.098	-0.045	-0.118***
		-0.030	-0.027	-0.018	-0.007		-0.049	-0.120	-0.032	-0.018
FCF	+	-0.299***	-0.503***	-0.249***	-0.225***	LEV	-0.061	-0.116	-0.003	-0.013

		-0.083	-0.063	-0.048	-0.016		-0.038	-0.087	-0.022	-0.018
CR	-	-0.007	0.001	-0.002	-0.004	***Market condition level***				
		-0.003	-0.001	-0.002	0.000	Ln SMI	-1.184**	-1.454***	-0.015	0.018***
LEV	?	0.026	-0.002	0.034***	0.029***		-0.583	-0.271	-0.013	-0.006
		-0.028	-0.022	-0.012	-0.008	***Pay level***				
Market condition level						Ln CEO pay	-0.019	-0.085	-0.014	-0.051
Ln SMI	+	0.082	0.016	-0.010	0.012***		-0.009	-0.025	-0.007	-0.003
		-0.363	-0.062	-0.005	-0.002	Constant	11.130**	15.510***	1.438***	1.273***
Constant		-0.517	-0.146	0.313***	0.111***		-5.012	-2.64	-0.212	-0.037
		-3.145	-0.605	-0.101	-0.0188	Observations	495	259	577	4806
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
Observations		406	204	472	3907	R-squared	0.08	0.315	0.069	0.116
R-squared		0.262	0.582	0.316	0.384	***Valid instruments test***				
Valid instruments tests						Anderson–Rubin test (p value)	0.97	0.51	0.81	0.53
Anderson–Rubin test (p value)		0.36	0.31	0.55	0.48	F-stat first stage (Prob)	0	0	0	0
F-stat first stage (Prob)		0	0	0	0					
						Weak instruments tests				
Weak instruments tests						Min eigenvalue statistics	3526	1482	5785	51457
Min eigenvalue statistics		1638	584	4790	35219	LIML size of nominal 5%	8.68	8.68	8.68	8.68
LIML size of nominal 5%		8.68	8.68	8.68	8.68					

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *long-term investment*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

For example, the coefficient of ln total assets is -0.005 while that of FCF stands at -0.225 in the USA. The outcomes for other samples are very similar to those of the US firms. Only FCF is statistically significant for the four countries. These results strongly suggest that FCF is the key financial variable which is closely linked to firm long-term investment. This is consistent with Chen (2014) who also finds a negative relation between free cash flow and long-term investment. The conclusion is rather intuitive, as when more funds are tied up in illiquid long-term investment, less will be available for distribution among all the shareholders. In general, the stock return has a small effect while stock volatility has a relatively sizeable positive influence on pay-support, especially in Canada. These results largely hold true when leverage, profitability and liquidity replace capital expenditure in the equation with SOP-vote-FOR as the dependent variable.

The general financing environment, captured by stock market index (SMI), is positively associated with long-run investment and significant at 1% in the USA but insignificant in Canada and Australia. SMI is negative, however, in the UK. This suggests that stock market performance has a positive role in promoting long-run investment in the USA only. *Finally*, Table 4.4 also reports the test of the relevance and instruments' validity. As can be seen from the last lines, the AR is statistically insignificant, which indicates that the study's instruments are valid and that the relevant test statistic (F test) is significant, indicating that instruments are related to the included endogenous variable(s). Consequently, instruments are relevant and valid. Further, the last two lines of Table 4.4 display the weak instruments test. Such test shows that the minimum eigenvalue statistic exceeds the critical value (for example, 1638 > 8.68 in Australia; 584 > 8.68 in Canada; 4790 > 8.68 in the UK, and 35219 > 8.68 in the USA) and thus our instruments are not weak.

4.4.2 The impact of SOP votes on financial risk (capital structure policy)

Table 4.5 shows the results of SOP votes and their influence on financial risk as measured by leverage. There is a negative impact of SOP votes on leverage in Australia Canada, and the USA but their influence is positive in the UK; also SOP votes' outcome is negatively affected by leverage in the four countries. This suggests that CEOs are more vigilant when external funding decisions are made; any increase in the cost of debt may negatively affect the SOP votes' outcome. The coefficients of the interaction

Table 4.5 SOP votes and financial risk (leverage)

Panel A						Panel B				
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	Leverage				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	-	-0.084	-0.036	0.011	-0.055	LEV	-0.061	-0.116	-0.003	-0.013
		-0.067	-0.065	-0.075	-0.024		-0.038	-0.087	-0.022	-0.018
SOPFOR*CEO pay	-	0.005	0.000	-0.003	0.002	***CG mechanisms***				
		-0.007	-0.015	-0.008	-0.003	Ln BSIZE	-0.038	0.182**	-0.037	0.041***
Ln CEO pay	-	0.042***	-0.032	-0.013	-0.001		-0.038	-0.082	-0.030	-0.011
		-0.012	-0.021	-0.016	-0.004	INDDIR	0.026	0.124	0.009	0.107***
CG mechanisms							-0.044	-0.144	-0.038	-0.021
Ln BSIZE	-	-0.126***	-0.039	-0.001	-0.036	CEO duality	-0.044	-0.004	0.048*	-0.013
		-0.047	-0.062	-0.051	-0.012		-0.022	-0.048	-0.026	-0.003
CEO duality	?	-0.030	0.031	-0.061	-0.004	TB*CCI	0.025	-0.009	-0.009	0.010**
		-0.032	-0.033	-0.037	-0.004		-0.043	-0.041	-0.007	-0.005
TB*CCI	-	0.000	-0.022	-0.010	-0.002	***Firm financial characteristics***				
		-0.050	-0.028	-0.012	-0.005	Ln TA	0.011*	0.005	-0.002	0.006***
Firm financial characteristics							-0.006	-0.012	-0.004	-0.002
Ln TA	+	0.035***	0.029**	0.029***	-0.012	SR	0.022*	0.024*	-0.005	0.042***
		-0.009	-0.014	-0.009	-0.003		-0.011	-0.013	-0.012	-0.005
Tobin's Q	?	-0.002	-0.011	0.005	0.008***	M/B	-0.001	-0.003	0.001	-0.002
		-0.005	-0.001	-0.008	-0.002		-0.002	-0.009	-0.001	-0.001
SV	?	0.143	0.205**	0.061	0.087***	SV	-0.066	-0.098	-0.045	-0.118***
		-0.090	-0.092	-0.092	-0.023		-0.049	-0.120	-0.032	-0.018
FCF	-	-0.364***	0.214	-0.321**	0.062	CAPEX	0.132**	0.156	-0.038	0.082**

		-0.087	-0.150	-0.156	-0.043		-0.042	-0.259	-0.109	-0.037
Liq	-	-0.018	0.001	-0.041	-0.005	***Market condition level***				
		-0.005	-0.004	-0.009	-0.001	Ln SMI	-1.184**	-1.454***	-0.015	0.018***
Market condition level							-0.571	-0.229	-0.583	-0.271
Ln SMI	?	0.423	-0.140	0.046*	0.068***	***Pay level***				
		-0.798	-0.192	-0.023	-0.006	Ln CEO pay	-0.019	-0.085	-0.014	-0.051
Constant		-4.343	1.581	-0.381	-0.043		-0.009	-0.025	-0.007	-0.003
		-6.904	-1.891	-0.41	-0.057	Constant	11.130***	15.51***	1.438***	1.273***
Observations		405	204	472	3,909		-5.012	-2.640	-0.212	-0.037
Industry effect		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
R-squared		0.288	0.521	0.204	0.10	Observations	495	259	577	4,806
Valid instruments tests						R-squared	0.08	0.315	0.069	0.116
Anderson–Rubin test (p value)		0.32	0.27	0.12	0.59	***Valid instruments tests***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.97	0.51	0.81	0.53
						F-stat first stage (Prob)	0	0	0	0
Weak instruments tests										
Min eigenvalue statistics		1672	559	3553	30560	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	3526	1482	5785	51457
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *leverage as a financial risk*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

variable (SOP votes with CEO pay) are positive and small in Canada and the USA but in the UK is negative and statistically insignificant. This suggests that leverage policy is unclear for others, such as shareholders, because executives can adopt any level of leverage according to their interests and strategies. Moreover, these findings are in agreement with previous studies of Brunarski et al. (2015); and Kimbro and Xu (2016) who argue that managers tend to reduce leverage because the equity incentives provide CEOs with the incentive to transfer wealth from debt-holders to stockholders and thus a higher proportion positive of SOP votes will be received. Concerning the natural logarithm of executive pay, which is positively and significantly associated with leverage in Australia but negatively associated with leverage in Canada, this result is in line with a number of prior studies (e.g., Dee et al., 2005; Kim et al., 2017) and suggests that increasing the level of leverage might increase (decrease) executive pay packages depending on shareholders' preferences. Moreover, Table 4.5 displays that the impact of SOP votes FOR on financial risk-taking differs by the type of the SOP regulation and thus *H2c is not rejected.*

Regarding corporate governance variables, the analysis results in Table 4.5 show that the impact of board size on capital structure is negative but statistically significant in Australia at 1% levels of significance. The negative coefficients are in line with prior studies (see, Cheng, 2008; Sila et al., 2016). A possible explanation for this might be that decisions made by a larger board can lead to compromises and, as a result, less debt (Sila et al., 2016). *Thus, H2d is accepted in Australia*. The impact of CEO duality on leverage is negative except for the Canadian sample but statistically insignificant. A negative coefficient can be attributed to the level of managerial power. CEO power avoids debt for two reasons according to Jiraporn et al. (2012): (i) the CEO might be under-diversified and exhibit strong risk avoidance, and to adopt lower leverage to reduce firm risk; and (ii) the CEO may reduce leverage to decrease the disutility from being subject to the performance pressure that large fixed payments entail, while managers might decrease leverage for fear of losing their jobs. This finding is consistent with the prior study of Kim and Buchanan (2008) who argue that a powerful manager leads to reduce firm leverage. Additionally, the interaction variable is negatively related to leverage in Canada, the UK, and the USA. This suggests that leverage policy is not clear for others, such as shareholders, because executives can adopt any level of leverage, depending on their interests and strategies.

Concerning firm financial characteristics in Table 4.5, firm size has a positive and significant effect on leverage in the four countries except for the USA, indicating that increasing firm size lead to increase leverage because companies can obtain more fund by borrowing mony from banks as example. The present findings are not consistent with other research (e.g., Delgado-García et al., 2013; Kimbro and Xu, 2016; and Dang et al., 2018) which found a negative relationship between leverage and firm size. Another important result is found that the link between market performance (Tobin's Q) and leverage is negative for Australian and Canadian samples; positive for others. Additionally, there is a positive and significant influence of stock volatility on leverage for Canadian and US samples. The positive coefficient is in contrast with the prior study of Kim and Yasuda (2018) who find a negative link between firm performance and leverage.

As regards free cash flow ratio, the association between free cash flow ratio and leverage is negative and significant in Australia and the UK at 1% and 5%, but positive and insignificant in Canada and the USA. Negative sign coefficients are consistent with previous research of Jiraporn et al., (2012). To mitigate the agency problem, executives might pursue lower levels of leverage to avoid the disciplining role of debt and thus decrease free cash flow (Chao et al. 2017). The current ratio also has a negative and insignificant relation with leverage in all samples except the Canadian sample, where it is positive and statistically insignificant. This suggests that increasing the level of leverage leads to an increase in short-term liabilities thereby reducing the firm's liquidity. Consequently, a firm's financial risk in the short term is grown. Further, the Ln SMI has a positive relationship with leverage in the four countries except for the Canadian sample, which has a negative link.

To check if the instruments are valid and strong or not, the AR test and weak instrument test are applied. From Table 4.5, the AR test indicates that the instrumental variables are valid (*p-value is insignificant*). Furthermore, by comparing between the minimum eigenvalue statistic and the critical value, the hypothesis of weak instruments is not supported since the minimum eigenvalue statistic is higher than the critical value of LIML size of nominal 5%.

4.4.3 The impact of SOP votes on a firm's profitability horizon

Table 4.6 illustrates the results of SOP votes and their impact on a firm's profitability in the short term (ROA). On the one hand, the findings of the LIML estimation show that the impact of SOP votes on short-term profitability is positive in the four countries but only significant in the USA. On the other hand, ROA has a positive and significant influence on SOP votes' outcome in the USA as well. Long-term profitability (cumulative ROA) in Table 4.7, however, is negatively influenced by SOP votes in Australia and the USA, while there is a positive influence for the rest.These results suggest that to avoid low SOP support for executives' remuneration report at the AGM, and for shareholders to be satisfied; companies have a focus on short-term profit over long-term profit. Such findings support the view (see, Core et al., 1999; Balsam et al., 2016) that profitability (in the short term) is one of the determinants of CEO pay. Thus, the *H3a and H3b can be only accepted* for the US sample. With respect to the natural logarithm of CEO total pay, there is a positive relation between firm's profitability and Ln CEO compensation in all columns except for the Australian sample in both tables and the US sample in Table 4.7, where it is negative but statistically significant at 1%. This suggests that short term profit plays an important role in executive pay packages and stockholders' satisfaction. Thus, managers focus on short-term profit rather than long-term. Furthermore, columns 2-5 in Table 4.6 indicate that the influence of the SOP vote on firm profit strategy varies by the type of SOP law. *Therefore, H3c can be accepted.*

Regarding corporate governance mechanisms, according to *the significant coefficients*, the board size has a positive impact on long and short-term profitability in the USA in Table 4.6 as well as in Canada and the UK in Table 4.7 but a negative effect in Australia. For the US sample, the relation with short-term profit is positive at 10% but there is a negative link to profitability on long term. This implies that the firm's board agrees with CEOs to work on a short term horizon with profitability. In terms of independents directors, a negative link between SOP FOR and firm profitability either short-term or long-term. These findings are in line with previous studies (Wei, 2007; Mersland and Strøm, 2009; Carter et al., 2010), indicating that a higher information asymmetry may be existent between the board and managers as well as no communication or cooperation among directors. *Hence, H3d cannot be rejected, especially in the USA.*

With regards to audit committee independence, which has a positive (negative) impact on a firm's profitability for all samples but statistically insignificant, a positive sign agrees with Wei (2007), who concludes a positive relation between ROA and the audit committee. Positive coefficients on short-term profit indicate that firms with strong audit committees make more dynamic capital allocation decisions and also have higher financial reporting quality, which reduces agency issues. The interaction variable also has a positive and significant association with firm's profitability (short-term) in the USA at 1%. This result indicates that shareholders can access information regarding corporate profit and that managers are keen to provide this information to others.

From Tables 4.6 and 4.7, there is a negative relationship between total assets and firm' profitability, whether short term or long term. These results are consistent with those of other studies (e.g., Hamadi and Heinen, 2015) who find similar results, suggesting that managers tend to increase firm size rather than to enhance profitability because size is linked to prestige and power (Salama and Putnam, 2013). In addition, Tobin's Q as an indicator of market performance has a positive impact on short-term profit and long-term profit in all samples except the Canadian sample, where it has a negative and insignificant impact. This result agrees with Carter et al. (2010) and suggests that increasing a firm's profitability increases the market performance. The regression results also show that, while stock volatility as an indicator of the firm's risk is negatively related to the firm's profitability for all samples, free cash flow has a positive impact on ROA and cumulative ROA in Australia, the UK and the USA. This result is consistent with Brush et al. (2000) and implies that CEOs in these three countries might use free cash flow to engage with shareholders' interests.

Another firm financial characteristic is leverage, which has a negative relation with firm's profitability in Australia, Canada, and the UK but a positive link with profitability in the USA at 1% in the long-term. Negative coefficients are in agreement with study of Liu et al. (2014), while a positive sign is consistent with prior study of Isakov and Weisskopf (2014) and these results suggest that lower leverage in the USA lead to increase firm profitability whether on short term or long term because of the financial risk is lower as well as the optimal choice of leverage from the viewpoint of stockholders differs from that of executives (Krivogorsky, 2006). In addition, the coefficients of Ln SMI have a negative link with the company's profit in all columns except column 5 in Table 4.7, which are positive and significant at 1%.

Table 0.6 SOP votes and the firm's profitability in the short term (ROA)

	Panel A					Panel B				
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	ROA				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+	0.031	0.029	0.021	0.031***	ROA	-0.008	0.152	0.047	0.207***
		-0.028	-0.020	-0.030	-0.008		-0.050	-0.191	-0.065	-0.029
Ln CEO pay	+	0.004	0.016*	0.014***	0.004***	***CG mechanisms***				
		-0.006	-0.009	-0.004	-0.001	Ln BSIZE	-0.038	0.177**	-0.038	0.036***
SOPFOR*CEO pay	+	-0.006	-0.003	-0.001	0.000		-0.038	-0.082	-0.031	-0.011
		-0.004	-0.003	-0.003	-0.001	INDDIR	0.025	0.128	0.009	0.117***
CG mechanisms							-0.045	-0.145	-0.038	-0.021
Ln BSIZE	+	-0.024	0.027	0.017	0.009*	CEO duality	-0.044	-0.005	0.047*	-0.014
		-0.023	-0.021	-0.016	-0.005		-0.022	-0.048	-0.026	-0.003
INDDIR	+	-0.022	-0.059	-0.046	-0.051	TB*CCI	0.025	-0.010	-0.010	0.008
		-0.027	-0.054	-0.024	-0.009		-0.044	-0.042	-0.007	-0.005
ACI	+	-0.022	0.012	0.055	0.014	***Firm financial characteristics***				
		-0.043	-0.039	-0.037	-0.009	Ln TA	0.011*	0.007	-0.001	0.010***
TB*CCI	+	-0.010	0.003	0.007	0.010***		-0.006	-0.011	-0.005	-0.002
		-0.026	-0.014	-0.007	-0.003	SR	0.022*	0.0236*	-0.006	0.035***
Firm financial characteristics							-0.012	-0.014	-0.012	-0.005
Ln TA	+	-0.015	-0.02	-0.012	-0.002	M/B	-0.001	-0.004	0.001	-0.003
		-0.003	-0.004	-0.002	-0.001		-0.002	-0.009	-0.001	-0.001
Tobin's Q	+	0.008***	-0.001	0.033***	0.020***	SV	-0.068	-0.034	-0.040	-0.088
		-0.003	-0.001	-0.003	-0.001		-0.052	-0.142	-0.033	-0.018
SV	+	-0.296***	-0.421***	-0.071	-0.091	LEV	-0.062	-0.112	-0.001	-0.014

		-0.052	-0.047	-0.043	-0.010		-0.039	-0.086	-0.022	-0.018
FCF	+	0.694***	0.052	0.079**	0.356***	CAPEX	0.132***	0.131	-0.041	0.066*
		-0.069	-0.078	-0.039	-0.023		-0.042	-0.260	-0.109	-0.037
LEV	?	-0.012	-0.034	-0.021	0.006	***Market condition level***				
		-0.024	-0.032	-0.021	-0.008	Ln SMI	-1.188**	-1.443***	-0.013	0.014**
Market condition level							-0.586	-0.272	-0.013	-0.006
Ln SMI	+	-0.796**	-0.005	-0.017	-0.002	***Pay level***				
		-0.387	-0.073	-0.008	-0.003	Ln CEO pay	-0.019	-0.087	-0.015	-0.053
Constant		7.226**	0.307	0.19	0.002		-0.009	-0.025	-0.007	-0.003
		-3.345	-0.71	-0.139	-0.021	Constant	11.170**	15.360***	1.415***	1.265***
Observations		497	259	579	4,809		-5.043	-2.663	-0.216	-0.037
Industry effect		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
R-squared		0.583	0.484	0.488	0.463	Observations	495	259	577	4,806
Valid instruments tests						R-squared	0.08	0.317	0.07	0.127
Anderson–Rubin test (p value)		0.67	0.20	0.29	0.32	***Valid instruments tests***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.81	0.46	0.79	0.77
						F-stat first stage (Prob)	0	0	0	0
Weak instruments tests										
Min eigenvalue statistics		3746	1346	4824	44416	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	3705	1436	5282	51618
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Table 0.7 SOP votes and the firm's profitability in the long term (cumulative ROA)

	Panel A					Panel B				
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	Cumulative ROA				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+	-0.011	0.027	0.017	-0.086**	Cumulative ROA	-0.011	0.049	0.003	0.023***
		-0.072	-0.050	-0.057	-0.043		-0.024	-0.097	-0.025	-0.008
Ln CEO pay	+	-0.003	0.011	0.027***	-0.032	***CG mechanisms***				
		-0.015	-0.020	-0.010	-0.007	Ln BSIZE	-0.039	0.177**	-0.037	0.041***
SOPFOR*CEO pay	+	-0.016	0.000	-0.003	0.008*		-0.038	-0.082	-0.030	-0.011
		-0.009	-0.009	-0.005	-0.005	INDDIR	0.024	0.133	0.008	0.110***
CG mechanisms							-0.044	-0.145	-0.039	-0.021
Ln BSIZE	+	-0.100	0.120**	0.082**	-0.036	CEO duality	-0.044	-0.004	0.047*	-0.013
		-0.061	-0.048	-0.034	-0.020		-0.021	-0.048	-0.026	-0.003
INDDIR	+	-0.012	-0.263**	-0.014	-0.084	TB*CCI	0.025	-0.011	-0.009	0.010**
		-0.065	-0.104	-0.055	-0.039		-0.043	-0.042	-0.007	-0.005
ACI	+	-0.035	0.205**	0.131	0.027	***Firm financial characteristics***				
		-0.089	-0.091	-0.086	-0.039	Ln TA	0.011*	0.007	-0.001	0.007***
TB*CCI	+	-0.095	0.019	0.020	0.008		-0.006	-0.012	-0.005	-0.002
		-0.070	-0.030	-0.015	-0.011	SR	0.021*	0.026*	-0.005	0.044***
Firm financial characteristics							-0.011	-0.014	-0.012	-0.005
Ln TA	+	-0.036	-0.044	-0.034	-0.022	M/B	0.000	-0.003	0.001	-0.003
		-0.008	-0.009	-0.006	-0.005		-0.002	-0.009	-0.001	-0.001
Tobin's Q	+	0.028***	-0.004	0.068***	0.066***	SV	-0.077	-0.052	-0.044	-0.105***
		-0.010	-0.001	-0.007	-0.006		-0.054	-0.138	-0.032	-0.019
SV	+	-1.029***	-0.861***	-0.055	-0.380***	LEV	-0.065	-0.108	-0.003	-0.012

		-0.125	-0.104	-0.100	-0.039		-0.040	-0.086	-0.023	-0.018
FCF	+	1.266***	0.041	0.333***	1.236***	CAPEX	0.133***	0.133	-0.038	0.078**
		-0.155	-0.180	-0.098	-0.082		-0.042	-0.261	-0.110	-0.037
LEV	?	-0.117*	-0.156**	-0.079	0.067*	***Market condition level***				
		-0.062	-0.070	-0.046	-0.040	Ln SMI	-1.223**	-1.427***	-0.014	0.014**
Market condition level							-0.596	-0.278	-0.013	-0.006
Ln SMI	+	-4.211***	-0.429***	-0.044	0.124***	***Pay level***				
		-0.990	-0.159	-0.018	-0.013	Ln CEO pay	-0.019	-0.085	-0.015	-0.051
Constant		37.620***	5.045***	0.525*	0.429***		-0.009	-0.025	-0.007	-0.003
		-8.520	-1.569	-0.294	-0.100	Constant	11.480**	15.200***	1.434***	1.265***
Observations		497	259	579	4,810		-5.128	-2.730	-0.214	-0.037
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
R-squared		0.551	0.515	0.497	0.416	Observations	495	259	577	4,806
Valid instruments test						R-squared	0.08	0.316	0.069	0.118
Anderson–Rubin test (p value)		0.46	0.84	0.55	0.85	***Valid instruments test***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.75	0.49	0.81	0.40
						F-stat first stage (Prob)	0	0	0	0
Weak instruments tests										
Min eigenvalue statistics		3812	1436	4824	44416	***Weak instruments tests***				
LIML size of nominal 5%		8.68	6.46	8.68	8.68	Min eigenvalue statistics	3643	1378	5332	50212
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. Tables 4.6 and 4.7 reports the results of LIML estimation of the impact of *SOP votes* on a *firm's profitability (short and long term)*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

With respect to the check on the relevance and instruments' validity, the tests' results show that the instruments are relevant, valid and strong.

4.4.4 The impact of SOP votes on a firm's liquidity

The coefficients of the main independent variable in Table 4.8 indicate that SOP votes' support has a negative influence on firm liquidity (current ratio) in three countries: Australia, Canada and the USA but is statistically only significant in Canada at 10%. The results also show a positive relationship between the interaction variable and liquidity, especially in Canada at 1%, which suggests that higher liquidity is not preferred by shareholders. Evidence from the UK, however, shows a positive association between shareholders' votes FOR and company's liquidity. These results suggest that higher liquidity is not accepted by shareholders in Canada because it indicates that managers might not be using their assets efficiently (from Table 4.3, the current ratio in Canada and the USA is greater than others). In addition, in terms of agency conflicts within firm, executives and shareholders might disagree about a company's liquidity choices, since the differences in control rights of the firm's liquidity and lines of credit may distort the distribution of *ex-post* surplus among the firm's shareholders (Yun, 2008). *Hence, H4a is not accepted in Canada.* Moreover, the results of LIML estimator in Table 4.8 show that the influence of SOP votes on a firm's liquidity differs according to the type of shareholders' votes among the four countries. *Thus, H4b cannot be rejected.* The level of CEO pay also has a positive (negative) association with firm's liquidity, notably in the USA, indicating that stockholders tend to increase the level of pay by encouraging CEOs to fund firm projects via internal sources

According to CG mechanisms, an outside director is negatively associated with liquidity in the four countries except for the Canadian sample. This result is not in line with the study of Tang and Wang (2011) who report a positive relationship between the corporate governance index and firm's liquidity and highlight that there exists higher information asymmetry between boards and managers. *Thus, H4c is accepted.* CEO duality as a managerial power proxy and the interaction variable (TBI*CCI) have a negative relation with liquidity in the four countries except for the Australian sample, where it is positive. This implies that liquidity funders, such as market makers and outsider investors, will protect themselves by expanding bid-ask spreads or reducing

Table 4.8 SOP votes and the firm's liquidity

		Panel A					Panel B			
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	Liquidity (current ratio)				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+/-	-0.486	-4.837*	0.553	-0.286	Liquidity (current ratio)	-0.002	-0.008	0.005	0.000
		-0.637	-2.626	-0.448	-0.328		-0.004	-0.004	-0.004	-0.001
Ln CEO pay	+	0.077	0.454	-0.085	-0.108**	***CG mechanisms***				
		-0.150	-0.631	-0.089	-0.050	Ln BSIZE	-0.031	0.245**	-0.012	0.063***
SOPFOR*CEO pay	+	0.007	1.015**	0.004	0.011		-0.045	-0.097	-0.037	-0.013
		-0.075	-0.500	-0.035	-0.035	INDDIR	-0.009	0.192	0.038	0.063***
CG mechanisms							-0.048	-0.165	-0.042	-0.023
INDDIR	+	-1.057**	4.144	-0.493	-0.764***	CEO duality	-0.046	0.005	0.043*	-0.011
		-0.503	-2.997	-0.469	-0.281		-0.022	-0.049	-0.025	-0.004
CEO duality	?	-0.763**	-1.261**	0.388	0.090*	TB*CCI	0.054	-0.013	-0.012	0.018***
		-0.330	-0.562	-0.571	-0.051		-0.047	-0.049	-0.008	-0.005
TB*CCI	+	0.325	-0.843	-0.013	0.052	***Firm financial characteristics***				
		-0.473	-0.746	-0.078	-0.076	Ln TA	0.010	-0.010	-0.007	0.004
Firm financial characteristics							-0.008	-0.020	-0.006	-0.003
Ln TA	+	-0.454***	-0.864**	-0.231***	-0.353***	SR	0.018	0.039**	-0.005	0.042***
		-0.098	-0.352	-0.038	-0.031		-0.012	-0.016	-0.013	-0.005
SR	+	-0.188	1.507**	0.0481	-0.145*	M/B	-0.001	-0.001	0.001	-0.002
		-0.142	-0.757	-0.120	-0.077		-0.002	-0.011	-0.001	-0.001
M/B	+	0.050	0.401*	-0.033	-0.020	SV	-0.052	-0.081	-0.028	-0.128***
		-0.039	-0.217	-0.006	-0.018		-0.052	-0.130	-0.038	-0.020

FCF	+	-4.698***	-5.335	0.545	0.402	LEV	-0.045	-0.131	0.003	-0.029
		-1.358	-7.085	-0.706	-0.513		-0.044	-0.109	-0.030	-0.021
SV	-	-0.101	3.167	0.106	0.587**	CAPEX	0.104**	0.168	-0.103	0.067*
		-0.688	-2.664	-0.401	-0.277		-0.048	-0.236	-0.129	-0.040
DPS	-	0.096	-0.937***	0.157	0.050*	***Market condition level***				
		-0.143	-0.348	-0.109	-0.03	Ln SMI	-1.438**	-1.786***	-0.011	0.017***
Market condition level							-0.646	-0.318	-0.016	-0.006
Ln SMI	+	-0.254	-6.206	-0.412**	0.237***	***Pay level***				
		-7.805	-3.888	-0.167	-0.086	Ln CEO pay	-0.021	-0.077	-0.011	-0.052
Constant		13.610	73.970*	11.290***	9.826***		-0.010	-0.032	-0.008	-0.004
		-67.330	-38.550	-2.773	-0.802	Constant	13.370**	18.680***	1.403***	1.304***
Observations		406	207	488	3906		-5.577	-3.092	-0.283	-0.043
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
R-squared		0.286	0.344	0.184	0.216	Observations	406	204	470	3906
Valid instruments tests						R-squared	0.102	0.356	0.078	0.126
Anderson–Rubin test (p value)		0.61	0.20	0.91	0.98	***Valid instruments tests***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.69	0.62	0.91	0.69
						F-stat first stage (Prob)	0	0	0	0
Weak instruments tests										
Min eigenvalue statistics		1835	615	5327	38333	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	1484	567	4057	35177
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *firm liquidity*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

market participation because of a lower level of transparency and lower quality of disclosure. Regarding firm financial characteristics, columns 2-5 in Table 4.8 show that firm size is negatively associated with the current ratio, suggesting that the efficiency of current assets is not existent, firms are not securing financing very well, or are not managing their working capital. This finding is not in line with the previous research of Tang and Wang (2011) who find a positive association between firm size and liquidity. Columns 2-5 in Table 4.8 also indicate a positive relationship between stock return and liquidity in Canada and the UK but a negative association in Australia and the USA. Negative sign findings are consistent with a study of Narayan and Zheng (2011) who argue that a negative association between liquidity and returns might be attributed to the fact that the stock market is characterised by information asymmetry.

In addition, there is a positive link between market to book ratio and liquidity in Australia, while in the UK and the USA, the relationship between market to book ratio and liquidity is negative. Negative sign findings are in line with the prior study of Yun (2008) who finds a negative relation between market to book ratio and liquidity. Moreover, a negative link between free cash flow and liquidity for the Australian and Canadian samples. Table 4.8 also reveals that the coefficients on stock volatility are positive and significant in the three countries, suggesting that increasing liquidity can cover debt service costs, principal payments and unexpected costs. The dividend also has a positive and significant association with liquidity in the USA at 10%. This suggests that less solvent firms tend to pay low dividends because of a shortage of cash. These findings are supported by the descriptive statistics in Table 4.3, where the UK has the lowest dividend compared to the other countries. The last control variable is ln SMI, which has a positive association with liquidity in the USA, but is negative in the three countries. *Finally*, by using the AR test and weak instruments test, the instruments, used in model 5a are relevant to an endogenous variable, valid and strong.

4.4.5 Robustness test

Additional robustness checks are conducted such as various measures and additional control variable. After checking for multicollinearity among explanatory variables, the study's models are re-estimated by using the natural logarithm of market capitalisation as a firm size proxy instead of the natural logarithm of total assets. In addition, Regulatory Quality as one of the corporate governance indicators is included. Tables

Table 4.9 SOP votes and firm's investment (capital expenditure)

		Panel A					Panel B			
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp signs	Long investments (capital expenditure)				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+	0.024	-0.001	-0.014	0.014**	CAPEX	0.127***	0.118	-0.030	0.075**
		-0.018	-0.014	-0.021	-0.007		-0.042	-0.258	-0.105	-0.035
Ln CEO pay	+	-0.007	0.003	-0.003	-0.009	***CG mechanisms***				
		-0.007	-0.005	-0.003	-0.001	Ln BSIZE	-0.025	0.187**	-0.040	0.028***
SOPFOR*CEO pay	+	-0.004	-0.004	-0.001	0.000		-0.038	-0.076	-0.030	-0.010
		-0.002	-0.002	-0.002	-0.001	INDDIR	0.037	0.116	0.006	0.116***
CG mechanisms							-0.042	-0.148	-0.038	-0.021
Ln BSIZE	+	-0.033	0.004	-0.008	-0.023	CEO duality	-0.042	-0.004	0.049*	-0.014
		-0.020	-0.016	-0.012	-0.004		-0.022	-0.049	-0.026	-0.003
CEO duality	?	0.065*	-0.013	0.020	0.000	TB*CCI	0.025	-0.007	-0.009	0.012**
		-0.035	-0.008	-0.015	-0.001		-0.044	-0.041	-0.007	-0.005
TB*CCI	+	0.033	0.009	-0.003	-0.001	***Firm financial characteristics***				
		-0.023	-0.008	-0.003	-0.002	Ln MC	0.008	0.001	-0.001	0.022***
Firm financial characteristics							-0.007	-0.013	-0.006	-0.003
Ln MC	+	0.004	0.004	0.001	0.007***	SR	0.023**	0.022*	-0.005	0.045***
		-0.005	-0.004	-0.002	-0.001		-0.011	-0.013	-0.011	-0.006
SR	+	0.007	-0.002	-0.015	-0.006	M/B	-0.003	-0.003	0.001*	-0.002
		-0.009	-0.005	-0.006	-0.002		-0.002	-0.009	-0.001	-0.001
SV	?	-0.002	-0.011	0.043**	0.023***	SV	-0.062	-0.081	-0.049	-0.066
		-0.033	-0.028	-0.019	-0.007		-0.054	-0.128	-0.033	-0.018
FCF	+	-0.311***	-0.476***	-0.218***	-0.229***	LEV	-0.050	-0.109	-0.005	-0.007

		-0.084	-0.064	-0.046	-0.017		-0.038	-0.087	-0.021	-0.017
Liq	-	-0.006	0.001	-0.002	-0.004	***Market condition level***				
		-0.003	-0.001	-0.002	0.000	Ln SMI	-2.306	1.129	-0.014	-0.006
LEV	?	0.016	-0.011	0.028**	0.039***		-5.054	-2.282	-0.014	-0.006
		-0.027	-0.020	-0.011	-0.008	***Pay level***				
Market condition level						Ln CEO pay	-0.016	-0.080	-0.015	-0.061
Ln SMI	+	1.709	1.631**	0.001	-0.001		-0.009	-0.026	-0.007	-0.003
		-3.796	-0.660	-0.005	-0.002	***World governance indicator***				
World governance indicator						RQ	1.595	-8.806	-0.065	1.214***
RQ	?	-2.234	-5.434**	0.235**	-0.074		-7.221	-8.051	-0.247	-0.240
		-5.383	-2.257	-0.100	-0.094	Constant	19.210	-0.700	1.488***	0.189
Constant		-12.410	-10.410	-0.133	0.165**		-36.450	-14.120	-0.400	-0.209
		-27.400	-4.146	-0.153	-0.083	Observations	495	259	577	4805
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
Observations		406	204	472	3907	R-squared	0.075	0.317	0.069	0.132
R-squared		0.261	0.585	0.3	0.389	***Valid instruments test***				
Valid instruments test						Anderson–Rubin test (p value)	0.91	0.50	0.69	0.27
Anderson–Rubin test (p value)		0.19	0.43	0.86	0.25	F-stat first stage (Prob)	0	0	0	0
F-stat first stage (Prob)		0	0	0	0	***Weak instruments tests***				
						Min eigenvalue statistics	5411	1084	2986	71013
Weak instruments tests						LIML size of nominal 5%	8.68	8.68	8.68	8.68
Min eigenvalue statistics		4011	656	3990	52384					
LIML size of nominal 5%		8.68	8.68	8.68	8.68					

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *long-term investment*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

Table 4.10 SOP votes and financial risk (leverage)

		Panel A					Panel B			
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp signs	Leverage				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	-	-0.107	-0.043	0.007	-0.042	LEV	-0.066	-0.109	-0.005	-0.003
		-0.072	-0.064	-0.076	-0.024		-0.038	-0.087	-0.021	-0.018
Ln CEO pay	-	0.044***	-0.010	-0.013	0.007*	***CG mechanisms***				
		-0.012	-0.022	-0.017	-0.004	Ln BSIZE	-0.026	0.187**	-0.040	0.030***
SOPFOR*CEO pay	-	0.006	0.002	-0.004	0.002		-0.038	-0.076	-0.030	-0.010
		-0.007	-0.014	-0.008	-0.003	INDDIR	0.043	0.116	0.006	0.109***
CG mechanisms							-0.042	-0.148	-0.038	-0.021
Ln BSIZE	-	-0.098	0.003	0.017	-0.022	CEO duality	-0.034	-0.004	0.049*	-0.015
		-0.049	-0.059	-0.050	-0.012		-0.021	-0.049	-0.026	-0.003
CEO duality	?	-0.026	0.050	-0.095	-0.002	TB*CCI	0.018	-0.007	-0.009	0.010**
		-0.031	-0.033	-0.049	-0.003		-0.043	-0.041	-0.007	-0.005
TB*CCI	-	0.006	0.002	-0.004	0.002	***Firm financial characteristics***				
		-0.007	-0.014	-0.008	-0.003	Ln MC	0.006	0.001	-0.001	0.022***
Firm financial characteristics							-0.006	-0.014	-0.007	-0.013
Ln MC	+	0.017*	0.004	0.021*	-0.024	SR	0.023**	0.022*	-0.005	0.047***
		-0.010	-0.015	-0.011	-0.003		-0.011	-0.013	-0.011	-0.006
Tobin's Q	?	-0.009	-0.011	-0.009	0.015***	M/B	-0.001	-0.003	0.001*	-0.002
		-0.005	-0.001	-0.007	-0.002		-0.002	-0.009	-0.001	-0.001
SV	?	0.045	0.162	0.077	0.047**	SV	-0.041	-0.081	-0.049	-0.075
		-0.093	-0.102	-0.100	-0.023		-0.050	-0.128	-0.033	-0.019

FCF	-	-0.388***	0.173	-0.338**	0.085**	CAPEX	0.134***	0.118	-0.030	0.051
		-0.091	-0.161	-0.159	-0.043		-0.043	-0.258	-0.105	-0.036
Liq	-	-0.023***	0.001	-0.045	-0.004	***Market condition level***				
		-0.006	-0.004	-0.009	-0.001	Ln SMI	-2.132	1.129	-0.014	-0.004
Market condition level							-5.059	-2.282	-0.014	-0.006
Ln SMI	?	-1.086	-1.922	0.037	0.081***	***Pay level***				
		-7.548	-2.396	-0.025	-0.006	Ln CEO pay	-0.013	-0.079	-0.015**	-0.061***
World governance indicator							-0.009	-0.026	-0.007	-0.003
RQ	?	1.765	5.890	0.266	-0.404*	***World governance indicator***				
		-10.680	-8.089	-0.475	-0.238	RQ	1.410	-8.806	-0.065	1.257***
Constant		7.175	13.100	-0.373	0.316		-7.218	-8.051	-0.247	-0.240
		-54.520	-15.160	-0.715	-0.216	Constant	17.950	-0.700	1.488***	0.166
Observations		405	203	466	3908		-36.480	-14.12	-0.400	-0.209
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
R-squared		0.205	0.496	0.191	0.115	Observations	495	259	577	4805
Valid instruments test						R-squared	0.059	0.317	0.069	0.138
Anderson–Rubin test (p value)		0.43	0.22	0.12	0.84	***Valid instruments test***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.83	0.50	0.69	0.33
Weak instruments tests						F-stat first stage (Prob)	0	0	0	0
Min eigenvalue statistics		727	565	687	11833	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	5696	1084	2986	70012
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *leverage as a financial risk*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

Table 4.11 SOP votes and the firm's profitability in the short term (ROA)

		Panel A					Panel B			
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	ROA				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+	0.022	0.030	0.023	0.023***	ROA	-0.018	0.157	0.049	0.121***
		-0.028	-0.021	-0.029	-0.008		-0.051	-0.192	-0.061	-0.029
SOPFOR*CEO pay	+	-0.006	-0.004	-0.001	0.000	***CG mechanisms***				
		-0.004	-0.004	-0.003	-0.001	Ln BSIZE	-0.026	0.184**	-0.038	0.034***
Ln CEO pay	+	0.002	0.000	0.008*	-0.003		-0.038	-0.076	-0.029	-0.010
		-0.007	-0.008	-0.004	-0.001	INDDIR	0.035	0.120	0.010	0.114***
CG mechanisms							-0.043	-0.149	-0.038	-0.021
Ln BSIZE	+	-0.040	0.001	-0.008	-0.004	CEO duality	-0.042	-0.006	0.048*	-0.015
		-0.023	-0.022	-0.017	-0.004		-0.022	-0.049	-0.027	-0.003
INDDIR	+	-0.031	-0.038	-0.082	-0.047	TB*CCI	0.026	-0.008	-0.010	0.009*
		-0.026	-0.054	-0.026	-0.009		-0.044	-0.041	-0.007	-0.005
ACI	+	-0.019	0.020	0.045	0.012	***Firm financial characteristics***				
		-0.042	-0.040	-0.037	-0.009	Ln MC	0.008	0.003	-0.001	0.019***
TB*CCI	+	-0.013	-0.001	0.010	0.010***		-0.007	-0.013	-0.006	-0.003
		-0.026	-0.014	-0.007	-0.003	SR	0.024**	0.021	-0.006	0.044***
Firm financial characteristics							-0.012	-0.014	-0.011	-0.006
Ln MC	+	-0.012	-0.005	0.000	0.007***	M/B	-0.002	-0.005	0.001	-0.003
		-0.005	-0.004	-0.004	-0.001		-0.002	-0.009	-0.001	-0.001
Tobin's Q	+	0.013***	0.000	0.038***	0.019***	SV	-0.066	-0.013	-0.043	-0.064
		-0.003	-0.001	-0.003	-0.001		-0.056	-0.154	-0.034	-0.019

SV	+	-0.312***	-0.432***	-0.079	-0.074	CAPEX	0.127***	0.080	-0.038	0.042
		-0.056	-0.053	-0.047	-0.010		-0.042	-0.261	-0.107	-0.036
FCF	+	0.702***	0.098	0.069*	0.352***	LEV	-0.052	-0.102	-0.001	-0.007
		-0.067	-0.089	-0.039	-0.023		-0.039	-0.086	-0.022	-0.018
LEV	?	-0.019	-0.040	-0.024	0.014*	***Market condition level***				
		-0.025	-0.034	-0.021	-0.008	Ln SMI	-2.392	1.482	-0.014	-0.002
Market condition level							-5.065	-2.295	-0.014	-0.006
Ln SMI	+	0.646	-1.495	-0.003	-0.012	***Pay level***				
		-3.533	-1.041	-0.009	-0.003	Ln CEO pay	-0.016	-0.079	-0.015	-0.059
World governance indicator							-0.009	-0.026	-0.007	-0.003
RQ	+	-2.119	5.144	-0.241	-0.330***	***World governance indicator***				
		-5.014	-3.555	-0.147	-0.091	RQ	1.709	-9.967	-0.056	1.214***
Constant		-3.105	9.552	0.161	0.288***		-7.229	-8.070	-0.246	-0.240
		-25.490	-6.549	-0.254	-0.081	Constant	19.850	-2.988	1.488***	0.203
Observations		497	259	579	4809		-36.530	-14.250	-0.399	-0.208
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
R-squared		0.577	0.461	0.482	0.477	Observations	495	259	577	4805
Valid instruments test						R-squared	0.075	0.318	0.07	0.142
Anderson–Rubin test (p value)		0.66	0.44	0.32	0.51	***Valid instruments test***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.64	0.45	0.78	0.20
Weak instruments tests						F-stat first stage (Prob)	0	0	0	0
Min eigenvalue statistics		1008	965	1066	15784	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	5402	1076	2958	65221
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Table 4.12 SOP votes and the firm's profitability in the long term (cumulative ROA)

		Panel A					Panel B			
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	Cumulative ROA				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+	-0.048	0.039	0.023	-0.112**	Cumulative ROA	-0.017	0.082	0.005	0.012*
		-0.072	-0.050	-0.055	-0.044		-0.024	-0.100	-0.025	-0.008
SOPFOR*CEO pay	+	-0.012	-0.004	-0.005	0.009*	***CG mechanisms***				
		-0.009	-0.009	-0.005	-0.005	Ln BSIZE	-0.028	0.185**	-0.039	0.044***
Ln CEO pay	+	-0.044	-0.042	-0.007	-0.55		-0.034	-0.037	-0.077	-0.029
		-0.015	-0.018	-0.009	-0.007	INDDIR	0.034	0.123	0.007	0.107***
CG mechanisms							-0.042	-0.152	-0.039	-0.021
Ln BSIZE	+	-0.223***	0.039	-0.028	-0.083	CEO duality	-0.043	-0.009	0.049*	-0.014
		-0.060	-0.052	-0.033	-0.019		-0.021	-0.049	-0.026	-0.003
INDDIR	+	-0.069	-0.170	-0.189***	-0.092	TB*CCI	0.024	-0.007	-0.009	0.016***
		-0.064	-0.109	-0.055	-0.039		-0.043	-0.042	-0.007	-0.005
ACI	+	-0.014	0.181*	0.081	0.012	***Firm financial characteristics***				
		-0.091	-0.098	-0.082	-0.038	Ln MC	0.008	0.004	-0.001	0.020***
TB*CCI	+	-0.138*	0.011	0.036**	0.009		-0.007	-0.013	-0.006	-0.003
		-0.072	-0.029	-0.015	-0.011	SR	0.022**	0.028**	-0.005	0.046***
Firm financial characteristics							-0.011	-0.013	-0.011	-0.006
Ln MC	+	0.017	-0.001	0.032***	0.011**	M/B	-0.002	-0.007	0.001	-0.002
		-0.012	-0.009	-0.009	-0.006		-0.002	-0.010	-0.001	-0.001
Tobin's Q	+	0.031***	-0.003	0.084***	0.071***	SV	-0.076	0.000	-0.048	-0.051
		-0.010	-0.001	-0.006	-0.006		-0.058	-0.155	-0.034	-0.018
SV	+	-0.918***	-0.917***	-0.090	-0.354***	CAPEX	0.128***	0.068	-0.033	0.115***

		-0.132	-0.106	-0.106	-0.039		-0.042	-0.262	-0.108	-0.032
FCF	+	1.195***	0.152	0.261***	1.231***	LEV	-0.055	-0.017	-0.004	-0.006
		-0.161	-0.197	-0.091	-0.082		-0.041	-0.088	-0.022	-0.018
LEV	?	-0.158**	-0.188**	-0.089	0.166***	***Market condition level***				
		-0.062	-0.077	-0.045	-0.045	Ln SMI	-2.990	2.147	-0.014	-0.005
Market condition level							-5.155	-2.468	-0.014	-0.006
Ln SMI	+	-39.650	-9.976***	0.024	0.076***	***Pay level***				
		-7.980	-2.016	-0.019	-0.013	Ln CEO pay	-0.017	-0.078	-0.015	-0.059
World governance indicator							-0.009	-0.026	-0.007	-0.003
RQ	+	51.240***	32.82***	-1.825***	3.895***	***World governance indicator***				
		-11.190	-6.826	-0.321	-0.409	RQ	2.497	-12.070	-0.054	1.168***
Constant		291.700***	64.560***	0.970*	-2.915***		-7.331	-8.619	-0.251	-0.242
		-57.710	-12.720	-0.537	-0.369	Constant	24.230	-7.395	1.482***	0.200
Observations		497	258	579	4806		-37.210	-15.390	-0.400	-0.210
Industry effect		Yes	Yes	Yes	Yes	Industry effect	Yes	Yes	Yes	Yes
R-squared		0.562	0.515	0.522	0.427	Observations	495	258	577	4802
Valid instruments test						R-squared	0.076	0.316	0.069	0.13
Anderson–Rubin test (p value)		0.86	0.25	0.13	0.78	***Valid instruments test***				
F-stat first stage (Prob)		0	0	0	0	Anderson–Rubin test (p value)	0.65	0.45	0.80	0.33
Weak instruments tests						F-stat first stage (Prob)	0	0	0	0
Min eigenvalue statistics		1021	639	1066	10111	***Weak instruments tests***				
LIML size of nominal 5%		8.68	8.68	8.68	8.68	Min eigenvalue statistics	5403	207	2888	5882
						LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. Tables 4.11 and 4.12 reports the results of LIML estimation of the impact of SOP votes on a firm's profitability (short and long term) as a robustness check. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

Table 0.13 SOP votes and the firm's liquidity

		Panel A				Panel B				
		Australia	Canada	UK	USA		Australia	Canada	UK	USA
Dependent variable	Exp Signs	Liquidity				***Dependent variable***	SOP votes			
Independent variable						***Independent variable***				
SOPFOR	+/-	-0.571	-4.679*	0.727	-0.427	Current ratio	-0.003	-0.008	0.006	-0.001
		-0.656	-2.691	-0.445	-0.341		-0.004	-0.004	-0.004	-0.001
Ln CEO pay	+	-0.241*	-0.184	-0.150	-0.350***	***CG mechanisms***				
		-0.129	-0.796	-0.098	-0.052	Ln BSIZE	-0.021	0.222**	-0.022	0.051***
SOPFOR*CEO pay	+	0.011	0.990*	0.011	0.013		-0.044	-0.089	-0.036	-0.012
		-0.078	-0.507	-0.033	-0.036	INDDIR	-0.006	0.210	0.030	0.063***
CG mechanisms							-0.047	-0.165	-0.044	-0.023
INDDIR	+	-1.384***	4.786	-0.887*	-0.876***	CEO duality	-0.045	-0.005	0.051**	-0.013
		-0.525	-3.376	-0.482	-0.287		-0.022	-0.049	-0.026	-0.004
CEO duality	?	-0.830**	-1.451**	0.666	0.071	TB*CCI	0.054	-0.015	-0.012	0.018***
		-0.336	-0.593	-0.507	-0.052		-0.048	-0.048	-0.008	-0.005
TB*CCI	+	0.698	-0.734	0.045	0.161**	***Firm financial characteristics***				
		-0.481	-0.747	-0.075	-0.077	Ln MC	0.006	0.004	-0.003	0.017***
Firm financial characteristics							-0.008	-0.016	-0.006	-0.003
Ln MC	+	-0.068	-0.371	-0.063	-0.052	SR	0.018	0.039**	-0.004	0.048***
		-0.085	-0.460	-0.054	-0.035		-0.012	-0.017	-0.013	-0.006
SR	+	-0.180	1.689**	0.087	-0.159*	M/B	-0.002	-0.001	0.001**	-0.002

		-0.148	-0.791	-0.124	-0.094
M/B	+	0.111***	0.414*	-0.021	0.019
		-0.036	-0.232	-0.005	-0.019
SV	+	1.013	2.732	0.063	0.832***
		-0.747	-2.493	-0.420	-0.295
FCF	+	-5.084***	-5.524	1.346*	1.488***
		-1.398	-7.050	-0.712	-0.516
DPS	-	-0.090	-1.078***	0.096	-0.018
		-0.150	-0.395	-0.116	-0.030
Market condition level					
Ln SMI	+	-23.610	-88.640	-0.174	-0.123
		-74.450	-57.250	-0.166	-0.092
World governance indicator					
RQ	?	38.390	283.000	1.739	-3.823
		-106.300	-190.400	-2.691	-3.897
Constant		172.700	586.700	4.370	12.660***
		-536.400	-366.200	-4.276	-3.403
Observations		406	207	488	3,905
Industry effect		Yes	Yes	Yes	Yes
R-squared		0.235	0.344	0.152	0.189
Valid instruments test					
Anderson–Rubin test (p value)		0.25	0.11	0.33	0.68
F-stat first stage (Prob)		0	0	0	0
Weak instruments tests					
Min eigenvalue statistics		3860	678	1081	53404
LIML size of nominal 5%		8.68	8.68	8.68	8.68

	-0.003	-0.011	-0.001	-0.001
SV	-0.055	-0.039	-0.033	-0.093
	-0.057	-0.139	-0.039	-0.021
CAPEX	0.099**	0.136	-0.089	0.051
	-0.047	-0.238	-0.125	-0.040
LEV	-0.032	-0.143	-0.006	-0.019
	-0.043	-0.103	-0.027	-0.020
Market condition level				
Ln SMI	-3.944	0.080	-0.006	0.000
	-5.685	-2.622	-0.016	-0.007
Pay level				
Ln CEO pay	-0.019	-0.089	-0.013	-0.059
	-0.009	-0.031	-0.008	-0.004
World governance indicator				
RQ	3.556	-6.280	-0.017	1.259***
	-8.127	-9.269	-0.286	-0.263
Constant	31.480	6.812	1.325***	0.199
	-41.010	-16.220	-0.477	-0.228
Industry effect	Yes	Yes	Yes	Yes
Observations	406	204	470	3,905
R-squared	0.10	0.357	0.075	0.142
Valid instruments test				
Anderson–Rubin test (p value)	0.26	0.34	0.60	0.70
F-stat first stage (Prob)	0	0	0	0
Weak instruments tests				
Min eigenvalue statistics	4016	651	3585	54610

LIML size of nominal 5%	8.68	8.68	8.68	8.68

Notes. This table reports the results of LIML estimation of the impact of *SOP votes* on *firm liquidity*. Definitions for all variables are provided in Table 4.2. *, **, and *** indicate significance at the .10, .05, and .01 level, respectively. Parenthesis represents the standard error. Min eigenvalue statistics (Stock and Yogo, 2005) null hypothesis of weak instruments. LIML size of nominal 5% (is critical value from Stock and Yogo, 2005).

4.9-4.13 below show that the results remain similar and the signs are everywhere the same as in Tables 4.4-4.8.

4.5 Discussion and conclusion

This study aims to investigate the impact of SOP votes on important corporate policies and strategies. Recent studies suggest (see earlier discussion) that SOP votes are less effective as a corporate governance mechanism because managers might adopt specific policies which raise shareholder support but at the same time decrease firm value. The current study finds that, only in the USA, SOP vote support (SOP-FOR) has a significant impact on the firm's investment and profitability. It has a positive impact on firms' long-run investment (capital expenditure ratio) as well as their short-run profit (ROA), but a negative impact on long-run profit (measured as cumulative ROA within the sample period). For the other three countries considered, SOP-FOR only significantly and negatively impacts in Canada at 1%. These findings suggest that profitability is one of the most important factors for shareholders, notably in the USA and therfore positively influences votes' outcome. Managers will, therefore, attempt to adopt policies which lead to decrease the firm's costs such as reducing leverage level and investing in positive net present value projects, as a result, increasing the firm's profitability and hence increasing shareholders' wealth.

To capture the simultaneous determination of corporate policy and SOP voting outcome, simultaneous equations, with SOP-FOR as the explained variable, are estimated along with an equation with policy instruments as the explained variable. The outcomes show that, in the USA, the policies considered in this study, apart from leverage and liquidity, all have a significant and positive impact at the 1% level on SOP support for the executive pay package. In terms of magnitude, short-run profit is much more important than long-run profit in wooing shareholder approval, with their coefficients respectively equal to 0.207 and 0.023. This perhaps partly explains why the SOP regulation directs US managers' focus to current ROA instead of cumulative ROA. It is, however, premature to conclude at this stage that SOP encourages myopic managerial behaviours among US firms, as the estimates also show that long-run investment has increased with SOP-FOR; and at the same time, long-run investment has raised SOP support by shareholders with a coefficient not only statistically but also economically significant (0.13). For the other three countries, the range of corporate policies considered here has no significant impact on SOP voting outcomes, apart from

liquidity, which reduces SOP support in Canada with a coefficient of 4.837 significant at the 10% level.

To sum up, evidence provided in this study suggests that US executives tend to adopt a policy portfolio which not only raises the current profit but also increases capital expenditure. The latter promotes the growth potential of the company, although it raises its business risk. There is little evidence from the other three countries to show any visible impact of the SOP regulation on corporate strategic policies. Although capital expenditure has a significant influence on shareholder approval of executive pay packages, top managers in these three countries do not seem to have responded to it in the sample period.

In terms of capital structure and its implied financial risk, voters seemed to have ignored its relevance in approving executive pay. Nevertheless, both US and Australian top managers have responded to the new regulation by reducing the leverage ratio of their respective companies. Whether such changes are optimal or suboptimal for the shareholders is perhaps a topic to be pursued in further research. Future research may attempt to develop a framework which permits the researcher(s) to see the collective impact on a wider range of corporate policies of the different forms of say-on-pay regulation and to assess its optimality. This would require a sophisticated research design which can capture most, if not all of the elements of significance.

Chapter 5: Conclusion

5.1 Introduction

This thesis aims to provide additional insights into the understanding and importance of various types of SOP votes and to investigate the impact of each type on (a) managerial power, (b) firm performance; and (c) firm strategic policies. SOP regulation was introduced by the UK government against a background of public outrage at rising levels of executive pay and a putative lack of transparency in CEO compensation packages (Conyon and Sadler,2010). The aim of this SOP law is not only to regulate the amount of remuneration given to non-executive and executive directors; it is, moreover, to obtain adequate information available to stockholders to evaluate the appropriateness /fairness of the company's compensation policy (Alissa, 2015). Following this, a number of countries have adopted SOP regulations, including Australia, the Netherlands, Norway, Sweden, France, Germany, and the USA.

The effect of SOP votes on CEO compensation has been investigated by a number of studies in the UK (e.g., Carter and Zamora, 2007; Ferri and Maber, 2013; and Alissa, 2015); in the USA (see Burns and Minnick ,2013; Kimbro and Xu, 2016); in Australia (e.g., Monem and Ng, 2013) and in other countries (Correa and Lel, 2016; Kim et al., 2017) and the results are mixed. For example, Carter and Zamora (2007) examine which component of CEO remuneration, shareholders vote against and whether boardrooms react to negative votes by revising excessive remunerations. Their findings indicate that shareholders disapprove of higher pay, poor pay-for-performance sensitivity in bonus remuneration and larger possible dilution in equity compensation. However, an American study by Armstrong et al. (2013) used a regression discontinuity research design to examine the impacts of shareholder support for equity pay plans on subsequent CEO pay. They found little evidence that higher disapproval shareholder voting for proposed equity remuneration plans leads to a reduction in the level or elements of future CEO incentive pay.

Although the SOP rule has been adopted in various countries, the type of vote differs. In Australia, for example, the first-strike rule occurs when a firm's pay report obtains 25% or more negative votes by stockholders at the firm's AGM. However, because advisory votes were ignored by Australian firms under this regime, Australia's Productivity Commission revised the regulatory framework of Australia's executive pay rules. These efforts led to adoption of the two-strike law, which became effective from 1 July 2011, to engage shareholders in executive remuneration (Monem and Ng, 2013).

The two-strike regulation was adopted rather than the binding vote for two reasons (Thomas and Van der Elst, 2015): the first reason is that the latter undermines the authority of the directors to make decisions. The second reason is that a binding shareholder vote would influence the Australian firms' competitiveness and their ability to engage and keep top executives.

Furthermore, because the government thought that the advisory vote seems to be ineffective, the UK has changed the type of vote from advisory to binding, which means that companies are required to respond to stockholders' concerns regarding executive pay. In addition, the type of vote in the USA is advisory, which means that companies do not need to react to shareholders' concerns about the level of CEO pay.

The key motivation of this thesis is the scarcity of studies that provide clear evidence from different types of votes (international context), especially after the changes in the SOP regulation in Australia and the UK. In addition, a new regulation has been adopted in the UK and the USA called CEO pay ratio disclosure. For example, the previous study of Correa and Lel (2016) tested the impact of SOP regulation on managerial power as measured by CPS. However, CPS is unlikely to reflect the true executive power, as the base of measurement itself is a biased reflection of the pay scale applicable to the general corporate employees. Hence, this research employs the ratio of CEO pay to average workers' salaries to measure CEO power and take into account the changes in the SOP rule in Australia and the UK. In addition, prior studies such as Ferri and Maber (2013) and Cuñat et al. (2016) examine the impact of SOP votes on performance by considering one type of SOP vote and at the same time their studies do not cover the changes of SOP law in Australia and the UK. Thus, this study displays evidence from different types of votes as well as other performance measures (see. ROIC & EP) to provide a clear picture regarding a firm's performance. Moreover, the study of Brunarski et al. (2015) investigates managers' reaction regarding low SOP votes support. They found that managers with low SOP support tend to react by increasing corporate investment, decreasing debt level and increasing dividends. Nonetheless, their evidence comes from one types of SOP vote. Therefore, the current study tests the impact of SOP votes on the firm's strategic policies and the evidence results from the international context (Anglo-Saxon economies).

Anglo-Saxon economies comprises Australia, Canada, New Zealand, the UK and the USA. However, New Zealand firms are excluded because data regarding SOP votes is not available except for a handful of companies. Therefore, the four countries are chosen for several reasons. Firstly, these four countries have approved different types of SOP regulations. Secondly, these countries share in the common law system, which has more flexible legislation and offers the strongest protection for shareholders (Weimer and Pape, 1999). Thirdly, under the prevailing corporate regulations, companies in these countries have a unitary board system (one-tier). Finally, corporate governance systems in these countries are characterised by dispersed equity holding and a broad delegation to management of corporate responsibilities (Cernat, 2004; García-Sánchez et al. 2015). Such similarity allows us to tease out other country and firm-specific factors affecting the effectiveness of SOP voting.

Nevertheless, there are some interesting differences among these countries; (i) the size of the market is different among the four countries, the US market is being the largest; (ii) the numbers and the key provisions within the corporate governance codes are different. The UK and the USA, for instance, have issued the highest number of governance codes (Cuomo et al.,2016), and (iii) legislated mandatory governance models are also different. While the Sarbanes-Oxley Act SOA (2002), which prescribes one set of practices for all companies is applied in the USA, the "comply or explain" approach is adopted in other countries. Such a regime allows companies to either voluntarily adopt regulator-endorsed "best practices" or to explain why they have adopted alternative practices that achieve the underlying governance principles embedded in the endorsed best practices (Luo and Salterio, 2014).

5.2 The results of the thesis:

Chapter 2 discusses the impact of shareholders' votes on CEP power as measured by the ratio of CEO pay to average employees' pay as well as examines the factors that undermine the effectiveness of SOP votes. This study aims to examine whether managerial power is influenced after adopting SOP regulation by employing the ratio of CEO pay to average employees' pay. This ratio is a more reflective measure of CEO power, particularly since the issue in the UK and the USA of new legislation called "Pay Ratio Disclosure". According to managerial power theory, executives can impact their compensation level and work on their own interests rather than shareholders'

interests. On the other hand, under the optimal contracting theory, compensation packages can be designed to give executives adequate incentives to increase shareholders' wealth. Nonetheless, Murphy and Jensen (2018) argue that SOP votes have become a less effective mechanism, and their argument may be explained by the managerial power theory.

To examine whether CEO power is effected by SOP regulation, a data set was used that represents a sample of 170 firms listed on S&P/ASX 200, 96 on S&P/TSX, 316 on FTSE 350 and 1349 on S&P 1500 and covers the periods 2012-2015 for Australia and Canada, 2014-2016 for the UK (2014-2016) and 2011-2015 for the USA. By employing the LIML estimator to mitigate the endogeneity problem, the current research finds a negative and significant impact of SOP votes on CEO power in the four countries. Such suggests that the SOP legislation has succeeded in reducing CEO power in the four countries. These results also are in line with Correa and Lel (2016) who conclude that the level of CEO compensation growth is reduced in the period following the adoption of SOP regulation and thus CEOs have become less powerful compared to the period without SOP. Moreover, the results show that corporate governance mechanisms play a less effective role and thereby undermine the effectiveness of SOP votes. For example, this study finds a possible association between independent directors and managerial power. These findings are in line with Mollah and Zaman (2015), who explain that a less effective role played by independent directors may have resulted from the fact that either the market for high performing outside directors is limited or outside directors are selected merely to comply with regulatory requirements. A higher quality of internal corporate governance mechanisms leads to achieving the aims of SOP regulation. Therefore, the second hypothesis, which is that weak CG mechanisms undermine the effectiveness of shareholders' voting cannot be rejected.

The objective of Chapter 3 is to examine whether the adoption of SOP votes in Canada and the USA or subsequent changes of SOP in Australia and the UK have an effect on firm's performance as measured by three proxies: economic profit (EP), return on invested capital (ROIC) and Tobin's Q. Cuñat et al. (2016) argue that there are at least two reasons why performance might grow when a company adopts SOP law. Firstly, if SOP implies a stricter alignment of pay and performance, the improved incentive would encourage executives to be more effective at creating higher profits. Secondly, if it facilitates more active monitoring, the annual general meeting vote on

SOP might work as a vote of confidence in the managers, providing sufficient pressure on them to deliver better performance; otherwise they risk being dismissed if the vote does not pass.

Theoretically, the pay-for-performance sensitivity studies underpinned by two theories: the optimal contracting and managerial power (Bebchuk and Fried 2003). On the one hand, optimal contracting views contracts of manager pay as a free-market product creating from negotiations between strong company boardrooms and managers, leading to CEO compensation packages that efficiently take together the interests of executives and shareholders. As a result, this approach anticipates a tight association between compensation package and performance. On the other hand, the managerial power approach suggests that CEO compensation often results from negotiations between dependent boardrooms and influential executives, leading to increasing the managerial interests instead of shareholders' interests. In addition, increasing firm performance leads to avoidance of more negative SOP votes at AGM. Unlikely prior studies, this thesis tested two performance measures (EP & ROIC) because the former should not be highly volatile and both are not easily manipulated (IGOPP, 2012) and the latter focuses on the true operating performance (Oh and Park, 2015).

The analysis was based on samples of 170 Australian firms, 96 Canadian firms, 316 UK firms and 1349 US companies over the periods 2012-2015, 2014-2016 and 2011-2015 in Australia, Canada, the UK and the USA respectively. Furthermore, to deal with the endogeneity issue, the LIML estimator is used for several reasons, mentioned in chapter 3. The regression results indicate that EP is positively and significantly impacted in the UK and the USA at 10% but insignificant in Australia and Canada. ROIC also is positively affected by the SOP policy in Canada, the binding SOP in the UK and advisory votes in the USA. Nonetheless, the impact of adopting the two-strike rule on ROIC in Australia is negative but statistically insignificant. This suggests that SOP rules have imposed pressure on managers to create more wealth for shareholders and for firms to use all their capital efficiently.

In addition, Tobin's Q is positively influenced in the the four countries but only significant in Canada and the USA. The findings in terms of Tobin's Q are consistent with previous multiple-country studies (see, Correa and Lell 2016) which find that the SOP rule has a positive impact on firm performance as measured by Tobin's Q. The

different results can be imputed to the nature of SOP votes in the four countries; to different numbers and the key provisions within the corporate governance codes; and the different roles of the board of directors within the institutional and regulatory frameworks in these countries. In the USA, for instance, the advisory nature of the SOP vote might lead to a selective reaction from boards to shareholder dissatisfaction (Alissa, 2015). In other words, there is growing pressure on CEOs behaviour and meanwhile, managers seek to improve firm performance to avoid low SOP votes on pay packages and losing their job. Additionally, the binding nature of the SOP vote in the UK, increases the pressure on executives' behaviour and positively impacts on company performance. Another explanation for these results can be attributed to different governance disclosure codes (as illustrated in chapter 3). In addition, different signs among performance proxies suggest that there are high information asymmetries between inside and outside directors, especially as independent directors constitute between 62% and 85% of the board size in the four countries (Rashid et al. 2010).

Chapter 4 aims to illustrate how the types of SOP votes impact firm strategic policies (firms' long-term investment, financial debt, profitability and liquidity). After adoption of the SOP rule, managers have become more vigilant and might attempt to placate shareholders through manipulating company strategies. From agency theory, executives run companies on behalf of shareholders, and each side has its own interests; while shareholders aim to increase their wealth, managers aim to increase their own benefits through getting higher compensation. However, the two both parties may have different aims and thereby the conflict arises between shareholders and managers. Recently, shareholders have become more powerful after the adoption of SOP regulations, one of the objectives of which is to allow shareholders to vote on CEO pay packages at the AGM. Consequently, managers seek to increase company value by employing some financial strategies such as firms' investments and capital structure. Such policies lead to improve corporate performance and thus increase shareholders' wealth, and meanwhile the level of CEO pay will be increased. Hence, based on 1349 firms listed in the four countries, over the period mentioned in Chapter 4, the descriptive statistic indicates that the US sample has lower financial risk as gauged by leverage and powerful CEO. To check for the endogeneity problem, the DWH test is used in this study and shows the endogeneity is exists. Thus, the LIML estimation is

employed because it is better than GMM and 2SLS estimators when instruments are weak and the number of observations is less than 700 (Bascle, 2008; Baltagi, 2013:171).

The analysis results reveal that, in the USA, the firm's investments are raised after adopting SOP regulation and corporate profitability in the short term is increased. However, the level of leverage as financial risk is decreased in Australia and the USA; firm profitability in the long term is decreased in the USA, and the liquidity level is negatively related to shareholders' votes support in Canada. Such findings suggest that higher SOP votes support at the AGM, notably in the US context, might be attributed to increasing the firm's profitability because the financial cost is lower and the firm's return is higher. These findings agree with Brunarski et al. (2015); and Kimbro and Xu (2016) who argue that managers in the USA increase capital expenditure and reduce leverage level to avoid SOP disapproval. In addition, the results of chapter 4 indicate that the firm's board plays an important role in increasing or undermining the effectiveness of stockholders' votes. These results are in line with Mersland and Strøm (2009) and Carter et al.(2010), and suggest that highinformation asymmetry may be existent between the board and management, as well as no communication or cooperation among directors.

The key conclusions of this thesis can be summarised as follows. SOP votes have an impact on managerial power, firm performance and firm strategic policies. However, the effectiveness of SOP rules depends on several factors. Firstly, a powerful CEO plays an important role in designing compensation packages and influence on votes outcome since they can play an essential role in appointing outside directors. Secondly, weak corporate governance mechanisms undermine the role of SOP regulation because there is no coordination and information asymmetry among directors, and thereby reducing board efficiency. Thirdly, the pressure on executives' behaviour is incresaed based on the nature of SOP votes. Finally, firm strategic policies play an important role in increasing or reducing the level of CEO pay. Hence, increasing the firm's profitability and decreasing the firm's costs lead to a higher level of executive compensation in the USA.

5.3 Study's contributions

This thesis makes contributions to the extant studies in a number of ways. *Firstly*, unlike prior studies, this is the first study to test the influence of shareholders'votes on

CEO power, as measured by the ratio of CEO pay to the average workers' pay. This measure is a better indication of CEO power than CPS and the ratio of CEO pay to EBIT since the regression results indicate that the CEO pay to average employees' pay produces the best fit. In addition, a new legislation called "CEO pay ratio disclosure" has been adopted in the UK and the USA. This rule requests comapnies to disclose the ratio of their median employee pay to that of their CEO or equivalent officer starting with the fiscal year beginning on or after January 1, 2017, in the USA (Bloom, 2018). Similarly, the UK's biggest companies with over 250 employees will have to disclose and explain every year their top bosses' pay and the gap between that and their average workers. However, because it is difficult to collect data regarding firms' worker salaries, this research was based on average employees' salaries in each country.

Secondly, the research samples cover the periods 2012-2015 for Australia and Canada, 2014-2016 for the UK, and 2011-2015 for the USA, which are different from previous literature (for example, Correa and Lel, 2016), and during which changes of SOP regulations occurred in Australia and the UK. The latter has adopted a binding SOP regulation since October 2013 for the large and medium companies, while the two-strike rule has become effective in Australia from 1 July 2011(Monem and Nq, 2013; Stathopoulos and Voulgaris, 2016).

Thirdly, the influence of SOP on performance has been investigated by a number of studies (see. Ferri and Maber, 2013; Cunat et al. 2016; Correa and Lel, 2016), which adopted different performance proxies such as ROA, ROE and Tobin's Q. However, these measures cannot provide a clear picture of corporate performance because they cover one type of firm performances. Furthermore, these proxies reflect accounting and market measures and do not cover other aspects of firm performance such as economic and business performance, which reflect management efficiency. Therefore, unlike prior literature, non-traditional performance measures are used as performance proxies, namely, return on invested capital (ROIC) and economic profit (EP). These measures play an important role in setting executive's compensation and increasing shareholders' wealth (Tang and Liou, 2010). For example, EP is a good performance measure to evaluate the efficacy of business strategy in generating value; EP should not be highly volatile; it is not easily manipulated (Institute for Governance of Private and Public Organisations IGOPP, 2012) and the outcomes of shareholder votes and Institutional Shareholder Services (ISS) recommendations are greatly driven by EP (Fisch et al.

2018). In addition, ROIC is an appropriate measure to assess the efficacy of production activities, Research and development (R&D) activities and marketing activities, which are highly associated to production capability, R&D capability and marketing capability respectively (Lin et al. 2014). Additionally, Oh and Park (2015) argue that ROIC measures the exact profitability that a firm generates through business.

Fourthly, to the best of the researcher's knowledge, this is the first study to examine the impact of SOP votes on firm strategic policies using evidence from an international context. The evidence from the previous study of Brunanski et al., (2015) concentrated on only one type of SOP vote, which is advisory SOP in the USA. The aims of changing a company's strategies are to increase a firm's value, to arise stockholders' wealth and thus the extreme level of pay is received as a shareholders' award for managers' efforts at the AGM. Changing the firm's policies such as investment policy and capital structure level, and focusing on short-term profit rather than long-term profit, lead to increase company performance and thereby increase shareholders' value

Finally, in terms of the methodology, endogeneity is common in accounting and finance studies. This issue can arise from four sources (Gujarati, 2012:324): (i) measurement errors in the regressors (ii) omitted variable bias (iii) simultaneous equation bias (iv) and a dynamic regression model with serial correlation in the error term. As a result, the findings might be biased and unreliable. Thus, different from previous studies (e.g. Core et al. 1999; Grinstein and Hribar, 2004; Choe et al. 2014; Correa and Lel, 2016), the current thesis employs the LIML estimator as a way to deal with the endogeneity issue alongside GMM and 2SLS estimations. However, the LIML estimator is better than GMM and 2SLS estimators, especially if instruments are weak, and the small sample size problem is acute (Bascle, 2008). Baltagi (2013:171) also reports that GMM estimator bias is always smaller than the Fixed effect model bias and LIML bias is smaller than these two when $T<N$.

5.4 Research implications

The results of this thesis have a number of important implications for shareholders, managers, boards, and policymakers. *First*, SOP regulation allows shareholders to be more powerful and make pressure on executives to work in shareholders' interests. However, this study shows that SOP regulations cannot achieve their targets with weak

corporate governance mechanisms. For example, independent directors are considered to be the core of the board and they have been appointed to meet the requirements of corporate governance. The effectiveness of the SOP rule can, therefore, be achieved with a stronger role played by outside directors. In addition, executives' behaviour seems to be influenced by SOP regulation and their reaction might be more negative. For example, information asymmetry may be raised between boards and CEOs. Also, to avoid losing their job or gaining a bad reputation in the labour market, they might manipulate firm's outcomes. Thus, boards should be more efficient in monitoring firms' managers.

Second, most literature in accounting and finance is based on the traditional and Tobin's Q as measures of firm performance and the firm's position is not clear. The findings of the current study indicate that employing different firm performance proxies provides the most precise picture of exactly how efficiently a firm is utilising all its capital. To get a clear picture regarding a firm's performance, the assessment should not only rely on market and accounting measures but should employ management efficiency measures because traditional accounting measures such as ROE might be manipulated and Tobin's Q as a market performance measure could be influenced by other factors (e.g., the political situation) and thus the findings of assessment may be distorted. Therefore, using EP and ROIC as management efficacy measures and business strategy success in our assessment provides us with more information about company performance.

Finally, executives are able to affect firms' strategic policies, which lead to improving firm performance, particularly in the short- term. For instance, managers can reduce or increase the level of capital structure depending on their interests and the company's profits but this strategy could be acted on the short term in order to satisfy shareholders and thus higher compensation packages are received. This study displays that managers focus on short-term profits rather than long-term, especially in the USA. Hence, companies and shareholders should review and check that the firm's plans are set in the correct way and managers focus on both the short term and long term.

5.5 Limitations

Like any empirical research, this study has limitations, which need to be mentioned. *First*, although the sample size of 1931 listed companies is relatively large compared

with some previous studies (e.g., Monem and Nq, 2013), the study could not cover other countries (e.g., New Zealand, the Netherlands, Japan, and Scandinavian countries) because the data about SOP votes are not available, although the researcher attempted to obtain those data by checking from data sources such as Bloomberg and Datastream or by emailing to other sources such as Factset, Manifest and Toyo Keizai institution.

Second, this study does not include other corporate governance mechanisms such as ownership structure (single biggest owner, institutional ownership and managerial ownership) due to missing data or data not being available and as a result of which the number of observations would be decreased. In addition, institutional ownership is available on Bloomberg but it was excluded because some figures are reported as greater than 100%. Bloomberg has explained that this problem occurred because filing dates can differ from holdings. To avoid any influence of these variables on the regression results, they were excluded.

Third, the study did not include proxy advisory firms, which provides services and information to shareholders about their companies. These firms such as institutional shareholder services (ISS), have data available only for the UK and US firms. Because this study covers four countries, namely, Australia, Canada, the UK and the USA, proxy advisory data were excluded from the regression as well.

5.6 Future research

There are several avenues for future studies and improvements, that can be made to this study. *First*, this study has mainly focused on the impact of SOP votes on CEO power, firm performance and company strategic policies in four countries. These countries are the four of the five countries of the Anglo Saxon economies. However, evidence from other bank-based corporate governance systems such as the Netherlands, Japan and Germany is not clear. Therefore, this study could be expanded by including other countries and comparing their results with Anglo Saxon economies. *Second*, future studies could be conducted by adding ownership structure to this study's models, especially if their data are available as well as proxy advisory, biggest single ownership, family ownership etc. *Third*, a comparative study could be carried out between advisory SOP votes and binding SOP votes in the UK, in other words, comparing between two periods after adopting advisory SOP regulation and the binding SOP rule in the UK. Also, a study could compare between first strike rule and two-strike rule in

Australia. *Finally*, since most studies have used secondary data to examine the effectiveness of SOP legislation and their consequences, it would be interesting to examine these regulations and subsequent changes by utilising a qualitative research methodology, such as interviews with boards, executives and investment institutions, which might have different views about SOP at their firms. Furthermore, a content analysis approach could be valuable, to see how companies report about the voting process and justify it in their disclosure documents.

Appendix A

Table A.1: Pearson correlation matrix between SOP votes and CEO power for an Australian sample

	CEO power	SOP FOR	SOP FOR* CEO pay	Ln BSIZE	SOP* BSIZE	INDDIR	SOP* INDDIR	CCI	SOP*CCI	Ln MC	SR	M/B	SV	LEV	CAPEX	RQ
CEO power	1.00															
SOP FOR	-0.13*	1.00														
SOPFOR*CEO pay	0.35*	-0.12*	1.00													
Ln BSIZE	0.66*	-0.08	0.20*	1.00												
SOP*BSIZE	0.21*	-0.04	0.61*	0.27*	1.00											
INDDIR	0.46*	-0.03	0.22*	0.31*	0.15*	1.00										
SOP*INDDIR	0.20*	0.02	0.39*	0.12*	0.24*	0.34*	1.00									
CCI	-0.16*	-0.02	-0.05	-0.49*	-0.17*	0.15*	0.08*	1.00								
SOP*CCI	-0.03	-0.10*	-0.15*	-0.16*	-0.47*	0.08	0.14*	0.31*	1.00							
Ln MC	0.76*	-0.03	0.26*	0.66*	0.17*	0.39*	0.19*	-0.16*	-0.02	1.00						
SR	-0.09*	0.05	-0.02	-0.13*	-0.04	-0.13*	-0.02	-0.01	0.09*	0.03	1.00					
M/B	-0.10*	0.01	-0.05	-0.24*	-0.05	-0.11*	-0.12*	0.11*	0.05	0.09*	0.39*	1.00				
SV	-0.46*	0.05	-0.16*	-0.42*	-0.09*	-0.26*	-0.14*	0.15*	0.03	-0.63*	-0.13*	-0.13*	1.00			
LEV	0.32*	-0.12*	0.13*	0.23*	0.08*	0.11*	0.07	-0.03	-0.04	0.22*	-0.12*	-0.09*	-0.28*	1.00		
CAPEX	0.02	0.07	-0.09*	-0.01	-0.08*	0.00	0.00	0.01	0.00	0.01	-0.08	0.00	0.07	0.02	1.00	
RQ	-0.01	-0.08*	-0.08*	0.02	-0.02	-0.03	-0.05	-0.04	0.00	-0.03	-0.04	-0.01	-0.10*	-0.01	0.00	1.00

All variables are defined in Table 2.2 and* denote significance at the 0.05 level

Table A.2: Pearson correlation matrix between SOP votes and CEO power for a Canadian sample

	CEO power	SOP FOR	SOPFOR* CEO pay	Ln BSIZE	SOP* BSIZE	INDDIR	SOP* INDDIR	CCI	SOP* CCI	Ln MC	SR	M/B	SV	LEV	CAPEX	RQ
CEO power	1.00															
SOP FOR	-0.29*	1.00														
SOPFOR*CEO pay	0.37*	-0.05	1.00													
Ln BSIZE	0.49*	0.01	0.34*	1.00												
SOP*BSIZE	0.31*	-0.14*	0.53*	0.44*	1.00											
INDDIR	0.31*	-0.03	0.28*	0.48*	0.29*	1.00										
SOP*INDDIR	0.20*	0.10	0.21*	0.2771*	0.29*	0.47*	1.00									
CCI	-0.02	0.03	0.02	-0.28*	-0.01	0.10	0.16*	1.00								
SOP*CCI	0.04	-0.08	-0.01	-0.07	-0.23*	0.12*	0.16*	0.32*	1.00							
Ln MC	0.64*	-0.04	0.34*	0.56*	0.34*	0.23*	0.17*	-0.10	-0.05	1.00						
SR	-0.13*	0.21*	-0.03	-0.12*	-0.08	-0.08	-0.15*	-0.02	-0.09	0.07	1.00					
M/B	0.10	-0.16*	0.07	0.10	0.10	0.13*	0.13*	0.02	0.07	0.07	-0.26*	1.00				
SV	-0.11*	-0.27*	-0.13*	-0.31*	-0.21*	-0.21*	-0.26*	-0.01	0.02	-0.28*	-0.14*	-0.26*	1.00			
LEV	0	-0.12*	-0.04	-0.01	-0.09	0.03	0.18*	-0.02	0.09	-0.17*	-0.44*	0.54*	0.02	1.00		
CAPEX	0.04	-0.05	-0.13*	-0.24*	-0.20*	-0.16*	-0.12*	0.04	0.11*	-0.03	-0.11*	0.04	0.25*	0.19*	1.00	
RQ	0.01	-0.08	-0.09	0.01	0.01	0.02	-0.01	0.04	0.05	0.02	0.13*	0.06	-0.14*	-0.03	0.05	1.00

All variables are defined in Table 2.2 and* denote significance at the 0.05 level

Table A.3: Pearson correlation matrix between SOP votes and CEO power for the US sample

	CEO power	SOP FOR	SOPFOR* CEO pay	Ln BSIZE	SOP* BSIZE	INDDIR	SOP* INDDIR	CCI	SOP* CCI	Ln MC	SR	M/B	SV	LEV	CAPEX	RQ
CEO power	1.00															
SOP FOR	-0.21*	1.00														
SOPFOR*CEO pay	0.28*	-0.13*	1.00													
Ln BSIZE	0.44*	-0.17*	0.08*	1.00												
SOP*BSIZE	0.08*	-0.01	0.41*	0.29*	1.00											
INDDIR	0.28*	-0.12*	0.07*	0.10*	-0.03	1.00										
SOP*INDDIR	0.06	0	0.27*	-0.04	0.09*	0.37*	1.00									
CCI	-0.14*	0.07*	-0.03	-0.57*	-0.14*	0.18*	0.11*	1.00								
SOP*CCI	-0.02	-0.03	-0.15*	-0.12*	-0.54*	0.10*	0.17*	0.30*	1.00							
Ln MC	0.66*	-0.14*	0.17*	0.56*	0.14*	0.38*	0.08*	-0.22*	-0.09*	1.00						
SR	0.19*	-0.05	0.09*	-0.03	0.01	-0.03	0.03	-0.05	-0.04	0.16*	1.00					
M/B	0.12*	-0.03	0	-0.06	-0.04	-0.02	-0.01	0.13*	0.01	0.18*	0.22*	1.00				
SV	-0.37*	-0.02	-0.09*	-0.18*	-0.05	-0.03	0.07*	0.01	0.03	-0.37*	-0.19*	-0.26*	1.00			
LEV	0.11*	-0.05	-0.03	0.07*	-0.03	0.06	-0.05	0.00	0.01	0.09*	-0.05	0.07*	-0.14*	1.00		
CAPEX	-0.18*	0.04	-0.05	-0.05	0.04	-0.05	-0.06	-0.01	-0.07*	-0.09*	-0.10*	0.08*	0.05	0.21*	1.00	
RQ	0.02	0	-0.03	0.03	0.01	-0.04	-0.06	-0.02	-0.03	-0.03	-0.01	0.03	-0.27*	0.01	0.05	1.00

All variables are defined in Table 2.2 and* denote significance at the 0.05 level

Table A.4: Pearson correlation matrix between SOP votes and CEO power for the US sample

	CEO power	SOP FOR	SOPFOR* CEO pay	Ln BSIZE	SOP* BSIZE	INDDIR	SOP* INDDIR	CCI	SOP* CCI	Ln MC	SR	M/B	SV	LEV	CAPEX	RQ
CEO power	1.00															
SOP FOR	-0.32*	1.00														
SOPFOR*CEO pay	0.38*	0.02	1.00													
Ln BSIZE	0.43*	-0.10*	0.20*	1.00												
SOP*BSIZE	0.18*	-0.07*	0.38*	0.39*	1.00											
INDDIR	0.26*	-0.08*	0.21*	0.34*	0.17*	1.00										
SOP*INDDIR	0.11*	0.12*	0.19*	0.12*	0.20*	0.39*	1.00									
CCI	-0.19*	0.06*	-0.05*	-0.46*	-0.19*	0.03*	0.02	1.00								
SOP*CCI	-0.02	-0.08*	-0.19*	-0.19*	-0.43*	0	0.05*	0.43*	1.00							
Ln MC	0.76*	-0.11*	0.34*	0.52*	0.20*	0.26*	0.10*	-0.26*	-0.07*	1.00						
SR	0.03*	0.15*	0.03*	0.01	0	-0.01	0.06*	-0.02	-0.01	0.14*	1.00					
M/B	0.02	0.12*	0.05*	-0.05*	-0.03*	-0.02	0.03*	0.04*	0.01	0.09*	0.18*	1.00				
SV	-0.27*	-0.01	-0.16*	-0.32*	-0.13*	-0.16*	-0.09*	0.13*	0.05*	-0.51*	-0.17*	-0.12*	1.00			
LEV	0.03*	0.04*	0.04*	-0.15*	-0.07*	-0.05*	0.00	0.05*	0.02	0.02	0.07*	0.43*	0.01	1.00		
CAPEX	0.02	0.02	0.01	-0.13*	-0.07*	-0.07*	-0.04*	0.08*	0.04*	0.03*	-0.07*	0.05*	0.07*	0.08*	1.00	
RQ	0.01	-0.06*	0	0.01	0	0.01	-0.02	0.01	-0.01	-0.04*	-0.45*	-0.04*	0.16*	-0.01	-0.01	1.00

All variables are defined in Table 2.2 and* denote significance at the 0.05 level

Table A.5: VIF and Tolerance tests results (SOP votes and CEO power)

Australia			Canada			UK			USA		
Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF
Ln BSIZE	3.02	0.33	Ln BSIZE	2.17	0.46	Ln MC	2.31	0.43	Ln BSIZE	1.86	0.54
SOP*BSIZE	2.56	0.39	LEV	1.71	0.58	Ln BSIZE	2.21	0.45	Ln MC	1.72	0.58
Ln MC	2.55	0.39	Ln MC	1.67	0.60	SOP*BSIZE	2.11	0.47	SOP*BSIZE	1.55	0.64
SOPFOR*CEO pay	2.30	0.44	M/B	1.55	0.64	CCI	1.69	0.59	SV	1.44	0.70
CCI	1.89	0.53	SOP*BSIZE	1.48	0.68	SOPFOR*CEO pay	1.51	0.66	SOPFOR*CEO pay	1.39	0.72
SV	1.55	0.64	SV	1.37	0.73	SOP*CCI	1.49	0.67	CCI	1.39	0.72
SOP*CCI	1.51	0.66	SOP FOR	1.36	0.74	INDDIR	1.47	0.68	SOP*CCI	1.38	0.72
SOP*INDDIR	1.44	0.69	CCI	1.36	0.74	SV	1.37	0.73	SOP FOR	1.37	0.73
INDDIR	1.41	0.71	INDDIR	1.34	0.75	SOP*INDDIR	1.31	0.76	SR	1.22	0.82
M/B	1.23	0.81	SR	1.34	0.75	CAPEX	1.13	0.88	RQ	1.22	0.82
SR	1.21	0.83	SOPFOR*CEO pay	1.33	0.75	RQ	1.10	0.91	LEV	1.22	0.82
LEV	1.09	0.92	SOP*CCI	1.32	0.75	SR	1.10	0.91	M/B	1.21	0.82
SOP FOR	1.06	0.94	CAPEX	1.14	0.88	LEV	1.09	0.92	INDDIR	1.13	0.89
RQ	1.05	0.95	SOP*INDDIR	1.14	0.88	M/B	1.08	0.93	CAPEX	1.07	0.93
CAPEX	1.03	0.97	RQ	1.13	0.88	SOP FOR	1.05	0.96	SOP*INDDIR	1.05	0.95
Mean VIF	1.66		Mean VIF	1.43		Mean VIF	1.47		Mean VIF	1.35	

Note:All variables are defined in Table 2.2

Table A.6 Pearson correlation matrix between SOP votes and firm performance for an Australian sample

	SOP FOR	Ln CEO pay	SOP FOR* CEO pay	Ln BSIZE	INDDIR	CCI	CEO duality	Ln MC	SR	M/B	SV	LEV	FCF	CAPEX	GDP growth	IRA
SOP FOR	1.00															
Ln CEO pay	-0.13*	1.00														
SOP FOR* CEO pay	-0.12*	0.35*	1.00													
Ln BSIZE	-0.08	0.65*	0.20*	1.00												
INDDIR	-0.03	0.46*	0.22*	0.31*	1.00											
CCI	-0.02	-0.16*	-0.05	-0.49*	0.15*	1.00										
CEO duality	-0.14*	-0.03	-0.07	-0.07	-0.15*	-0.05	1.00									
Ln MC	-0.03	0.76*	0.26*	0.66*	0.39*	-0.16*	-0.04	1.00								
SR	0.05	-0.10*	-0.02	-0.13*	-0.13*	-0.01	0.07	0.03	1.00							
M/B	0.01	-0.10*	-0.05	-0.24*	-0.11*	0.11*	0.10*	0.09*	0.39*	1.00						
SV	0.05	-0.46*	-0.16*	-0.42*	-0.26*	0.15*	0.03	-0.63*	-0.13*	-0.13*	1.00					
LEV	-0.12*	0.32*	0.13*	0.23*	0.11*	-0.03	-0.02	0.22*	-0.12*	-0.09*	-0.28*	1.00				
FCF	0.03	-0.08*	0.02	-0.14*	-0.14*	0.10*	0.07	0.04	0.20*	0.43*	0.01	-0.15*	1.00			
CAPEX	0.07	0.02	-0.09*	-0.01	0	0.01	0.06	0.01	-0.08	0	0.07	0.02	-0.14*	1.00		
GDP growth	-0.07	-0.04	-0.01	0.00	-0.06	-0.07	0.00	-0.07	0.08*	-0.04	-0.01	-0.02	-0.05	0.03	1.00	
IRA	-0.01	0.08*	0.03	0.07	0.02	-0.03	0.08*	0.06	0.07	0.16*	-0.12*	0.13*	0.24*	-0.12*	0.01	1.00

All variables are defined in Table 3.2 and* denote significance at the 0.05 level

Table A.7: Pearson correlation matrix between SOP votes and firm performance for a Canadian sample

	SOP FOR	Ln CEO pay	SOP FOR* CEO pay	Ln BSIZE	INDDIR	CCI	CEO duality	Ln MC	SR	M/B	SV	LEV	FCF	CAPEX	GDP growth	IRA
SOP FOR	1.00															
Ln CEO pay	-0.29*	1.00														
SOP FOR* CEO pay	-0.05	0.38*	1.00													
Ln BSIZE	0.01	0.49*	0.34*	1.00												
INDDIR	-0.03	0.30*	0.28*	0.48*	1.00											
CCI	0.03	-0.01	0.02	-0.28*	0.10	1.00										
CEO duality	-0.15*	0.01	-0.02	-0.18*	-0.12*	0.07	1.00									
Ln MC	-0.04	0.67*	0.34*	0.56*	0.23*	-0.10	0.02	1.00								
SR	0.21*	-0.12*	-0.03	-0.12*	-0.08	-0.02	0.03	0.07	1.00							
M/B	-0.16*	0.08	0.07	0.10	0.13*	0.02	-0.07	0.07	-0.26*	1.00						
SV	-0.29*	-0.10	-0.13*	-0.31*	-0.21*	-0.01	0.19*	-0.28*	-0.14*	-0.26*	1.00					
LEV	-0.12*	-0.02	-0.04	-0.01	0.03	-0.02	0.07	-0.17*	-0.44*	0.54*	0.02	1.00				
FCF	-0.07	-0.02	0.01	-0.06	-0.05	0.16*	-0.05	-0.12*	0.08	0.28*	-0.12*	0.10	1.00			
CAPEX	-0.05	0.02	-0.13*	-0.24*	-0.16*	0.04	0.00	-0.03	-0.11*	0.04	0.25*	0.19*	-0.29*	1.00		
GDP growth	-0.03	0	-0.09	0.01	0	0.04	0.05	0.03	0.16*	0.06	-0.24*	-0.04	-0.02	0.06	1.00	
IRA	0.09	0.01	-0.10	-0.02	-0.07	-0.02	0.02	-0.03	0.12*	0.07	-0.18*	0.07	0.28*	-0.07	-0.01	1.00

All variables are defined in Table 3.2 and* denote significance at the 0.05 level

Table A.8: Pearson correlation matrix between SOP votes and firm performance for the UK sample

	SOP FOR	Ln CEO pay	SOP FOR* CEO pay	Ln BSIZE	INDDIR	CCI	CEO duality	Ln MC	SR	M/B	SV	LEV	FCF	CAPEX	GDP growth	IRA
SOP FOR	1.00															
Ln CEO pay	-0.21*	1.00														
SOP FOR* CEO pay	-0.13*	0.28*	1.00													
Ln BSIZE	-0.17*	0.44*	0.08*	1.00												
INDDIR	-0.12*	0.28*	0.07*	0.10*	1.00											
CCI	0.07*	-0.14*	-0.03	-0.57*	0.18*	1.00										
CEO duality	0.02	0	-0.04	0	-0.06	0.03	1.00									
Ln MC	-0.14*	0.66*	0.17*	0.56*	0.38*	-0.22*	-0.01	1.00								
SR	-0.05	0.19*	0.09*	-0.03	-0.03	-0.05	0.06	0.16*	1.00							
M/B	-0.03	0.12*	0	-0.06	-0.02	0.13*	0.01	0.18*	0.22*	1.00						
SV	-0.02	-0.36*	-0.09*	-0.18*	-0.03	0.01	0.06	-0.37*	-0.19*	-0.26*	1.00					
LEV	-0.05	0.11*	-0.03	0.07*	0.06	0	-0.08*	0.09*	-0.05	0.07*	-0.14*	1.00				
FCF	-0.09*	0.06	0.01	-0.11*	0.03	0.16*	0.02	0.03	0.08*	0.34*	-0.03	-0.07*	1.00			
CAPEX	0.04	-0.18*	-0.05	-0.05	-0.05	-0.01	0.04	-0.09*	-0.10*	0.08*	0.05	0.21*	-0.22*	1.00		
GDP growth	0.04	0.01	0.02	0.04	-0.07	-0.02	0.03	-0.04	-0.04	0.04	-0.35*	0	-0.07*	0.07*	1.00	
IRA	-0.14	-0.02	-0.05	-0.07*	0.07	0.14*	-0.01	-0.04	0.03	0.31*	-0.18*	0.09*	0.28*	-0.11*	-0.01	1.00

All variables are defined in Table 3.2 and* denote significance at the 0.05 level

Table A.9: Pearson correlation matrix between SOP votes and firm performance for the US sample

	SOP FOR	Ln CEO pay	SOP FOR* CEO pay	Ln BSIZE	INDDIR	CCI	CEO duality	Ln MC	SR	M/B	SV	LEV	FCF	CAPEX	GDP growth	IRA
SOP FOR	1.00															
Ln CEO pay	-0.32*	1.00														
SOP FOR* CEO pay	0.02	0.38*	1.00													
Ln BSIZE	-0.10*	0.43*	0.20*	1.00												
INDDIR	-0.08*	0.26*	0.21*	0.34*	1.00											
CCI	0.06*	-0.18*	-0.05*	-0.46*	0.03*	1.00										
CEO duality	-0.08*	0.13*	0.03*	0.06*	0.11*	0	1.00									
Ln MC	-0.11*	0.76*	0.34*	0.52*	0.24*	-0.26*	0.15*	1.00								
SR	0.15*	0.03	0.03*	0.01	-0.01	-0.02	0.02	0.14*	1.00							
M/B	0.13*	0.02	0.05*	-0.05*	-0.02	0.04*	0.06*	0.09*	0.18*	1.00						
SV	-0.01	-0.28*	-0.16*	-0.32*	-0.16*	0.13*	-0.10*	-0.51*	-0.17*	-0.12*	1.00					
LEV	0.04*	0.03*	0.04*	-0.15*	-0.05*	0.05*	-0.01	0.02	0.07*	0.43*	0.01	1.00				
FCF	0.09*	0.08*	0.07*	-0.07*	0	-0.01	0.00	0.13*	0.15*	0.33*	-0.05*	0.46*	1.00			
CAPEX	0.02	0.02	0.01	-0.13*	-0.07*	0.08*	0.01	0.03*	-0.07*	0.05*	0.07*	0.07*	-0.17*	1.00		
GDP growth	0.01	0.08*	0.06*	0.02	0.06*	0	-0.04*	0.08*	-0.17*	-0.02	-0.22*	0.01	-0.01	0	1.00	
IRA	0.01	0.14*	0.08*	0.03*	0.08*	-0.06*	-0.03*	0.09*	0.06*	0.06*	-0.05*	0.19*	0.38*	-0.19*	0.03*	1.00

All variables are defined in Table 3.2 and* denote significance at the 0.05 level

Table A.10: VIF and Tolerance tests results (SOP votes and firm performance)

Australia			Canada			UK			USA		
Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF
Ln MC	3.40	0.29	Ln MC	2.57	0.39	Ln MC	2.87	0.35	Ln MC	3.25	0.31
Ln BSIZE	3.11	0.32	Ln BSIZE	2.34	0.43	Ln BSIZE	2.31	0.43	Ln CEO pay	2.55	0.39
Ln CEO pay	2.75	0.36	Ln CEO pay	2.19	0.46	Ln CEO pay	1.96	0.51	Ln BSIZE	1.94	0.51
CCI	1.88	0.53	LEV	1.63	0.62	CCI	1.72	0.58	SV	1.43	0.70
SV	1.54	0.65	FCF	1.60	0.62	SV	1.59	0.63	CAPEX	1.40	0.71
INDDIR	1.52	0.66	SV	1.60	0.63	INDDIR	1.43	0.70	SOP FOR	1.40	0.71
FCF	1.40	0.71	M/B	1.59	0.63	CAPEX	1.35	0.74	CCI	1.39	0.72
M/B	1.35	0.74	CAPEX	1.54	0.65	FCF	1.21	0.83	FCF	1.37	0.73
SR	1.23	0.81	SR	1.38	0.73	GDP growth	1.18	0.84	LEV	1.25	0.80
LEV	1.19	0.84	INDDIR	1.36	0.74	IAR	1.15	0.87	SOP FOR*CEO pay	1.23	0.81
CAPEX	1.18	0.85	CCI	1.34	0.75	SR	1.14	0.88	M/B	1.22	0.82
IAR	1.11	0.90	SOP FOR	1.24	0.80	M/B	1.12	0.90	IAR	1.17	0.86
CEO duality	1.08	0.93	IAR	1.20	0.83	LEV	1.10	0.91	INDDIR	1.17	0.86
GDP growth	1.05	0.96	GDP growth	1.17	0.86	SOP FOR*CEO pay	1.05	0.96	SR	1.16	0.86
SOP FOR	1.04	0.96	CEO duality	1.17	0.86	SOP FOR	1.04	0.97	GDP growth	1.12	0.89
SOP FOR*CEO pay	1.03	0.97	SOP FOR*CEO pay	1.16	0.86	CEO duality	1.02	0.98	CEO duality	1.04	0.96
Mean VIF	1.62		Mean VIF	1.57		Mean VIF	1.45		Mean VIF	1.51	

All variables are defined in Table 3.2

Table A.11: Pearson correlation matrix between SOP votes and capital expenditure (firm investments) for an Australian sample

	CAPEX	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	SR	SV	FCF	Liq	LEV	Ln SMI
CAPEX	1.00													
SOP FOR	0.03	1.00												
Ln CEO pay	0.16*	-0.16*	1.00											
SOPFOR*CEO pay	-0.04	-0.18*	0.34*	1.00										
Ln BSIZE	0.13*	-0.08	0.63*	0.19*	1.00									
CEO duality	0.04	-0.15*	-0.01	-0.06	-0.06	1.00								
TB*CCI	0.04	0.01	-0.19*	-0.08	-0.54*	-0.06	1.00							
Ln TA	0.21*	-0.06	0.74*	0.26*	0.72*	-0.07	-0.26*	1.00						
SR	-0.06	0.04	-0.12*	-0.07	-0.15*	0.09*	-0.01	-0.19*	1.00					
SV	-0.08	0.06	-0.42*	-0.11*	-0.38*	-0.01	0.16*	-0.45*	-0.15*	1.00				
FCF	-0.18*	0.03	-0.03	0.04	-0.12*	0.07	0.08	-0.15*	0.22*	-0.10*	1.00			
Liq	-0.10*	0.01	-0.23*	-0.09*	-0.27*	-0.10*	0.12*	-0.39*	0.01	0.24*	0.01	1.00		
LEV	0.00	-0.13*	0.35*	0.13*	0.23*	-0.02	-0.05	0.38*	-0.12*	-0.28*	-0.12*	-0.34*	1.00	
Ln SMI	-0.02	-0.03	0.03	-0.11*	0.02	0.04	0.01	0.02	-0.12*	-0.09*	-0.01	0.02	0.01	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.12: Pearson correlation matrix between SOP votes and capital expenditure (firm investments) for a Canadian sample

	CAPEX	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	SR	SV	FCF	Liq	LEV	Ln SMI
CAPEX	1.00													
SOP FOR	0.02	1.00												
Ln CEO pay	0.21*	-0.29*	1.00											
SOPFOR*CEO pay	0.02	-0.07	0.27*	1.00										
Ln BSIZE	0.14*	0.01	0.46*	0.25*	1.00									
CEO duality	-0.10	-0.14*	0.03	0.00	-0.14*	1.00								
TB*CCI	-0.08	0.07	0.01	0.07	-0.28*	0.07	1.00							
Ln TA	0.29*	-0.11	0.69*	0.20*	0.47*	0.15*	-0.04	1.00						
SR	-0.09	0.21*	-0.16*	-0.06	-0.17*	0.03	0.03	-0.24*	1.00					
SV	0.01	-0.25*	0.01	0.00	-0.14*	0.14*	-0.11	-0.07	-0.15*	1.00				
FCF	-0.54*	-0.05	-0.08	-0.01	-0.09	-0.06	0.16*	-0.21*	0.13*	-0.23*	1.00			
Liq	-0.03	-0.26*	-0.08	0.00	-0.17*	0.03	0.00	-0.29*	0.02	0.57*	-0.01	1.00		
LEV	0.00	-0.09	0.05	0.04	0.18*	0.06	-0.06	0.23*	-0.39*	-0.14*	0.10	-0.23*	1.00	
Ln SMI	0.03	0.08	0.00	-0.07	0.00	0.02	0.08	0.02	0.06	-0.20*	-0.02	-0.04	-0.03	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.13: Pearson correlation matrix between SOP votes and capital expenditure (firm investments) for the UK sample

	CAPEX	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	SR	SV	FCF	Liq	LEV	Ln SMI
CAPEX	1.00													
SOP FOR	0.01	1.00												
Ln CEO pay	-0.11*	-0.19*	1.00											
SOPFOR*CEO pay	-0.02	-0.22*	0.29*	1.00										
Ln BSIZE	0.10*	-0.16*	0.42*	0.06	1.00									
CEO duality	0.02	0.02	0.01	-0.04	0.01	1.00								
TB*CCI	-0.16*	0.04	-0.09*	-0.01	-0.53*	0.02	1.00							
Ln TA	0	-0.14*	0.50*	0.12*	0.58*	-0.06	-0.25*	1.00						
SR	-0.12*	-0.06	0.21*	0.09*	-0.03	0.07	-0.04	0.01	1.00					
SV	0.07	0.00	-0.38*	-0.07	-0.19*	0.06	-0.02	-0.20*	-0.16*	1.00				
FCF	-0.34*	-0.08*	0.11*	0.04	-0.04	0.01	0.11*	-0.13*	0.11*	-0.07	1.00			
Liq	-0.03	0.11*	-0.18*	-0.02	-0.19*	0.08*	0.14*	-0.30*	-0.01	0.23*	-0.01	1.00		
LEV	0.12*	-0.05	0.11*	-0.03	0.15*	-0.10*	-0.08*	0.31*	-0.05	-0.18*	-0.11*	-0.36*	1.00	
Ln SMI	-0.06	0.11*	-0.43*	-0.07	-0.41*	-0.02	0.16*	-0.50*	-0.05	0.31*	0.04	0.11*	-0.07	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.14: Pearson correlation matrix between SOP votes and capital expenditure (firm investments) for the US sample

	CAPEX	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	SR	SV	FCF	Liq	LEV	Ln SMI
CAPEX	1.00													
SOP FOR	0.02	1.00												
Ln CEO pay	-0.01	-0.32*	1.00											
SOPFOR*CEO pay	0	0.03*	0.39*	1.00										
Ln BSIZE	0.05*	-0.10*	0.51*	0.24*	1.00									
CEO duality	0.03*	-0.09*	0.12*	0.04*	0.06*	1.00								
TB*CCI	0.02	0.07*	-0.20*	-0.06*	-0.44*	0.02	1.00							
Ln TA	0.05*	-0.20*	0.76*	0.34*	0.64*	0.12*	-0.26*	1.00						
SR	-0.07*	0.16*	0.02	0.04*	0.02	0.02	-0.02	0	1.00					
SV	0.03	-0.02	-0.33*	-0.19*	-0.36*	-0.10*	0.12*	-0.46*	-0.16*	1.00				
FCF	-0.28*	0.09*	0.04*	0.05*	-0.04*	-0.02	-0.03	-0.12*	0.17*	-0.15*	1.00			
Liq	-0.19*	0.07*	-0.29*	-0.12*	-0.32*	-0.05*	0.06*	-0.43*	-0.02	0.27*	0.18*	1.00		
LEV	-0.11*	0.04*	0.03*	0.04*	-0.06*	-0.02	0	-0.06*	0.08*	-0.02	0.49*	0.05*	1.00	
Ln SMI	0.03*	-0.07*	0.58*	0.31*	0.42*	0.09*	-0.20*	0.67*	0.07*	-0.52*	0.08*	-0.26*	0.11*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.15 Pearson correlation matrix between SOP votes and capital structure (leverage) for an Australian sample

	LEV	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	Tobin's Q	SV	FCF	Liq	Ln SMI
LEV	1.00												
SOP FOR	-0.13*	1.00											
Ln CEO pay	0.35*	-0.15*	1.00										
SOPFOR*CEO pay	0.13*	-0.18*	0.34*	1.00									
Ln BSIZE	0.23*	-0.08	0.63*	0.19*	1.00								
CEO duality	-0.02	-0.15*	-0.01	-0.06	-0.06	1.00							
TB*CCI	-0.05	0.00	-0.19*	-0.08	-0.54*	-0.06	1.00						
Ln TA	0.38*	-0.06	0.74*	0.26*	0.72*	-0.07	-0.26*	1.00					
Tobinsq1	-0.13*	0.07	-0.15*	-0.10*	-0.30*	0.08	0.14*	-0.39*	1.00				
SV	-0.27*	0.07	-0.42*	-0.11*	-0.37*	0.00	0.15*	-0.44*	-0.16*	1.00			
FCF	-0.13*	0.03	-0.03	0.04	-0.12*	0.07	0.08	-0.16*	0.44*	-0.10*	1.00		
Liq	-0.33*	0.02	-0.24*	-0.09*	-0.26*	-0.10*	0.12*	-0.39*	0.12*	0.23*	0.02	1.00	
Ln SMI	0.01	-0.03	0.03	-0.11*	0.01	0.03	0.01	0.02	0.02	-0.10*	0	0.02	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.16: Pearson correlation matrix between SOP votes and capital structure (leverage) for a Canadian sample

	LEV	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	Tobin's Q	SV	FCF	Liq	Ln SMI
LEV	1.00												
SOP FOR	-0.09	1.00											
Ln CEO pay	0.05	-0.29*	1.00										
SOPFOR*CEO pay	0.04	-0.07	0.27*	1.00									
Ln BSIZE	0.18*	0.01	0.46*	0.25*	1.00								
CEO duality	0.06	-0.14*	0.03	0.00	-0.14*	1.00							
TB*CCI	-0.06	0.07	0.01	0.07	-0.28*	0.07	1.00						
Ln TA	0.23*	-0.11	0.69*	0.19*	0.47*	0.15*	-0.04	1.00					
Tobin's Q	-0.39*	0.43*	-0.27*	-0.14*	-0.16*	-0.07	0.06	-0.31*	1.00				
SV	-0.14*	-0.25*	0.01	0.00	-0.14*	0.14*	-0.11	-0.07	-0.21*	1.00			
FCF	0.10	-0.05	-0.08	-0.01	-0.09	-0.06	0.16*	-0.21*	0.05	-0.23*	1.00		
Liq	-0.23*	-0.26*	-0.08	0.00	-0.17*	0.03	0	-0.29*	-0.16*	0.57*	-0.01	1.00	
Ln SMI	-0.03	0.08	0.00	-0.07	0	0.02	0.08	0.02	0.01	-0.20*	-0.02	-0.04	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.17: Pearson correlation matrix between SOP votes and capital structure (leverage) for the UK sample

	LEV	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	Tobin's Q	SV	FCF	Liq	Ln SMI
LEV	1.00												
SOP FOR	-0.05	1.00											
Ln CEO pay	0.11*	-0.19*	1.00										
SOPFOR*CEO pay	-0.03	-0.22*	0.29*	1.00									
Ln BSIZE	0.15*	-0.16*	0.42*	0.06	1.00								
CEO duality	-0.10*	0.02	0.01	-0.04	0.01	1.00							
TB*CCI	-0.08*	0.04	-0.09*	-0.01	-0.53*	0.02	1.00						
Ln TA	0.31*	-0.14*	0.50*	0.12*	0.58*	-0.06	-0.25*	1.00					
Tobin's Q	-0.12*	-0.04	0.17*	-0.01	-0.05	0.04	0.14*	-0.38*	1.00				
SV	-0.18*	0.00	-0.38*	-0.07	-0.19*	0.06	-0.02	-0.20*	-0.33*	1.00			
FCF	-0.11*	-0.08*	0.11*	0.04	-0.04	0.01	0.11*	-0.13*	0.34*	-0.07	1.00		
Liq	-0.36*	0.11*	-0.18*	-0.02	-0.19*	0.08*	0.14*	-0.30*	0.08*	0.23*	-0.01	1.00	
Ln SMI	-0.07	0.11*	-0.43*	-0.07	-0.41*	-0.02	0.16*	-0.50*	-0.08*	0.31*	0.04	0.11*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.18: Pearson correlation matrix between SOP votes and capital structure (leverage) for the US sample

	LEV	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	CEO duality	TB*CCI	Ln TA	Tobin's Q	SV	FCF	Liq	Ln SMI
LEV	1.00												
SOP FOR	0.04*	1.00											
Ln CEO pay	0.03*	-0.32*	1.00										
SOPFOR*CEO pay	0.04*	0.03*	0.39*	1.00									
Ln BSIZE	-0.06*	-0.10*	0.51*	0.24*	1.00								
CEO duality	-0.02	-0.09*	0.12*	0.04*	0.06*	1.00							
TB*CCI	0.00	0.07*	-0.20*	-0.06*	-0.44*	0.02	1.00						
Ln TA	-0.06*	-0.20*	0.76*	0.34*	0.64*	0.12*	-0.26*	1.00					
Tobin's Q	0.32*	0.18*	0.01	0.05*	-0.09*	0.02	-0.02	-0.20*	1.00				
SV	-0.02	-0.02	-0.33*	-0.19*	-0.36*	-0.10*	0.12*	-0.46*	-0.20*	1.00			
FCF	0.49*	0.09*	0.04*	0.05*	-0.04*	-0.02	-0.03	-0.12*	0.59*	-0.15*	1.00		
Liq	0.05*	0.07*	-0.29*	-0.12*	-0.31*	-0.05*	0.06*	-0.43*	0.16*	0.27*	0.18*	1.00	
Ln SMI	0.10*	-0.07*	0.58*	0.31*	0.42*	0.09*	-0.20*	0.67*	0.17*	-0.52*	0.08*	-0.26*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.19 Pearson correlation matrix between SOP votes and firm profitability (ROA) for an Australian sample

	ROA	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
ROA	1.00													
SOP FOR	0.05	1.00												
Ln CEO pay	-0.21*	-0.13*	1.00											
SOPFOR*CEO pay	-0.11*	-0.12*	0.34*	1.00										
Ln BSIZE	-0.28*	-0.08	0.66*	0.19*	1.00									
INDDIR	-0.21*	-0.03	0.46*	0.22*	0.31*	1.00								
ACI	0.10*	-0.03	-0.15*	0.03	-0.49*	0.28*	1.00							
TB*CCI	0.05	-0.02	-0.17*	-0.05	-0.49*	0.15*	0.64*	1.00						
Ln TA	-0.36*	-0.06	0.76*	0.28*	0.74*	0.45*	-0.26*	-0.22*	1.00					
Tobin's Q	0.59*	0.04	-0.21*	-0.13*	-0.33*	-0.21*	0.11*	0.12*	-0.45*	1.00				
SV	-0.12*	0.06	-0.45*	-0.16*	-0.41*	-0.26*	0.10*	0.14*	-0.51*	-0.03	1.00			
FCF	0.57*	0.02	-0.07	0.02	-0.15*	-0.14*	0.10*	0.09*	-0.22*	0.47*	0.00	1.00		
LEV	-0.19*	-0.12*	0.31*	0.12*	0.23*	0.10*	-0.08*	-0.03	0.36*	-0.19*	-0.26*	-0.15*	1.00	
Ln SMI	-0.02	-0.04	0.02	-0.09*	0.02	0.02	0.01	0.02	0.01	0.03	-0.13*	0.00	0.00	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.20: Pearson correlation matrix between SOP votes and firm profitability (ROA) for a Canadian sample

	ROA	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
ROA	1.00													
SOP FOR	0.13*	1.00												
Ln CEO pay	-0.07	-0.29*	1.00											
SOPFOR*CEO pay	-0.06	-0.05	0.38*	1.00										
Ln BSIZE	-0.12*	0.01	0.49*	0.34*	1.00									
INDDIR	-0.12*	-0.03	0.30*	0.28*	0.48*	1.00								
ACI	0.21*	0.11*	-0.18*	-0.02	-0.28*	0.04	1.00							
TB*CCI	0.15*	0.03	-0.01	0.02	-0.28*	0.10	0.62*	1.00						
Ln TA	-0.23*	-0.06	0.68*	0.31*	0.62*	0.35*	-0.21*	-0.08	1.00					
Tobin's Q	0.27*	0.29*	-0.26*	-0.16*	-0.26*	-0.27*	0.03	0.00	-0.43*	1.00				
SV	-0.24*	-0.29*	-0.10	-0.13*	-0.31*	-0.21*	-0.12*	-0.01	-0.27*	-0.03	1.00			
FCF	0.33*	-0.07	-0.02	0.01	-0.06	-0.05	0.09	0.16*	-0.19*	0.09	-0.12*	1.00		
LEV	-0.02	-0.12*	-0.02	-0.04	-0.01	0.03	-0.04	-0.01	0.06	-0.34*	0.02	0.10	1.00	
Ln SMI	0.01	0.05	0.00	-0.05	-0.01	-0.03	0.00	0.04	0.01	0.03	-0.21*	-0.03	-0.04	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.21 Pearson correlation matrix between SOP votes and firm profitability in the short term(ROA) for the UK sample

	ROA	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
ROA	1.00													
SOP FOR	0.03	1.00												
Ln CEO pay	0.07*	-0.21*	1.00											
SOPFOR*CEO pay	-0.02	-0.14*	0.28*	1.00										
Ln BSIZE	-0.17*	-0.17*	0.44*	0.08*	1.00									
INDDIR	-0.07*	-0.12*	0.28*	0.07*	0.10*	1.00								
ACI	0.18*	0.04	-0.09*	0.02	-0.49*	0.19*	1.00							
TB*CCI	0.22*	0.07*	-0.14*	-0.03	-0.57*	0.18*	0.76*	1.00						
Ln TA	-0.37*	-0.14*	0.54*	0.16*	0.61*	0.32*	-0.25*	-0.32*	1.00					
Tobin's Q	0.60*	-0.02	0.05	-0.04	-0.16*	0	0.18*	0.21*	-0.45*	1.00				
SV	-0.29*	-0.02	-0.36*	-0.08*	-0.18*	-0.04	0	0	-0.20*	-0.20*	1.00			
FCF	0.27*	-0.09*	0.06	0.01	-0.11*	0.03	0.15*	0.16*	-0.17*	0.40*	-0.02	1.00		
LEV	-0.16*	-0.05	0.11*	-0.03	0.07*	0.06	0.01	0	0.20*	-0.05	-0.14*	-0.07*	1.00	
Ln SMI	-0.01	0.08*	-0.42*	-0.09*	-0.41*	-0.22*	0.18*	0.18*	-0.49*	-0.02	0.32*	0.03	-0.05	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.22: Pearson correlation matrix between SOP votes and firm profitability in the short term(ROA) for the US sample

	ROA	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
ROA	1.00													
SOP FOR	0.16*	1.00												
Ln CEO pay	0.07*	-0.32*	1.00											
SOPFOR*CEO pay	0.09*	0.02	0.38*	1.00										
Ln BSIZE	-0.11*	-0.09*	0.43*	0.20*	1.00									
INDDIR	-0.06*	-0.08*	0.26*	0.21*	0.34*	1.00								
ACI	0.03*	0.05*	-0.19*	-0.04*	-0.46*	0.01	1.00							
TB*CCI	0.06*	0.06*	-0.18*	-0.05*	-0.46*	0.03*	0.62*	1.00						
Ln TA	-0.19*	-0.18*	0.67*	0.28*	0.64*	0.29*	-0.25*	-0.27*	1.00					
Tobin's Q	0.67*	0.16*	0.05*	0.07*	-0.19*	-0.07*	0.01	0.03*	-0.31*	1.00				
SV	-0.09*	-0.01	-0.27*	-0.16*	-0.32*	-0.16*	0.09*	0.13*	-0.44*	-0.11*	1.00			
FCF	0.61*	0.09*	0.08*	0.07*	-0.07*	0	-0.03*	-0.01	-0.19*	0.58*	-0.05*	1.00		
LEV	0.34*	0.04*	0.03*	0.04*	-0.15*	-0.05*	0.03*	0.05*	-0.18*	0.37*	0.01	0.46*	1.00	
Ln SMI	0.08*	-0.08*	0.57*	0.29*	0.37*	0.19*	-0.15*	-0.19*	0.62*	0.15*	-0.51*	0.06*	0.07*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.23: Pearson correlation matrix between SOP votes and firm profitability in the long term(CROA) for an Australian sample

	CROA	SOP FOR	Ln CEO pay	SOPFOR* CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
CROA	1.00													
SOP FOR	0.03	1.00												
Ln CEO pay	-0.16*	-0.13*	1.00											
SOPFOR*CEO pay	-0.11*	-0.12*	0.34*	1.00										
Ln BSIZE	-0.21*	-0.08	0.66*	0.19*	1.00									
INDDIR	-0.16*	-0.03	0.46*	0.22*	0.31*	1.00								
ACI	0.08*	-0.03	-0.15*	0.03	-0.49*	0.28*	1.00							
TB*CCI	0.02	-0.02	-0.17*	-0.05	-0.49*	0.15*	0.64*	1.00						
Ln TA	-0.28*	-0.06	0.76*	0.28*	0.74*	0.45*	-0.26*	-0.22*	1.00					
Tobin's Q	0.54*	0.04	-0.21*	-0.13*	-0.33*	-0.21*	0.11*	0.12*	-0.45*	1.00				
SV	-0.17*	0.06	-0.45*	-0.16*	-0.41*	-0.26*	0.10*	0.14*	-0.51*	-0.03	1.00			
FCF	0.46*	0.02	-0.07	0.02	-0.15*	-0.14*	0.10*	0.09*	-0.22*	0.47*	0.00	1.00		
LEV	-0.16*	-0.12*	0.31*	0.12*	0.23*	0.10*	-0.08*	-0.03	0.36*	-0.19*	-0.26*	-0.15*	1.00	
Ln SMI	0.17*	-0.04	0.02	-0.09*	0.02	0.02	0.01	0.02	0.01	0.03	-0.13*	0	0	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.24: Pearson correlation matrix between SOP votes and firm profitability in the long term(CROA) for a Canadian sample

	CROA	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
CROA	1.00													
SOP FOR	0.18*	1.00												
Ln CEO pay	-0.15*	-0.29*	1.00											
SOPFOR*CEO pay	-0.04	-0.05	0.38*	1.00										
Ln BSIZE	-0.16*	0.01	0.49*	0.34*	1.00									
INDDIR	-0.16*	-0.03	0.30*	0.28*	0.48*	1.00								
ACI	0.27*	0.11*	-0.18*	-0.02	-0.28*	0.04	1.00							
TB*CCI	0.21*	0.03	-0.01	0.02	-0.28*	0.10	0.62*	1.00						
Ln TA	-0.27*	-0.06	0.68*	0.31*	0.62*	0.35*	-0.21*	-0.08	1.00					
Tobin's Q	0.19*	0.29*	-0.26*	-0.16*	-0.26*	-0.27*	0.03	0.00	-0.43*	1.00				
SV	-0.18*	-0.29*	-0.10	-0.13*	-0.31*	-0.21*	-0.12*	-0.01	-0.27*	-0.03	1.00			
FCF	0.31*	-0.07	-0.02	0.01	-0.06	-0.05	0.09	0.16*	-0.19*	0.09	-0.12*	1.00		
LEV	0.01	-0.12*	-0.02	-0.04	-0.01	0.03	-0.04	-0.01	0.06	-0.34*	0.02	0.10	1.00	
Ln SMI	0.16*	0.05	0.00	-0.05	-0.01	-0.03	0.00	0.04	0.01	0.03	-0.21*	-0.03	-0.04	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.25: Pearson correlation matrix between SOP votes and firm profitability in the long term(CROA) for the UK sample

	CROA	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
CROA	1.00													
SOP FOR	0.02	1.00												
Ln CEO pay	0.06	-0.21*	1.00											
SOPFOR*CEO pay	-0.03	-0.14*	0.28*	1.00										
Ln BSIZE	-0.15*	-0.17*	0.44*	0.08*	1.00									
INDDIR	-0.03	-0.12*	0.28*	0.07*	0.10*	1.00								
ACI	0.18*	0.04	-0.09*	0.02	-0.49*	0.19*	1.00							
TB*CCI	0.21*	0.07*	-0.14*	-0.03	-0.57*	0.18*	0.76*	1.00						
Ln TA	-0.31*	-0.14*	0.54*	0.16*	0.61*	0.32*	-0.25*	-0.32*	1.00					
Tobin's Q	0.51*	-0.02	0.05	-0.04	-0.16*	0	0.18*	0.21*	-0.45*	1.00				
SV	-0.15*	-0.02	-0.36*	-0.08*	-0.18*	-0.04	0	0	-0.20*	-0.20*	1.00			
FCF	0.26*	-0.09*	0.06	0.01	-0.11*	0.03	0.15*	0.16*	-0.17*	0.40*	-0.02	1.00		
LEV	-0.16*	-0.05	0.11*	-0.03	0.07*	0.06	0.01	0	0.20*	-0.05	-0.14*	-0.07*	1.00	
Ln SMI	0.15*	0.08*	-0.42*	-0.09*	-0.41*	-0.22*	0.18*	0.18*	-0.49*	-0.02	0.32*	0.03	-0.05	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A. 26: Pearson correlation matrix between SOP votes and firm profitability in the long term(CROA) for the US sample

	ROA	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	Ln BSIZE	INDDIR	ACI	TB*CCI	Ln TA	Tobin's Q	SV	FCF	LEV	Ln SMI
ROA	1.00													
SOP FOR	0.14*	1.00												
Ln CEO pay	0.05*	-0.32*	1.00											
SOPFOR*CEO pay	0.08*	0.02	0.38*	1.00										
Ln BSIZE	-0.12*	-0.09*	0.43*	0.20*	1.00									
INDDIR	-0.05*	-0.08*	0.26*	0.21*	0.34*	1.00								
ACI	0.05*	0.05*	-0.19*	-0.04*	-0.46*	0.01	1.00							
TB*CCI	0.06*	0.06*	-0.18*	-0.05*	-0.46*	0.03*	0.62*	1.00						
Ln TA	-0.18*	-0.18*	0.67*	0.28*	0.64*	0.29*	-0.25*	-0.27*	1.00					
Tobin's Q	0.58*	0.16*	0.05*	0.07*	-0.19*	-0.07*	0.01	0.03*	-0.31*	1.00				
SV	-0.24*	-0.01	-0.27*	-0.16*	-0.32*	-0.16*	0.09*	0.13*	-0.44*	-0.11*	1.00			
FCF	0.50*	0.09*	0.08*	0.07*	-0.07*	0	-0.03*	-0.01	-0.19*	0.58*	-0.05*	1.00		
LEV	0.34*	0.04*	0.03*	0.04*	-0.15*	-0.05*	0.03*	0.05*	-0.18*	0.37*	0.01	0.46*	1.00	
Ln SMI	0.26*	-0.08*	0.57*	0.29*	0.37*	0.19*	-0.15*	-0.19*	0.62*	0.15*	-0.51*	0.06*	0.07*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.27: Pearson correlation matrix between SOP votes and liquidity for an Australian sample

	Liq	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	INDDIR	TB*CCI	CEO duality	Ln TA	SR	M/B	FCF	SV	DPS	Ln SMI
Liq	1.00													
SOP FOR	0.01	1.00												
Ln CEO pay	-0.23*	-0.16*	1.00											
SOPFOR*CEO pay	-0.09*	-0.18*	0.34*	1.00										
INDDIR	-0.11*	-0.04	0.39*	0.18*	1.00									
TB*CCI	0.12*	0.01	-0.19*	-0.08	0.21*	1.00								
CEO duality	-0.10*	-0.15*	-0.01	-0.06	-0.15*	-0.06	1.00							
Ln TA	-0.39*	-0.06	0.74*	0.26*	0.33*	-0.26*	-0.07	1.00						
SR	0.01	0.04	-0.12*	-0.07	-0.16*	-0.01	0.09*	-0.19*	1.00					
M/B	0.04	0.03	-0.06	-0.04	-0.07	0.11*	0.10*	-0.31*	0.42*	1.00				
FCF	0.01	0.03	-0.03	0.04	-0.11*	0.08	0.07	-0.15*	0.22*	0.41*	1.00			
SV	0.24*	0.06	-0.42*	-0.11*	-0.17*	0.16*	-0.01	-0.45*	-0.15*	-0.25*	-0.10*	1.00		
DPS	-0.13*	-0.06	0.39*	0.05	0.10*	-0.09*	0.01	0.35*	0.08	0.37*	0.26*	-0.62*	1.00	
Ln SMI	0.02	-0.03	0.03	-0.11*	0.03	0.01	0.04	0.02	-0.12*	0.01	-0.01	-0.10*	0.03	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.28: Pearson correlation matrix between SOP votes and liquidity for a Canadian sample

	Liq	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	INDDIR	TB*CCI	CEO duality	Ln TA	SR	M/B	FCF	SV	DPS	Ln SMI
Liq	1.00													
SOP FOR	-0.25*	1.00												
Ln CEO pay	-0.09	-0.29*	1.00											
SOPFOR*CEO pay	0.00	-0.08	0.28*	1.00										
INDDIR	-0.16*	-0.05	0.30*	0.28*	1.00									
TB*CCI	0.00	0.06	0.02	0.07	0.14*	1.00								
CEO duality	0.03	-0.12*	0.04	0.00	-0.10	0.07	1.00							
Ln TA	-0.29*	-0.11	0.70*	0.20*	0.23*	-0.03	0.15*	1.00						
SR	0.03	0.22*	-0.17*	-0.07	-0.07	0.03	0.03	-0.25*	1.00					
M/B	-0.21*	-0.6*	0.05	0.06	0.17*	-0.01	-0.09	0.09	-0.24*	1.00				
FCF	-0.02	-0.05	-0.08	-0.02	0.01	0.16*	-0.07	-0.21*	0.13*	0.25*	1.00			
SV	0.57*	-0.22*	0.00	-0.01	-0.15*	-0.12	0.16*	-0.08	-0.14*	-0.38*	-0.23*	1.00		
DPS	-0.58*	0.27*	0.02	0.05	0.25*	0.08	-0.25*	0.19*	-0.04	0.25*	0	-0.56*	1.00	
Ln SMI	-0.04	0.08	0	-0.07	-0.02	0.08	0.01	0.01	0.06	-0.03	-0.01	-0.20*	0.03	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.29: Pearson correlation matrix between SOP votes and liquidity for the UK sample

	Liq	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	INDDIR	TB*CCI	CEO duality	Ln TA	SR	M/B	FCF	SV	DPS	Ln SMI
Liq	1.00													
SOP FOR	0.12*	1.00												
Ln CEO pay	-0.18*	-0.19*	1.00											
SOPFOR*CEO pay	-0.02	-0.23*	0.30*	1.00										
INDDIR	-0.15*	-0.13*	0.32*	0.08*	1.00									
TB*CCI	0.13*	0.06	-0.09*	-0.01	0.20*	1.00								
CEO duality	0.08*	0.02	0.01	-0.04	-0.07	0.02	1.00							
Ln TA	-0.30*	-0.14*	0.50*	0.13*	0.36*	-0.24*	-0.06	1.00						
SR	0.00	-0.06	0.19*	0.08*	-0.02	-0.04	0.06	-0.01	1.00					
M/B	-0.11*	-0.07	0.23*	0.03	-0.05	0.05	-0.01	-0.22*	0.24*	1.00				
FCF	0	-0.08*	0.11*	0.04	-0.02	0.09*	0.01	-0.15*	0.12*	0.31*	1.00			
SV	0.22*	0	-0.37*	-0.08*	-0.07*	-0.02	0.06	-0.21*	-0.15*	-0.37*	-0.06	1.00		
DPS	0.01	-0.11*	0.41*	0.09*	0.15*	-0.02	0.08*	0.24*	0.10*	0.25*	0.19*	-0.39*	1.00	
Ln SMI	0.10*	0.11*	-0.43*	-0.08*	-0.22*	0.15*	-0.03	-0.49*	-0.05	-0.11*	0.04	0.32*	-0.27*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A.30: Pearson correlation matrix between SOP votes and liquidity for the US sample

	Liq	SOP FOR	Ln CEO pay	SOPFOR*CEO pay	INDDIR	TB*CCI	CEO duality	Ln TA	SR	M/B	FCF	SV	DPS	Ln SMI
Liq	1.00													
SOP FOR	0.07*	1.00												
Ln CEO pay	-0.29*	-0.33*	1.00											
SOPFOR*CEO pay	-0.12*	0.03*	0.39*	1.00										
INDDIR	-0.19*	-0.10*	0.28*	0.22*	1.00									
TB*CCI	0.06*	0.07*	-0.20*	-0.06*	0.02	1.00								
CEO duality	-0.05*	-0.09*	0.1215*	0.04*	0.14*	0.02	1.00							
Ln TA	-0.43*	-0.20*	0.76*	0.34*	0.31*	-0.26*	0.12*	1.00						
SR	-0.02	0.16*	0.02	0.04*	-0.01	-0.02	0.02	0.00	1.00					
M/B	-0.02	0.13*	0.04*	0.06*	-0.01	0	0.05*	-0.01	0.18*	1.00				
FCF	0.18*	0.09*	0.04*	0.05*	-0.02	-0.03	-0.02	-0.12*	0.17*	0.33*	1.00			
SV	0.27*	-0.02	-0.33*	-0.20*	-0.21*	0.12*	-0.10*	-0.46*	-0.16*	-0.14*	-0.14*	1.00		
DPS	-0.25*	-0.03*	0.32*	0.18*	0.27*	-0.09*	0.13*	0.44*	0.01	0.11*	0.08*	-0.52*	1.00	
Ln SMI	-0.26*	-0.07*	0.58*	0.31*	0.21*	-0.20*	0.09*	0.67*	0.07*	0.26*	0.08*	-0.52*	0.35*	1.00

All variables are defined in Table 4.2 and* denote significance at the 0.05 level

Table A. 31: VIF and Tolerance tests results (SOP votes and capital expenditure)

Australia			Canada			UK			USA		
Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF
Ln TA	3.35	0.30	Ln TA	2.51	0.40	Ln TA	2.34	0.43	Ln TA	3.82	0.26
Ln BSIZE	3.29	0.30	Ln CEO pay	2.19	0.46	Ln BSIZE	2.17	0.46	Ln CEO pay	2.47	0.40
Ln CEO pay	2.41	0.42	Ln BSIZE	1.66	0.60	Ln SMI	1.87	0.53	Ln SMI	2.17	0.46
TB*CCI	1.67	0.60	Liq	1.37	0.73	Ln CEO pay	1.79	0.56	Ln BSIZE	2.08	0.48
Liq	1.36	0.73	LEV	1.33	0.75	TB*CCI	1.44	0.69	SV	1.49	0.67
SV	1.30	0.77	SV	1.32	0.76	SV	1.21	0.83	SOP FOR	1.41	0.71
LEV	1.29	0.78	SR	1.29	0.78	Liq	1.17	0.85	TB*CCI	1.34	0.75
FCF	1.19	0.84	TB*CCI	1.22	0.82	LEV	1.16	0.86	SOPFOR*CEO pay	1.24	0.80
SR	1.16	0.86	FCF	1.21	0.83	FCF	1.11	0.90	Liq	1.21	0.83
CEO duality	1.05	0.95	SOPFOR*CEO pay	1.19	0.84	SR	1.10	0.91	FCF	1.15	0.87
SOP FOR	1.05	0.96	SOP FOR	1.19	0.84	SOPFOR*CEO pay	1.04	0.96	LEV	1.09	0.92
SOPFOR*CEO pay	1.04	0.96	CEO duality	1.18	0.85	CEO duality	1.03	0.97	SR	1.06	0.94
Ln SMI	1.04	0.96	Ln SMI	1.06	0.95	SOP FOR	1.02	0.98	CEO duality	1.03	0.97
Mean VIF	1.63		Mean VIF	1.44		Mean VIF	1.42		Mean VIF	1.66	

All variables are defined in Table 4.2

Table A.32: VIF and Tolerance tests results (SOP votes and leverage)

Australia			Canada			UK			USA		
Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF
Ln TA	3.57	0.28	Ln TA	2.39	0.42	Ln TA	3.27	0.31	Ln TA	4.24	0.24
Ln BSIZE	3.22	0.31	Ln CEO pay	2.14	0.47	Ln BSIZE	2.14	0.47	Ln CEO pay	2.53	0.40
Ln CEO pay	2.39	0.42	Ln BSIZE	1.65	0.61	Ln SMI	2.01	0.50	Ln SMI	2.26	0.44
TB*CCI	1.66	0.60	SV	1.34	0.75	Ln CEO pay	1.83	0.55	Ln BSIZE	2.08	0.48
Tobin's Q	1.57	0.64	Liq	1.33	0.75	Tobin's Q	1.65	0.61	Tobin's Q	1.64	0.61
Liq	1.39	0.72	SOP FOR	1.28	0.78	TB*CCI	1.42	0.70	SV	1.47	0.68
SV	1.28	0.78	Tobin's Q	1.24	0.80	SV	1.19	0.84	SOP FOR	1.40	0.71
FCF	1.25	0.80	TB*CCI	1.21	0.83	FCF	1.12	0.89	FCF	1.38	0.73
CEO duality	1.05	0.95	SOPFOR*CEO pay	1.19	0.84	Liq	1.11	0.90	TB*CCI	1.34	0.75
SOP FOR	1.05	0.95	CEO duality	1.17	0.85	SOPFOR*CEO pay	1.04	0.96	SOPFOR*CEO pay	1.25	0.80
SOPFOR*CEO pay	1.05	0.96	FCF	1.16	0.86	CEO duality	1.03	0.97	Liq	1.21	0.83
Ln SMI	1.02	0.98	Ln SMI	1.06	0.94	SOP FOR	1.02	0.98	CEO duality	1.03	0.97
Mean VIF	1.71		Mean VIF	1.43		Mean VIF	1.57		Mean VIF	1.82	

All variables are defined in Table 4.2

Table A.33: VIF and Tolerance tests results (SOP votes and firm profitability)

Australia			Canada			UK			USA		
Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF	Variables	VIF	1/VIF
Ln BSIZE	3.50	0.29	Ln TA	2.63	0.38	Ln TA	3.62	0.28	Ln TA	3.67	0.27
Ln TA	3.42	0.29	Ln BSIZE	2.24	0.45	TB*CCI	2.98	0.34	Ln BSIZE	2.31	0.43
ACI	2.68	0.37	ACI	2.00	0.50	ACI	2.57	0.39	Ln SMI	2.24	0.45
Ln CEO pay	2.54	0.39	TB*CCI	1.97	0.51	Ln BSIZE	2.33	0.43	Ln CEO pay	2.18	0.46
TB*CCI	2.27	0.44	Ln CEO pay	1.92	0.52	Ln SMI	1.88	0.53	ACI	2.02	0.50
INDDIR	1.86	0.54	Tobin's Q	1.90	0.53	Ln CEO pay	1.81	0.55	TB*CCI	1.99	0.50
Tobin's Q	1.55	0.65	LEV	1.56	0.64	Tobin's Q	1.62	0.62	Tobin's Q	1.72	0.58
SV	1.33	0.75	INDDIR	1.34	0.75	INDDIR	1.44	0.69	SV	1.40	0.71
FCF	1.27	0.79	SV	1.33	0.75	SV	1.17	0.85	FCF	1.39	0.72
LEV	1.19	0.84	SOP FOR	1.31	0.76	FCF	1.09	0.92	SOP FOR	1.36	0.73
SOPFOR*CEO pay	1.04	0.96	FCF	1.16	0.86	SOPFOR*CEO pay	1.04	0.96	SOPFOR*CEO pay	1.24	0.80
SOP FOR	1.03	0.97	SOPFOR*CEO pay	1.14	0.88	SOP FOR	1.02	0.98	INDDIR	1.15	0.87
Ln SMI	1.03	0.97	Ln SMI	1.06	0.95	LEV	1.02	0.98	LEV	1.12	0.90
Mean VIF	1.90		Mean VIF	1.66		Mean VIF	1.82		Mean VIF	1.83	

All variables are defined in Table 4.2

Table A.34: VIF and Tolerance tests results (SOP votes and liquidity)

Australia			Canada			UK			USA		
Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF
Ln TA	3.20	0.31	Ln TA	2.24	0.45	Ln TA	2.58	0.39	Ln TA	3.51	0.28
Ln CEO pay	2.55	0.39	Ln CEO pay	2.23	0.45	Ln SMI	1.91	0.52	Ln CEO pay	2.51	0.40
M/B	1.60	0.63	SV	1.57	0.64	Ln CEO pay	1.84	0.54	Ln SMI	2.32	0.43
INDDIR	1.45	0.69	DPS	1.50	0.67	INDDIR	1.46	0.69	SV	1.59	0.63
DPS	1.44	0.69	M/B	1.26	0.80	DPS	1.42	0.71	SOP FOR	1.40	0.71
SV	1.38	0.72	INDDIR	1.22	0.82	TB*CCI	1.27	0.79	DPS	1.38	0.72
TB*CCI	1.33	0.75	FCF	1.17	0.85	M/B	1.24	0.81	SOPFOR*CEO pay	1.26	0.79
SR	1.23	0.82	SR	1.16	0.86	SV	1.22	0.82	M/B	1.19	0.84
FCF	1.13	0.88	SOP FOR	1.16	0.87	FCF	1.15	0.87	FCF	1.15	0.87
CEO duality	1.06	0.95	SOPFOR*CEO pay	1.15	0.87	SR	1.08	0.93	INDDIR	1.11	0.90
SOPFOR*CEO pay	1.04	0.96	TB*CCI	1.14	0.88	SOPFOR*CEO pay	1.03	0.97	TB*CCI	1.10	0.91
SOP FOR	1.04	0.96	CEO duality	1.11	0.90	CEO duality	1.02	0.98	SR	1.08	0.92
Ln SMI	1.04	0.96	Ln SMI	1.05	0.95	SOP FOR	1.02	0.98	CEO duality	1.04	0.96
Mean VIF	1.50		Mean VIF	1.38		Mean VIF	1.40		Mean VIF	1.59	

All variables are defined in Table 4.2

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