



# Corporate boards' political ideology diversity and firm performance



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## ABSTRACT

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.

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## 1. 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 Adams and Ferreira, 2009; Carter et al., 2003) 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, and occupation, 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

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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 (Lim and Klein, 2006; Mohammed and Dumville, 2001). 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), more socially independent directors (Hwang and Kim, 2009), local directors (Alam et al., 2012), or 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 (Bonaparte et al., 2010; Kaustia and Torstila, 2011), 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 (forthcoming) 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.

## 2. Literature reviews 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 (2009) 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* =  $\gamma_0 + \gamma_1$  *Incumbent inside director's political ideology* +  $\gamma_2$  *Standard deviation (Incumbent inside director's political ideology)* +  $\gamma_3$  *Incumbent outside director's political ideology* +  $\gamma_4$  *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* =  $\gamma_0 + \gamma_1$  *Distance 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 evaluate the other party's work with a more objective view and exert 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.<sup>3</sup>

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

<sup>3</sup> 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.

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 ( $\gamma_1 < 0$ ).

•  $\text{Agency costs} = \gamma_0 + \gamma_1 \text{ Distance in political ideologies} + \sum \gamma_s \text{ controls}$ .

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

•  $\text{Abs (PAC's political ideology} - \text{Insider's political ideology)} = \gamma_0 + \gamma_1 \text{ Distance in political ideologies} + \sum \gamma_s \text{ controls}$ .

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

### 3. 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 IRR). As mentioned by Masulis et al. (2012), some important director characteristics are missing prior to 1998. Therefore, our sample period starts in 1999 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 (Anderson et al., 2011; Knyazeva et al., 2009; Linck et al., 2008, 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 5576 directors (2611 firm-year and 23,391 director-year observations).

We then proceed to identify individuals' political contributions from the Federal Election Commission (FEC) website.<sup>4</sup> 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 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 filings to identify the director's background. Our procedure resulted in the correct identification of over 98% of all directors' contributions.<sup>5</sup>

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

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

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 headquarters is located), we accumulate political contributions over all years up to a certain point and rebalance it every two 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.<sup>6</sup> 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

<sup>4</sup> The data can be found at <http://www.fec.gov/finance/disclosure/norindsea.shtml>.

<sup>5</sup> 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.

<sup>6</sup> 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.

**Table 1**  
Descriptive statistics.

Variables	N	Mean	Median	Std. dev.	Min.	Max.
Panel A: Political characteristics at an individual level						
Contributor	5576	0.595	1.000	0.491	0.000	1.000
Contributions to Democratic Party	3315	4373	1000	13,081	0	449,600
Contributions to Republican Party	3315	7485	2250	15,601	0	197,960
Total contributions	3315	11,857	5000	20,490	200	451,979
Polid	3315	0.245	0.632	0.826	−1.000	1.000
Democratic leaning directors	3315	0.354	0.000	0.478	0.000	1.000
Republican leaning directors	3315	0.631	1.000	0.483	0.000	1.000
Panel B: Political characteristics at a firm level						
Dist_all_dir	2611	0.662	0.658	0.241	0.000	1.313
Dist_ins_out	2611	0.666	0.667	0.264	0.000	1.867
Dist_CEO_out	2611	0.659	0.643	0.330	0.000	2.000
Dist_CEO_ins	2611	0.330	0.333	0.311	0.000	1.422
Polid <sup>CEO</sup>	2611	0.272	0.018	0.678	−1.000	1.000
Average (Polid <sup>Insider</sup> )	2611	0.232	0.239	0.499	−1.000	1.000
Standard deviation (Polid <sup>Insider</sup> )	2611	0.407	0.481	0.350	0.000	1.414
Average (Polid <sup>Outsider</sup> )	2611	0.149	0.163	0.342	−1.000	1.000
Standard deviation (Polid <sup>Outsider</sup> )	2611	0.595	0.577	0.251	0.000	1.414
Directors' total contributions	2611	14,963	0	38,682	0	650,329
Corporate PAC contributions	2611	0.167	0.000	0.373	0.000	1.000
Corporate PAC contributions to Democratic Party	438	26,044	13,000	38,605	0	294,700
Corporate PAC contributions to Republican Party	438	66,632	29,600	92,022	500	586,500
Corporate total PAC contributions	438	92,676	44,271	122,674	10,000	830,800
Polid <sup>PAC</sup>	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	2611	0.379	0.374	0.068	0.229	0.608
Voter turnout for Republican Party	2611	0.433	0.445	0.139	0.090	0.860
Voter turnout for Democratic Party	2611	0.516	0.505	0.129	0.116	0.898
Vote ratio	2611	0.992	0.881	0.709	0.105	7.390
Panel C: Controlling variables						
Assets <sup>†</sup>	2611	4585.81	976.375	12,474.64	87.91	96,484
Q <sup>†</sup>	2611	2.253	1.654	1.660	0.769	9.977
ROA <sup>†</sup>	2601	0.152	0.147	0.096	−0.149	0.470
Leverage <sup>†</sup>	2597	0.204	0.198	0.170	0.000	0.667
FCF <sup>†</sup>	2590	0.092	0.093	0.079	−0.235	0.306
Sales growth <sup>†</sup>	2611	0.122	0.084	0.245	−0.477	1.125
CEO duality	2611	0.613	1.000	0.487	0.000	1.000
Board size	2611	8.922	9.000	2.386	1.000	21.000
Independent directors	2611	0.649	0.667	0.171	0.000	1.000
Proportion of busy directors	2611	0.119	0.000	0.165	0.000	1.000
Contributing directors (annual)	2611	0.149	0.000	0.233	0.000	1.000
Contributing directors (cumulative)	2611	0.619	0.636	0.222	0.000	1.000
GIM index	2611	9.135	9.000	2.563	3.000	17.000
Average (insider's age)	2608	56.62	57.00	5.78	36.00	75.00
Standard deviation (insider's age)	2608	6.36	6.14	4.87	0.00	28.44
Average (outsider's age)	2608	59.98	60.00	4.55	39.00	79.50
Standard deviation (outsider's age)	2608	7.25	7.00	3.17	0.00	23.33
Proportion of in-state directors	2611	0.411	0.333	0.357	0.000	1.000
Proportion of co-opted directors	2491	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 5576 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](#).

<sup>†</sup> Accounting variables that are winsorized at the top1% and the bottom 99%.

what Democratic candidates receive. Therefore, on average, 63% of directors' political ideology leans more toward the Republican Party, and just above 35% of directors' political 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.

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

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



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

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

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.<sup>7</sup>

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  $Dist\_CEO\_ins$ <sup>8</sup> 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 Democratic Party.

In Panel B we also report descriptive statistics for firm-level PAC contributions.<sup>9</sup> On average, 17% of our sample firms engage in PACs. On average, firm contributions over an 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 headquarters 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 headquarters is located.

In Panel C, we include descriptive statistics for other variables such as size, performance, leverage, and board characteristics that are used as control variables in the subsequent multivariate tests. Note that 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.

## 4. Empirical results

### 4.1. 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.<sup>10</sup> In addition, many social and psychological studies indicate that people tend to choose co-workers who share similar backgrounds, demographic characteristics and 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 (Lim and Klein, 2006; Mohammed and Dumville, 2001). 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.<sup>11</sup> 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

<sup>7</sup> To illustrate differences among the four distance measures, we suggest a simple case where a firm has 4 inside 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 ( $= (9 \times 8) / 2$ ) different pairs.

<sup>8</sup> 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.

<sup>9</sup> Firm-level PAC information can be found at <http://www.fec.gov/finance/disclosure/ftpdet.shtml> (primary) and <http://www.campaignmoney.com/> (supplement).

<sup>10</sup> Proximity 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 et al., 1998), in dealings among floor traders (Baker, 1984), and in investment patterns of venture capital firms (Sorenson and Stuart, 2001).

<sup>11</sup> 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.

**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 ( $Polid^{Insider}$ ) <sub>t</sub>	0.082 (0.107)	0.114 (0.272)	0.066 (0.266)
Standard deviation ( $Polid^{Insider}$ ) <sub>t</sub>	−0.030 (0.670)	−0.145 (0.284)	0.000 (0.998)
Average ( $Polid^{Outsider}$ ) <sub>t</sub>	0.146 (0.041)**	0.132 (0.356)	0.172 (0.041)**
Standard deviation ( $Polid^{Outsider}$ ) <sub>t</sub>	−0.099 (0.293)	0.075 (0.663)	−0.154 (0.169)
Vote ratio <sub>t</sub>	0.209 (0.259)	0.309 (0.380)	0.145 (0.504)
Log (Director's age) <sub>t</sub>	0.650 (0.076)*	0.825 (0.208)	0.617 (0.160)
Log (Asset) <sub>t</sub>	0.017 (0.302)	0.056 (0.072)*	0.002 (0.903)
Log (Board size) <sub>t</sub>	−0.089 (0.421)	−0.001 (0.994)	−0.144 (0.289)
Q <sub>t</sub>	0.001 (0.948)	0.011 (0.744)	−0.006 (0.802)
Intercept	−2.459 (0.094)*	−3.749 (0.152)	−2.047 (0.246)
Year fixed	Yes	Yes	Yes
N	867	208	659
Adj. R <sup>2</sup>	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 gray) 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.

for political ideologies as well. Thus, we include the *Vote ratio* variable, which is measured by the ratio of voter turnout for 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.

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.

#### 4.2. 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.

**Table 3**  
Univariate tests.

		5 (H)	4	3	2	1 (L)	(H – L)	P value
(1) <i>Dist_all_dir</i>	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)
	<i>Dist_PAC_ins</i>	0.473	0.386	0.418	0.458	0.350	0.123	(<0.001)
(2) <i>Dist_ins_out</i>	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)
	<i>Dist_PAC_ins</i>	0.525	0.451	0.403	0.413	0.290	0.235	(<0.001)
(3) <i>Dist_CEO_out</i>	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)
	<i>Dist_PAC_ins</i>	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.

$$\begin{aligned}
 Dist_{all\ dir}_t &= \frac{1}{[(A+B-1) + (A+B-2) + \dots + 1]} \sum_{x=1, x \neq y}^{A+B} |Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director}| \\
 Dist_{ins\ out}_{i,t} &= \frac{1}{A \times B} \sum_{a=1}^A \sum_{b=1}^B |Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider}|, \\
 Dist_{CEO\ out}_{i,t} &= \frac{1}{A} \sum_{a=1}^A |Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider}|,
 \end{aligned}$$

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  $i$ .  $Polid_{i,a,t}^{Outsider}$  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](#).

- 2) *Agency costs*; following [Doukas et al. \(2000\)](#) and [Antia 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

$$Agency\ costs = \frac{FCF}{Total\ assets} \times Poor\ growth \times 100. \quad (6)$$

- 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.

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 in which a firm's headquarter is located. 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 headquarters 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 a costly action by a rational voter who wants to exhibit his/her own political preference.<sup>12</sup> 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. 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* =  $\gamma_0 + \gamma_1 \text{Vote ratio} + \gamma_2 \text{Voter turnout} + \sum \gamma_{3-11} \text{controls}$

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

The results of the OLS and the 2 SLS 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. the distance 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 a 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 (2SLS) 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  $1\%$ .

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 et al. (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.<sup>13</sup>

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. (2012) document that proximity of outside directors' residence to firm headquarters matters in terms of CEO compensation structure. Coles et al. (2010) 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

<sup>12</sup> A rational voter only participates in voting if expected benefits exceed voting costs (Dhillon and Peralta, 2002; Downs, 1957; Geys, 2006).

<sup>13</sup> We would like to thank an anonymous referee for his or her comment on this issue.

**Table 4**

Determinants of politically divergent boards.

	Dependent variable:		
	<i>Log (1 + Dist_all_dir<sub>t</sub>)</i>	<i>Log (1 + Dist_ins_out<sub>t</sub>)</i>	<i>Log (1 + Dist_CEO_out<sub>t</sub>)</i>
	(1)	(2)	(3)
<i>Reverse vote ratio<sub>t</sub></i>	0.005 (0.019)**	0.007 (0.001)***	0.013 (<0.001)***
<i>Voter turnout<sub>t</sub></i>	0.247 (<0.001)***	0.351 (<0.001)***	0.400 (<0.001)***
<i>Log (Assets)<sub>t</sub></i>	0.019 (<0.001)***	0.023 (<0.001)***	0.010 (0.004)***
<i>Leverage<sub>t</sub></i>	−0.007 (0.691)	−0.009 (0.641)	−0.001 (0.979)
<i>ROA<sub>t</sub></i>	−0.033 (0.433)	−0.018 (0.690)	0.020 (0.724)
<i>Free cash<sub>t</sub></i>	0.071 (0.213)	0.061 (0.305)	−0.044 (0.561)
<i>Sales growth<sub>t</sub></i>	−0.009 (0.577)	0.002 (0.917)	−0.016 (0.407)
<i>CEO duality<sub>t</sub></i>	0.014 (0.023)**	0.011 (0.091)*	0.030 (0.001)***
<i>Log (Board size)<sub>t</sub></i>	0.028 (0.066)*	0.042 (0.012)**	0.077 (<0.001)***
<i>Proportion of independent directors<sub>t</sub></i>	0.085 (<0.001)***	0.047 (0.034)**	0.086 (0.002)***
<i>Proportion of busy directors<sub>t</sub></i>	0.082 (<0.001)***	0.047 (0.034)**	0.018 (0.457)
<i>Log (1 + Directors' total contributions)<sub>t</sub></i>	0.132 (<0.001)***	0.122 (<0.001)***	0.061 (0.032)**
<i>G-index<sub>t</sub></i>	0.000 (0.828)	−0.001 (0.415)	−0.001 (0.432)
<i>Intercept</i>	0.052 (0.158)	0.010 (0.795)	0.010 (0.834)
<i>Industry/year fixed</i>	Yes	Yes	Yes
<i>N</i>	2547	2547	2547
<i>Adj. R<sup>2</sup></i>	14.58%	12.70%	8.25%

Table 4 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.

$$\begin{aligned}
 Dist_{all\_dir\_t} &= \frac{1}{[(A+B-1) + (A+B-2) + \dots + 1]} \sum_{x=1, x \neq y}^{A+B} |Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director}|, \\
 Dist_{ins\_out\_t} &= \frac{1}{A \times B} \sum_{a=1}^A \sum_{b=1}^B |Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider}|, \\
 Dist_{CEO\_out\_t} &= \frac{1}{A} \sum_{a=1}^A |Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider}|,
 \end{aligned}$$

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  $i$ .  $Polid_{i,a,t}^{Outsider}$  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.

percentage of female directors, 2) the 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).

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

**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 (0.041)**	0.042 (0.043)**	0.049 (0.018)**	−0.056 (0.069)*	−0.037 (0.186)	0.020 (0.367)
$Leverage_t$	−1.119 ( $<0.001$ )***	−1.116 ( $<0.001$ )***	−1.117 ( $<0.001$ )***	−1.045 ( $<0.001$ )***	−1.051 ( $<0.001$ )***	−1.082 ( $<0.001$ )***
$ROA_t$	1.245 (0.002)***	1.227 (0.002)***	1.208 (0.002)***	1391 (0.001)***	1.272 (0.002)***	1.119 (0.006)***
$Free\ cash_t$	3.839 ( $<0.001$ )***	3.865 ( $<0.001$ )***	3.921 ( $<0.001$ )***	3.449 ( $<0.001$ )***	3.622 ( $<0.001$ )***	4.048 ( $<0.001$ )***
$Sales\ growth_t$	0.414 (0.002)***	0.409 ( $<0.001$ )***	0.415 (0.002)***	0.476 (0.001)***	0.418 (0.002)***	0.474 (0.001)***
$CEO\ duality_t$	−0.154 (0.001)***	−0.148 (0.001)***	−0.152 (0.001)***	−0.226 ( $<0.001$ )***	−0.189 ( $<0.001$ )***	−0.244 ( $<0.001$ )***
$Log(Board\ size)_t$	−0.310 (0.004)***	−0.295 (0.005)***	−0.306 (0.004)***	−0.472 ( $<0.001$ )***	−0.482 (0.001)***	−0.575 ( $<0.001$ )***
$Proportion\ of\ independent\ directors_t$	0.306 (0.027)**	0.319 (0.022)**	0.323 (0.021)**	−0.193 (0.292)	0.115 (0.444)	0.030 (0.846)
$Proportion\ of\ busy\ directors_t$	0.014 (0.912)	0.043 (0.744)	0.060 (0.646)	−0.421 (0.011)**	−0.131 (0.341)	−0.004 (0.976)
$Log(1 + Directors' total contributions)_t$	0.002 (0.690)	0.003 (0.560)	0.004 (0.435)	−0.676 (0.001)***	−0.401 (0.015)**	−0.101 (0.476)
$G-index_t$	−0.017 (0.027)**	−0.017 (0.029)**	−0.017 (0.030)**	−0.022 (0.005)***	−0.016 (0.045)**	−0.015 (0.063)*
Intercept	2.279 ( $<0.001$ )***	2.266 ( $<0.001$ )***	2.281 ( $<0.001$ )***	1.500 ( $<0.001$ )***	1.767 ( $<0.001$ )***	1.802 ( $<0.001$ )***
Industry/year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	2500	2500	2500	2482	2482	2482
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 (2 SLS) 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.

variables. They are industry-adjusted Tobin's Q,  $-1/\text{Tobin's Q}$ , and log-transformed Tobin's Q in models (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.

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

As seen in our results from Tables 3–7, ideologically diverse boards are associated with better firm performance. In the next two tables (Tables 8 and 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

**Table 6**

Omitted variables problems.

	Dependent variable: $Q_{t+1}$					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Using political ideology distance among directors						
<i>Dist_all_dir<sub>t</sub></i>	0.338 (0.001)***	0.356 (0.001)***	0.342 (0.001)***	0.361 ( $<0.001$ )***	0.356 (0.001)***	0.335 (0.001)***
<i>Proportion of female directors<sub>t</sub></i>	0.351 (0.049)**					0.347 (0.059)*
<i>Standard deviation (director's age)<sub>t</sub></i>		0.000 (0.957)				
<i>Standard deviation (insider's age)<sub>t</sub></i>			−0.014 (0.003)***			−0.012 (0.013)**
<i>Standard deviation (outsider's age)<sub>t</sub></i>			0.002 (0.738)			0.004 (0.563)
<i>Proportion of in-state directors<sub>t</sub></i>				−0.033 (0.710)		−0.056 (0.536)
<i>Proportion of co-opted directors<sub>t</sub></i>					−0.081 (0.210)	−0.094 (0.147)
<i>Controlling variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry/year fixed</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2497	2471	2471	2500	2410	2410
<i>Adj. R<sup>2</sup></i>	27.47%	27.36%	27.55%	27.36%	27.97%	28.14%
Panel B: Using political ideology distance between insider directors and outside directors						
<i>Dist_ins_out<sub>t</sub></i>	0.256 (0.003)***	0.275 ( $<0.001$ )***	0.268 (0.002)***	0.277 (0.001)***	0.272 (0.002)***	0.253 (0.004)***
<i>Proportion of female directors<sub>t</sub></i>	0.362 (0.044)**					0.311 (0.057)*
<i>Standard deviation (director's age)<sub>t</sub></i>		−0.002 (0.832)				
<i>Standard deviation (insider's age)<sub>t</sub></i>			−0.014 (0.003)***			−0.012 (0.013)**
<i>Standard deviation (outsider's age)<sub>t</sub></i>			0.001 (0.872)			0.004 (0.560)
<i>Proportion of in-state directors<sub>t</sub></i>				−0.006 (0.948)		−0.057 (0.533)
<i>Proportion of co-opted directors<sub>t</sub></i>					−0.077 (0.233)	−0.093 (0.150)
<i>Controlling variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry/year fixed</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2497	2471	2471	2500	2410	2410
<i>Adj. R<sup>2</sup></i>	27.35%	27.24%	27.45%	27.24%	27.85%	28.02%
Panel C: Using political ideology distance between CEO and outside directors						
<i>Dist_CEO_out<sub>t</sub></i>	0.175 (0.006)***	0.189 (0.003)***	0.182 (0.004)***	0.189 (0.003)***	0.178 (0.006)***	0.158 (0.014)**
<i>Proportion of female directors<sub>t</sub></i>	0.371 (0.036)**					0.319 (0.082)*
<i>Standard deviation (director's age)<sub>t</sub></i>		−0.001 (0.871)				
<i>Standard deviation (insider's age)<sub>t</sub></i>			−0.014 (0.003)***			−0.013 (0.010)**
<i>Standard deviation (outsider's age)<sub>t</sub></i>			0.002 (0.823)			0.004 (0.576)
<i>Proportion of in-state directors<sub>t</sub></i>				0.007 (0.937)		−0.013 (0.889)
<i>Proportion of co-opted directors<sub>t</sub></i>					−0.067 (0.304)	−0.084 (0.193)
<i>Controlling variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry/year fixed</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2497	2471	2471	2500	2410	2410
<i>Adj. R<sup>2</sup></i>	27.29%	27.17%	27.38%	27.17%	27.75%	27.88%

This table addresses omitted variable problems and presents the results of the pooled OLS regressions. Models (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 Coles et al. (2010). 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.

**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	2500	2500	2500	2500	2500	2500
Adj. R <sup>2</sup>	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	2500	2500	2500	2500	2500	2500
Adj. R <sup>2</sup>	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	2500	2500	2500	2500	2500	2500
Adj. R <sup>2</sup>	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. Models (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.

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.

#### 4.4. Does board 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 (forthcoming) denote that PACs are subject to agency problems. We test whether politically diverse boards reduce management's discretionary power over PAC spending decisions.

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



**Table 8**

Politically divergent boards and agency costs.

	Dependent variable: Agency costs		
	(1)	(2)	(3)
<i>Dist_all_dir<sub>t</sub></i>	−0.611 (0.006)***		
<i>Dist_ins_out<sub>t</sub></i>		−0.612 (0.007)***	
<i>Dist_CEO_out<sub>t</sub></i>			−0.276 (0.091)*
<i>Log (Assets)<sub>t</sub></i>	−0.072 (0.105)	−0.069 (0.131)	−0.087 (0.051)*
<i>Leverage<sub>t</sub></i>	1.043 (0.010)***	1.040 (0.010)***	1.041 (0.010)***
<i>Free cash<sub>t</sub></i>	3.008 (0.043)**	2.993 (0.043)**	2.880 (0.052)*
<i>ROA<sub>t</sub></i>	0.536 (0.530)	0.563 (0.507)	0.589 (0.492)
<i>CEO duality<sub>t</sub></i>	−0.032 (0.759)	−0.038 (0.716)	−0.034 (0.748)
<i>Ln (Board size)<sub>t</sub></i>	0.165 (0.491)	0.176 (0.461)	0.189 (0.430)
<i>Proportion of independent directors<sub>t</sub></i>	0.197 (0.575)	0.173 (0.622)	0.151 (0.673)
<i>Proportion of busy directors<sub>t</sub></i>	0.269 (0.362)	0.232 (0.424)	0.189 (0.521)
<i>Log (1 + Directors' total contributions)<sub>t</sub></i>	0.011 (0.233)	0.011 (0.270)	0.008 (0.389)
<i>G-index<sub>t</sub></i>	0.022 (0.342)	0.021 (0.365)	0.021 (0.365)
<i>Intercept</i>	−0.096 (0.854)	−0.094 (0.859)	−0.169 (0.745)
<i>Industry/year fixed</i>	Yes	Yes	Yes
<i>N</i>	2500	2500	2500
<i>Adj. R<sup>2</sup></i>	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 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.

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 inside and outside directors' increases approximately 0.0725 ( $= \exp(0.265 \times 0.264) - 1$ ) 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 between the firm's and the insiders' political ideologies. Overall, our results complement [Bebchuk and Jackson \(forthcoming\)](#) work. We suggest that politically diverse boards can help firms construct efficient corporate political strategies.

## 5. Conclusions

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.

**Table 9**

Politically divergent boards and corporate PAC.

	Dependent variable:				
	<i>Log (1 + Corporate total PAC contributions)</i>	<i>Polid<sup>PAC</sup></i>	<i>Log (Dist_PAC_ins + 1)</i>		
	(1)	(2)	(3)	(4)	(5)
<i>Average (Polid<sup>Insider</sup>)<sub>t</sub></i>	0.430 (0.089)*	0.046 ( $<0.001$ ***)			
<i>Standard deviation (Polid<sup>Insider</sup>)<sub>t</sub></i>	−0.244 (0.460)	0.000 (0.986)			
<i>Average (Polid<sup>Outsider</sup>)<sub>t</sub></i>	0.388 (0.315)	0.021 (0.068)*			
<i>Standard deviation (Polid<sup>Outsider</sup>)<sub>t</sub></i>	0.187 (0.611)	−0.008 (0.508)			
<i>Dist_all_dir<sub>t</sub></i>			0.102 ( $<0.001$ ***)		
<i>Dist_ins_out<sub>t</sub></i>				0.265 ( $<0.001$ ***)	
<i>Dist_CEO_out<sub>t</sub></i>					0.150 ( $<0.001$ ***)
<i>Vote ratio<sub>t</sub></i>	−0.123 (0.324)	−0.006 (0.198)	0.021 (0.002)***	0.024 ( $<0.001$ ***)	0.025 ( $<0.001$ ***)
<i>Log (Assets)<sub>t</sub></i>	1.217 ( $<0.001$ ***)	0.035 ( $<0.001$ ***)	0.003 (0.462)	−0.004 (0.326)	0.004 (0.361)
<i>Leverage<sub>t</sub></i>	−1.832 (0.023)**	−0.086 (0.001)***	−0.010 (0.736)	−0.005 (0.866)	−0.009 (0.749)
<i>Free cash<sub>t</sub></i>	0.475 (0.785)	0.038 (0.518)	0.133 (0.097)*	0.115 (0.146)	0.161 (0.042)**
<i>ROA<sub>t</sub></i>	−1.295 (0.283)	−0.041 (0.322)	0.112 (0.048)**	0.113 (0.036)**	0.099 (0.069)*
<i>CEO duality<sub>t</sub></i>	0.193 (0.392)	0.015 (0.032)**	0.019 (0.041)**	0.018 (0.040)**	0.015 (0.097)*
<i>Ln (Board size)<sub>t</sub></i>	1.441 (0.020)**	0.076 ( $<0.001$ ***)	−0.082 ( $<0.001$ ***)	−0.091 ( $<0.001$ ***)	−0.096 ( $<0.001$ ***)
<i>Proportion of independent directors<sub>t</sub></i>	1.150 (0.110)	0.081 (0.001)**	0.162 ( $<0.001$ ***)	0.153 ( $<0.001$ ***)	0.162 ( $<0.001$ ***)
<i>Proportion of busy directors<sub>t</sub></i>	1.113 (0.181)	0.038 (0.108)	−0.002 (0.942)	−0.009 (0.752)	0.007 (0.798)
<i>Log (1 + Directors' total contributions)<sub>t</sub></i>	0.029 (0.073)*	0.022 (0.241)	0.073 (0.008)***	0.046 (0.102)	0.081 (0.002)***
<i>G-index<sub>t</sub></i>	0.030 (0.605)	0.002 (0.276)	0.004 (0.049)**	0.004 (0.034)**	0.004 (0.033)**
<i>Intercept</i>	−11.694 ( $<0.001$ ***)	−0.457 ( $<0.001$ ***)	0.170 ( $<0.001$ ***)	0.143 ( $<0.001$ ***)	0.148 ( $<0.001$ ***)
<i>Industry/year fixed</i>	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2570	2570	2567	2567	2567
<i>Adj. (or Pseudo) R<sup>2</sup></i>	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<sup>PAC</sup>* is the firm's political ideology reflected in the corporate PAC contribution portfolio. In models (3), (4), and (5), *Dist\_PAC\_ins* is political ideology distance between firm and insiders, measured by average value of political ideology distance between *Polid<sup>PAC</sup>* 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.

## Appendix 1

### Definitions of variables.

Variables	Definitions
Panel A: Political characteristics at an individual level	
<i>Contributor</i>	The proportion of directors who make political contributions per an election cycle.
<i>Contributions to Democratic Party</i>	Total contributions made to Democratic Party by a director per an election cycle.
<i>Contributions to Republican Party</i>	Total contributions made to Republican Party by a director per an election cycle.
<i>Total contributions</i>	Total contributions made by a director per an election cycle.

(continued on next page)

## Appendix 1 (continued)

Variables	Definitions
<b>Panel A: Political characteristics at an individual level</b>	
<i>Polid</i>	An individual political ideology based on Hutton et al. (2011). It is determined by the contribution amounts to Republican Party and Democratic Party. $Polid = \frac{\text{Contributions to Republican Party} - \text{Contributions to Democratic Party}}{\text{Total contributions}}$
<i>Democratic leaning director</i>	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 $i$ .
<i>Republican leaning director</i>	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 $i$ .
<b>Panel B: Political characteristics at a firm level</b>	
<i>Dist_dir_all</i>	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)+\dots+1]} \sum_{x=1, x \neq y}^{A+B}  Polid_{i,x,t}^{Director} - Polid_{i,y,t}^{Director} $ , 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.
<i>Dist_ins_out</i>	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_{insout}_{i,t} = \frac{1}{A \times B} \sum_{a=1}^A \sum_{b=1}^B  Polid_{i,b,t}^{Insider} - Polid_{i,a,t}^{Outsider} $ , where $Polid_{i,b,t}^{Insider}$ is the political ideology of inside director $b$ in firm $i$ . $Polid_{i,a,t}^{Outsider}$ is the political ideology of outside director $a$ in firm $i$ . $A$ and $B$ are the numbers of outside directors and inside directors, respectively.
<i>Dist_CEO_out</i>	Political ideology distance between a CEO and outsiders. It is measured by the average value of political ideology distance between CEO and a member of the outside director group. $Dist_{CEOout}_{i,t} = \frac{1}{A} \sum_{a=1}^A  Polid_{i,t}^{CEO} - Polid_{i,a,t}^{Outsider} $ , where $Polid_{i,t}^{CEO}$ is the political ideology of CEO in firm $i$ . $Polid_{i,a,t}^{Outsider}$ is the political ideology of outside director $a$ in firm $i$ . $A$ is the number of outside directors.
<i>Dist_CEO_ins</i>	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_{CEOins}_{i,t} = \frac{1}{B} \sum_{b=1}^B  Polid_{i,t}^{CEO} - Polid_{i,b,t}^{Insider} $ , 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.
<i>Polid<sup>CEO</sup></i>	The political ideology of the CEO.
<i>Average (Polid<sup>Insider</sup>)</i>	The average of inside (employee and gray) director's political ideology.
<i>Standard deviation (Polid<sup>Insider</sup>)</i>	The standard deviation of inside director's political ideology.
<i>Average (Polid<sup>Outsider</sup>)</i>	The average of outside (independent) director's political ideology.
<i>Standard deviation (Polid<sup>Outsider</sup>)</i>	The standard deviation of outside director's political ideology.
<i>Directors' total contributions</i>	An aggregate amount of directors' contributions given a firm-year.
<i>Corporate PAC contributor</i>	The proportion of firms that make PAC contributions given a year.
<i>Corporate PAC contributions to Democratic Party</i>	Total PAC amount that go to Democratic Candidates given a year.
<i>Corporate PAC contributions to Republican Party</i>	Total PAC amount that go to Republican Candidates given a year.
<i>Corporate total PAC contributions</i>	Total amount of PAC contributions made given a year.
<i>Polid<sup>PAC</sup></i>	Firm's political ideology reflected in the corporate PAC contribution portfolio. Therefore, $Polid_{i,t}^{PAC} = \frac{\text{Corporate PAC contributions to Republican Party} - \text{Corporate PAC contributions to Democratic Party}}{\text{Corporate total PAC contributions}}$
<i>Dist_PAC_ins</i>	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_{PACins}_{i,t} = \frac{1}{B} \sum_{b=1}^B  Polid_{i,t}^{PAC} - Polid_{i,b,t}^{Insider} $ , 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.
<i>Voter turnout</i>	The ratio of total voters to total population in the latest Presidential election in the headquarters' county.
<i>Voter turnout for Republican Party</i>	Voter turnout for Republican Party for the latest Presidential election in the headquarters' county, which is computed by the votes for Republican Party divided by the total number of voters.
<i>Voter turnout for Democratic Party</i>	Voter turnout for Democratic Party for the latest Presidential election in the headquarters' county, which is computed by the votes for Democratic Party divided by the total number of voters.
<i>Vote ratio</i>	It is measured by the ratio of voter turnout for Republican Party to voter turnout for Democratic Party.
<b>Panel C: Controlling variables</b>	
<i>Assets</i>	Assets at the last day of fiscal year $t$ [ $at$ ].
<i>Q</i>	Market value of assets divided by book value of assets $[(prcc\_f\_csho + at - ceq) / at]$ .
<i>ROA</i>	Earnings before interests and taxes divided by assets $[ib / at]$ .
<i>Leverage</i>	Debt in current liabilities plus long-term debt divided by assets $[(dlc + dlnt) / at]$ .
<i>FCF</i>	Free cash flow normalized by asset $[(oibdp - xint - txt + \Delta txdtc - dvp - dvc) / at]$ .
<i>Agency costs</i>	FCF times <i>Poor growth</i> ; <i>Poor growth</i> is a dummy equals 1 if Tobin's Q is less than 1 and otherwise 0.
<i>Sales growth</i>	Sales growth $[(sale_t - sale_{t-1}) / sale_{t-1}] - 1$
<i>Past stock performance</i>	Cumulative abnormal returns over the market in the year leading up to the annual board meeting date.
<i>CEO duality</i>	A dummy that takes one if the CEO serves as the board chairman, and zero otherwise.
<i>Board size</i>	Total number of directors given a board.
<i>Independent board</i>	The proportion of independent (outside) directors given a board.

## Appendix 1 (continued)

Variables	Definitions
Panel C: Controlling variables	
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., 2010), 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 B: Regressions for non-S&P 500 firms						
$Dist\_all\_dir_t$	0.270 (0.013)**					
$Dist\_ins\_out_t$		0.318 (0.001)***				
$Dist\_CEO\_out_t$			0.237 (0.001)***			
$Log(1 + Dist\_all\_dir_t)$				4.225 (0.001)***		
$Log(1 + Dist\_ins\_out_t)$					2.954 (0.002)***	
$Log(1 + Dist\_CEO\_out_t)$						2.255 (0.003)***
Controlling variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry/year fixed	Yes	Yes	Yes	Yes	Yes	Yes
N	1783	1783	1783	1765	1765	1765
Adj. $R^2$	23.76%	23.96%	23.92%	23.75%	23.75%	23.71%

This table presents the separate results of the pooled OLS regressions and the two-stage least squares (2 SLS) regressions in Table 5 for the S&P 500 firms and for the non-S&P 500 firms. 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.

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