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Two Essays on Politics and Finance

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by

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TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

I examined how politics affects corporate policies and value in two dissertation essays. In my first essay, we investigate whether diversity in points of view within corporate boards, as captured by the diversity in political ideology of board members, can affect a firm's performance. We employ personal political contributions' data to measure political ideology distance among groups of inside, outside directors and the CEO. Our empirical evidence strongly supports the notion that outside directors' monitoring effectiveness is more likely to be enhanced when their viewpoints are distinct from those of management. We find that ideologically diverse boards are associated with better firm performance, lower agency costs and less insiders' discretionary power over the firm's Political Action Committee (PAC) spending. Taken together, our results lead us to conclude that multiplicity of standpoints in corporate boardrooms is imperative for board effectiveness. In my second essay, we document that firms surrounded by high degrees of policy risk generated by local politicians' legislative activities present significantly high stock returns, indicating investors' perception of policy risk. We find that the diverse political strategies firms implement 1) successfully mitigate such policy risk, 2) help firms to acquire more lucrative procurement contracts, and 3) even get firms in trouble with legal issues. Additional results reveal that poor stock performance related to litigation is significantly recovered by political connections. Overall, our results reflect that investors view corporate political activities as effective hedging strategies against policy risk. Collectively, politics plays a critical role in determining corporate policies and/or value.

ESSAY 1:

CORPORATE BOARDS' POLITICAL IDEOLOGY DIVERSITY AND FIRM PERFORMANCE

Introduction

Although traditional corporate governance literature places emphasis on board independence, the notion of superior effectiveness of independent (or outside-dominated) boards has been empirically challenged by several papers (e.g., Guthrie et al., 2012). The limitations of the role of independent directors per se have spurred finance researchers to investigate whether other board diversity characteristics, such as gender or ethnic diversity (e.g., see Carter et al., 2003; Adams and Ferreira, 2009) can improve board effectiveness. The rationale behind the view of diversity as a positive force in corporate boards lies in the premise that the existence of multiple, divergent viewpoints within a board will reduce the likelihood that the agenda and initiatives will be dominated by the CEO and his inside director allies, thereby enhancing the monitoring role of the board. The challenge associated with an empirical investigation of the link between viewpoint diversity and corporate performance is to devise a good proxy for the former. In this study, we propose political ideology diversity as a proxy for the range of different viewpoints within corporate boards and examine whether it has an impact on firm performance.

We argue that diversity of viewpoints within corporate boards is inversely related to the degree of social ties between board members. Such ties develop primarily based on the homophily principle, i.e. on the premise that "familiarity breeds connections" (McPherson et al.,

2001). The social networks literature (e.g., Lazarsfeld and Merton, 1954) distinguishes two types of homophily: 1) status homophily, which is developed along socio-demographic dimensions such as age, sex, race, ethnicity, religion, occupation etc., and 2) value homophily, which is based on values, attitudes, and beliefs. In this study we focus on political values and conjecture that the existence of a variety of political ideologies across inside and outside board member groups adequately reflects the diversity of viewpoints. In the construction of political ideology diversity, we use information on board members' political contributions to gauge political ideology at the individual level and then aggregate them at the board level.

Based on previous literature, one can develop two opposing views on the firm value impact of divergent opinions within corporate boards. On one hand, social science literature proposes a theory called 'team mental model' wherein team performance is enhanced when team members share similar values while pursuing a common goal (Mohammed and Dumville, 2001; Lim and Klein, 2006). If the team mental model can be applied to corporate boards, then board effectiveness should improve with political values homophily leading to superior firm performance. On the other hand, Jensen (1993) argues that board members tend to avoid conflict with management thereby forming a type of corporate culture that is often conducive to inferior board effectiveness. In line with this argument, Shivdasani and Yermack (1999) report that CEOs exert a significant influence on the composition of boards. If incumbent management has the power to appoint directors who share similar values and consequently are less willing to oppose management's decisions, we should observe higher agency problems and lower valuations because boards will consist mostly of members that share similar values.

Hence, based on the aforementioned contradictory predictions derived from prior literature, the effect of board-level political ideology diversity on firm performance is an

empirical issue, which we deem interesting enough to investigate in detail in this study.

We first explore whether incumbent directors are more likely to select new directors who have similar political values. Our evidence shows that new directors tend to exhibit similar political values with incumbent directors. We compute average ideology distance between the inside directors (or CEO) and outside directors and relate it to firm value, measured by Tobin's Q. We find that political ideology diverse boards significantly outperform a sample of matched firms. In univariate analysis, firms whose boards are most politically diverse present a Tobin's Q, which is higher by 0.317 than that of firms with the least politically diverse board. This significant performance difference persists in various regression models that control for other important corporate governance variables.

In addition to finding robust evidence of superior performance associated with diverse board political ideology, we also examine possible explanations. First, we test whether agency costs are associated with political ideology distance. If outside directors maintain different views from management, it may help outside directors provide more objective evaluations of managerial decisions and plans. Therefore, we expect a negative relation between diversity of viewpoints in a boardroom and agency costs. Our empirical results support this hypothesis. We also explore how incumbent inside and outside directors affect an important dimension of firms' corporate political strategy, i.e. Political Action Committee (PAC) contributions. Bebchuk and Jackson (2010) claim that "corporate political speech" decisions are not always aligned with shareholders' wealth and should be independent of ordinary business decisions. For example, a CEO may use corporate PAC contributions to establish the social network groundwork that could potentially provide personal gains in the future. We find that corporate political ideology is significantly aligned with that of insiders. Further analysis suggests that ideologically diverse

boards significantly reduce insiders' discretionary power over PACs' spending. Taken together, the results are consistent with the notion that diversity of viewpoints in corporate boards improves firm performance by lowering agency costs and reducing insiders' discretionary power over expending firm resources.

We contribute to the corporate governance literature by providing evidence that political ideology diversity is a board attribute that is positively related to firm value. Recent literature has shifted focus from the mere existence of independent directors, and now investigates when independent directors provide value to the firm, as is the case, for example, when there are busy directors (Fich and Shivdasani, 2006), when there are more socially independent directors (Hwang and Kim, 2009), local directors (Alam et al., 2012), female directors (Adams and Ferreira, 2009), and in the absence of co-opted boards (Coles et al., 2010). We extend this line of research by employing a direct measure of directors' personal value and documenting how differences in value among decision makers affect firm performance.

Our paper is probably most closely related to the paper by Hwang and Kim (2009). They rely on socio-demographic characteristics of homophily, such as alumni, military service, regional origin, academic discipline, and industry experience, to measure the likelihood for the existence of social ties between the CEO and independent directors. Our investigation is based on political ideology (i.e., a characteristic of values-based homophily) as a proxy for the existence of a multitude of opinions within the board and therefore superior monitoring.

This paper is also related to the notion that personal values can affect corporate behavior and complements a growing body of research that provides evidence in line with the view that personal preferences, as opposed to purely rational profit maximization, affect financial behavior. In particular, some prior papers have used individual political values as proxy for personal traits.

For instance, a personal political affiliation has been shown to affect portfolio composition (Hong and Kostovetsky, 2012), stock market participation (Kaustia and Torstila, 2011) and Bonaparte et al., 2010), analysts' forecasting behavior (Jiang et al., 2011), corporate social responsibility (Giuli and Kostovetsky, 2011), and corporate policy decisions (Hutton et al., 2011). We complement these studies by providing evidence that individual directors' views, measured by political ideology, also matter for firm performance and policy.

Our paper also provides empirical evidence that CEO and director political ideologies matter for corporate political speech. While Cooper et al. (2010) demonstrate that PAC contributing firms exhibit better stock market performance, Aggarwal et al. (2012) provide results that are in sharp contrast to Cooper et al.'s findings. Aggarwal et al. report that PAC contributing firms exhibit similar characteristics with firms exposed to high levels of agency problems (e.g., large firms with high levels of free cash flow) and, in fact, contributing firms significantly underperform relative to non-contributing firms. Bebchuk and Jackson (2013) further note that if the decision for PAC spending is solely determined by insiders' political affiliation (CEO or other executives), those contributions may be used primarily for insiders' own benefits (e.g., to prepare the ground for taking a political position in the future). Thus, to a certain extent, there exists a potential risk that political contributions may hurt shareholders' wealth. Our evidence suggests that political ideology diversity in corporate boards can effectively reduce the possibility that "corporate political speech" is solely driven by insiders' political voices.

The rest of the paper is organized as follows. Section 2 provides literature reviews and hypotheses development. Section 3 describes our data. Section 4 presents empirical results. We conclude in Section 5.

Literature Review and Hypotheses Development

The corporate governance literature has examined various dimensions of board independence in order to answer when board effectiveness is improved. In particular, a growing body of literature emphasizes the effect of diversified boards on firm value and policies. For instance, Adams and Ferreira (2009) find that boards with female directors tend to be associated with better monitoring, probably due to the fact that they are more likely to attend board meetings, and partly because they participate to a greater extent in nominating committees. Anderson et al. (2011) conclude that firms with diverse boards, where diversity is measured by six demographic and professional director characteristics, exhibit better performance than firms with non-diverse boards. Byoun et al. (2012) find that diverse boards are more likely to pay dividends thereby avoiding free cash flow problems.

Furthermore, recent studies have addressed how social relationships that may exist between a CEO and outside directors affect firm performance. Hwang and Kim (2009) provide evidence that socially independent boards are more effective monitors than socially connected boards. In a similar vein and in an M&A context, Fracassi and Tate (2012) find that strong CEO-director ties decrease firm value. In contrast with Hwang and Kim (2010) and Fracassi and Tate (2012), Coles et al. (2010) find co-opted boards, defined as such based on the percent of directors elected after the CEO was hired, are positively associated with firm performance. Coles et al. (2010) assume that directors elected after the CEO is hired are more likely to have values that are consistent with those of the CEO.

We revisit the issue of whether and how divergent points of view between management and outside directors can have an impact on board effectiveness. We employ a proxy for diversity of viewpoints within the board based on the distance of political values among directors and test

whether this ideology-based measure can capture the impact of opinion diversity on firm value. First, we explore whether incumbent directors prefer to appoint incoming colleagues that share similar values. We, then, test whether difference of political values among directors affects firm value.

H1. All other things equal, incumbent directors prefer to hire new directors with similar political ideologies ($\gamma_1>0$; $\gamma_3>0$).

- *New director's political ideology = γ_0 + γ_1Incumbent inside director's political ideology + γ_2 Standard deviation (Incumbent inside director's political ideology) + γ_3 Incumbent outside director's political ideology + γ_4 Standard deviation (Incumbent outside director's political ideology) + $\sum\gamma_s$ controls*

H2. All other things equal, politically divergent boards are associated with better performance ($\gamma_1>0$).

- *Firm performance = γ_0 + γ_1Distance in political ideologies + $\sum\gamma_s$ controls*

In this paper we measure four types of distances in political ideologies given a board; the distance among all directors (*Dist_all_dir*), the distance between the inside and outside directors (*Dist_ins_out),* the distance between the CEO and outside directors (*Dist_CEO_out*) and the distance between the CEO and inside directors (*Dist_CEO_ins*).

We also implement two additional tests to investigate the agency costs and corporate political strategy implications of political ideology diversity in the boardroom. First, the investigation into agency costs is inspired by the findings of Puglisi and Snyder (2008), who show that Democratic leaning newspapers tend to uncover Republican-involved political scandals and vice versa. Their evidence implies that politically oppositely leaning individuals and institutions evaluates the other party's work with a more objective view and exerts greater effort in restraining misbehavior. Applying the Puglisi and Snyder (2008) insight in the context of corporate governance, we can infer that directors whose political ideologies differ from those

of the top management will be more inclined to express their opposition to what they perceive as suboptimal managerial decisions thereby strengthening the boards monitoring function. Therefore, we predict that politically divergent boards are associated with less agency costs of free cash flow.[1]

Second, we explore how ideological diversity affects a firm's corporate political strategy in terms of its PAC contributions. Cooper et al. (2010) demonstrate that political contributions help firms build a relationship with politicians and ultimately become a source of positive abnormal returns. However, it is possible that corporate PAC contributions might not be structured in a way that is aligned with shareholders' interests, but instead they may become a vehicle for the pursuit of corporate insiders' personal goals (Bebchuk and Jackson, 2010). In fact, Aggarwal et al. (2012) document that firms making donations to political candidates for federal offices in the United States from 1991 to 2004 have operating characteristics consistent with the existence of a free cash flow problem and donations that are negatively correlated with returns. Given the potential for misuse of political contributions, we test whether politically divergent boards mitigate the potential for insiders' opportunistic behavior in corporate PAC contributions decisions.

H3: All other things equal, politically divergent boards exhibit lower agency costs than politically united boards ($\gamma_1 < 0$).

- *Agency costs* $= \gamma_0 + \gamma_1$*Distance in political ideologies* $+ \sum \gamma_s$ *controls*

H4: All other things equal, politically divergent boards reduce the possibility that corporate PAC contributions are solely driven by insiders' political affiliation ($\gamma_1 > 0$).

- *Abs(PAC's political ideology – Insider's political ideology)* $= \gamma_0 + \gamma_1$*Distance in political ideologies* $+ \sum \gamma_s$ *controls*

[1]Agency costs of free cash flow are measured following Doukas et al. (2000) and Antia et al. (2010) as the product of free cash flows and a poor growth opportunities indicator variable that takes the value of one (zero) if the firm's Tobin's Q is less (equal to or greater) than one.

where *insiders' polid* is the political ideology of corporate insiders as reflected in their personal PAC contribution portfolio and *PACID* is the corresponding firm political ideology reflected in the corporate PAC contribution portfolio.

Data and Descriptive Statistics

We first gather directors' personal information (i.e., name, age, position on the board, ownership, number of other directorships held and past employment) as well as firm-level information (e.g, G-index) from RiskMetrics (formerly IRRC). As mentioned by Masulis et al. (2012), some important director characteristics are missing prior to 1998. Therefore, our sample period starts in1999 and ranges to 2005. We only retain firms that are included in the S&P 1500 index and do not have missing market and accounting information. Following past studies in corporate governance (Knyazeva et al., 2009; Linck et al., 2008; Anderson et al., 2011, among others), we also exclude the highly regulated industries such as financial firms (SIC: 6000- 6999) and utilities (SIC 4900-4999). Finally, due to the substantial time investment required to hand collect political information, we follow the procedure used in many other studies that used hand-collected data (e.g., Alam et al., 2012) and we randomly select 500 firms. The final sample consists of 500 unique firms with 5,576 directors (2,611 firm-year and 23,391 director-year observations).

We then proceed to identify individuals' political contributions from the Federal Election Commission (FEC) website.[2] The political contributions dataset includes a contributor's name, current address, employment affiliation, contribution year, and the supported candidate's name and party, among other things. To match directors' information and contribution data, a contributor's name and employment affiliation are used as a primary key. In the contributions dataset inside directors, such as CEOs or other executives, typically report their current

[2] The data can be found at http://www.fec.gov/finance/disclosure/norindsea.shtml.

employment affiliation and position. However, in contrast to inside directors, outside directors often do not report their primary employment affiliation but rather affiliations associated with other positions they may hold. This inherent limitation makes it impossible to obtain the best matching results from an automated algorithm. We therefore hand collect individual contributions searching by the first name and last name in the FEC website. We focus on contributions that go to either Republican or Democratic candidates in order to construct a measure of political ideology at the individual level from 1997 to 2006. If a director's information in the RiskMetrics database is not complete enough to determine whether he/she is the same person listed in FEC's contribution database, we conduct additional searches using Wikipedia, Zoominfo, Forbes.com, NNDB.com, BusinessWeek.com and the SEC fillings to identify the director's background. Our procedure resulted in the correct identification of over 98% of all directors' contributions.[3]

Following Hutton et al. (2011), we measure an individual's political ideology as:

$$Polid = \frac{Contributions\ to\ Republican\ Party - Contributions\ to\ Democratic\ Party}{Total\ Contributions} \quad (1)$$

This measure is continuous and bounded by -1 (extreme Democrat) and 1 (extreme Republican). If one never makes a contribution during the sample period, we assume that he or she is politically indifferent (i.e., we set *Polid =0*). To avoid the distortion of the political ideology measures by local and temporary considerations (e.g., a Republican CEO can make contributions to Democratic candidate in a particular election if the Democratic candidate is more likely to win the election in the district where the firm's headquarter is located), we accumulate political contributions over all years up to a certain point and rebalance it every two

[3] The inclusion or exclusion of missing directors does not affect our result. Throughout our tests, we assign directors' political ID value equal to 0 if we cannot exactly identify the director's political contributions.

years (per election cycle).

Table 1 shows descriptive statistics for our sample at the individual and firm levels. As shown in Panel A, approximately 60% of directors in our sample make political contributions during our sample period.[4] Over the 8 year span of our sample period, the average director contribution is about $12,000. The amount of contributions that support Republican candidates is almost double of what Democratic candidates receive. Therefore, on average, 63% of directors' political ideology leans more toward the Republican Party, and just above 35% of directors' ideology leans toward the Democratic Party. With each director's political ideology value at hand, we develop several variables that measure political ideology distance between the CEO and insider and outsider director groups.

$$Dist\_all\_dir_t = \frac{1}{[(A+B-1)+(A+B-2)+\cdots+1]} \sum_{x=1,x\neq y}^{A+B} \left| Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director} \right|, \quad (2)$$

$$Dist\_ins\_out_{i,t} = \frac{1}{A \times B} \sum_{a=1}^{A} \sum_{b=1}^{B} \left| Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider} \right|, \quad (3)$$

$$Dist\_CEO\_out_{i,t} = \frac{1}{A} \sum_{a=1}^{A} \left| Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider} \right|, \quad (4)$$

$$Dist\_CEO\_ins_{i,t} = \frac{1}{B} \sum_{b=1}^{B} \left| Polid_{i,t}^{CEO} - Polid_{i,b,t}^{Insider} \right|, \quad (5)$$

where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*. $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. $Polid_{i,a,t}^{Outside}$ is the political ideology of outside director *a* in firm *i*. $Polid_{i,t}^{CEO}$ is the political ideology of CEO in firm *i*. *A* and *B* are the numbers of outside directors and inside directors, respectively.[5]

[4] The participation rate is not much different when we calculate it on an election-cycle basis. On average, approximately 60% of directors make political contributions per election cycle as well. In Giuli and Kostovetsky (2011)'s work, about 70% of directors make at least one contribution from 2003 to 2009.

[5] To illustrate differences among the four distance measures, we suggest a simple case where a firm has 4 inside

Panel B of Table 1 provides descriptive statistics for these variables. While mean values of *Dist_ins_out* and *Dist_CEO_out* hover around 0.66, the mean of *Dist_CEO_ins*[6] is 0.33, which indicates that ideological proximity is much more pronounced between CEO and other insiders than between insiders and outsiders. Although, as mentioned before, the average director exhibits Republican-leaning political values, insiders' ideologies lean more toward that of the Republican Party while outsiders' lean more toward that of the Democrats.

Table 1 Descriptive Statistics

Variables	N	Mean	Median	Std. Dev.	Min.	Max.
Panel A: Political characteristics at an individual level						
Contributor	5,576	0.595	1.000	0.491	0.000	1.000
Contributions to Democratic Party	3,315	4373	1,000	13081	0	449600
Contributions to Republican Party	3,315	7485	2250	15601	0	197960
Total Contributions	3,315	11857	5000	20490	200	451979
Polid	3,315	0.245	0.632	0.826	-1.000	1.000
Democratic leaning directors	3,315	0.354	0.000	0.478	0.000	1.000
Republican leaning directors	3,315	0.631	1.000	0.483	0.000	1.000
Panel B: Political characteristics at a firm level						
Dist_all_dir	2,611	0.662	0.658	0.241	0.000	1.313
Dist_ins_out	2,611	0.666	0.667	0.264	0.000	1.867
Dist_CEO_out	2,611	0.659	0.643	0.330	0.000	2.000
Dist_CEO_ins	2,611	0.330	0.333	0.311	0.000	1.422
$Polid^{CEO}$	2,611	0.272	0.018	0.678	-1.000	1.000
Average ($Polid^{Insider}$ *)*	2,611	0.232	0.239	0.499	-1.000	1.000
Standard deviation ($Polid^{Insider}$ *)*	2,611	0.407	0.481	0.350	0.000	1.414
Average ($Polid^{Outsider}$ *)*	2,611	0.149	0.163	0.342	-1.000	1.000
Standard deviation ($Polid^{Outsider}$ *)*	2,611	0.595	0.577	0.251	0.000	1.414
Directors' total contributions	2,611	14963	0	38682	0	650329
Corporate PAC contributions	2,611	0.167	0.000	0.373	0.000	1.000

directors (a, b, c, and d) and 5 outside directors (1, 2, 3, 4, and 5) on its board. For *Dist_CEO_ins*, we have 4 possible pairs: (CEO-a), …, (CEO-d), while there are 5 possible pairs for *Dist_CEO_out*: (CEO-1), …, (CEO-5). In the construction of *Dist_ins_out*, there are 20 pairs each involving an inside and an outside director: (a-1), (a-2), …, (d-5). Finally, *Dist_all_dir* considers all combinations between any two directors regardless of whether they are insiders or outsiders. We get 36 (= (9x8)/2) different pairs.

[6] We also examine the effects of the distance in political ideology between the CEO and insider groups. Throughout the tests, the effects are at most marginally significant or insignificant. The results are omitted from the main tables.

Table 1 (continued)

Corporate PAC contributions to Democratic Party	438	26044	13000	38605	0	294700
Corporate PAC contributions to Republican Party	438	66632	29600	92022	500	586500
Corporate total PAC contributions	438	92676	44271	122674	10000	830800
$Polid^{PAC}$	438	0.401	0.409	0.331	-0.905	1.000
Dist_PAC_ins	438	0.387	0.318	0.291	0.000	1.494
Voter turnout	2,611	0.379	0.374	0.068	0.229	0.608
Voter turnout for Republican Party	2,611	0.433	0.445	0.139	0.090	0.860
Voter turnout for Democratic Party	2,611	0.516	0.505	0.129	0.116	0.898
Vote ratio	2,611	0.992	0.881	0.709	0.105	7.390
Panel C: Controlling variables						
Assets †	2,611	4585.81	976.375	12474.64	87.91	96484
Q †	2,611	2.253	1.654	1.660	0.769	9.977
ROA †	2,601	0.152	0.147	0.096	-0.149	0.470
Leverage†	2,597	0.204	0.198	0.170	0.000	0.667
FCF †	2,590	0.092	0.093	0.079	-0.235	0.306
Sales growth †	2,611	0.122	0.084	0.245	-0.477	1.125
CEO duality	2,611	0.613	1.000	0.487	0.000	1.000
Board size	2,611	8.922	9.000	2.386	1.000	21.000
Independent directors	2,611	0.649	0.667	0.171	0.000	1.000
Proportion of busy directors	2,611	0.119	0.000	0.165	0.000	1.000
Contributing directors (annual)	2,611	0.149	0.000	0.233	0.000	1.000
Contributing directors (cumulative)	2,611	0.619	0.636	0.222	0.000	1.000
GIM index	2,611	9.135	9.000	2.563	3.000	17.000
Average (insider's age)	2,608	56.62	57.00	5.78	36.00	75.00
Standard deviation (insider's age)	2,608	6.36	6.14	4.87	0.00	28.44
Average (outsider's age)	2,608	59.98	60.00	4.55	39.00	79.50
Standard deviation (outsider's age)	2,608	7.25	7.00	3.17	0.00	23.33
Proportion of in-state directors	2,611	0.411	0.333	0.357	0.000	1.000
Proportion of co-opted directors	2,491	0.438	0.400	0.362	0.000	1.000

This table provides descriptive statistics of our sample (1999-2005). The detailed definitions of variables are reported in Appendix 1. Panel A summarizes information of political contributions of 5,576 unique directors. Panel B contains information of political contributions of sample firms. Panel C exhibits summary statistics of control variables. The detailed definitions of variables are in Appendix 1. † Accounting variables that are winsorized at the top1% and the bottom 99%.

In Panel B we also report descriptive statistics for firm-level PAC contributions.[7] On average, 17% of our sample firms engage in PACs. On average, firm contributions over an

[7] Firm-level PAC information can be found at http://www.fec.gov/finance/disclosure/ftpdet.shtml (primary) and http://www.campaignmoney.com/ (supplement).

election cycle amount to $92,676. More than two thirds of corporate PACs support Republican candidates. *Directors' total contributions* represent an aggregate amount of individual directors' PAC contributions at a given firm-year. The average amount is approximately $15,000. We also develop two variables designed to measure the external political environment. The first measure, *Vote ratio*, is calculated as the ratio of the votes cast in favor of the Republican Party over the votes cast in favor of the Democratic Party in the latest Presidential election in the county where a firm's headquarter is located. The second variable is the *Voter turnout* expressed as the percentage of total votes over total population in the latest Presidential election in the county where a firm's headquarter is located.

In Panel C we include descriptive statistics for other variables, such as size, performance, leverage, board characteristics etc, that are used as control variables in the subsequent multivariate tests. Note in a given year about 15% of all firms have at least one director who contributes to PACs (contributing directors (annual)), while 62% of firms have at least one director making PAC contributions at some point during the sample period (contributing directors (cumulative)). The detailed definitions of all variables can be found in Appendix 1.

Empirical Results

Do incumbent directors prefer to appoint new directors who share similar political ideologies?

The homophily principle, which simply states that familiarity breeds connection, is a well-established fact in the social networks' literature. For example, geographic proximity is a powerful driver of social ties.[8] In addition, many social and psychological studies indicate that people tend to choose co-workers who share similar backgrounds, demographic characteristics as

[8] Propinquity has been shown to be instrumental in close relationships, such as friendship and marriage (Bossard, 1932), in the frequency of communications within firms (Allen, 1984), in the forming of interlocked corporate boards (Kono, Palmer, Friedland, and Zafonte, 1998), in dealings among floor traders (Baker, 1984), and in investment patterns of venture capital firms (Sorenson and Stuart, 2001).

well as values (Marsden, 1988; McPherson et al., 2001). This is because, other things equal, sharing common values among team members more likely improves team coordination and makes for a better workplace environment (Mohammed and Dumville, 2001; Lim and Klein, 2006). Assuming that political values to some extent also reflect personal values, we can then expect that newly elected directors' political ideologies will be more likely to resemble those of existing directors. We test this hypothesis using Tobit regressions instead of OLS ones because the dependent variable, new director's political ideology (*Polid*), is bounded by -1 and 1. Table 2 reports the estimated coefficients of the Tobit regressions and the corresponding *p*-values in parentheses. In the first column the sample includes all new directors, regardless of whether they are insiders or outsiders, whereas in columns (2) and (3) we perform the test using the subsamples of new inside directors and new outside directors, respectively.[9] The independent variables include the average political ideology of inside and outside directors as well as the standard deviations of political ideology values within the inside and outside director groups. Although directors are supposed to be elected by shareholders, several papers note that management is somehow involved in selecting new directors (e.g., Shivdasani and Yermack, 1999). Therefore, by splitting directors into inside and outside groups, we want to see whether a particular group's political ideology more strongly resembles that of the new director. Our regression models also account for the local political environment. This consideration is made in the spirit of Hilary and Hui (2009) who find that CEOs' religious affiliations tend to be similar to that of the county where their firm is located. Perhaps, the same is true for political ideologies as well. Thus, we include the *Vote ratio* variable, which is measured by the ratio of voter turnout for

[9] We identify new directors in the IRRC dataset as follows; if the first year that a particular person begins to serve as a director for a firm equals the calendar year of the annual meeting date, we assume this is a new director.

Republican Party to voter turnout for Democratic Party. Our models also include firm size, board size, performance, average age of existing directors, industry and year fixed effects.

Table 2 Alignment of Directors' Political Ideology

	Dependent variable: New directors' $Polid_{t+1}$		
	All new directors	Only new insiders	Only new outsiders
	(1)	(2)	(3)
Average $(Polid^{Insider})_t$	0.082	0.114	0.066
	(0.107)	(0.272)	(0.266)
Standard deviation $(Polid^{Insider})_t$	-0.030	-0.145	0.000
	(0.670)	(0.284)	(0.998)
Average $(Polid^{Outsider})_t$	0.146	0.132	0.172
	(0.041)**	(0.356)	(0.041)**
Standard deviation $(Polid^{Outsider})_t$	-0.099	0.075	-0.154
	(0.293)	(0.663)	(0.169)
Vote ratio$_t$	0.209	0.309	0.145
	(0.259)	(0.380)	(0.504)
Log (Director's age)$_t$	0.650	0.825	0.617
	(0.076)*	(0.208)	(0.160)
Log (Asset)$_t$	0.017	0.056	0.002
	(0.302)	(0.072)*	(0.903)
Log (Board size)$_t$	-0.089	-0.001	-0.144
	(0.421)	(0.994)	(0.289)
Q_t	0.001	0.011	-0.006
	(0.948)	(0.744)	(0.802)
Intercept	-2.459	-3.749	-2.047
	(0.094)*	(0.152)	(0.246)
Year fixed	Yes	Yes	Yes
N	867	208	659
Adj. R^2	1.70%	5.10%	1.70%

This table exhibits the results of Tobit regressions that examine a relation between new directors' political ideology and existing directors' political ideology. New directors are identified if the service beginning year is equal to the calendar year of the annual board meeting date. Model (1) includes all new directors hired regardless of types of directors. Model (2) limits for new inside (employee or grey) directors. Model (3) is only for new outside (or independent) directors. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors. ** and * denote significance at the 5% and 10% levels, respectively.

Overall, our evidence suggests that new directors' political ideologies are significantly aligned with that of existing directors, and particularly with that of outside directors. The

coefficient of outside directors' political ideology is 0.146, which is almost twice as large as that of the insiders'. In models (2) and (3), we separately run regressions for subsamples formed by the type of new director: new inside and outside directors, respectively. Consistent with the result in model (1), the coefficients of the political ideology variables are positive but mostly insignificant. While the local political environment variable (*Vote ratio*) is not statistically significant, the mean-age of the board is positively and significantly associated with new directors' political ideology. This indicates that boards consisting of older members prefer Republican leaning new directors. Overall, although the results are consistent with the notion that boards tend to consist of people with similar political values, the evidence is not strong enough to suggest that existing directors tend to select directors who have similar political values or that new directors prefer to work for a firm where people share their political values.

Do political ideology diverse boards enhance firm value?

The alignment of ideologies among decision makers is not always beneficial for firms. In particular, there is abundant evidence in the corporate governance literature that collaboration between management and outside directors, who are supposed to monitor management on behalf of other shareholders, often increases agency costs and thereby proves to be detrimental to firm value. In the next five tables, we report results from several tests aimed at providing further insight into the question of whether corporate boards' political ideology diversity can affect firm performance. In Table 3, we report results of univariate tests. We divide our sample firms into quintile groups based on the three previously mentioned measures of political ideology distance between director groups and between the CEO and director groups: *Dist_all_dir, Dist_ins_out*, and *Dist_CEO_out*. Subsample 5 (H) includes firms with the most politically diverse boards and

subsample 1 (L) includes firms with the least diverse boards. For each subsample we report the mean values of three important variables:

1) Firm performance, measured by Tobin's Q, which is defined here as the ratio of market value of total assets to book value of total assets.
2) Agency costs; following Doukas et al. (2000) and Antial et al. (2010) we define agency costs as the product of free cash flows (*FCF*) and a poor growth opportunities indicator (*Poor growth*) that takes the value of one if the firm's Tobin's Q is less than one, and zero otherwise

$$Agency\ Costs = \frac{FCF}{Total\ assets} \times Poor\ growth \times 100 \tag{6}$$

3) Insiders' discretionary power, measured by ideology distance between the insiders' political ideology and the firm's political ideology as reflected in corporate PAC contributions. Low values of this distance measure reflect greater discretionary power of the insiders.

Table 3 Univariate Tests

		5 (H)	4	3	2	1 (L)	*(H-L)*	*P value*
(1) Dist_all_dir	*Q*	2.199	2.061	1.983	2.020	1.882	0.317	(<0.001)
	Agency costs	0.176	0.237	0.263	0.276	0.655	-0.479	(0.001)
	Dist_PAC_ins	0.473	0.386	0.418	0.458	0.350	0.123	(<0.001)
(2) Dist_ins_out	*Q*	2.187	2.116	1.906	2.013	1.908	0.278	(0.001)
	Agency costs	0.108	0.264	0.237	0.433	0.560	-0.452	(0.002)
	Dist_PAC_ins	0.525	0.451	0.403	0.413	0.290	0.235	(<0.001
(3) Dist_CEO_out	*Q*	2.040	2.106	1.998	2.099	1.894	0.146	(0.052)
	Agency costs	0.199	0.294	0.349	0.245	0.514	-0.316	(0.044)
	Dist_PAC_ins	0.827	0.681	0.528	0.400	0.343	0.483	(<0.001)

This table presents univariate results regarding a relation between political distance measures among directors and firm value. Political distance measures among directors are constructed as follows.

$$Dist\_all\_dir_t = \frac{1}{[(A+B-1)+(A+B-2)+\cdots+1]} \sum_{x=1,x\neq y}^{A+B} \left| Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director} \right|,$$

$$Dist\_ins\_out_{i,t} = \frac{1}{A \times B} \sum_{a=1}^{A} \sum_{b=1}^{B} \left| Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider} \right|,$$

$$Dist\_CEO\_out_{i,t} = \frac{1}{A}\sum_{a=1}^{A}\left|Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider}\right|,$$

where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*. $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. $Polid_{i,a,t}^{Outside}$ is the political ideology of outside director *a* in firm *i*. $Polid_{i,t}^{CEO}$ is the political ideology of CEO in firm *i*. *A* and *B* are the numbers of outside directors and inside directors, respectively. Group 5 represents the most politically diversified boards. Group 1 implies the least. Firm value is measured by Tobin's Q. Agency costs are the product of *FCF* and *Poor growth*, where *FCF* is free cash flow normalized by assets, and *Poor growth* is a dummy that equals one if Tobin's Q is less than one, and zero otherwise. *Dist_PAC_ins* is political ideology distance between firm and insiders, measured by average value of political ideology distance between $Polid_{i,t}^{PAC}$ and a member of the inside director group, where $Polid_{i,t}^{PAC}$ is the firm's political ideology reflected in the corporate PAC contribution portfolio. The detailed definitions of variables are in Appendix 1.

Regardless of type of political ideology distance measure used, the politically diverse boards' subsamples display, on average, higher Tobin's Q than the subsample of firms with boards consisting of directors with similar political ideologies. Based on the distance between inside and outside directors' political ideologies, Tobin's Q for the most diverse board is larger than that of the least diverse boards by 0.317, which is statistically significant at the 1% level. In addition, the univariate test results in Table 3 indicate that politically diverse boards mitigate agency costs and insiders' discretionary power over PAC spending more than boards with homogenous political ideologies.

Next, we test the relation between board ideological diversity and firm performance in a multivariate regression framework. First, we conduct the pooled OLS regressions. However, the results of simple OLS regressions could be biased due to potential endogeneity. Specifically, political ideology and firm performance could have common (unobservable) determinants. Therefore, we also employ two-stage least squares (or 2SLS) regressions with an instrument variable. Anderson et al. (2011) argue that local demographic diversity is reflected in board composition of local firms. Davis and Henderson (2008) indicate that firms consider local diversity when choosing a location for their headquarters. In a similar vein, we take the view that local political environment could be related to the political diversity of local firms' boards.

Koetzle (1998) based on U.S. House of representatives election outcomes documents that Democratic candidates are more favored in areas with higher demographic diversity (e.g., a higher proportion of minorities in a given congressional district) from 1898 to 1992. Koetzle's work leads us to develop two instrument variables from local political characteristics: *Vote ratio* and *Voter turnout*. The first instrument proxies for the color and the second for the strength of local political participation. *Vote ratio* captures a county-level partisanship where a firm's headquarter is located in. The rationale for the choice of this instrument is that political ideology diversity in the boardroom may to a great extent depend on local political preferences. For example, we predict that if a firm's headquarter is located in strongly liberal (or Democratic leaning) state the composition of board political ideologies will tend to be more diverse as a result of the fact that individuals with liberal ideologies tend to be more tolerant and inclusive. On the other hand, in states that are strongly conservative (Republican leaning) we expect to see less ideological diversity in local corporate boards due to the fact that individuals with conservative ideologies tend to be less likely to accept others that do not share their values. Moreover, while this county-level measure of partisanship is expected to be important in explaining the degree of diversity of directors' political ideologies, it is not necessarily expected to have a direct impact on market valuation and other firm performance related measures. Our second instrument is *Voter turnout* that proxies for political participation as costly action by a rational voter who wants to exhibit own political preference.[10] We measure an individual's political ideology using his/her PAC donations that incur both monetary and non-monetary costs. Hence, we expect that engaging in voting and PAC donations are highly correlated. Bartle (1997) finds that individuals with more political knowledge are more likely to participate in voting.

[10] A rational voter only participates in voting if expected benefits exceed voting costs (Down, 1957; Dhillon and Peralta, 2002; Geys, 2006).

Therefore, directors residing in areas with higher voter turnout are more likely to engage in PACs. Based on the discussion above, the structure of our 2SLS regressions is as follows:

1st stage: Political ideology distance $= \gamma_0 + \gamma_1$ *Vote ratio* $+ \gamma_2$ *Voter turnout* $+ \sum\gamma_{3\text{-}11}$ *controls*

2nd stage: Tobin's Q $= \gamma_0 + \gamma_1$ *predicted value of political distance measures* $+ \sum\gamma_{2\text{-}12}$ *controls*

Table 4 Determinants of Politically Divergent Boards

	Dependent variable:		
	Log (1+Dist_all_dir$_t$)	*Log (1+Dist_ins_out$_t$)*	*Log (1+Dist_CEO_out$_t$)*
	(1)	(2)	(3)
Reverse vote ratio$_t$	0.005	0.007	0.013
	(0.019)**	(0.001)***	(<0.001)***
Voter turnout$_t$	0.247	0.351	0.400
	(<0.001)***	(<0.001)***	(<0.001)***
Log (Assets)$_t$	0.019	0.023	0.010
	(<0.001)***	(<0.001)***	(0.004)***
Leverage$_t$	-0.007	-0.009	-0.001
	(0.691)	(0.641)	(0.979)
ROA$_t$	-0.033	-0.018	0.020
	(0.433)	(0.690)	(0.724)
Free cash$_t$	0.071	0.061	-0.044
	(0.213)	(0.305)	(0.561)
Sales growth$_t$	-0.009	0.002	-0.016
	(0.577)	(0.917)	(0.407)
CEO duality$_t$	0.014	0.011	0.030
	(0.023)**	(0.091)*	(0.001)***
Log (Board size)$_t$	0.028	0.042	0.077
	(0.066)*	(0.012)**	(<0.001)***
Proportion of independent directors$_t$	0.085	0.047	0.086
	(<0.001)***	(0.034)**	(0.002)***
Proportion of busy directors$_t$	0.082	0.047	0.018
	(<0.001)***	(0.034)**	(0.457)
Log (1+Directors' total contributions)$_t$	0.132	0.122	0.061
	(<0.001)***	(<0.001)***	(0.032)**
G-index$_t$	0.000	-0.001	-0.001
	(0.828)	(0.415)	(0.432)
Intercept	0.052	0.010	0.010
	(0.158)	(0.795)	(0.834)
Industry / year fixed	Yes	Yes	Yes
N	2,547	2,547	2,547
Adj. R^2	14.58%	12.70%	8.25%

This table presents the results of the first-stage models in 2SLS regressing political distance measure on an instrument variable as well as other control variables. The dependent variables are as follows.

$$Dist\_all\_dir_t = \frac{1}{[(A+B-1)+(A+B-2)+\cdots+1]}\sum_{x=1,x\neq y}^{A+B}\left|Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director}\right|,$$

$$Dist\_ins\_out_{i,t} = \frac{1}{A\times B}\sum_{a=1}^{A}\sum_{b=1}^{B}\left|Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider}\right|,$$

$$Dist\_CEO\_out_{i,t} = \frac{1}{A}\sum_{a=1}^{A}\left|Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider}\right|,$$

where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*. $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. $Polid_{i,a,t}^{Outside}$ is the political ideology of outside director *a* in firm *i*. $Polid_{i,t}^{CEO}$ is the political ideology of CEO in firm *i*. *A* and *B* are the numbers of outside directors and inside directors, respectively. *Vote Ratio* is the ratio of the votes cast in favor of the Republican Party over the votes cast in favor of the Democratic Party in the latest Presidential election in the county where the firm's headquarter is located. *Voter turnout* is the ratio of total voters over total population in the latest Presidential election in the county where a firm's headquarter is located. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors. Industry and year dummies are included. ***, **, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

The results of the OLS and the 2SLS estimations are reported in Tables 4 and 5. First, Table 4 presents results of the first stage regressions where the dependent variables are the three different measures of political ideology distance, i.e. that among the inside and outside groups of directors and those among the CEO and each of the two director groups. Since all dependent variables are bounded by -1 and 1, we log-transform these variables after adding 1. To allow for easier interpretation of its coefficient, we use the reverse value of *Vote ratio* (i.e., a higher reverse value for Democratic leaning county). As predicted, we find all distance measures are positively and significantly related to the *Reverse vote ratio* and *Voter turnout*. The coefficient ranges from 0.005 to 0.013 for *Reverse vote ratio*, while it ranges from 0.247 to 0.400 for *Voter turnout*, indicating that firms in Democratic leaning areas and politically active areas tend to have more politically diverse boards. In addition, the coefficient of *Log(Assets)* is positive and significant, indicating that larger firms have more diverse boards. Similarly, the results indicate that boards of firms with larger board sizes, more independent directors, more busy directors and directors who more engage in more PAC donations exhibit greater diversity of political ideology.

In Table 5, we report the results of the pooled OLS as well as the second stage of the two-stage least squares (2 SLS) regressions, where the dependent variable is Tobin's Q and the main independent variables are raw political distance measures (models (1) to (3)) and the predicted value of each political distance measure from the first-stage regression (models (4) to (6)), respectively. Overall, our results strongly indicate that boards' political ideology diversity is associated with higher market valuation. All three political ideology distance measures have

positive and significant coefficients. In the OLS results, the coefficients range from 0.194 to 0.355. The levels of statistical significances are less than 1%.

Table 5 Politically Divergent Boards and Firm Performance

	Dependent variable: Q_{t+1}					
	Pooled OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
Dist_all_dir$_t$	0.355					
	(<0.001)***					
Dist_ins_out$_t$		0.283				
		(0.001)***				
Dist_CEO_out$_t$			0.194			
			(0.002)***			
Log (1+Dist_all_dir$_t$*)*				5.902		
				(<0.001)***		
Log (1+Dist_ins_out$_t$*)*					4.134	
					(<0.001)***	
Log (1+Dist_CEO_out$_t$*)*						3.340
						(<0.001)***
Log (Assets)$_t$	0.043	0.042	0.049	-0.056	-0.037	0.020
	(0.041)**	(0.043)**	(0.018)**	(0.069)*	(0.186)	(0.367)
Leverage$_t$	-1.119	-1.116	-1.117	-1.045	-1.051	-1.082
	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
ROA$_t$	1.245	1.227	1.208	1391	1.272	1.119
	(0.002)***	(0.002)***	(0.002)***	(0.001)***	(0.002)***	(0.006)***
Free cash$_t$	3.839	3.865	3.921	3.449	3.622	4.048
	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
Sales growth$_t$	0.414	0.409	0.415	0.476	0.418	0.474
	(0.002)***	(<0.001)***	(0.002)***	(0.001)***	(0.002)***	(0.001)***
CEO duality$_t$	-0.154	-0.148	-0.152	-0.226	-0.189	-0.244
	(0.001)***	(0.001)***	(0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
Log (Board size)$_t$	-0.310	-0.295	-0.306	-0.472	-0.482	-0.575
	(0.004)***	(0.005)***	(0.004)***	(<0.001)***	(0.001)***	(<0.001)***
Proportion of independent directors$_t$	0.306	0.319	0.323	-0.193	0.115	0.030
	(0.027)**	(0.022)**	(0.021)**	(0.292)	(0.444)	(0.846)
Proportion of busy directors$_t$	0.014	0.043	0.060	-0.421	-0.131	-0.004
	(0.912)	(0.744)	(0.646)	(0.011)**	(0.341)	(0.976)
Log (1+Directors' total contributions)$_t$	0.002	0.003	0.004	-0.676	-0.401	-0.101
	(0.690)	(0.560)	(0.435)	(0.001)***	(0.015)**	(0.476)
G-index$_t$	-0.017	-0.017	-0.017	-0.022	-0.016	-0.015
	(0.027)**	(0.029)**	(0.030)**	(0.005)***	(0.045)**	(0.063)*
Intercept	2.279	2.266	2.281	1.500	1.767	1.802
	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
Industry/ year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,500	2,500	2,500	2,482	2,482	2,482
Adj. R^2	27.39%	27.26%	27.18%	28.35%	28.35%	28.36%

Table 5 presents the results of the pooled OLS regressions and the two-stage least squares (2SLS) regressions that examine a relation between political distance measures and firm value. The dependent variable is firm value measured by Tobin's Q. For the 2 SLS, political distances measures are predicted values that are obtained from Table 4. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors. Industry and year dummies are included. ***, **, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

These economic and statistical significances persist even after considering endogeneity. In the 2 SLS results, the coefficients are between 3.340 and 5.902 and they are statistically significant at the 1% level. The remaining control variables' coefficients are mostly significant and display the expected signs. Specifically, the results show that Tobin's Q is negatively associated with leverage and board size, consistent with the suggestions made in Lipton and Lorsch (1992) and Jensen (1993) and the empirical findings in Yermack (1996) and Eisenberg, Sundgren, and Wells (1998). In addition, firm value is positively associated with sales growth and ROA. One may argue that our political distance measure merely represents political capital, since the ideology distance measure is constructed from individual PAC donations. That is, politically diverse firms' high valuation may simply reflect rewards for political donations. To address this issue, we include the total amount of individual directors' PAC donations for the firm-year, *Log (1+Directors' total contributions)*, as a control variable. We find that our results are not affected by the inclusion of this variable. Overall, the results in Tables 4 and 5 are consistent with the view that diversity of standpoints in corporate boards improves firm value because it enhances monitoring effectiveness.

We also estimate the OLS and 2SLS regressions after splitting our sample into the S&P 500 group and the non-S&P 500 group to see if our results are sensitive to the random selection process used in constructing our sample. We report the separate test results in Appendix 2. The 2SLS results show a positive association between valuation and board political diversity in both groups, while OLS regressions results show that the positive association between board's political ideology diversity and firm performance is mainly found in non-S&P 500 firms. We

conclude that sample construction does not appear to be driving our results, especially when controlling for endogeneity.[11]

In table 6, we address the issue that political ideology diversity variables might be capturing the effects of other board characteristics that past studies have suggested are important in understanding firm performance. For instance, take directors' age; senior directors' political values are more likely to be different than those of other directors, as is their effectiveness as board members due to their experience. Moreover, Adams and Ferreira (2009) report that boards with female directors differ from boards with non-female directors in the context of corporate governance. Alam et al. (2011) document that proximity of outside directors' residence to firm headquarters matters in terms of CEO compensation structure. Coles et al. (2011) document that firm performance is affected by the percentage of co-opted directors.

To account for the possibility that our political ideology diversity variables effect on performance can be due to the fact that they encompass the other aforementioned effects , we re-test the main regression by adding the following variables: 1) the percentage of female directors, 2) standard deviation of all directors' age, 3) the standard deviation of insiders' age and the standard deviation of outsiders' age, 4) the percentage of in-state directors (i.e. directors whose residence is the same as the state of a firm's headquarter), or 5) the percentage of co-opted directors (i.e. directors who were elected after an incumbent CEO was hired).

Table 6 Omitted Variables Problems

	Dependent variable: Q_{t+1}					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Using political ideology distance among directors						
Dist_all_dir$_t$	0.338	0.356	0.342	0.361	0.356	0.335
	(0.001)***	(0.001)***	(0.001)***	(<0.001)***	(0.001)***	(0.001)***
Proportion of female directors$_t$	0.351					0.347
	(0.049)**					(0.059)*
Standard deviation (director's age)$_t$		0.000				
		(0.957)				
Standard deviation			-0.014			-0.012

[11] We would like to thank an anonymous referee for his or her comment on this issue.

Table 6 (Continued)

(insider's age)$_t$			(0.003)***			(0.013)**
Standard deviation			0.002			0.004
(outsider's age)$_t$			(0.738)			(0.563)
Proportion of in-state directors$_t$				-0.033		-0.056
				(0.710)		(0.536)
Proportion of co-opted directors$_t$					-0.081	-0.094
					(0.210)	(0.147)
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/ year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,497	2,471	2,471	2,500	2,410	2,410
Adj. R^2	27.47%	27.36%	27.55%	27.36%	27.97%	28.14%

Panel B: Using political ideology distance between insider directors and outside directors

Dist_ins_out$_t$	0.256	0.275	0.268	0.277	0.272	0.253
	(0.003)***	(<0.001)***	(0.002)***	(0.001)***	(0.002)***	(0.004)***
Proportion of female directors$_t$	0.362					0.311
	(0.044)**					(0.057)*
Standard deviation		-0.002				
(director's age)$_t$		(0.832)				
Standard deviation			-0.014			-0.012
(insider's age)$_t$			(0.003)***			(0.013)**
Standard deviation			0.001			0.004
(outsider's age)$_t$			(0.872)			(0.560)
Proportion of in-state directors$_t$				-0.006		-0.057
				(0.948)		(0.533)
Proportion of co-opted directors$_t$					-0.077	-0.093
					(0.233)	(0.150)
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/ year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,497	2,471	2,471	2,500	2,410	2,410
Adj. R^2	27.35%	27.24%	27.45%	27.24%	27.85%	28.02%

Panel C: Using political ideology distance between CEO and outside directors

Dist_CEO_out$_t$	0.175	0.189	0.182	0.189	0.178	0.158
	(0.006)***	(0.003)***	(0.004)***	(0.003)***	(0.006)***	(0.014)**
Proportion of female directors$_t$	0.371					0.319
	(0.036)**					(0.082)*
Standard deviation		-0.001				
(director's age)$_t$		(0.871)				
Standard deviation			-0.014			-0.013
(insider's age)$_t$			(0.003)***			(0.010)**
Standard deviation			0.002			0.004
(outsider's age)$_t$			(0.823)			(0.576)
Proportion of in-state directors$_t$				0.007		-0.013
				(0.937)		(0.889)
Proportion of co-opted directors$_t$					-0.067	-0.084
					(0.304)	(0.193)
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/ year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,497	2,471	2,471	2,500	2,410	2,410
Adj. R^2	27.29%	27.17%	27.38%	27.17%	27.75%	27.88%

Table 6 (Continued)

This table addresses omitted variable problems and presents the results of the pooled OLS regressions. Model (1), (2), (3) and (4) add directors' gender, age, and location to the baseline regressions. Proportion of female directors is a percentage of female directors given a board. Proportion of in-state directors is the percentage of in-state directors whose residential address exhibits as same state where a firm's headquarter is located in. In model (5), an alternative measure to capture differences in value in the boardroom followed by Cole et al. (2011). Proportion of co-opted directors is the percentage of directors out of outside directors who are elected after a CEO is hired. We alternatively use political ideology distance measures in Panels A, B, and C. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors. Control variables in Table 5 as well as industry and year dummies are included. ***,**, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

In Panel A of Table 6, we first report results for the model that is based on the *Dist_all_dir* measure of political ideology diversity. Although some demographic characteristics, such as directors' gender or age also influence firm performance, the political ideology diversity's coefficient remains positive and significant at the 1% level. In model (6), where we re-run the regression including all aforementioned variables, we obtain a similar result. In Panels B and C, we repeat the tests using the other two distance measures, *Dist_ins_out* and *Dist_CEO_out*, respectively. We find that the coefficients of the political ideology diversity measures remain positive and significant throughout. Therefore, our results are robust to problems related to omitted variables.

Two remaining potential concerns with our evidence thus far involve measurement error in Tobin's Q and problems with specific estimation method. Following Ferreira and Matos (2008) and Gompers et al. (2010), we implement several robustness tests to mitigate these concerns and report the results in Table 7. We use several transformed measures of Tobin's Q as the dependent variables. They are industry-adjusted Tobin's Q, -1/ Tobin's Q, and log-transformed Tobin's Q in model (1), (2), and (3), respectively. We also employ alternative estimation methods by running a quintile regression (to address heteroskedasticity), M-estimator (to control for outlier effects), and firm-clustering robust regressions. Throughout the

regressions, we include controls used in Table 5 but only report the coefficients of the political ideology diversity variables in order to save space. We find that the results are robust.

Table 7 Measurement Error in Tobin's Q

	Industry-adjusted Q_{t+1}	$(-1/Q)_{t+1}$	ln $(Q)_{t+1}$	Quintile Regression	M-estimator	Firm Clustering
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Using political ideology distance among directors						
Dist_all_dir$_t$	0.351	0.072	0.139	0.253	0.182	0.355
	(0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(0.002)***	(0.044)**
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm clustering	No	No	No	Yes	No	Yes
Industry / year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,500	2,500	2,500	2,500	2,500	2,500
Adj. R^2	20.87%	30.01%	30.82%	--	--	28.34%
Panel B: Using political ideology distance between insider directors and outside directors						
Dist_ins_out$_t$	0.271	0.053	0.106	0.149	0.116	0.283
	(0.001)***	(0.003)***	(0.001)***	(0.005)***	(0.028)**	(0.045)**
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm clustering	No	No	No	Yes	No	Yes
Industry / year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,500	2,500	2,500	2,500	2,500	2,500
Adj. R-Sq	20.72%	29.88%	30.67%	--	--	28.22%
Panel C: Using political ideology distance between CEO and outside directors						
Dist_CEO_out$_t$	0.190	0.042	0.079	0.116	0.089	0.194
	(0.003)***	(0.003)***	(0.002)***	(0.004)***	(0.030)**	(0.061)*
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm clustering	No	No	No	Yes	No	Yes
Industry / year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2,500	2,500	2,500	2,500	2,500	2,500
Adj. R-Sq	20.65%	29.89%	30.65%	--	--	28.14%

This table shows the results of several robustness tests to address measurement error in Q. In model (1), Q is adjusted by FF industry median value (Fama and French, 1997). In model (2), we take reverse value of Q multiplied by negative 1. In model (3),Q is log-transformed. Model (4), (5) and (6), we employ the quintile regression, the M-estimator, and firm clustering effects. We alternatively use political ideology distance measures in Panels A, B, and C. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors. Control variables as well as industry and year dummies used in Table 5 are included, but coefficients are omitted for brevity. ***, **, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

Are boards with more political ideology diversity associated with lower agency costs?

As seen in our results from Tables 3 to 7, ideologically diverse boards are associated with better firm performance. In the next two tables (Table 8 and Table 9), we explore potential sources of this effect. We conjecture that, in the spirit of Puglisi and Snyder (2008), if outside directors hold different viewpoints from management, the odds of management misbehavior or agency costs will be lower. In order to proxy for agency costs, we follow Doukas et al. (2000) and Antia et al. (2010) and measure agency costs as the product of free cash flow (*FCF*) and an indicator of poor performance (*Poor growth*) that takes one if the firm's Tobin's Q is less than one, and zero otherwise.

We find that all three political ideology diversity measures are negatively and significantly related to agency costs of free cash flow. Interestingly, other board characteristics such as board size, a percentage of busy directors and a percentage of independent directors do not seem to be related to agency costs. Based on these results, we conclude that viewpoint diversity in corporate boardrooms plays a critical role in reducing agency costs.

Table 8 Politically Divergent Boards and Agency Costs

	Dependent variable: *Agency Costs*		
	(1)	(2)	(3)
$Dist\_all\_dir_t$	-0.611		
	(0.006)***		
$Dist\_ins\_out_t$		-0.612	
		(0.007)***	
$Dist\_CEO\_out_t$			-0.276
			(0.091)*
$Log\ (Assets)_t$	-0.072	-0.069	-0.087
	(0.105)	(0.131)	(0.051)*
$Leverage_t$	1.043	1.040	1.041
	(0.010)*	(0.010)*	(0.010)*
$Free\ Cash_t$	3.008	2.993	2.880
	(0.043)**	(0.043)**	(0.052)*
ROA_t	0.536	0.563	0.589
	(0.530)	(0.507)	(0.492)
$CEO\ duality_t$	-0.032	-0.038	-0.034
	(0.759)	(0.716)	(0.748)

Table 8 (Continued)

Ln (Board size)$_t$	0.165	0.176	0.189
	(0.491)	(0.461)	(0.430)
Proportion of independent directors$_t$	0.197	0.173	0.151
	(0.575)	(0.622)	(0.673)
Proportion of busy directors$_t$	0.269	0.232	0.189
	(0.362)	(0.424)	(0.521)
Log (1+Directors' total contributions)$_t$	0.011	0.011	0.008
	(0.233)	(0.270)	(0.389)
G-index$_t$	0.022	0.021	0.021
	(0.342)	(0.365)	(0.365)
Intercept	-0.096	-0.094	-0.169
	(0.854)	(0.859)	(0.745)
Industry/Year fixed	Yes	Yes	Yes
N	2,500	2,500	2,500
Adj. R^2	6.25%	6.35%	6.01%

This table shows the results of the pooled OLS regressing agency costs on political distance measures and other control variables. Agency costs are the product of *FCF* and *Poor growth*, where *FCF* is free cash flow normalized by assets, and *Poor growth* is a dummy that equals one if Tobin's Q is less than one, and zero otherwise. The detailed definitions of variables are in Appendix. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors and firm clustering effects. Industry and year dummies are included. ***, **, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

Does board political ideological diversity mitigate insiders' discretionary power over PAC spending?

In table 9, we examine whether directors' political ideologies determine corporate-level political ideology as reflected in corporate PAC contributions. Cooper et al. (2010) document that contributing firms exhibit better market performance possibly due to their ability to build relationships with politicians via PACs. However, Aggarwal et al. (2012) and Bebchuk and Jackson (2013) denote that PACs are subject to agency problems. We test whether politically diverse boards reduce management's discretionary power over PAC spending decisions.

Table 9 Politically Divergent Boards and Corporate PAC

	Dependent variable:				
	Log (1+Corporate total PAC contributions)	*Polid*^{PAC}	*Log(Dist_PAC_ins+1)*		
	(1)	(2)	(3)	(4)	(5)
Average (Polid^{Insider} *)*$_t$	0.430	0.046			
	(0.089)*	(<0.001)***			
Standard deviation (Polid^{Insider} *)*$_t$	-0.244	0.000			
	(0.460)	(0.986)			
Average (Polid^{Outsider} *)*$_t$	0.388	0.021			
	(0.315)	(0.068)*			
Standard deviation (Polid^{Outsider} *)*$_t$	0.187	-0.008			
	(0.611)	(0.508)			
Dist_all_dir$_t$			0.102		
			(<0.001)***		
Dist_ins_out$_t$				0.265	
				(<0.001)***	
Dist_CEO_out$_t$					0.150
					(<0.001)***
Vote ratio$_t$	-0.123	-0.006	0.021	0.024	0.025
	(0.324)	(0.198)	(0.002)***	(<0.001)***	(<0.001)***
Log (Assets)$_t$	1.217	0.035	0.003	-0.004	0.004
	(<0.001)***	(<0.001)***	(0.462)	(0.326)	(0.361)
Leverage$_t$	-1.832	-0.086	-0.010	-0.005	-0.009
	(0.023)**	(0.001)***	(0.736)	(0.866)	(0.749)
Free cash$_t$	0.475	0.038	0.133	0.115	0.161
	(0.785)	(0.518)	(0.097)*	(0.146)	(0.042)**
ROA$_t$	-1.295	-0.041	0.112	0.113	0.099
	(0.283)	(0.322)	(0.048)**	(0.036)**	(0.069)*
CEO duality$_t$	0.193	0.015	0.019	0.018	0.015
	(0.392)	(0.032)**	(0.041)**	(0.040)**	(0.097)*
Ln (Board size)$_t$	1.441	0.076	-0.082	-0.091	-0.096
	(0.020)**	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
Proportion of independent directors$_t$	1.150	0.081	0.162	0.153	0.162
	(0.110)	(0.001)**	(<0.001)***	(<0.001)***	(<0.001)***
Proportion of busy directors$_t$	1.113	0.038	-0.002	-0.009	0.007
	(0.181)	(0.108)	(0.942)	(0.752)	(0.798)
Log (1+Directors' total contributions)$_t$	0.029	0.022	0.073	0.046	0.081
	(0.073)*	(0.241)	(0.008)***	(0.102)	(0.002)***
G-index$_t$	0.030	0.002	0.004	0.004	0.004
	(0.605)	(0.276)	(0.049)**	(0.034)**	(0.033)**
Intercept	-11.694	-0.457	0.170	0.143	0.148
	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***	(<0.001)***
Industry / year fixed	Yes	Yes	Yes	Yes	Yes
N	2,570	2,570	2,567	2,567	2,567
Adj. (or Pseudo) R^2	34.36%	65.43%	6.26%	13.42%	9.59%

This table examines a relation between corporate PAC contributions and directors' political distances, and presents the results from the pooled OLS (models (1), (3), (4), and (5)) and Tobit regressions (model (2)). The dependent variables are constructed as follows: In model (1), *Log (1+Corporate total PAC contributions)* represents a log-transformed total annual dollar value of the corporate PAC contributions. In model (2), *Polid*^{PAC} is the firm's political ideology reflected in the corporate PAC contribution portfolio. In model (3), (4), and (4), *Dist_PAC_ins* is political ideology distance between firm and insiders, measured by average value of political ideology distance between *Polid*^{PAC} and a member of the inside director group. The detailed definitions of variables are in Appendix 1. Numbers in parentheses are *p*-values that are adjusted by heteroskedastic-robust standard errors and firm clustering effects. Industry and year dummies are included. ***, **, and * denote significance at the 1%, 5%, and 10 % levels, respectively.

In model (1) of Table 9, we regress the log of the total amount of corporate PAC contributions on political variables, firm-level variables, and board characteristics. As indicated

by the coefficients on the variables capturing insiders' and outsiders' political ideologies, Republican-leaning insiders tend to be associated with a larger amount of firm PACs, while outside directors' political ideology has no impact on firm PACs. Firm size, board size, and a percentage of independent are positively associated with the amount of PAC contributions. The evidence indicates that large and mature firms are more likely to make bigger PAC contributions. Not surprisingly, the total amount of PAC contributions by the board is also positively related to the total amount of corporate PAC contributions. Firms with directors who individually donate more tend to deliver a larger amount of PAC contributions as well.

In model (2), we investigate whether personal stakeholders' political value is related to firm-level political ideology measured based on the relative amount of corporate PAC contributions geared toward Republican versus Democrat politicians. We employ Tobit regression to estimate $Polid^{PAC}$ as we use it to explain *Polid* for new directors in Table 2. We find that insiders' political ideology is positively and significantly related to firm-level political ideology. In contrast, the coefficient of outside directors' political ideology, although significant, is half of that of insiders'. In addition, large firms and firms with large boards tend to exhibit Republican oriented PAC political ideology. In models (3), (4) and (5), we test whether boards' ideological diversity is associated with less insiders' discretionary power over PAC disbursement decisions. The dependent variable in models (3), (4) and (5) is the log-transformed absolute value of the distance between $Polid^{PAC}$ and the insiders' political ideologies. The lower the value of this measure the greater the resemblance of insiders' and corporate PAC spending patterns and thus the greater the discretionary power of insiders over corporate PAC contributions. Throughout models (3) to (5), we find that board ideological diversity reduces insiders' discretionary power over PAC spending. The coefficients of the political diversity measures

range from 0.102 to 0.265, and are significant at the 5% or 1% levels. In model (4), an increase in one standard deviation of board ideological diversity between insider and outside directors increases approximately 0.0725 (=exp(0.265×0.264)-1) in the distance between the firm's and the insiders' political ideologies, which is equivalent to about one fourth of one standard deviation. In addition, firms located in a Republican leaning county exhibit greater distance between the firm's and the insiders' political ideologies. While independent boards tend to reduce insiders' discretionary power over PAC spending, a board size is negatively associated with the distance the firm's and the insiders' political ideologies. Overall, our results complement Bebchuk and Jackson's (2013) work. We suggest that politically diverse boards can help firms construct efficient corporate political strategies.

Conclusion

We shed light on the role of the board of directors in corporate governance. Although traditional corporate governance literature focuses on the role of independent directors in a boardroom, several recent empirical studies have raised questions regarding the notion that outside-dominated boards improve board effectiveness (e.g., Chhaochharia and Grinstein, 2009; Guthrie et al., 2012).

In this article, we explore an alternative mechanism that can lead to improved board effectiveness. We investigate whether diversity in points of view in corporate boards can affect firm performance. We construct measures of board diversity in terms of political ideology using political contributions made by individual board members. We show that boards whose members display diverse political ideologies are positively associated with Tobin's Q. Furthermore, politically diverse boards are associated with lower agency costs of free cash flow and lower odds of sub-optimal management decisions with regards to corporate PAC contributions.

In sum, our findings suggest that differences in viewpoints among corporate board members are an important mechanism that improves monitoring effectiveness leading to better firm performance.

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Essay 2

The Value and Risk Implications of Corporate Political Strategies

Introduction

Politics matters in the financial markets. As discussed extensively in Kim, Pantzalis, and Park (2012) and Ovtchinnikov and Pantaleoni (2012), a number of recent studies have proven that political connections are influential. Nowadays, firms implement diverse strategies by making significant contributions to political campaigns (Cooper, Gulen, and Ovtchinnikov, 2010), by adding politicians to their board of directors (Goldman, Rocholl, and So, 2008, 2009), and by expanding their lobbying activities (Hill, Kelly, Lockhart, and Van Ness, 2011). Although the studies provide important pieces in understanding corporate political connection's beneficial impacts on firm's operation and value, there is lack of studies that examine the positive association between the connections and valuation based on risk implications.

In a recent paper, Kim, Pantzalis, and Park (2012) suggest this angle in their study of political geography and document its risk implications on stock returns. Policy risk, defined as uncertainty about the impact of an administration's future policies, affects firm's risk-return paradigm. As Will Rogers, an American humorist and entertainer, first popularized this in a *New York Times* article in 1930, a widely shared popular view has been that congressional activity interferes with markets and injects uncertainty about the future. Therefore, investors find their investments harder when assessing any policies' impacts on firms' growth opportunities and the stream of future cash flows.

We posit that corporations are required to manage such policy risk in a proper manner as

they hedge out other types of risk such as interest rate and foreign exchange risk. In this article, we explore what implications corporate political strategies generate with regard to firm valuation and risk. We first test how local politicians' activities, measured by the number of bills they propose in Congress, affect local stock returns. More precisely, we count the number of bills introduced by the home-state senators and house representatives in Congress, and examine stock performance. We then construct corporate political connections in multi-dimensions; (1) we restrict firms to having at least one ex-politician on the board, (2) we also utilize the data of electoral candidates' political action committees (PACs) and request firms donate hard money to the candidates, or (3) we require firms to involve in lobbying activities.

We ask three main questions in this project. Do political connections effectively mitigate policy risks? Do political connections help a firm acquire lucrative procurement contracts from the government? Do political connections embolden firms into partaking in illegal activities while pursuing extra benefits?

Results show that the political contributions effectively mitigate policy risk. The effectiveness is greater when firms PAC donations are directed toward more politicians and politicians who have better ability and more power. Lobbying activities turn out to be a good strategy in managing policy risk. Time-series and cross-sectional results show that high abnormal stock returns, caused by policy risk, are significantly reduced by firm's political activities. Based on our asset pricing tests, when firms' overall political activities are relatively weak, firms with high policy risk outperform those with low policy risk on a risk adjusted basis by about 20 basis points per month. However, the gap shrinks to 7 basis points per month if firms are strongly connected to politics.

When we explore the litigation data, we find interesting evidence that politically

connected firms are more likely to be sued by investors. There are two reasons why politically connected firms could appear to be sued more. First, connected firms tend to act in a bold manner and flirt with illegal activities. This could be because they feel that they are more protected. Second, firms may pursue political connections in their anticipation of the eventuality of having legal issues. Consistent with our prediction, our tests reveal that firms pursuing all three political strategies (i.e. having a connected board, making PAC contributions and lobbying) exhibit a 7% chance of being sued, compared to a mere 2% likelihood for their peers that do not have any active political strategy. Our evidence is in line with Chaney, Faccio, and David Parsley (2011) who documents that politically connected firms exhibit poorer quality of disclosure than their non-connected peers. They suggest that politically connected firms that protect themselves against a potential litigation threat have a better chance to achieve greater benefits when high information asymmetry exists between insiders and investors.

Litigation is negatively associated with stock return. However, we find that the poor performance related to litigation can be recovered by political connections. Inconsistent with a common expectation that that political connections can play a crucial role to hedge against litigation risks by decreasing amounts of settlement for pending lawsuits or increasing the probability of being dismissed by the court, our additional results reveal that political connections do not seem to reduce the amount of settlement or dismissal.

Overall, we conclude that corporate political strategies are beneficial. Firm's stock performance is superior when they are connected to the political power. When firms face policy risk, political strategies are viewed as a useful hedging tool against policy risks. But our study also points out the other aspect of political connections, showing that firm's political activities lead firms more exposure to risk in politics. Although politically connected firms successfully

secure procurement contracts, they are also more likely to be in trouble with legal issues.

In practice, many firms often employ various types of corporate political strategies together. In the following test, we examine whether three strategies and their effects are substitute or complement when it is in place. We find that firms employ multi-dimensions in their political hedging activities instead of focusing on one particular strategy.

The remainder of the paper is organized as follows. Section 2 provides related literature review and constructs hypotheses. Section 3 describes the data selection process, section 4 contains a description of the test methodologies and results, and section 5 provides concluding remarks.

Literature Review and Hypotheses Development

There are many papers that investigate whether political connections[12] affect firm value, but conclusions are far from unanimous. One stream of literature supports the political capital view that political connections enhance firm value (e.g., Faccio, 2006 and others[13]). For instance, Faccio (2006) in a cross-country study finds that the market positively greets announcements that CEOs, other executives, or one of large shareholders take a political position and argues that this finding is consistent with the notion that firms are expected to receive benefits from connections. Goldman *et al.* (2009) document that firms with a board member who is connected to the winning party in an upcoming U.S. election, experience abnormal returns around the election dates.

[12] Recent political connection literature extends its scope by establishing a link between a political connection and a various dimension of corporate policies. Aslan and Grinstein (2011) find that politically connected CEOs receive a higher compensation package than their non-connected peers. Kusnadi and Wei (2011) report cross-country evidence that politically connected firms hoard superfluous cash that subjects to more agency problems than non-connected firms. Francis *et al.* (2009) uncover that, in the Chinese market, politically connected firms exhibit lower underpricing than non-connected firms.

[13] Among the many papers espousing this view, please note Robert (1990), Kroszner and Stratmann (1998), Fisman (2001), Sapienza (2004), Dinc (2005), Khwaja and Mian (2005) Faccio (2006), Fisman *et al.* (2006), Mobarak and Purbasari (2006), Faccio and Parsley (2007), Jayachandran (2006), Shon (2006), Knight (2006), Claessens *et al.* (2008), Goldman *et al.*(2009), Cooper *et al*. (2010) and Hill *et al.* (2011).

The political capital view has also been tested and gained support within the empirical framework of exogenous political events, such as a sudden death of local politicians (Faccio and Parsley, 2007), illness of the Indonesian President Mr. Suharto (Fisman, 2001), Richard Cheney's announcement of illness and appointment as the U.S. vice-president candidate (Fisman, 2006), shift of the U.S. Senatorial control (Jayachandran, 2006). Other studies have used campaign donations (e.g., Clasessens *et al.*, 2008, and Cooper *et al.*, 2010) and lobbying expenditure (Hill *et al.*, 2011) as alternative political connection measures and provided evidence that supports the political capital view. Additionally, political connections have been shown to not only lead to outperformance, but also help firms access cheaper financing through equity (Boubakri *et al.*, 2012), public debt (Bliss and Gul, 2012) and bank loans (Claessens *et al.*, 2008; Houston *et al.,*2012). Although much of the literature supports the political capital view, it has still not provided exhaustive evidence on the specific channels through which connections affect firm valuation.

There is another stream of research that emphasizes that a relation between political connections and firm value is endogenous. For instance, Agrawal and Knoeber (2001) show that firms doing more business with a government are more willing to appoint a director who had a political position in the past. Hence, a priori it is hard to say whether the entire valuation effect is driven by a political connection. Ansolabehere *et al.* (2003) and Ansolabehere *et al.* (2004) and Hersch *et al.* (2008) show that political contributions have no significant impact on a legislator's voting behavior and a firm's value. Furthermore, Aggarwal *et al.* (2012) document that, in fact, contributing firms underperform non-contributing firms, because campaign donations are more likely a symptom of agency problems. Kang and Zhang (2012) uphold Aggarwal *et al.*'s (2012) findings by providing evidence in line with the view that politically connected directors are not

as effective as other outside directors when monitoring and advising managers.

Given the on-going debate about whether or not political connections add value to firms, we want to contribute to the literature by unraveling this controversial matter. Moreover, we attempt to reveal certain channels through which political connections are expected to affect valuation. Our first goal is to demonstrate that political connections can function as a hedging mechanism against policy risk.

Several recent studies explore whether policy risk affects asset value. Sialm (2006, 2009) and Croce *et al.* (2012) investigate whether uncertainty about tax policy affects both bond and equity prices and report that it is indeed the case. Cohen *et al.* (2011) examine the effect of policy risk on corporate policy and value under "changes in congressional committee chairmanship." If one of the local politicians is appointed as a chairman of a congressional committee, a politician's home state obtains an additional federal outlay, government fund transfers, and contracts. An increase in available state funds discourages local corporate investment, employment, and productivity in effect creating a "crowding out" effect. Belo *et al.* (2011) argue that government policy is primarily shaped by the level of partisanship[14]. In general, a firm's exposure to government spending has no impact on stock returns, however government policy implemented by different (Democratic or Republican) administrations does matter. Cohen *et al.* (2011) document that, after the passage of bills, firms headquartered in a legislator's home state experience positive abnormal returns. The phenomenon is more pronounced for an "interested" group, which comprises of firms belonging to a specific industry corresponding to each bill[15]. Pastor and Veronesi (2011) theoretically analyze the impact of

[14] Alesina (1987, 1988) provides the rational partisan model of a business cycle showing that fiscal policies differ by the government's type. Therefore, the impact of fiscal policies on the economy varies with the degree of uncertainty about upcoming election outcomes.

[15] However, this method could be problematic since every single bill cannot be matched with a specific

uncertainty about government policy on stock prices. A key feature of their model is dividing uncertainty arising from government policy into two parts: "political uncertainty" associated with changes in policy and "impact uncertainty" associated with the magnitude of the effect on stock price when a policy is implemented. They show that both types of uncertainty affect stock prices. Kim *et al.* (2011) measure policy risk after general elections held every two years in the U.S. using the degree of state politicians' partisan alignment with the incumbent president (PAI). Firms in high PAI areas experience higher positive abnormal returns than those located in low PAI areas in both time-series and cross-sectional tests, consistent with the notion that policy risk, as reflected in a dynamically changing political map, affects stock returns. Overall, regardless of the type of policy risk proxy used, the notion that policy risk affects firm value has gained strong scholarly support. Motivated by Cohen *et al.*'s (2011) work, we count the number of bills introduced by state congressmen (either Senator or House representatives) and use it as a proxy for policy risk. We then empirically test whether political connections play a role in diversifying policy risks away. Hence, our first hypothesis is as follows:

H5: Political connections function as effective corporate political strategies that can provide a hedge against policy risk.

Although much of this line of literature focuses on identifying a relation between political connections and firm value, extant literature documents avenues of value creation originated from political connections. Sapienza (2004) finds that state-owned *Italian* banks lend money to politically connected firms with lower interest rates than non-connected peers. Dinç (2005) documents that politicians influence state-owned banks to lend more funds to private banks before elections. Adhikari *et al.* (2006) demonstrate that *Malaysian* firms exhibit a low

industry classification, often used by finance research (e.g., FF 48-industry classification). For instance, a bill dealing with the minimum wage is proposed. The bill significantly impacts the operating cost of firms but is hard to link the bill to a specific industry.

effective tax rate when they are politically connected. Faccio *et al.* (2006) document that, in an international setting, politically connected firms are given priority when government aid funds are allocated. This is documented by Duchin and Sosyura's (2011) in the United States. Goldman *et al.* (2010) find that firms connected to the party in power are more likely to obtain profitable government contracts. The conclusion drawn from the aforementioned studies is that politically connected firms are somehow treated favorably when doing business with the government. In our investigation, we also extend Goldman *et al.*'s (2010) work, and look at the relation between different types of corporate political strategies (i.e. those that result in either direct or indirect political connections) and procurement contracts.

H6: Political connections are positively associated with a number of procurement contracts that a firm obtains from the government in a given year

Lastly, we explore the likelihood that politically connected firms engage in illegal activity and the market reactions for litigation announcements of politically connected firms versus firms that lack corporate political strategies. Chaney *et al.* (2011) find that politically connected firms exhibit a lower quality of disclosure than non-connected peers. Chaney *et al.* argue that politically connected firms do not feel the necessity to keep the most transparent level of accounting information disclosure. This is because connected firms find it easier to exploit economic rents under high opaqueness and more likely to be protected even when less transparency becomes an issue. Firth *et al.* (2011) document that Chinese state-owned firms (i.e., by definition politically connected firms) have a higher likelihood of being sued than non-state-owned firms. State-owned firms, however, are more likely to appeal and an outcome of appeal often favors them. Therefore we hypothesize that politically connected firms tend to engage in illegal activities to obtain extra benefits behind political connections and therefore, their

connectedness is more likely to result in more lawsuits[16].

H7a: Politically connected firms have a higher probability of being sued due to illegal activities than firms that do not have political connections.

H7b: Politically connected firms are more likely to protect shareholders' wealth upon litigation than firms that do not have political connections.

Data Selection and Variable Description

A major contribution of our paper is that it provides evidence from a large, comprehensive dataset. We construct a fairly large and diverse set of political variables at the firm- and state-levels and utilize them in our investigation of political connection and its effects on stock returns. We will introduce them with detailed information on data sources and constructions in the following sub-sections.

Directors' political experience

To identify a political connections that are based on the composition of a firm's board of directors, we search Form 10-K and Form 10-Q filings reported in the U.S. Securities and Exchange Commission (i.e., using the EDGAR database[17]). Information that we collected from the EDGAR includes a firm's name, a filing date, types of filing, central index key (CIK), and every director's name and short biography. While we are able to tell a director's political experience by reading his/hers individual biography, we also account for the many cases where the biographical information is either missing or incomplete by obtain lists of the U.S. politicians[18] from various sources[19], which provide information on a politician's former or

[16] Yu and Yu (2011) find that lobbying firms, in fact, are less likely to be detected their fraudulent activities than non-lobbying firms. However, Yu and Yu's (2011) work did not specify whether or not lobbying firms tends to engage in fraudulent activities.

[17] The master file can be downloaded from the website (ftp://ftp.sec.gov/edgar/full-index/). This file contains the URL of filings reported in the SEC website.

[18] Lists cover historical information on the U.S. president, vice President, and candidates, secretaries of departments (e.g., Secretaries of State, Treasury, and Defense etc.), governors, Senators and House representatives, Attorney Generals, White House Executives, SEC commissioners, ambassadors, as well as assistant and deputy secretaries of all departments.

incumbent political position, party affiliation, years taking on the position and resigning from the position. After extracting this information into a politicians list file, we use the politicians' names to link it with the file containing the information extracted from EDGAR. This procedure enables us to construct a rich dataset that measures various ways a firm's board can provide the firm with political connectedness.

We develop two main political connection measures using corporate board information: the number of politically connected directors and a director's political "freshness", i.e. the time elapsed since the director held his/her last political position. These variables capture the degree and quality of the board's connectedness. Further detailed definitions of variables are reported in Appendix A.

Corporate political contributions and lobbying expenditures

We also devise measures of alternative corporate political strategies based on two types of politics-related corporate expenditures that are publicly recorded: corporate contributions to U.S. political campaigns and lobbying expenditures. Following Cooper *et al.* (2010), we extract the corporate contributions data from the Federal Election Commission (FEC) summary files on political contributions to House and Senate election campaigns. We construct four measures of corporate political contributions: 1) *Number of supported candidates* is the number of politicians running for office supported by the firm; 2) *Strength of relationships with supported candidates* is the strength of the relationships between candidates and the contributing firm, measured by the total length of relationships between the firm and the candidates; 3) *Supported candidates' ability* is the ability of the candidates to help the firm, measured by the home state of the firm and the

[19] Some example of sources are as follows: for the U.S. President (http://en.wikipedia.org/wiki/President_of_the_United_States), the U.S. House of Representatives (http://www.house.gov/), the U.S. Senator (http://www.senate.gov/), and secretaries of department(e.g., secretary of Defense (http://en.wikipedia.org/wiki/United_States_Secretary_of_Defense) and secretary of the Treasury (http://en.wikipedia.org/wiki/United_States_Secretary_of_the_Treasury), etc.

candidate; and 4) *Supported candidates' power* is measured by the candidate's committee ranking.

We collect corporate lobbying expenditures from the OpenSecrets (http://www.opensecrets.org), which tracks the influence of money on U.S. politics and how that money affects policy and citizens' lives. After passage of the Lobbying Disclosure Act of 1995, the Secretary of the Senate and the Clerk of the House of Representatives are required to disclose lobbying-related information, verify its accuracy, and compile lobbying data. Data includes filing dates for lobbying activities, lobbying amounts, registrant name and address, client's name and address and industry classification related to a bill in which a firm's lobbying activity is involved. To provide more specific example, 3M Co. filed its year-end report on March 07, 2002 that account for lobbying activities occurred during July 1st, 2001 through December 31st, 2001. The total lobbying amount comes to $877,100 that spent to 27 different industry-specific bills. The main drawback of data is that we are not able to track how much money spends on a specific bill, and thus we measure *corporate lobbying expenditures* by aggregating all reported expenses by firm and year.

Policy risk

In recent studies, Kim, Pantzalis, and Park (2012), Cohen and Malloy (2010) and Cohen *et al.* (2011) show that a major source of policy risk is uncertainty surrounding legislative activity. A widely shared popular view is that congressional activity interferes with markets and injects uncertainty about the future. Will Rogers, an American humorist and entertainer, first popularized this view in a July 5th, 1930, *New York Times* article where he wrote that "this country has come to feel the same when Congress is in session as when the baby gets hold of a hammer." This notion has also found empirical support in studies that examined the relation of

the congressional calendar with market returns (Lamb *et al*, 1997; Ferguson and Witte, 2006). We argue that legislators often draft, sponsor and/or amend bills with an eye on firms located in the geographic area that constitutes their political home, and especially those firms with whom they are connected (see, e.g. Roberts, 1990; Jayachandran, 2006). Such legislative activity creates uncertainty regarding the redistribution of future growth opportunities among firms within an industry and/or state and can generate the perception of higher risk among investors (Kim *et al.*, 2012).

In sum, we expect that a policy risk arises in the form of high levels of legislative activity generated by local politicians who are powerful and effective in drafting. We therefore utilize a measure of local politicians' legislative activity by capturing how actively the firm's home state politicians introduce bills in Congress. We trace the information on each congressional bill, collected from the Congressional Bills Project (http://www.congressionalbills.org/index.html), and count the total number of bills introduced by home-state politicians over a calendar year. The larger the number of bills introduced by the senators and house representatives of a particular state in Congress, the greater the level of legislative activity-induced uncertainty will surround firms located in the state.

Return data and other firm characteristics

Our data on stock prices and outstanding shares for NYSE, AMEX and NASDAQ are obtained from the Center for Research in Security Prices (*CRSP*) for the period from 1999 to 2008. From *Compustat*, we obtain annual data on accounting variables and the locations of firms' headquarters. We assign firms to geographic locations based on headquarter or home office address information. Since *Compustat* provides only the latest address information without showing historical changes of firm location, we use the detailed address information from

Compact Disclosure to account for address changes. We then require a firm to have financial and accounting data on *CRSP* and *Compustat*.

We also gather litigation information from the Securities Class Action Clearinghouse maintained by Stanford Law School. This website[20] provides information related to securities fraud lawsuits, which covers litigation filing date, class period starting and ending date, complaints, defendants, verdict, and settlement since 1996. This data has been used as a primary source to investigate litigation-related studies in finance research. For instance, Gande and Lewis (2009) examine the market reactions to lawsuit announcements. McTier and Wald (2011) explore factors that affect the likelihood of lawsuit and consequence following a lawsuit. We define a litigation dummy equals 1 if a firm face litigation a given calendar year y, and otherwise 0 (McTier and Wald, 2011).

Empirical Results

In this section we explore the effect of corporate political connections on future returns. Before introducing the various empirical tests, we present the descriptive statistics of the sample that includes 71,269 firm-years over the period from 1994 to 2008. In Table 1 our sample displays the mean *policy risk* (the number of bills introduced by the state politicians) of 172 per year. On average, our sample firms have 0.136 connected members on their board with a maximum of 7. On average, firms support 9.46 candidates in political campaigns and spend $124K on lobbying. The median market value of equity is 177 million dollars with a mean book-to-market ratio of 0.53.

The average raw return is 0.96% per month, and the average 12-month abnormal return adjusted by the market is 3.32%. In addition, we measure the abnormal return using a matching firm as a benchmark, *BHAR (match)*. The matching firm benchmark is constructed as follows: In

[20] Detailed litigation information can be found at http://securities.stanford.edu.

the beginning of January, we classify the sample firms into sub-groups independently based on the 11 industries as defined in the appendix and the terciles of firm size, book-to-market, and past one-year returns and compute the median buy-and-hold return (*BHR*) over the 12-month period for each sub-group. Then, to construct a firm's *BHAR,* we subtract the industry-, size-, growth-, and momentum-matched *BHR* from the firm's *BHR*. The mean of the 12-month abnormal return by matching-firm method is 8.89%.

Table 10 Descriptive Statistics

	N	Mean	Standard deviation	Minimum	Median	Maximum
Policy risk	71,269	172	150	6	118	832
Corporate political strategies						
Number of politically connected board members	71,269	0.1361	0.4553	0.0000	0.0000	7.000
Board's political freshness	68,985	2.8357	10.1458	0.0000	0.0000	50.000
Number of supported candidates	71,269	9.4630	42.8489	0.0000	0.0000	766
Strength of relationships with supported candidates	71,269	557	6592	0.0000	0.0000	725070
Supported candidates' ability	71,269	4.0333	108	0.0000	0.0000	12617
Supported candidates' power	71,269	1.2417	10.8459	0.0000	0.0000	532
Lobbying expenditures (million $)	50,773	0.1236	0.8179	0.0000	0.0000	29.3685
PSI	71,269	0.5091	0.2135	0.0040	0.5049	0.9999
Firm characteristics						
BHAR	71,269	0.0332	0.6266	-0.9798	-0.0604	2.9889
BHAR (ew)	71,269	0.0364	0.8577	-1.5643	-0.0762	37.3865
BHAR (match)	71,269	0.0889	0.5628	-0.9254	0.0000	2.814099
Average monthly return	71,269	0.0096	0.0490	-0.1288	0.0082	0.1762
Procurement amount (million $)	71,269	16.8261	377	0.0000	0.0000	31061
Litigation	71,269	0.0210	0.1434	0.0000	0.0000	1.0000
Size (million $)	71,269	1534	4529	0.1925	177	31118
B/M	71,269	0.6505	0.5734	-0.4068	0.5255	3.3705
Beta	71,269	0.8381	0.8392	-1.3492	0.7383	3.5155
Past return	71,269	0.1724	0.6592	-0.8313	0.0667	3.2967

This table provides descriptive statistics for the sample of 71,269 firm-year observations. Policy risk = the number of bills introduced by the home-state senators and house representatives over the year y. Number of politically connected board members = the number of board members who are politically connected. Board's political freshness = board's political freshness based on directors' elapse period. Number of supported candidates = the number of supported candidates. Strength of relationships with supported candidates = the strength of the relationships between candidates and the contributing firm. Supported candidates' ability = the ability of the candidates to help the firm. Supported candidates' power = the power of the candidates. Lobbying expenditures (million $) = corporate total lobbying expenditures in million dollars. PSI = the political strategy index that combines the yearly ranks of Number of politically connected board members, Number of supported candidates, and Lobbying expenditures. BHAR = the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm i from January to December of year y and the buy-and-hold return of the value-weighted market portfolio over the same period. BHAR (ew) = the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm i from January to December of year y and the buy-and-hold return of the equally-weighted market portfolio over the same period. BHAR (match) = the buy-and-hold abnormal return, adjusted by a

Table 10 (Continued)

matching firm. In the beginning of each year, we classify the sample firms into sub-groups based on an 11-industry classification and into terciles of the previous year's firm size, B/M, and one-year return. From each sub-group, we collect the median buy-and-hold return (BHR) over 12 months, from January to December of year y. Then, we compute BHAR (match) as the difference between each sample firm's BHR and its matched BHR. Average monthly return = the average of raw monthly returns in year y. Procurement amount = the sum of all procurement contracts in the year in million dollars. Litigation = a dummy that equals 1 if the lawsuit is filled a given calendar year y, and otherwise equals 0. Size (million $) = the market value of common equity in million dollars. Beta = beta, computed using weekly returns. Past return = previous stock return in year y-1. Refer to appendix for detailed variable descriptions.

Political connections and stock returns

We start our empirical tests by comparing the stock performances of portfolios constructed by a policy risk and the degree of a board's political connectedness. More specifically, we divided sample firms into less-politically connected vs. more-politically connected groups and then, in each group, compare stock returns between firms located in high policy risk states with those located in low policy risk states.[21] If political connections can serve as an effective hedging mechanism against policy risk, we expect to see the performance differential between the high and low policy risk portfolios to be sizeable and significant for the less-politically connected group and insignificant for the more-politically connected group.

In Panel A of Table 11, we examine differences in *BHARs*, i.e. market-adjusted buy-and-hold returns over each calendar year *y*. Since we employ four different political connection measures (politicians on board, PAC contributions, lobbying expenditures and the Political Strategy Index, *PSI*), we report four pairs of *BHARs*, for the less connected and the more connected groups, respectively. Overall, the results are consistent with our prediction regardless of a type of political connection. For firms in the less-politically connected group, differences in *BHARs* between firms located in high vs. low policy risk states are significantly positive. For the more-politically connected group, however, the differences in performance are not statistically

[21] To clarify our empirical procedure, we simply use the median value of variables when we split sample into two groups. For instance, firms are classified into the low (high) policy risk group if the total number of bills introduced by state politicians where a firm's headquarter resides is lower (higher) than the median value in year *y*.

significant. For instance, when firms are in the low *PSI* group, firms in a high policy risk state outperform in terms of BHAR those in a low policy risk state by an average of 1.98% per annum, a return differential that is statistically significant at 1 % level. In the next column, the corresponding performance differential is statistically insignificant. This phenomenon is observed for all three other political connection measures.

In Panel B we examine the risk-adjusted return performance of zero net investment portfolios formed by buying high policy risk firms and selling low policy risk firms using a time-series asset pricing model that includes the market, size, book-to-market and momentum factors. The monthly return of the zero-investment portfolio is the difference in returns between the high ($r_m^{HighPolicyRisk}$) and the low ($r_m^{LowPolicyRisk}$) *policy risk* groups. The asset pricing model for the zero investment portfolio returns is as follows:

$$r_m^{HighPolicyRisk} - r_m^{LowPolicyRisk} = \beta_0 + \beta_1 (r_m^m - r_m^f) + \beta_2 \, smb_m + \beta_3 \, hml_m + \beta_4 \, umd_m + e_m. \qquad (1)$$

where r_m^m = the value-weighted market return and r_m^f = the one-month Treasury bill rate. *smb* (small minus big) = the difference each month between the return on small and big firms, while *hml* (high minus low) = the monthly difference of the returns on a portfolio of high book-to-market and low book-to-market firms. *umd* (up minus down) = the momentum factor computed on a monthly basis as the return differential between a portfolio of winners and a portfolio of losers. We use 180 monthly observations spanning from January 1994 to December 2008.

The results are quite similar to the ones obtained from the *BHARs* analysis in Panel A. The zero net investment portfolio generates significant returns only among firms that are less politically connected. Among less-politically connected groups, at 0.27% per month, the difference in abnormal monthly returns (alphas) between firms with a high vs. a low policy risk is the highest when we measure political connection by the level of lobbying expenditures.

Consistent with the notion that political connections can serve as effective policy risk hedging tools, firms with more connected board members, with more candidates supported, with more lobbying expenditures, or with a higher *PSI* present stock returns in high policy risk environment, which are presumably same as the returns obtained from low policy risk environment. Collectively, evidence indicates that higher returns are expected for those firms that are deemed to be improperly prepared to deal with uncertainty on future policies and their impacts. In contrast, when firms implement corporate political strategies in place, it is viewed that political strategies will effectively diversify policy risk away without incurring policy-risk returns.

Table 11 Comparisons of *BHARs* and Time-series Tests

Panel A: Buy-and-hold abnormal returns over 12 months		
	Fewer *Number of politically connected board members*	More *Number of politically connected board members*
High *Policy risk* – Low *Policy risk*	0.0140*** (2.78)	0.0079 (0.64)
	Fewer *Number of supported candidates*	More *Number of supported candidates*
High *Policy risk* – Low *Policy risk*	0.0143*** (2.77)	0.0031 (0.33)
	Low *Lobbying expenditures*	High *Lobbying expenditures*
High *Policy risk* – Low *Policy risk*	0.0266*** (4.18)	-0.0138 (-1.17)
	Low *PSI*	High *PSI*
High *Policy risk* – Low *Policy risk*	0.0198*** (2.84)	0.0068 (1.08)
Panel B: Time-series tests of Fama-French 4 factor model		
	Fewer *Number of politically connected board members*	More *Number of politically connected board members*
α of the arbitrage portfolio ($R_m^{HighPolicyRisk} - R_m^{LowPolicyRisk}$)	0.0017** (2.13)	-0.0001 (-0.06)
	Fewer *Number of supported candidates*	More *Number of supported candidates*
α of the arbitrage portfolio ($R_m^{HighPolicyRisk} - R_m^{LowPolicyRisk}$)	0.0015** (2.09)	0.0002 (0.23)
	Low *Lobbying expenditures*	High *Lobbying expenditures*
α of the arbitrage portfolio ($R_m^{HighPolicyRisk} - R_m^{LowPolicyRisk}$)	0.0027*** (2.83)	0.0001 (0.09)
	Low *PSI*	High *PSI*
α of the arbitrage portfolio ($R_m^{HighPolicyRisk} - R_m^{LowPolicyRisk}$)	0.0021** (2.52)	0.0008 (1.04)

Table 11 (Continued)

Panel A reports the difference in *BHARs* between the high and low *Policy risk* portfolios. *BHAR* is the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period. *Policy risk* is the total number of bills introduced by the home-state politicians over the year *y*. *PSI* = the political strategy index that combines the yearly ranks of *Number of politically connected board members*, *Number of supported candidates*, and *Lobbying expenditures*. *Number of politically connected board members* = the number of board members who are politically connected. *Number of supported candidates* = the number of supported candidates. *Lobbying expenditures* = corporate total lobbying expenditures. A firm is classified into the low (high) group if any considered variable is lower (higher) than the median value in year *y*. Panel B reports the estimated intercept coefficients (i.e., the "alphas" or abnormal returns) in the time-series tests of the four-factor models for the monthly returns of arbitrage portfolios computed as the difference in returns between the high and low *Policy risk* portfolios. The sample includes 180 monthly observations spanning from January 1994 to December 2008. Refer to the appendix for detailed variable descriptions. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

In the cross-sectional tests shown in next four tables, we separately explore the effectiveness of each political strategy as a hedging mechanism against a policy risk. First, we focus our analysis on the effect of directors' implicit political ties on policy risk. As mentioned before, we construct two distinct variables to gauge a degree of corporate board political connectedness.

1) *Number of politically connected board members*: Following Goldman *et al.* (2009), we count the number of politically connected board members. To be considered politically connected, a board member must have held one of the following political positions in her/his career: U.S. president, vice President, and candidates, secretary, assistant secretary or deputy secretary of a department, Governor, Senator, House representative, Attorney General, White House Executive, SEC commissioner, and ambassador. If none of board members is politically connected, then the value of this first measure of the board's political connectedness is set equal to zero. A larger number of politically connected directors represent a firm that possesses more diverse channels that can be used to access political power.

2) *Board's political freshness*: We compute political freshness for each board member by

50 minus the number of years elapsed since the director last held his/her political position.[22] After collecting the freshness scores from all directors, we compute the average freshness for each firm's board. If none of board members is politically connected, value of a board's political freshness is equal to zero. A higher score of politically freshness represents a higher likelihood that the directors' ties to the political machine are still strong and therefore potentially more beneficial to the firm.

Table 12 reports results of pooled OLS regressions with standard errors clustered at the firm level. Model [I] documents the relationship between the *policy risk* and equity price without including a political connection variable. The estimated coefficient on *policy risk* is 0.0321 (t= 11.73). This magnitude is statistically significant and economically sizable. The estimate implies that if a policy risk is changed by one standard deviation (i.e., 150 bills), the implied increase in the 12-month buy-and-hold abnormal return is 16.08% ($0.0321 \times \ln(150)$).

In model [II], we include the number of politically connected directors as an independent variable. The estimated coefficient of the number of politically connected directors is 0.0348, which is significant at the 1% level. To illustrate the magnitude of the effect implied by this coefficient, consider the following: if a firm appointed an additional director who held an influential political position in the past, the firm is expected to yield a *BHAR* that is 3.48% higher than an otherwise similar firm without any additional politically connected directors. In model [III], the estimated coefficient of a board's freshness is also positive and statistically significant (0.0147, t=6.33). The evidence on this positive relationship may highlight a beneficial effect of political connections. The results also support a view that political activities firms show are risk

[22] We observe that few directors have negative values on the elapse period variable, showing that they were a director while holding a political position. We find that the results hold even after dropping these directors from the sample.

to investors. Alternatively, it could be simply a mispricing in that the market is quite slow in capitalizing information related to firm's political activities into prices.

Our main concern in this table is on how political connections play a role in diversifying a policy risk. To address this issue, we introduce the interaction term of policy risk with each of the two political connection variables in Models [IV] and [V], respectively. In both cases, the interaction term coefficient is negative and significant, which is consistent with the notion that political connections can serve as effective risk management tools against policy risk. For instance, in Model [IV] the coefficient of policy risk is 0.0351. If a firm has one politically connected director on its board, the effect of policy risk is dramatically reduced by 0.0224. Therefore, we conclude that there exists a substitute relation between a policy risk and a political connection.

Note that in the regressions shown in Table 3 *beta* and *past return* variables have negative coefficients, which are opposite to conventional finance sense. This has been commonly reported when long-term returns are regressed on variables computed based on past stock returns such as *beta* and *past return* (e.g., Cooper *et al.*, 2010). We find that this irregularity can be corrected if concurrent beta is controlled when short-term return (e.g., one-month *BHAR*) is used as the dependent variable. Therefore, the negative signs on the estimated coefficients of beta and previous returns are mainly the result of the way the model is formed.

Table 12 Political Characteristics of Corporate Boards and Stock Returns

Dependent variable = *BHAR*	[I]	[II]	[III]	[IV]	[V]
Policy risk	0.0321***	0.0321***	0.0332***	0.0351***	0.0347***
	(11.73)	(11.72)	(11.91)	(12.22)	(11.86)
Number of politically connected board members		0.0348***		0.1436***	
		(7.39)		(6.17)	
Board's political freshness			0.0147***		0.0408***
			(6.33)		(3.42)
*Policy risk * Number of politically connected board members*				-0.0224***	
				(-4.75)	
*Policy risk * Board's political freshness*					-0.0055**
					(-2.18)
Size	-0.0058***	-0.0082***	-0.0080***	-0.0081***	-0.0079***
	(-4.44)	(-5.96)	(-5.66)	(-5.92)	(-5.60)
B/M	0.1211***	0.1196***	0.1201***	0.1197***	0.1202***
	(18.96)	(18.70)	(18.44)	(18.71)	(18.45)
Beta	-0.0184***	-0.0180***	-0.0180***	-0.0183***	-0.0181***
	(-5.38)	(-5.25)	(-5.16)	(-5.34)	(-5.20)
Past return	-0.0168***	-0.0161***	-0.0159***	-0.0161***	-0.0159***
	(-3.78)	(-3.62)	(-3.51)	(-3.61)	(-3.51)
Constant	-0.1370***	-0.0956***	-0.1081***	-0.1116***	-0.1167***
	(-4.51)	(-3.04)	(-3.37)	(-3.52)	(-3.59)
Industry dummies	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	71,269	68,985	71,269	68,985
R-squared	0.0214	0.0220	0.0222	0.0222	0.0222

This table reports the estimated coefficients of the cross-sectional regressions of buy-and-hold abnormal returns. The dependent variable, *BHAR*, is the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period. We use standard errors that control for clustering at the firm level. *Policy risk* = the total number of bills introduced by the home-state senators and house representatives over the year *y*. *Number of politically connected board members* = the number of board members who are politically connected. *Board's political freshness* = board's political freshness based on directors' elapse period. We add one and take the natural log for *Board's political freshness* in the regressions. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. *** and ** indicate significance at the 1% and 5% levels, respectively.

Now we turn our analysis to political connections built through PACs donations or lobbying activity. Recently, the literature has provided strong evidence that firms benefit from political contributions (Cooper *et al.*, 2010; Knight, 2006; Shon, 2006; Jayachandran, 2006). Cooper *et al.* (2010) find that corporate contributions to political campaigns are positively and significantly correlated with the firms' future returns. Moreover, this effect is stronger when firms support more candidates who hold their office in the same state that the firm is based. In this sub-section, we test the effects of corporate political strategies through corporate contributions to U.S. political campaigns. Following Cooper *et al.* (2010), we construct four

measures of corporate political contributions: 1) *Number of supported candidates*, 2) *strength of relationships with supported candidates*, 3) *supported candidates' ability*, and 4) *supported candidates' power*. These proxies are useful to examine whether corporate political strategies are more effective when the board is politically connected. As in the previous analysis, we include contribution variables, policy risk, and their interactions.

The cross-sectional regressions results shown in Table 13 paint a picture similar to that in Table 12. The coefficients of the interactions between the *corporate political contributions* variables and *policy risk* are significantly negative (see columns [V] to [VIII]), indicating that the policy risk effect is significantly less for firms that contribute money to politicians' election campaigns. Furthermore, the interacted variables between policy risk and candidates' characteristic variables describe that the political connection's hedging effects are efficient when firms donate more to powerful politicians' PACs. Overall, the results presented in Table 13 suggest that corporate political strategy through monetary donations to politicians is an effective hedging tool that can mitigate policy risk. Table 14 present results of the cross-sectional regression that includes lobbying expenditures as the measure of corporate political strategy. While the earlier corporate political strategy literature primarily focuses on corporate PACs, there are some recent studies on corporate lobbying activity. Hill *et al.* (2011) find that lobbying firms significantly outperform non-lobbying firms after controlling for other factors known to influence firm value. Chen, Parsley, and Yang (2010) document that lobbying firms do better than non-lobbying firms in terms of operating performance.

A key distinction between PAC donations and lobbying is that PACs have an upper limit of donation per candidate and per election cycle[23], but lobbying does not. A firm, on average,

[23] The maximum amount that a firm contributes is limited by the Federal law; $5,000 per candidate per election, $15,000 per political party per year (http://www.opensecrets.org/pacs/pacfaq.php).

contributes less than $35,000 per year (Cooper *et al.*, 2010) toward PACs, but spends around 1.3 million per year for lobbying (Hill *et al.*, 2011). Thus, given the large difference in amounts, one may argue that lobbying is more of a primary tool in implementing corporate political strategy. Moreover, Drutman (2011) notes unaccountable tremendous growth in lobbying business. The number of lobbying organizations increased by twofold over the last three decades (from 7,000 to 14,000) and lobbying expenditure was about $200 million in 1983, but is $3.47 billion in 2009 which is close to seven times greater than value in 1983 after controlling inflation. Consistent with previous results, lobbying expenditures are positively associated with *BHARs*. Motivated by the emergence and importance of lobbying activity, we also test whether lobbying is an effective tool to mitigate a policy risk. As expected, we find that lobbying effectively reduces policy risk.

Table 13 Corporate Political Contributions and Stock Returns

Dependent variable = *BHAR*	[I]	[II]	[III]	[IV]	[V]	[VI]	[VII]	[VIII]
Policy risk	0.0332***	0.0334***	0.0329***	0.0327***	0.0365***	0.0365***	0.0356***	0.0345***
	(12.04)	(12.11)	(11.99)	(11.91)	(12.22)	(12.20)	(12.17)	(11.93)
Number of supported candidates	0.0151***				0.0526***			
	(9.10)				(7.55)			
Strength of relationships with supported candidates		0.0086***				0.0277***		
		(9.46)				(7.23)		
Supported candidates' ability			0.0229***				0.0758***	
			(10.60)				(7.76)	
Supported candidates' power				0.0228***				0.0730***
				(7.79)				(5.78)
*Policy risk * Number of supported candidates*					-0.0080***			
					(-5.59)			
*Policy risk * Strength of relationships with supported candidates*						-0.0041***		
						(-5.14)		
*Policy risk * Supported candidates' ability*							-0.0113***	
							(-5.70)	
*Policy risk * Supported candidates' power*								-0.0108***
								(-4.15)
Size	-0.0104***	-0.0105***	-0.0100***	-0.0090***	-0.0102***	-0.0102***	-0.0098***	-0.0088***
	(-6.82)	(-6.91)	(-6.81)	(-6.08)	(-6.68)	(-6.73)	(-6.66)	(-5.92)
B/M	0.1179***	0.1179***	0.1184***	0.1189***	0.1180***	0.1180***	0.1185***	0.1190***
	(18.40)	(18.41)	(18.52)	(18.55)	(18.42)	(18.44)	(18.53)	(18.57)
Beta	-0.0172***	-0.0172***	-0.0172***	-0.0175***	-0.0177***	-0.0177***	-0.0176***	-0.0178***
	(-4.99)	(-5.00)	(-4.99)	(-5.08)	(-5.12)	(-5.13)	(-5.11)	(-5.17)
Past return	-0.0156***	-0.0156***	-0.0157***	-0.0160***	-0.0155***	-0.0156***	-0.0156***	-0.0160***
	(-3.51)	(-3.52)	(-3.52)	(-3.61)	(-3.50)	(-3.51)	(-3.52)	(-3.60)
Constant	-0.0577*	-0.0583*	-0.0640*	-0.0813**	-0.0780**	-0.0783**	-0.0810**	-0.0942***
	(-1.73)	(-1.76)	(-1.95)	(-2.47)	(-2.29)	(-2.31)	(-2.43)	(-2.81)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	71,269	71,269	71,269	71,269	71,269	71,269	71,269
R-squared	0.0221	0.0221	0.0221	0.0218	0.0223	0.0223	0.0223	0.0219

This table reports the estimated coefficients of the cross-sectional regressions of buy-and-hold abnormal returns. The dependent variable, *BHAR*, is the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period. We use standard errors that control for clustering at the firm level. *Policy risk* = the total number of bills introduced by the home-state senators and house representatives over the year *y*. *Number of politically connected board members* = the number of board members who are politically connected. *Board's political freshness* = board's political freshness based on directors' elapse period. We add one and take the natural log for *Board's political freshness* in the regressions. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. *** and ** indicate significance at the 1% and 5% levels, respectively.

Although it is hard to compare the dollar to dollar effect of PAC donations with that of lobbying expenditures on policy risk, our evidence suggests that lobbying dollars are worth spending. An increase in one standard deviation of lobbying expenditure (i.e., $817,900) leads to a 5.72% (=-0.0042*ln($817,900)) decrease in policy risk's effect on returns. To conclude, lobbying is also an effective corporate political strategy in terms of reducing policy risk.

Table 14 Political Lobbying Activities and Stock Returns

Dependent variable = *BHAR*	[I]	[II]
Policy risk	0.0422***	0.0502***
	(12.78)	(13.47)
Lobbying expenditures	0.0062***	0.0265***
	(9.36)	(9.12)
*Policy risk * Lobbying expenditures*		-0.0042***
		(-7.13)
Size	-0.0184***	-0.0181***
	(-10.00)	(-9.83)
B/M	0.1198***	0.1196***
	(15.63)	(15.62)
Beta	-0.0246***	-0.0256***
	(-5.36)	(-5.56)
Past return	-0.0271***	-0.0271***
	(-5.20)	(-5.19)
Constant	0.0817**	0.0364
	(1.96)	(0.86)
Industry dummies	Yes	Yes
N. of observations	50,773	50,773
R-squared	0.0301	0.0307

This table reports the estimated coefficients of the cross-sectional regressions of buy-and-hold abnormal returns. The dependent variable, *BHAR*, is the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period. We use standard errors that control for clustering at the firm level. *Policy risk* = the total number of bills introduced by the home-state senators and house representatives over the year *y*. *Lobbying expenditures* = corporate total lobbying expenditures. We add one and take the natural log for *Lobbying expenditures* in the regressions. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. *** and ** indicate significance at the 1% and 5% levels, respectively.

Next, we investigate the aggregate effect of all three types of corporate political strategies as hedging tools against policy risk. Because in practice some firms implement a number of the three types of corporate political strategies together, the effect of the overall political strategy cannot be properly identified when we examine individual strategies in isolation. Therefore, in

order to examine the effectiveness of firms' combined political strategies, we develop the political strategy index (or *PSI*) that combines the yearly ranks of *Number of politically connected board members*, *Number of supported candidates*, and *Lobbying expenditures.* We report the detailed definition of *PSI* in Appendix A. Results of the *BHAR* model as a function of policy risk, *PSI* and their interaction are shown in Table 15. We find that the coefficient of the interaction term is negative and statistically significant at a 1% level. This result confirms our previous results and indicates that the combination of the three corporate political strategies also acts as an effective mechanism that mitigates policy risk.

Table 15 Political Strategy Index and Stock Returns

Dependent variable = *BHAR*	[I]	[II]
Policy risk	0.0324***	0.0587***
	(11.82)	(8.24)
PSI	0.0372***	0.2862***
	(3.36)	(4.84)
*Policy risk * PSI*		-0.0519***
		(-4.14)
Size	-0.0068***	-0.0068***
	(-5.00)	(-5.01)
B/M	0.1204***	0.1204***
	(18.84)	(18.84)
Beta	-0.0182***	-0.0185***
	(-5.32)	(-5.40)
Past return	-0.0165***	-0.0164***
	(-3.72)	(-3.70)
Constant	-0.1367***	-0.2633***
	(-4.50)	(-6.00)
Industry dummies	Yes	Yes
N. of observations	71,269	71,269
R-squared	0.0216	0.0218

This table reports the estimated coefficients of the cross-sectional regressions of buy-and-hold abnormal returns. The dependent variable, *BHAR*, is the buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period. We use standard errors that control for clustering at the firm level. *Policy risk* = the total number of bills introduced by the home-state senators and house representatives over the year *y*. *PSI* = the political strategy index that combines the yearly ranks of *Number of politically connected board members*, *Number of supported candidates*, and *Lobbying expenditures*. *Number of politically connected board members* = the number of board members who are politically connected. *Number of supported candidates* = the number of supported candidates. *Lobbying expenditures* = corporate total lobbying expenditures. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. *** and ** indicate significance at the 1% and 5% levels, respectively.

Political connections and procurement contracts

The second potential channel of value creation through corporate political strategies is the attainment of government business contracts.[24] Goldman *et al.* (2010) show that firms connected to the party in power are more likely to obtain profitable government contracts given the administration. Following Goldman *et al.*'s (2010), we look at the relation between political connections and procurement contracts. In contrast to their work, our evidence is based on a much larger dataset that includes a longer time period. In addition, whereas Goldman *et al.* (2010) only consider one type of political connection (i.e., the one provided by ex-politicians on corporate boards), our investigation has a much wider scope and includes all three types of political strategies. The results of our investigation of the relationship between type of political strategy and the total dollar amount of procurement contacts in a calendar year are shown in Table 16.

Our empirical results suggest that all types of political connections variables are positively associated with the value of procurement contracts that a firm secures in a given year. The coefficients are sizeable indicating that the effect is non-trivial in an economic sense, and also highly statistically significant. For instance, an increase by one standard deviation of number of supported candidates via PAC contribution leads to increase value of procurement contracts to obtain by $10.56 million. Consistent with Goldman *et al.*'s (2010) findings, we show that being politically connected is financially rewarded, in that political connections give firms the opportunity to acquire lucrative government procurement contracts.

[24] Several past studies have advanced the notion that political connections can lead to preferential treatment of firms by governments. For example, Sapienza (2004) finds that state-owned banks lend money to politically connected firms with lower interest rates than non-connected peers. Faccio *et al.* (2006) document that, in an international setting, politically connected firms are given priority when government aid funds are allocated. This is consistent with Duchin and Sosyura's findings (2011) in the United States.

Table 16 Corporate Political Strategies and Procurement Contracts

Dependent variable = *Procurement amount*	[I]	[II]	[III]	[IV]	[V]	[VI]	[VII]	[VIII]
Number of politically connected board members	1.1328***							
	(8.03)							
Board's political freshness		0.4489***						
		(7.09)						
Number of supported candidates			0.6273***					
			(10.57)					
Strength of relationships with supported candidates				0.3410***				
				(10.56)				
Supported candidates' ability					0.7275***			
					(8.78)			
Supported candidates' power						1.1203***		
						(10.40)		
Lobbying expenditures							0.2690***	
							(16.06)	
PSI								1.7149***
								(9.69)
Size	1.1043***	1.1120***	0.9891***	0.9987***	1.0480***	1.0245***	0.9254***	1.1346***
	(34.60)	(35.14)	(30.00)	(30.46)	(32.33)	(32.14)	(25.44)	(36.75)
B/M	0.7064***	0.7281***	0.6234***	0.6310***	0.6704***	0.6454***	0.6080***	0.7224***
	(9.45)	(9.72)	(8.25)	(8.37)	(8.89)	(8.57)	(7.11)	(9.60)
Beta	-0.2458***	-0.2461***	-0.2032***	-0.2065***	-0.2170***	-0.2106***	-0.2896***	-0.2496***
	(-6.34)	(-6.35)	(-5.31)	(-5.40)	(-5.65)	(-5.49)	(-5.50)	(-6.43)
Past return	-0.1844***	-0.1772***	-0.1615***	-0.1657***	-0.1738***	-0.1715***	-0.2138***	-0.1965***
	(-5.85)	(-5.58)	(-5.14)	(-5.27)	(-5.52)	(-5.47)	(-5.89)	(-6.24)
Constant	-17.5687***	-17.7927***	-15.4124***	-15.5827***	-16.4776***	-16.0434***	-14.1717***	-18.8457***
	(-27.69)	(-28.29)	(-23.73)	(-24.09)	(-25.68)	(-25.38)	(-19.10)	(-30.10)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	68,985	71,269	71,269	71,269	71,269	50,773	71,269
R-squared	0.1872	0.1835	0.1926	0.1923	0.1884	0.1908	0.2097	0.1842

This table reports the estimated coefficients of the cross-sectional regressions of procurement contracts. The dependent variable, *Procurement amount*, is the total amount of procurement contracts made with the U.S. government given a year y, and the amount is transformed by adding one and taking the natural log. We use standard errors that control for clustering at the firm level. *PSI* = political strategy index. *Number of politically connected board members* = the number of board members who are politically connected. *Board's political freshness* = board's political freshness based on directors' elapse period. *Number of supported candidates* = the number of supported candidates. *Strength of relationships with supported candidates* = the strength of the relationships between candidates and the contributing firm. *Supported candidates' ability* = the ability of the candidates to help the firm. *Supported candidates' power* = the power of the candidates. *Corporate lobbying expenditures* = corporate total lobbying expenditures. We add one and take the natural log for *Board's political freshness*, *Number of supported candidates*, *Strength of relationships with supported candidates*, *Supported candidates' ability*, *Supported candidates' power*, and *Lobbying expenditures* in the regressions. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. *** indicates significance at the 1% level.

Political connections and the likelihood of lawsuit

The third channel through which political connections can become value-relevant for firms is their potential contribution to firms' implication in lawsuits. Politically connected firms are more likely to pursue extra benefits through borderline illegal activities[25] in the belief that their political connections will provide them with adequate protection in the case of lawsuits. For example, Firth *et al.* (2011) document that Chinese state-owned firms (i.e., de-facto politically connected firms) are more likely to be sued than other firms. State-owned firms, however, are more likely to enter an appeal process which very often ends in their favor.

Panel A of Table 17 reports outcomes of the probit model that investigates the relation between political connections and the probability of lawsuit. We estimate eight different regressions corresponding to eight different measures of the three types corporate political strategies introduced earlier. The coefficients of the political connections variables are positive and highly significant across all eight models, indicating that stronger political connections are associated with greater likelihood of litigation. This evidence is consistent with the notion that connectedness leads firms to a greater propensity to pursue gains through illegal means.[26]

Results in Panel A established a causal link between political strategies and the likelihood of being sued. In other words, while pursuing extra benefits, firms with political strategies expose themselves to greater probability of being involved in litigation cases. This demonstrates that there is an upside and a downside to being politically active. In Panel B, we examine how the market feels about firms' political strategies upon litigation. We find that litigation is

[25] Chaney *et al.* (2011) find that politically connected firms exhibit a lower quality of disclosure than non-connected peers, since under high information asymmetric circumstance firms may enjoy greater benefits. Data compiled by Stanford law school mainly deals with litigation related to security fraud. Further examination reveals that over 90% of lawsuits are accused due to mispresentation and/or omission of the material information on the financial statements. Thus, our study naturally extends Chaney et al.'s work.

[26] An alternative view of these results is that firms with illegal activities build up their political strategies in anticipation of having to face litigation in the future. The issue of causality needs to be further addressed.

negatively associated with *BHAR* at a 1 % significant level throughout eight different regressions. In a calendar year when firms face litigation, a firm's stock market performance at least drops by 31.7%. To understand the role of political strategies against litigation risks, we interacted between litigation and eight different political strategies. In six of eight regressions, the coefficients of interacted terms are positive and at least significant at a 5 % level. This evidence could be interpreted as either that a) the negative effect of litigation is reduced by political connections (i.e., corporate political strategies can be a hedge against litigation risk) or that b) litigation leads to greater risk associated with being politically active.

In Panel C, we, therefore, undertake an additional test to see which of the two effects drives a positive association between interacted terms and *BHAR*. To operationalize this, we investigate how corporate political strategies affect the settlement to resolve a pending lawsuit. We collect the amount of settlement and set the value to 0 if the court dismiss lawsuit without imposing any cost on defendants. Our results suggest that although the coefficients generally have the expected negative sign, corporate political strategies do not significantly reduce the settlement of lawsuit. In untabulated results, we also look at a relation between the probability of being dismissed by the court and corporate political strategies, overall evidence indicates that political connections do not increase the probability of being dismissed. Taken together, our results do not support the notion that political connections can effectively derive favorable outcomes with respect to litigation and settlements. Instead, these additional results reflect that investors may feel more uncertainty when politically active firms are under litigation.

Table 17 Corporate Political Strategies and Litigation

Panel A. Political Strategies and the Likelihood of Lawsuit

Dependent variable = *Litigation*	[I]	[II]	[III]	[IV]	[V]	[VI]	[VII]	[VIII]
Number of politically connected board members	0.1216***							
	(6.40)							
Board's political freshness		0.0567***						
		(5.59)						
Number of supported candidates			0.0235***					
			(2.74)					
Strength of relationships with supported candidates				0.0100**				
				(2.06)				
Supported candidates' ability					0.0431***			
					(3.54)			
Supported candidates' power						0.0540***		
						(3.29)		
Lobbying expenditures							0.0183***	
							(6.66)	
PSI								0.2058***
								(3.82)
Size	0.0874***	0.0885***	0.0902***	0.0926***	0.0890***	0.0891***	0.0678***	0.0922***
	(15.53)	(15.27)	(14.55)	(15.09)	(14.76)	(14.71)	(9.49)	(16.50)
B/M	-0.0012	-0.0009	-0.0013	-0.0013	-0.0013	-0.0012	-0.0008	-0.0012
	(-0.84)	(-0.50)	(-0.86)	(-0.87)	(-0.87)	(-1.27)	(-0.68)	(-0.84)
Beta	0.2396***	0.2375***	0.2399***	0.2392***	0.2404***	0.2400***	0.2771***	0.2391***
	(17.60)	(17.08)	(17.60)	(17.54)	(17.64)	(16.87)	(16.65)	(17.55)
Past return	-0.0696***	-0.0724***	-0.0713***	-0.0723***	-0.0707***	-0.0709***	-0.0764***	-0.0723***
	(-4.23)	(-4.29)	(-4.31)	(-4.37)	(-4.28)	(-3.21)	(-3.28)	(-4.38)
Constant	-4.0984***	-4.1252***	-4.1350***	-4.1776***	-4.1129***	-4.1142***	-3.6540***	-4.2713***
	(-33.28)	(-32.66)	(-31.33)	(-31.86)	(-31.78)	(-31.21)	(-24.09)	(-35.78)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	70,965	68,685	70,965	70,965	70,965	70,965	50,562	70,965
Pseudo R-squared	0.0769	0.0771	0.0747	0.0745	0.0751	0.0750	0.0764	0.0752

Table 17 (Continued)

Panel B. Political Strategies, Litigations and Firm Performance

Dependent variable=BHAR	[I]	[II]	[III]	[IV]	[V]	[VI]	[VII]	[VIII]
Litigation	-0.3171***	-0.3200***	-0.3303***	-0.3296***	-0.3290***	-0.3303***	-0.3242***	-0.3858***
	(-19.13)	(-18.23)	(-19.33)	(-19.22)	(-19.70)	(-19.85)	(-16.37)	(-10.64)
Number of politically connected board members	0.0360***							
	(7.43)							
*Litigation*Number of politically connected board members*	0.0123							
	(0.92)							
Board's political freshness		0.0143***						
		(6.07)						
*Litigation*Board's political freshness*		0.0124						
		(1.33)						
Number of supported candidates			0.0123***					
			(7.38)					
*Litigation*Number of supported candidates*			0.0251***					
			(4.14)					
Strength of relationships with supported candidates				0.0070***				
				(7.63)				
*Litigation*Strength of relationships with supported candidates*				0.0143***				
				(4.03)				
Supported candidates' ability					0.0198***			
					(9.09)			
*Litigation*Supported candidates' ability*					0.0365***			
					(4.60)			
Supported candidates' power						0.0185***		
						(6.27)		
*Litigation*Supported candidates' power*						0.0526***		
						(4.96)		
Lobbying expenditures							0.0058***	
							(8.67)	
*Litigation*Lobbying expenditures*							0.0063***	
							(2.75)	
PSI								0.0349***
								(3.11)
*Litigation*PSI*								0.1351**
								(2.44)
Size	-0.0055***	-0.0052***	-0.0071***	-0.0070***	-0.0069***	-0.0059***	-0.0156***	-0.0041***
	(-3.99)	(-3.70)	(-4.64)	(-4.66)	(-4.70)	(-3.99)	(-8.51)	(-2.99)
B/M	0.1235***	0.1240***	0.1223***	0.1223***	0.1226***	0.1230***	0.1250***	0.1244***
	(19.27)	(19.01)	(19.06)	(19.07)	(19.14)	(19.18)	(16.31)	(19.44)
Beta	-0.0125***	-0.0124***	-0.0116***	-0.0116***	-0.0116***	-0.0119***	-0.0155***	-0.0127***
	(-3.64)	(-3.57)	(-3.37)	(-3.39)	(-3.36)	(-3.46)	(-3.38)	(-3.70)
Past return	-0.0200***	-0.0200***	-0.0198***	-0.0198***	-0.0197***	-0.0201***	-0.0320***	-0.0204***
	(-4.49)	(-4.42)	(-4.43)	(-4.44)	(-4.43)	(-4.50)	(-6.11)	(-4.58)
Constant	0.0512*	0.0451	0.0819***	0.0809***	0.0790***	0.0610**	0.2515***	0.0112
	(1.80)	(1.55)	(2.64)	(2.64)	(2.63)	(2.01)	(6.68)	(0.41)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	68,985	71,269	71,269	71,269	71,269	50,773	71,269
R-squared	0.0250	0.0249	0.0250	0.0250	0.0251	0.0248	0.0324	0.0245

Table 17 (Continued)

Panel C. Political Strategies and Settlement Amount

Dependent variable: Settlement amount	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Number of politically connected board members	-0.5075*							
	(-1.79)							
Board's political freshness		-0.0782						
		(-0.40)						
Number of supported candidates			-0.1760					
			(-1.07)					
Strength of relationships with supported candidates				-0.0822				
				(-0.86)				
Supported candidates' ability					-0.2495			
					(-1.09)			
Supported candidates' power						-0.3902		
						(-1.25)		
Lobbying expenditures							-0.0404	
							(-0.92)	
PSI								-0.7016
								(-0.71)
Size	0.0345	0.0034	0.0441	0.0231	0.0353	0.0553	0.0336	-0.0132
	(0.28)	(0.03)	(0.32)	(0.17)	(0.27)	(0.41)	(0.25)	(-0.11)
B/M	-0.0660	-0.0747	-0.0672	-0.0790	-0.0758	-0.0613	-0.0447	-0.1020
	(-0.17)	(-0.19)	(-0.18)	(-0.21)	(-0.20)	(-0.16)	(-0.11)	(-0.27)
Beta	-0.7487***	-0.7564***	-0.7543***	-0.7473***	-0.7511***	-0.7536***	-0.8452***	-0.7297***
	(-3.14)	(-3.09)	(-3.16)	(-3.13)	(-3.15)	(-3.16)	(-3.30)	(-3.06)
Past return	0.7693***	0.7141***	0.7643***	0.7685***	0.7626***	0.7600***	0.8111***	0.7700***
	(3.13)	(2.85)	(3.12)	(3.14)	(3.12)	(3.11)	(3.10)	(3.14)
Constant	6.2638**	7.1927***	6.0433**	6.4410**	6.2030**	5.8220**	5.8658**	7.4451***
	(2.36)	(2.66)	(2.08)	(2.25)	(2.20)	(2.04)	(2.03)	(2.95)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	1,498	1,408	1,498	1,498	1,498	1,498	1,345	1,498
R-squared	0.026	0.026	0.025	0.025	0.025	0.025	0.029	0.025

This table provides results of investigation a relation between a firm's political strategies and the likelihood of litigation, the role of political strategies upon litigation, and its consequence. Panel A reports the estimated coefficients of the probit model where the dependent variable, *Litigation*, is the indicator that takes a value of 1 if the firm is litigated and a value of 0 otherwise. Panel B reports the estimated coefficients of the OLS regressions where dependent variable is BHAR. In addition to the independent variables in Panel A, interacted terms between a various aspect of political strategies and litigation are included. Panel C reports the estimated coefficients of the OLS regressions where the dependent variable is amounts of settlement for litigation and log-transformed after adding 1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Are the different corporate political strategies substitutes or complements?

We now turn our attention to the important question of whether the three types of corporate political strategies are complements or substitutes. We test this in two ways. First, we directly examine whether the firm present more or less use of one particular strategy depending on two other alternative ways of strategies. If the three strategies are complements, we should observe greater use of a particular strategy if another strategy is in place as well. In contrast, if they are substitutes we should observe that the intensity of using a particular strategy should increase in the absence of another strategy.

Second, we also test complementary or substitute effects by examining the effects of three political strategy variables on abnormal returns. In the case of the complementarity, we should observe the coefficients of a particular strategy variable increase in absolute terms if another strategy is in place as well, whereas we should observe a decrease of the coefficient in absolute terms if the valuation effects of the two strategies are substitute effects.

We explore the issue of complementarity vs. substitutability in Table 18. The table contains three panels, one for each political strategy. Panel A focuses on politicians on boards, Panel B on PAC contributions, and Panel C on lobbying expenditures. The first row of each panel contains the mean value of the political connection variable for different subsamples of firms formed based on whether the other two corporate political strategies are in place or not. The remaining three rows of each panel contain the coefficients of a) the interaction term between political connection and policy risk in the *BHAR* model (as in the model tested in Table 12, 13, or 14, b) the political connection variable in the procurement contracts model (as in Table 16), and c) the political connection variable in the litigation probit model (as in Table 17). The three aforementioned models are estimated separately for the different subsamples of firms with and without the other two political strategies.

The results on the first rows of three panels indicate that the average values of political variables are generally always higher in the subsamples for firms that have also another of the other two corporate political strategies in place. Thus, the mean difference test results are consistent with the notion that there is complementarity in terms of the use of the three alternative political strategies. However, when we examine the relationships among three political variables based on their effects on abnormal returns, we fail to find consistent patterns. The differences in the estimated coefficients between different subsamples do not reveal a clear picture and are not significant in many cases. Therefore, only mean comparisons support the complementary relationships among the variables.

Endogeneity issue and sample selection correction

Our main findings documented in this paper earlier may be attributed either to endogeneity problem or sample selection bias. For instance, Agrawal and Knoeber (2002) argue that firms engaging in more business with the government tend to appoint politically connected directors. In a similar vein, firms exposed to higher litigation risks may demand political connections to induce favorable outcomes of litigations. In Panel A of Table 19, we account for potential endogeneity issue by employing two-stage least square (or 2SLS) model. An instrument variable that we use is a number of congressional districts in a corporate headquarters' state.

Hence, a number of congressional districts is significantly associated with a firm' political connectedness, but not associated with a firm's ability to diversify policy risks, secure procurement contracts, and the probability of facing litigation. A number of congressional districts could be either positively or negatively related to the level of political connectedness. If home state has more districts, firms may have a greater pool of politicians that lead to more political activities (PAC or lobbying). In this case, we expect a positive link between a number of congressional districts and political connectedness.

Table 18 Different Political Strategies: Substitutes vs. Complements

Panel A: Focus on politically connected board members

		PAC donation: No		PAC donation: Yes		Differences			
		[I] Lobbying: No	[II] Lobbying: Yes	[III] Lobbying: No	[IV] Lobbying: Yes	Lobbying matters?		PAC donation matters?	
						[I] – [II]	[III] – [IV]	[I] – [III]	[II] – [IV]
Mean *Number of politically connected board members*		0.0934	0.3223	0.2760	0.6322	-0.2289***	-0.3562***	-0.1826	-0.3099***
						(-21.07)	(-16.79)	(-12.66)	(-16.33)
Coefficient of *Number of politically connected board members* in	Policy risk hedging model (Table 3)	0.0375***	0.0307**	0.0084	0.0122	0.0068	-0.0038	0.0290	0.0184
		(4.11)	(2.17)	(0.50)	(1.63)	(0.39)	(-0.20)	(1.50)	(1.15)
	Procurement model (Table 7)	0.5308***	0.7975**	0.6529	0.7039***	-0.2667	-0.0509	-0.1221	0.0937
		(2.88)	(2.23)	(1.13)	(3.25)	(-0.70)	(-0.08)	(-0.21)	(0.23)
	Litigation model (Table 8)	0.0915***	0.0335	0.2468***	0.0967***	0.0580	0.1501	-0.1553*	-0.0632
		(2.59)	(0.64)	(2.84)	(2.90)	(0.92)	(1.61)	(-1.66)	(-1.02)

Panel B: Focus on PAC donations

		Politician on board: No		Politician on board: Yes		Differences			
		[I] Lobbying: No	[II] Lobbying: Yes	[III] Lobbying: No	[IV] Lobbying: Yes	Lobbying matters?		Politician on board matters?	
						[I] – [II]	[III] – [IV]	[I] – [III]	[II] – [IV]
Mean *Number of supported candidates*		1.1478	32.2596	5.2674	93.1555	-31.1118***	-87.8882***	-4.1196***	-60.8960***
						(-35.28)	(-36.16)	(-9.19)	(-23.92)
Coefficient of *Number of supported candidates* in	Policy risk hedging model (Table 4)	0.0204***	0.0114***	0.0079	0.0113**	0.0090	-0.0034	0.0124	0.00003
		(4.49)	(2.99)	(1.04)	(2.36)	(1.52)	(-0.37)	(1.40)	(0.005)
	Procurement model (Table 7)	0.1700	0.3490***	0.0726	0.2974*	-0.1790	-0.2248	0.0974	0.0516
		(1.51)	(3.25)	(0.32)	(1.95)	(-1.21)	(-0.86)	(0.41)	(0.29)
	Litigation model (Table 8)	0.0083	-0.0165	0.0472	0.0033	0.0248	0.0438	-0.0389	-0.0198
		(0.32)	(-0.89)	(1.38)	(0.16)	(0.77)	(1.09)	(-0.90)	(-0.70)

Panel C: Focus on lobbying expenditures

		Politician on board: No		Politician on board: Yes		Differences			
		[I] PAC donation: No	[II] PAC donation: Yes	[III] PAC donation: No	[IV] PAC donation: Yes	PAC donation matters?		Politician on board matters?	
						[I] – [II]	[III] – [IV]	[I] – [III]	[II] – [IV]
Mean *Lobbying expenditures*		0.0161	0.4785	0.1080	1.6742	-0.4623***	-1.5663***	-0.0918***	-1.1958***
						(-23.12)	(-22.49)	(-7.91)	(-16.72)
Coefficient of *Lobbying expenditures* in	Policy risk hedging model (Table 5)	0.0045***	0.0041***	0.0054***	0.0061	0.0003	0.0014	-0.0009	0.0002
		(4.02)	(2.96)	(2.78)	(0.55)	(0.19)	(0.51)	(-0.41)	(0.07)
	Procurement model (Table 7)	0.2333***	0.2378***	0.2244***	0.2340***	-0.0044	-0.0097	0.0090	0.0037
		(10.72)	(6.29)	(4.99)	(4.08)	(-0.10)	(-0.14)	(0.19)	(0.06)
	Litigation model (Table 8)	0.0176***	0.0226***	0.0170**	0.0035	-0.0050	0.0136	0.0006	0.0192
		(4.40)	(2.76)	(2.45)	(0.35)	(-0.55)	(1.13)	(0.07)	(1.50)

Table 18 (Continued)

This table provides results of investigation a relation between a firm's political strategies and the likelihood of litigation, the role of political strategies upon litigation, and its consequence. Panel A reports the estimated coefficients of the probit model where the dependent variable, *Litigation*, is the indicator that takes a value of 1 if the firm is litigated and a value of 0 otherwise. *PSI* = political strategy index. *Number of politically connected board members* = the number of board members who are politically connected. *Board's political freshness* = board's political freshness based on directors' elapse period. *Number of supported candidates* = the number of supported candidates. *Strength of relationships with supported candidates* = the strength of the relationships between candidates and the contributing firm. *Supported candidates' ability* = the ability of the candidates to help the firm. *Supported candidates' power* = the power of the candidates. *Corporate lobbying expenditures* = corporate total lobbying expenditures. We add one and take the natural log for *Board's political freshness*, *Number of supported candidates*, *Strength of relationships with supported candidates*, *Supported candidates' ability*, *Supported candidates' power*, and *Lobbying expenditures* in the regressions. *Size* = the natural log of one plus market value of common equity. *Beta* = beta, computed using weekly returns. *Past return* = previous stock return in year *y*-1. Panel B reports the estimated coefficients of the OLS regressions where dependent variable is BHAR. In addition to the independent variables in Panel A, interacted terms between a various aspect of political strategies and litigation are included. Panel C reports the estimated coefficients of the OLS regressions where the dependent variable is amounts of settlement for litigation and log-transformed after adding 1. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

If home state has more districts, however, it may discourage firms to search for political connections due to the high entrance costs (i.e., if firms want to build political connections, they need to make a larger number of local politicians happy and thus incur higher costs). Our result supports the latter. As a dependent variable, we use a dummy, 'connected', that equals 1 if a firm has a politically connected director or engages in PAC or lobbying in a calendar year and otherwise 0. From the first stage regression, we save the predicted value of 'connected', and include it in the second stage regressions. Overall, our results are robust after controlling endogeneity problems.

Table 19 Endogeneity and Sample Bias Correction

Panel A. Endogeneity Issue

	1st stage	2nd stage			
	[I]	[II]	[III]	[IV]	[V]
Dependent variable =	*Connected*	*BHAR*	*Procurement amount*	*litigation*	*BHAR*
N. of congressional districts	-0.0128***				
	(-7.08)				
Policy Risk		0.0583***			
		(13.11)			
Pred_connected		0.7729***	9.0201***	10.5053***	0.2574***
		(12.65)	(12.48)	(24.42)	(7.33)
*Pred_connected * Policy Risk*		-0.0875***			
		(-8.50)			
Litigation					-0.3620***
					(-12.32)
*Pred_connected*litigation*					0.1337**
					(2.60)
Size	0.7109***	-0.0408***	0.2833***	-0.6554***	-0.0290***
	(42.63)	(-9.33)	(4.26)	(-17.69)	(-6.87)
B/M	0.4380***	0.1007***	0.2436***	-0.0023**	0.1102***
	(8.44)	(14.71)	(2.93)	(-2.38)	(16.16)
Beta	-0.0107	-0.0162***	-0.1645***	0.4995***	-0.0100***
	(-0.48)	(-4.66)	(-4.39)	(15.23)	(-2.88)
Past return	-0.1708***	-0.0066	0.0223	0.0777	-0.0140***
	(-8.56)	(-1.46)	(0.65)	(1.35)	(-3.11)
Constant	-15.2966***	0.3883***	-5.0245***	5.2846***	0.4568***
	(-43.96)	(5.03)	(-4.33)	(8.61)	(6.05)
Industry dummies	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	71,269	71,269	70,961	71,269
(Pseudo) R-squared	0.2505	0.0237	0.1918	0.1322	0.0332

Table 19 (Continued)

Panel B. Sample Selection Correction

	[I]	[II]	[III]	[IV]
Dependent variable =	*BHAR*	*Procurement amount*	*litigation*	*BHAR*
Policy Risk	0.0480***			
	(6.53)			
PSI	0.1638***	1.4820***	0.1338***	0.0283**
	(2.75)	(8.24)	(2.33)	(2.50)
PSI Policy Risk*	-0.0252**			
	(-2.01)			
Litigation				-0.3761***
				(-10.41)
*PSI*litigation*				0.1104**
				(2.01)
Size	-0.0177**	1.6180***	-0.2318***	0.0347***
	(-2.48)	(10.29)	(-13.57)	(5.75)
B/M	0.1139***	1.0118***	-0.0015**	0.1472***
	(14.87)	(8.74)	(-2.19)	(20.31)
Beta	-0.0183***	-0.2608***	0.2089***	-0.0135***
	(-5.33)	(-6.67)	(13.60)	(-3.95)
Past return	-0.0136***	-0.3123***	0.0135	-0.0299***
	(-2.79)	(-6.29)	(0.55)	(-6.26)
Inverse Mills	-0.0363	1.6107***	-1.404***	0.1301***
	(-1.46)	(3.23)	(-20.28)	(6.18)
Intercept	0.1012	-32.2241***	4.0111***	-0.9392***
	(0.59)	(-8.47)	(9.52)	(-6.33)
Industry dummies	Yes	Yes	Yes	Yes
N. of observations	71,269	71,269	70,961	71,269
(Pseudo) R-squared	0.0217	0.1845	0.1240	0.0332

We examine whether alternative corporate political strategies (i.e., politically connected board members, PAC donations, and lobbying expenditures) are substitutive or complementary. We construct the sub-samples with a particular strategy in the presence and absence of other two strategies. This table reports the mean comparisons of political strategy variables and the estimated coefficients of political strategy variables reported in Tables 3 (alternatively 4 or 5), 7, and 8 for the constructed sub-samples. *Number of politically connected board members* = the number of board members who are politically connected. *Number of supported candidates* = the number of supported candidates. *Lobbying expenditures* = corporate total lobbying expenditures. Refer to the corresponding tables for information on the regressions and the appendix for detailed variable descriptions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

In Panel B, we control for sample selection bias. During our sample period, only 22.5% of firms are politically connected via either a director or PAC/lobbying and perhaps those firms do not randomly select to be connected. In this case, our main findings using biased standard errors could be spurious. To calculate the inverse of the Mills Ratio, we use residuals from the first stage of 2 SLS in Panel A. By including inverse of the Mills Ratio in the OLS regressions, we control a firm's unobservable characteristics that affect the choice of political connectedness. Overall, we show that corporate political strategies are beneficial as hedging tools against policy

risks and in securing procurement contracts, but come at the price of higher risk associated with litigation.

Robustness

In the previous tests, we estimated coefficients of the cross-sectional regressions of buy-and-hold abnormal returns on political variables and other controls. We used standard errors that control for clustering at the firm level. Petersen (2009) argues that any chosen method can be incorrect and yield different results in many cases. Therefore, we re-examine the relationship using various methods to see whether our evidence persists. We replicate the model of Table 15, which uses the political strategy index (*PSI*), for our various concerns.

First, we estimate the model without using standard errors that control for clustering. Second, we use standard errors that control for clustering at the state level, and year. Third, we use White's (1980) heteroskedasticity correction model. Fourth, we compute buy-and-hold abnormal returns using the returns of matched firms. Fifth, we use the equally-weighted market returns in the computation of buy-and-hold abnormal returns. Sixth, we use the average of raw monthly returns as a dependent variable. Seventh, we use SIC 2-digit codes for industry dummies. Last, we use the Fama-French's 49 industry codes for industry dummies.

The results of these robustness checks are reported in Table 20. We find that all regressions show consistent patterns of coefficients on the estimates of political variables. Most importantly, the interaction between policy risk and political strategy index is negative and significant at the l% level in all models. Therefore, the results in Table 20 suggest that our findings are not sensitive to the methods used in estimating the model, measuring the stock performance, and choosing different industry classifications.

Table 20 Robustness Checks

	No clustering	Clustering by state	Clustering by year	White (1980)	*PSI-inclusive*	Equally-weighted	Matching firms	Average monthly returns	SIC 2 digits	Fama-French 49 Industries
	[I]	[II]	[III]	[IV]	[V]	[VI]	[VII]	[VIII]	[IX]	[X]
Policy risk	0.0587***	0.0587***	0.0587**	0.0587***	0.0595***	0.0330***	0.0237***	0.0051***	0.0610***	0.0584***
	(8.28)	(8.48)	(2.31)	(8.15)	(7.03)	(3.04)	(3.64)	(9.27)	(8.56)	(8.23)
PSI	0.2862***	0.2862***	0.2862***	0.2862***	0.3378***	0.3161***	0.1725***	0.0218***	0.2971***	0.2915***
	(4.57)	(5.65)	(2.98)	(4.87)	(4.76)	(3.56)	(3.20)	(4.70)	(5.01)	(4.92)
*Policy risk * PSI*	-0.0519***	-0.0519***	-0.0519***	-0.0519***	-0.0525***	-0.0503***	-0.0267**	-0.0034***	-0.0541***	-0.0528***
	(-4.04)	(-4.74)	(-2.85)	(-4.15)	(-3.50)	(-2.56)	(-2.33)	(-3.51)	(-4.31)	(-4.21)
Size	-0.0068***	-0.0068***	-0.0068	-0.0068***	-0.0084***	-0.0246***	-0.0211***	-0.0022***	-0.0072***	-0.0073***
	(-5.24)	(-4.73)	(-0.73)	(-4.95)	(-5.84)	(-12.49)	(-17.13)	(-20.66)	(-5.11)	(-5.17)
B/M	0.1204***	0.1204***	0.1204***	0.1204***	0.1194***	0.0893***	0.0180***	0.0062***	0.1217***	0.1215***
	(26.32)	(12.85)	(4.66)	(19.67)	(18.67)	(8.97)	(3.29)	(13.97)	(18.79)	(18.87)
Beta	-0.0185***	-0.0185***	-0.0185	-0.0185***	-0.0182***	-0.0124***	-0.0055*	-0.0008***	-0.0161***	-0.0184***
	(-6.20)	(-4.30)	(-0.98)	(-5.41)	(-5.28)	(-2.56)	(-1.77)	(-2.84)	(-4.65)	(-5.31)
Past return	-0.0164***	-0.0164**	-0.0164	-0.0164***	-0.0160***	-0.0173***	-0.0125***	-0.0022***	-0.0172***	-0.0174***
	(-4.51)	(-2.41)	(-0.58)	(-3.65)	(-3.60)	(-2.73)	(-3.12)	(-5.95)	(-3.87)	(-3.90)
Constant	-0.2633***	-0.2633***	-0.2633	-0.2633***	-0.2624***	0.1935***	0.3179***	0.0170***	-0.2455***	-0.1994***
	(-6.08)	(-5.05)	(-1.47)	(-5.99)	(5.32)	(3.19)	(8.02)	(5.04)	(-3.29)	(-3.14)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N. of observations	71,269	71,269	71,269	71,269	71,269	71,269	71,269	71,269	71,269	71,269
R-squared	0.0218	0.0218	0.0218	0.0218	0.0220	0.0144	0.0131	0.0281	0.0239	0.0240

This table provides robust results after accounting for endogeniety issue and sample selection bias. Panel A. reports the estimated coefficients of the two stage least squares (2SLS). Model I is the first stage model of 2SLS where the dependent variable, 'connected', is a dummy that equals 1 if a firm has politically connected director, engages in PAC or lobbying given a calendar year, and otherwise 0. N. of congressional districts, instrument variable, is a congressional district given in a state where a firm's headquarter is located in. From Model II to Model V, the results of the second stage models are reported. Pred_connected is the predicted value from the first stage regression. Panel B. reports the estimated coefficient of the sample selection correction. The inverse mill ratio is calculated from the first stage model of Panel A. We include the eleven industry dummies, which are modified based on the Fama-French 10-industry classification. Numbers in parenthesis are t-statistics computed using standard errors after clustering at the firm level. Refer to the appendix for detailed variable descriptions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Conclusions

A fast growing literature has documented that political connections add value to firms, but to date there has been no other study that examine the relation based on risk implications. We fill this gap by investigating the multi-dimensional corporate political strategies. Our sample of politically connected firms includes those having ex-politicians on the board, those making PAC contributions, and those incurring lobbying expenditures. We study the value and risk implications of corporate political strategies by exploring several questions on whether politically connected firms effectively mitigate policy risk, b) whether they can secure government procurement contracts, and c) whether they are associated with a greater likelihood of litigation.

We unveil that political connections through a director's former political activity, a firm's campaign donation and lobbying activity can all serve as safety devices in hedging against policy risks. Our asset pricing tests show that firms with high policy risk outperform those with low policy risk on a risk adjusted basis by about 20 basis points per month if firms' *PSIs* are relatively low. The difference is reduced to 7 basis points per month they firms are more active in their political strategies.

Political connections are also a channel for firms to receive lucrative procurement contracts. Finally, political connections lead firms to pursue extra benefits at the expense of higher litigation risks. Overall, our results reflect that investors view corporate political activities as effective hedging strategies against policy risk.

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Appendices

Appendix 1: Definitions of Variables

Variables	Definitions
Panel A: Political characteristics at an individual level	
Contributor	The proportion of directors who make political contributions per an election cycle.
Contributions to Democratic Party	Total contributions made to Democratic Party by a director per an election cycle.
Contributions to Republican Party	Total contributions made to Republican Party by a director per an election cycle.
Total contributions	Total contributions made by a director per an election cycle.
Polid	An individual political ideology based on Hutton et al. (2011). It is determined by the contribution amounts to Republican Party and Democratic Party. $Polid = \frac{Contributions\ to\ Republican\ Party - Contributions\ to\ Democratic\ Party}{Total\ Contributions}$.
Democratic leaning director	Director whose majority of contributions go to Democratic Party. $Polid_{i,x,t}^{Director} < 0$, where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*.
Republican leaning director	Director whose majority of contributions go to Republican Party $Polid_{i,x,t}^{Director} > 0$, where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*.
Panel B: Political characteristics at a firm level	
Dist_dir_all	Political ideology distance among directors, measured by average values of political ideology distance between a unique pair of directors in a given board. $Dist\_all\_dir_t = \frac{1}{[(A+B-1)+(A+B-2)+\cdots+1]} \sum_{x=1,x\neq y}^{A+B} \left| Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director} \right|$, where $Polid_{i,x,t}^{Director}$ is the political ideology of director *x* in firm *i*. *A* and B are the numbers of outside directors and inside directors, respectively.
Dist_ins_out	Political ideology distance between insiders and outsiders. It is measured by the average value of political ideology distance between a member of the inside director group and a member of the outside director groups. $Dist\_ins\_out_{i,t} = \frac{1}{A \times B} \sum_{a=1}^{A} \sum_{b=1}^{B} \left| Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider} \right|$, where $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. $Polid_{i,a,t}^{Outside}$ is the political ideology of outside director *a* in firm *i*. *A* and*B* are the numbers of outside directors and inside directors, respectively.
Dist_CEO_out	

Dist_CEO_ins	Political ideology distance between a CEO and insiders. It is measured by average value of political ideology distance between CEO and a member of the inside director group. $Dist\_CEO\_ins_{i,t} = \frac{1}{B}\sum_{b=1}^{B}\left\|Polid_{i,t}^{CEO} - Polid_{i,b,t}^{Insider}\right\|$, where $Polid_{i,t}^{CEO}$ is the political ideology of CEO in firm *i*. $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. *B* is the numbers of inside directors, respectively.
$Polid^{CEO}$	The political ideology of the CEO.
Average ($Polid^{Insider}$)	The average of inside (employee and grey) director's political ideology.
Standard deviation ($Polid^{Insider}$)	The standard deviation of inside director's political ideology.
Average ($Polid^{Outsider}$)	The average of outside (independent) director's political ideology.
Standard deviation ($Polid^{Outsider}$)	The standard deviation of outside director's political ideology.
Directors' total contributions	An aggregate amount of directors' contributions given a firm-year.
Corporate PAC contributor	The proportion of firms that make PAC contributions given a year.
Corporate PAC contributions to Democratic Party	Total PAC amount that go to Democratic Candidates given a year.
Corporate PAC contributions to Republican Party	Total PAC amount that go to Republican Candidates given a year.
Corporate total PAC contributions	Total amount of PAC contributions made given a year.
$Polid^{PAC}$	Firm's political ideology reflected in the corporate PAC contribution portfolio. Therefore, $Polid^{PAC} = \frac{Corporate\ PAC\ contributions\ to\ Republican\ Party - Corporate\ PAC\ contributions\ to\ Democratic\ Party}{Corporate\ Total\ PAC\ contributions}$
Dist_PAC_ins	Political ideology distance between firm and insiders. It is measured by average value of political ideology distance between $Polid_{i,t}^{PAC}$ and a member of the inside director group. $Dist\_PAC\_ins_{i,t} = \frac{1}{B}\sum_{b=1}^{B}\left\|Polid_{i,t}^{PAC} - Polid_{i,b,t}^{Insider}\right\|$, where $Polid_{i,t}^{PAC}$ is the firm *i*'s political ideology reflected in the corporate PAC contribution portfolio. $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director *b* in firm *i*. *B* is the numbers of inside directors, respectively.
Voter turnout	The ratio of total voters to total population in the latest Presidential election in the headquarter's county.
Voter turnout for Republican Party	Voter turnout for Republican Party for the latest Presidential election in the headquarter's county, which is computed by the votes for Republican Party divided by the total number of voters.
Voter turnout for Democratic Party	Voter turnout for Democratic Party for the latest Presidential election in the headquarter's county, which is computed by the votes for Democratic Party divided by the total number of voters.
Vote ratio	It is measured by the ratio of voter turnout for Republican Party to voter turnout for Democratic Party.

Panel C: Controlling variables	
Assets	Assets at the last day of fiscal year t [at].
Q	Market value of assets divided by book value of assets [(prcc_f*csho + at - ceq)/at)].
ROA	Earnings before interests and taxes divided by assets [ib/at].
Leverage	Debt in current liabilities plus long-term debt divided by assets [(dlc+dltt)/at].
FCF	Free cash flow normalized by asset [(oibdp-xint-txt+chan_txditc-dvp-dvc)/at)].
Agency costs	*FCF* times *Poor growth*; *Poor growth* is a dummy equals 1 if Tobin's Q is less than 1 and otherwise 0.
Sales growth	Sales growth [(sale $_{t}$- sale $_{t-1}$) / sale $_{t-1}$)-1]
Past stock performance	Cumulative abnormal returns over the market in the year leading up to the annual board meeting date.
CEO duality	A dummy that takes one if the CEO serves as the board chairman, and zero otherwise.
Board size	Total number of directors given a board.
Independent board	The proportion of independent (outside) directors given a board.
Proportion of busy board	The proportion of busy directors who hold more than 3 outside directorships given a board.
Contributing directors (annual)	The proportion of directors who make political contributions given a board and year.
Contributing directors (cumulative)	The proportion of directors who make political contributions given a board throughout the sample period.
GIM index	Index for shareholders' rights (Gompers et al., 2003).
Average (Insider's age)	The average age of inside directors.
Standard deviation (Insider's age)	The standard deviation of inside director' age.
Average (Outsider's age)	The average age of outside directors.
Standard deviation (Outsider's age)	The standard deviation of outside director' age.
Proportion of in-state directors	The proportion of in-state directors. Directors' home address is obtained from contribution filings. Home address is only available for a director who made political contributions. To construct this variable, we exclude directors if they don't make any contributions.
Proportion of co-opted directors	The proportion of outside directors who elected after a CEO is hired (Coles et al., 2011), which is computed by the ratio of the number of new outside directors to the total number of outside directors.

Appendix 2: Separate Tests for S&P 500 Firms and Non-S&P 500 Firms

	Dependent variable: Q_{t+1}					
	Pooled OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Regressions for S&P 500 firms						
Dist_all_dir$_t$	0.150					
	(0.441)					
Dist_ins_out$_t$		-0.050				
		(0.766)				
Dist_CEO_out$_t$			-0.052			
			(0.688)			
Log (1+Dist_all_dir$_t$*)*				8.101		
				(0.001)***		
Log (1+Dist_ins_out$_t$*)*					5.772	
					(0.001)***	
Log (1+Dist_CEO_out$_t$*)*						4.761
						(0.001)***
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/Year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	717	717	717	717	717	717
Adj. R^2	48.01%	47.97%	47.97%	48.68%	48.71%	48.79%
Panel A: Regressions for non-S&P 500 firms						
Dist_all_dir$_t$	0.270					
	(0.013)**	0.318				
Dist_ins_out$_t$		(0.001)***				
			0.237			
Dist_CEO_out$_t$			(0.001)***			
Log (1+Dist_all_dir$_t$*)*				4.225		
				(0.001)***		
Log (1+Dist_ins_out$_t$*)*					2.954	
					(0.002)***	2.255
Log (1+Dist_CEO_out$_t$*)*						(0.003)***
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/Year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	1,783	1,783	1,783	1,765	1,765	1,765
Adj. R^2	23.76%	23.96%	23.92%	23.75%	23.75%	23.71%

Appendix 3 Definitions of Variables

Variables	Definitions
Policy risk	The total number of bills introduced by the home-state senators and house representatives over the year *y*. The data on bill information are collected from the Congressional Bills Project (http://www.congressionalbills.org/index.html). In the regressions, it is transformed by adding one and taking the natural log.
Corporate political strategy variables	
Number of politically connected board members	The number of board members who are politically connected. To be considered as politically connected, the board member's party on the former political position must be same as the incumbent President's party. If a firm does not have any politically connected member, a value of 0 is assigned.
Board's political freshness	We compute political freshness for each board member by 50 – elapse period, where the elapse period is from the year a politically connected director left the political position to the year he/she serves as a corporate director. We compute the average of freshness score for each firm. To be considered as politically connected, the board member's party on the former political position must be same as the incumbent President's party. If a firm does not have any politically connected member, a value of 0 is assigned. In the regressions, it is transformed by adding one and taking the natural log.
Number of supported candidates	The number of candidates supported by the firm. The data comes from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log.
Strength of relationships with supported candidates	The strength of the relationships between candidates and the contributing firm. It is measured by the total length of relationships between the firm and the candidates. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log.
Supported candidates' ability	The ability of the politicians to help the firm. It is measured by the home state of the firm and the candidate. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log.
Supported candidates' power	The power of the candidates. It is measured by the candidate's committee ranking. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log.
Corporate lobbying expenditures	It is measured by aggregating all reported expenses. The lobbying information is collected from the OpenSecrets (http://www.opensecrets.org) of the Center for Responsive Politics (CRP).
PSI	The political strategy index that combines the yearly ranks of *Number of politically connected board members*, *Number of supported candidates*, and *Lobbying expenditures*. $PSI_i = \frac{1}{K_i}\sum_{k=1}^{K_i}\frac{Rank_k(Political\ strategy_{ik})}{N_k}$, where $Rank_k(Political\ strategy_{ik})$ is the rank function which assigns rank for each observation, $Political\ strategy_{ik}$ is the k^{th} measure of political strategy measures for firm i in our sample, and K is the dimensions of measures. For each information variable, the firm with the highest value in the measure is ranked as N_k while the firm with the lowest value is ranked as one. The denominator (K_i) averages the ranks regardless of the number of values of the firm in the sample. For example, the firm that has only two measures in records is divided by $K_i = 2$. Firm with all three measures is divided by $K_i = 2$. This construction scales the variable *PSI* to a value between 0 (weakest political strategy) and 1 (strongest political strategy).
PSI-inclusive	The inclusive political strategy index that combines the yearly ranks of all seven political strategy variables.

Variables	Definitions
Firm characteristics	
BHAR	Buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the value-weighted market portfolio over the same period.
BHAR (ew)	Buy-and-hold abnormal return over 12 months, computed as the difference between the buy-and-hold return of firm *i* from January to December of year *y* and the buy-and-hold return of the equally-weighted market portfolio over the same period.
BHAR (match)	Buy-and-hold abnormal return, adjusted by a matching firm. In the beginning of each year, we classify the sample firms into sub-groups based on an 11-industry classification and into terciles of the previous year's firm size, *B/M*, and one-year return. From each sub-group, we collect the median buy-and-hold return (*BHR*) over 12 months, from January to December of year *y*. Then, we compute *BHAR (match)* as the difference between each sample firm's *BHR* and its matched *BHR*.
Average monthly return	The average of raw monthly returns in year *y*.
Procurement amount	The natural log of one plus the sum of all procurement contracts in the year (Goldman et al. (2010)). Information of procurement contracts is obtained from the Federal Procurement Data System – Next Generation (FPDS-NG) for period from 1990 to 2006.
Litigation	Litigation is a dummy that equals 1 if the lawsuit is filled a given calendar year y, and otherwise equals 0. The Stanford law school maintains the Securities Class Action Clearinghouse that has complied federal class actions related to a security fraud. We obtained litigation data from (http://securities.stanford.edu/fmi/xsl/SCACPUDB/recordlist.xsl).
Settlement amount	The amount of settlement. The value is set to 0 if the court dismiss lawsuit without imposing any cost on defendants. Data are from the Stanford law school's Securities Class Action Clearinghouse.
Size	The natural log of one plus market value of common equity that is computed by the number of common shares times the share price at the end of calendar year.
B/M	The ratio of book equity to market equity for the firm. The market equity value of the firm is the value of all common stock classes outstanding.
Beta	It is computed using weekly returns in each year.
Past return	The stock return in year *y*-1.
Industry dummies	The 11-industry classification modified based on the Fama-French 10-industry classification. The first (consumer non-durables) industry includes food, tobacco, textiles, apparel, leather, and toys. The second (consumer durables) industry includes cars, TV's, furniture, and household appliances. The third (manufacturing) industry includes machinery, trucks, planes, chemicals, and paper. The fourth (energy) industry includes oil, gas, and coal extraction and products. The fifth (high tech) industry includes computers, software, and electronic equipment. The sixth (telecommunication) industry includes telephone and television transmission. The seventh (shops) includes wholesale, retail, and some services such as laundries and repair shops. The eighth (health) industry includes healthcare, medical equipment, and drugs. The ninth (defense) industry includes guns, tanks, aircrafts, and ships for defense purpose. The tenth (construction) industry includes general and heavy constructions. The eleventh (other) industry includes mines, transportation, hotels, entertainment, and finance.