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Do all inside and affiliated directors hold the same value for shareholders?

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## *Abstract*

In this paper, we re-question the value of board independence for shareholders. Instead of studying the relationship between the proportion of independent directors and firm performance (as in previous studies), we analyse how shareholders perceive board independence by examining the relations between director independence and shareholder satisfaction as measured by shareholder voting outcomes in annual director elections. This approach allows us to overcome concerns about omitted firm-level characteristics and to propose a finer analysis of the value of board independence/affiliation for shareholders. We show (1) that independent and inside directors receive significantly more, and affiliated directors significantly fewer, ‘for’ votes in director elections than other board members, (2) that not all inside and affiliated directors hold the same value for shareholders and (3) that the leadership structure matters to shareholders.

## 1. Introduction

The link between board independence and firm performance has been a hotly debated issue in the literature. Independent (or outside) directors, with no material relationship with the company or its management, are generally seen as less likely to collude with management and more likely to be able to bring important resources and relational connections to the company (Cavaco et al., 2017). Indeed, under agency theory (Jensen and Meckling, 1976), because of the separation of ownership and control, managers have an incentive to behave opportunistically and independent directors are expected to be more effective than inside directors – who also serve as firm officers such as Chief Executive Officer (CEO), Chief Operating Officer or President – or affiliated directors, who have a material relationship with the company or its management, to monitor the actions of self-interested managers (Fama and Jensen, 1983; Fama, 1980). Because of their personal, professional or business relationship, it could be more difficult for inside and affiliated directors to challenge strategies and proposals put forth by the CEO. For instance, inside directors may find themselves in an uncomfortable situation when required to provide a fair evaluation of the CEO's performance (Johnson et al., 1996). Similarly, it seems difficult to imagine that a director could remain perfectly objective in cases where there are familial ties or when the financial ties to the CEO are substantial. Moreover, under resource dependence theory (Pfeffer, 1972; Pfeffer and Salancik, 1978), outside directors play an instrumental role by bringing resources such as information, advice, capital, skills, access to key stakeholders and legitimacy to the firm. The experience of outside directors, as well as their expertise and their connections, could enrich board discussions, which would improve the decision-making process (Hillman and Dalziel, 2003). Thus, the literature generally assumes that there would be a positive correlation between board independence and firm performance (Nicholson and Kiel, 2007).

This hypothesis, however, has been challenged. First, it has been argued that some directors may be independent according to regulatory definitions but not truly independent of the CEO (Duchin et al., 2010). This is the case, for instance, for co-opted directors because they are chosen by the firm's management and may thus feel indebted (Coles et al., 2014). This is also the case for directors who are personal friends of the CEO, who may suffer from familiarity bias (Fan et al., 2019) or more generally for directors socially tied to the CEO because they may, whether consciously or not, sympathise with the CEO, which is likely to undermine monitoring effectiveness (Hwang and Kim, 2009; Fracassi and Tate, 2012). It has also been suggested that some independent outside directors may not fully play their monitoring role due to busyness (Core et al., 1999; Fich and Shivdasani, 2006) or distraction (Masulis and Zhang, 2019). In addition, the effect of independent directors on firm value may not be constant (Jenwittayaroje and Jiraporn, 2019). Second, to exert their monitoring and advising roles effectively, outsiders need to have access to information and knowledge about the firm's daily operations. Independent directors are therefore dependent on the information provided by the CEO to perform their duties (Adams and Ferreira, 2007). However, CEOs may be reluctant to share information with independent directors because it could increase the intensity of board monitoring. In this context, the presence of inside directors could be particularly valuable. Since inside directors work full-time in the company, they know the company's business inside out and can make superior decisions (Donaldson, 1990; Donaldson and Davis, 1991; 1994). Third, advocates of stewardship theory assume that managers are essentially trustworthy individuals who are good stewards of firms' resources (Donaldson and Davis, 1991; Davis et al., 1997). An inside director who wants to maintain its reputation needs certain traits such as acting responsibly with independence, integrity and in the shareholders' interest (Donaldson and Davis, 1994). Along this line of thinking, the board of directors should be dominated by inside directors who will work hard with the CEO to create value for the shareholders.

Considering these two opposing points of view regarding the effect of board independence on firm performance, empirical research findings could be very instructive. Unfortunately, previous empirical studies have not established a clear relationship between the proportion of inside/independent directors and firm value. While Vance (1964, 1978) and Kesner (1987) document a positive relationship between the proportion of inside directors and firm performance, Chaganti et al. (1985), Kesner et al. (1986), Zahra and Stanton (1988), report no significant relationship and Baysinger and Butler (1985), Schellenger et al. (1989), Rosenstein and Wyatt (1990) show a negative relationship. The meta-analytic review of Dalton et al. (1998) also provides little evidence of a relationship between board independence and firm performance.

In this article, we adopt an original approach to analysing the value of board independence. Indeed, rather than studying the correlation between the proportion of inside/independent directors and firm performance, as in previous studies, we examine the relationship between director independence and shareholder satisfaction as measured by shareholder voting outcomes in annual director elections. If independent directors are valuable, value-maximising shareholders should be more likely to vote in their favour. By analysing the perception of board independence by shareholders, this study complements the work by Chen and Guay (2020) and Field et al. (2020), who used director election results to analyse how shareholders view busy directors and diverse directors.

As underlined by Masulis and Mobbs (2011), most of the previous empirical studies treat inside (and affiliated) directors as a homogenous group. One important contribution of this paper is to incorporate many dimensions of director-level heterogeneity when evaluating how shareholders perceive board members and therefore to propose a finer analysis of the value of board independence/affiliation for shareholders. Earlier literature has shown that not all independent directors have the same impact on firm value or firm outcomes (Coles et al., 2014; Core et al., 1999; Masulis and Zhang, 2019). In this paper, we extend the question by asking whether it is also the case that not all inside and affiliated directors hold the same value for shareholders. This study also adds to the scarce literature on the determinants of director election results<sup>1</sup>.

The remainder of the paper is organised as follows: Section 2 describes our data and the methodology, Section 3 shows the results and Section 4 provides our conclusions.

## **2. Data and Methodology**

Item 5.07 (Submission of Matters to a Vote of Security Holders) of Securities and Exchange Commission form 8-Ks specifies the number of ‘for’, ‘against’ and ‘abstained’ votes for each director election. These forms can be retrieved from the EDGAR database on the Securities and Exchange Commission (SEC) website<sup>2</sup> and allowed us to collect the results of 28,524 director elections within S&P 500 firms between 2010 and 2016 at 3,193 different shareholder meetings at 488 firms. Following Cai et al. (2009) and Chen and Guay (2020), to control for firm-level effects, our dependent variable is the excess in percentage of ‘for’ votes, defined as the director’s percentage of ‘for’ votes minus the company’s average percentage of ‘for’ votes in a given year (a definition of the variables used in this study is proposed in Table 1). The excess percentage of ‘for’ votes is a relative measure of shareholder satisfaction. If it is positive, it means that a given nominee gets a higher percentage of ‘for’ votes than the others nominees during this election.

<i>Variables</i>	<i>Definitions</i>
<i>Dependent variable</i>	
Excess % of ‘for’ votes	Director’s percentage of ‘for’ votes minus the company’s average percentage of ‘for’ votes.
<i>Independent variables</i>	
Independent	Dummy variable that equals 1 if the director is independent and 0 otherwise. An independent director is a director with no material relationship with the company or its management.
Inside	Dummy variable that equals 1 if the director is an inside director and 0 otherwise. An inside director is an employee or a former employee of the firm.
Affiliated	Dummy variable that equals 1 if the director is an affiliated director and 0 otherwise. An affiliated director is a director with a material relationship with the company or its management (except employment).
CEO	Dummy variable that equals 1 if the director is the CEO of the firm and 0 otherwise.
Former CEO	Dummy variable that equals 1 if the director is a former CEO of the firm and 0 otherwise.
Employee	Dummy variable that equals 1 if the director is an employee or a former employee of the firm and 0 otherwise.
Family	Dummy variable that equals 1 if the director has family ties with the founder or the management of the company and 0 otherwise.
Investor Director	Dummy variable that equals 1 if the director is affiliated to a shareholder and 0 otherwise.
Business relationship	Dummy variable that equals 1 if the director has a material business relationship with the company and 0 otherwise.
Founder	Dummy variable that equals 1 if the director is a founder or a co-founder of the firm and 0 otherwise.
CEO and chairperson	Dummy variable that equals 1 if the director is the firm’s CEO and board chairperson and 0 otherwise.
Non-chairperson CEO	Dummy variable that equals 1 if the director is the firm’s CEO but not the firm’s board chairperson and 0 otherwise.
Chairperson	Dummy variable that equals 1 if the director is the firm’s board chairperson and 0 otherwise.
Non-CEO chairperson	Dummy variable that equals 1 if the director is the firm’s board chairperson but not the firm’s CEO and 0 otherwise.
Lead independent	Dummy variable that equals 1 if the director is the firm’s lead independent director and 0 otherwise.
<i>Control variables</i>	
Gender	Dummy variable that equals 1 if the director is a woman and 0 otherwise.
Incumbent director	Dummy variable that equals 1 if a director was on the board during the previous year, and 0 otherwise.
Attend less than 75% of meetings	Dummy variable that equals 1 if the director attended less than 75% of board meetings during the previous year, and 0 otherwise.

Table 1: Variable definition table (to be continued).

<i>Variables</i>	<i>Definitions</i>
<i>Control variables</i>	
Stock ownership	Number of shares that the director holds divided by the number of shares outstanding.
Ln(1+Director Tenure)	The natural logarithm of 1 plus the number of years that the director has served on the board.
Other outside public board seats	Number of other outside public board seats that the director holds.
Ln(Age)	The natural logarithm of the board member's age.
Main shareholder	Percentage of shares held by the main shareholder.

Table 1: Variable definition table (continued).

We used firms' annual reports to collect information regarding board members and classify it into three categories: independent, inside and affiliated directors. Our sample is made up of 84.2% of independent directors, 14.1% of inside directors and 4% of affiliated directors<sup>3</sup>. Following previous literature, we controlled for directors' gender, incumbency, tenure, attendance at the board meetings, ownership, business and age (the main variables used in this study are described in Table 2). We winsorize all continuous variables at the 1<sup>st</sup> and 99<sup>th</sup> percentile

Variable	Obs	Mean	Std. Dev.	Min	Max
Excess % of votes for Independent	28,627	0.000	0.031	-0.150	0.080
Inside	28,627	0.842	0.365	0.000	1.000
Affiliated	28,627	0.141	0.348	0.000	1.000
ln(1+Director Tenure)	28,627	0.040	0.196	0.000	1.000
Incumbent	28,573	1.947	0.827	0.000	3.555
Gender	28,627	0.955	0.208	0.000	1.000
Attendance	28,627	0.188	0.390	0.000	1.000
Ownership	28,588	0.003	0.058	0.000	1.000
Other Public Boards	28,617	0.002	0.011	0.000	0.086
ln(Age)	28,627	0.970	1.054	0.000	6.000
Main Shareholder	28,627	4.118	0.127	3.738	4.382
	28,615	0.112	0.092	0.042	0.617

Table 2: Summary statistics on the main variables after winsorization used in this study.

Tables 3 and 4 show the correlation between the variables of interest used in the empirical analysis. Overall, the correlation between our variables is rather weak. Moreover, the computed VIFs are far below 5, suggesting that our multivariate analyses are not at risk of any multicollinearity issues.

	(DV)	(CV 1)	(CV 2)	(CV 3)	(CV 4)	(CV 5)	(CV 6)	(CV 7)	(CV 8)
Excess % of 'for' votes (DV)	1.00								
Incumbent director (CV 1)	0.02	1.00							
Attend less than 75% (CV 2)	-0.09	-0.02	1.00						
Stock Ownership (CV 3)	-0.13	0.00	0.01	1.00					
Ln(1+Director Tenure) (CV 4)	-0.02	-0.06	0.02	0.03	1.00				
Gender (CV 5)	-0.18	-0.07	0.51	0.00	0.17	1.00			
Other public boards (CV 6)	-0.15	0.05	0.03	0.00	-0.10	0.01	1.00		
ln(Age) (CV 7)	-0.09	-0.14	0.15	-0.01	-0.04	0.42	0.14	1.00	
Main shareholder (CV 8)	0.00	-0.03	0.01	0.02	0.15	-0.03	-0.02	-0.11	1.00

Table 3: Correlation matrix of the dependent variable (DV) and control variables (CV) used in this study.

	(DV 1)	(CV 1)	(CV 2)	(CV 3)	(CV 4)	(CV 5)	(CV 6)	(CV 7)	(CV 8)
Independent (IV 1)	0.022	-0.013	-0.003	-0.326	-0.075	0.145	0.154	0.200	-0.136
Inside (IV 2)	0.005	0.014	-0.001	0.324	0.073	-0.139	-0.151	-0.198	0.076
Affiliated (IV 3)	-0.052	0.020	0.019	0.396	0.145	-0.059	-0.094	-0.043	0.193
CEO (IV 4)	0.019	0.017	-0.017	0.191	0.002	-0.114	-0.117	-0.214	0.001
Former CEO (IV 5)	-0.007	0.026	0.010	0.210	0.156	-0.063	-0.023	0.075	0.027
Employee (IV 6)	-0.018	-0.015	0.012	0.141	0.018	-0.037	-0.092	-0.096	0.123
Investor director (IV 7)	-0.049	-0.011	0.026	0.029	-0.052	-0.034	-0.003	-0.082	0.271
Business relationship (IV 8)	-0.059	0.010	0.008	0.007	0.048	-0.028	-0.014	0.050	0.013
Family (IV 9)	-0.023	0.012	0.009	0.296	0.101	-0.006	-0.069	-0.080	0.082
Founder (IV 10)	0.010	0.024	0.009	0.392	0.156	-0.053	-0.075	0.032	0.067
CEO and chairperson (IV 11)	-0.048	0.045	-0.011	0.177	0.076	-0.080	-0.065	-0.102	-0.022
Non-chairperson CEO (IV 12)	0.080	-0.024	-0.012	0.083	-0.080	-0.077	-0.098	-0.198	0.025
Chairperson (IV 13)	-0.055	0.060	-0.010	0.256	0.165	-0.117	-0.041	-0.011	0.006
Non-CEO Chairperson (IV 14)	-0.027	0.037	-0.003	0.177	0.156	-0.082	0.012	0.096	0.032
Lead independent director (IV 15)	-0.078	0.052	-0.010	-0.036	0.159	-0.054	0.056	0.134	-0.026

Table 4: Correlation table between the independent variables (IV) and the dependent variable (DV) and control variables (CV) used in this study.

### 3. Results

#### 3.1. Does board independence matter to shareholders?

First, we used our classification to analyse the impact of board independence on shareholder satisfaction. Table 5 presents the results from the multiple regression analyses. The first regression shows that board independence has a positive and significant impact (at the 1% level) on the excess percentage of ‘for’ votes, which is in line with Cai et al. (2009) and consistent with the agency and the resource dependence theory. Independent directors are thus seen as being valuable to shareholders as they tend to receive more ‘for’ votes than the other directors. The economic interpretation of the coefficient is that independent directors obtain 0.4% more votes compared to non-independent directors, this corresponds to roughly 1/8 of a one standard deviation change in excess votes. Column (2) tests for the shareholder approval of inside directors, and the coefficient suggest a negative and statistically significant effect on excess votes at the 5% level. By contrast, model (3) shows a negative and significant relationship (at the 1% level) between affiliated directors and the excess percentage of ‘for’ votes, suggesting that affiliated directors are less desirable from the shareholders’ point of view. The magnitude of the coefficient is 1.5 times that of the positive effect from independent directors (0.6% more excess votes).

	(1)	(2)	(3)
	Excess % of votes for		
Independent	0.004*** (7.00)		
Inside		-0.001** (-2.22)	
Affiliated			-0.006*** (-5.80)
Gender	0.001** (2.41)	0.002*** (3.20)	0.002*** (3.40)
Incumbent	-0.005*** (-5.05)	-0.005*** (-5.05)	-0.005*** (-5.26)
Attendance	-0.075*** (-22.89)	-0.075*** (-22.85)	-0.074*** (-22.76)
Ownership	0.071*** (3.54)	0.047** (2.33)	0.073*** (3.59)
Tenure	-0.001*** (-23.55)	-0.001*** (-24.36)	-0.001*** (-23.32)
Other Public Boards	-0.005*** (-28.29)	-0.005*** (-27.84)	-0.005*** (-27.98)
Age	-0.000 (-0.91)	0.000 (0.31)	0.000 (0.39)
Main Shareholder	-0.001 (-0.58)	-0.003 (-0.99)	-0.001 (-0.37)
Constant	0.015*** (7.79)	0.016*** (8.31)	0.016*** (8.41)
Observations	25,216	25,216	25,216



R-squared	0.085	0.083	0.084
Industry FE	Y	Y	Y
Year FE	Y	Y	Y

Table 5: Board independence and shareholder satisfaction. Robust t-values in parentheses clustered on industry. \*, \*\*, \*\*\*, indicate statistical significance at the 1%, 5% and 10% levels, respectively.

### 3.2. Further Analysis

To better understand how investors perceive inside and affiliated directors, we split our variable ‘inside directors’ into three sub-variables (CEO, former CEO, and employee) and the variable ‘affiliated directors’ into four sub-variables (family, investor director, business relationship and founder)<sup>4</sup> and study the link between one of these sub-variables and director election results in Table 6. Column (1) reveals that CEOs are perceived neutrally as board members, while former CEO in column (2) show that the presence of firms’ former CEOs on the board is perceived very positively by investors (the impact is significant at the 1% level). The information possessed by former CEOs and their knowledge about the firm’s operations are seen as critical by shareholders. By contrast, regression (3) shows that employees and former employees tend to receive significantly fewer ‘for’ votes. This result is not consistent with the stewardship theory and seems to indicate that the presence of employees and former employees on the board is not perceived by investors as added value. Employee directors could pay at the ballot box for their perceived lack of independence from the CEO.

Similarly, the fourth and the fifth regressions show that directors affiliated to a shareholder (investor directors) and a director with a material business relationship with the company receive significantly fewer ‘for’ votes. These results may be interpreted as indicating that investor directors are suspected by shareholders to act in the interest of a particular investor rather than in the general interest of shareholders and that a director with a material business relationship with the company is seen as putting their interest ahead of their director duties. Similarly, we show that directors with family ties with the CEO or the founder have a negative impact on shareholder satisfaction (at the 10% level). Thus, emotional ties to management could compromise director's independence.

Finally, the only sub-group of affiliated directors that has a positive and significant impact (at the 1% level) on director election results is the founder sub-group. Investors view the presence of the firm’s founder on the board in a positive light. This may be due to both their firm-specific knowledge and their sentimental attachment to the firm.

The effect of the combination of the CEO and chairperson roles on firm value has also been the subject of much debate amongst shareholder groups, scholars, directors and regulators (Kang and Zardkoohi, 2005). On the one hand, agency theorists argue for a separation of CEO and chairperson responsibilities, as concentrating both roles in the hands of one person promotes CEO entrenchment and opportunistic behaviour and reduces board independence. On the other hand, stewardship theorists assert that there is no motivational problem among executives and that it is in the shareholders’ interest to concentrate the power and authority in one person (Donaldson and Davis, 1991).

The perception by shareholders of the CEO and chairperson’s presence on the board could therefore depend in part on whether or not there is a separation of roles between the CEO and the chairperson. To test this hypothesis, we again divided our sample into subgroups. We split our variable ‘CEO’ into ‘CEO and chairperson’ and ‘non-chairperson CEO’ and our variable

‘chairperson’ into ‘CEO and chairperson’ and ‘non-CEO chairperson’<sup>4</sup>. The results are presented in columns (8) to (12) of Table 6.

As shown previously in model (1) of Table 6, the presence of the CEO on the board is viewed neutrally by investors. However, this result hides important differences depending on whether the roles of CEO and chairperson are concentrated or not. While dual CEOs receive significantly fewer ‘for’ votes (at the 1% level) than other board members [column (8)], CEOs who are not the chairperson of their firm receive significantly more ‘for’ votes [at the 1% level, in column (9)]. In other words, the CEO’s presence on the board is appreciated by shareholders only if the roles of CEO and chairperson are separated, which is consistent with the agency theory.

Column (10) of Table 6 shows that chairpersons receive significantly fewer ‘for’ votes (at the 1% level) than other directors. Again, this result hides differences across our two sub-groups. When the chairperson is also CEO, he or she receives significantly fewer ‘for’ votes (at the 1% level) but when the chairperson is not the firm’s CEO (column 11), he or she receives votes in line with the other board members. This result confirms that the leadership structure matters to shareholders and is consistent with the agency theory.

Model 12 shows that lead independent directors receive significantly fewer ‘for’ votes (at the 1% level). This result complements Lamoreaux et al.’s work (2019), which finds that investors respond positively to the adoption of a lead independent director board structure. It seems indeed that shareholders welcome a lead independent director appointment but that they use their vote to express their dissatisfaction regarding the firm’s leadership structure by voting ‘against’ or by abstaining from voting.

The final model in column (13) includes all variables in the same regression (except chairman and CEO, which are linear combinations of other variables). Except for former CEO that is now non-significant, our findings mimics those in the prior models.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Excess % of 'for' votes												
CEO	-0.001 (-0.69)												
Former CEO		0.004** (2.56)											0.000 (0.11)
Employee			-0.007*** (-3.46)										-0.008*** (-3.64)
Investor Director				-0.026*** (-3.49)									-0.026*** (-3.32)
Business Relationship					-0.020*** (-5.04)								-0.020*** (-4.78)
Family						-0.005* (-1.74)							-0.002 (-0.63)
Founder							0.010*** (3.67)						0.010*** (3.12)
CEO and Chairperson								-0.008*** (-7.46)					-0.009*** (-9.12)
Non-Chairperson CEO									0.008*** (8.76)				0.006*** (6.18)
Chairperson										-0.004*** (-5.05)			
Non-CEO Chairperson											0.001 (0.82)		-0.000 (-0.29)
Lead Independent Director												-0.005*** (-4.35)	-0.006*** (-4.95)
Constant	0.008 (0.77)	0.007 (0.72)	0.010 (1.04)	0.009 (0.90)	0.005 (0.49)	0.009 (0.86)	0.007 (0.74)	0.016 (1.54)	-0.004 (-0.43)	0.010 (1.01)	0.007 (0.69)	0.004 (0.42)	0.013 (1.28)
Observations	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216	25,216
R-squared	0.083	0.084	0.085	0.087	0.086	0.084	0.084	0.086	0.086	0.085	0.083	0.085	0.100
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6: Do all inside and affiliated directors have the same value for shareholders and does dual leadership structure matter for shareholders? Robust t-values in parentheses clustered on industry \*, \*\*, \*\*\*, indicate statistical significance at the 1%, 5% and 10% levels, respectively.

### 3.3 Endogeneity Concerns

This subsection aims to ensure that our findings are not driven by potential endogeneity in our main independent variables. Even though our setting effectively excludes endogenous firm level variables (valuation, profitability etc.), unobserved director characteristics could still drive our results. Therefore, we extend our analysis by endogenizing our main independent variables (Independent, Insider and Affiliated). Since, the independent variables of interest are indicator variables, a normal two-stage least squares estimation will be subject to Hausman's (1978) "forbidden regression" problem. Therefore, we conduct the three-stage procedure suggested by Wooldridge (2010). The procedure involves running a probit model in the first stage including the excluded and included instruments, then use the fitted values from the probit as excluded instrument in a two stage least squares model (see, e.g., Adams et al, 2009 for the use of the procedure).

Our excluded instruments follows from Yang and Zhao (2014), and Liu et al., (2015), that use the percentage of independent/insider/affiliated directors within the firm's 2-digit SIC industry (excluding the firm in the calculation). The idea behind using the percentage of directors within the industry is that this percentage is likely to be affected by industry characteristics and conditions but not affect the within-firm voting outcome. We argue that the percentage of independent/insider/affiliated directors satisfies the inclusion restriction, by having an impact on the likelihood of being independent/insider/affiliated in the first stage. The F-stats for the percentage of independent/insider/affiliated are 12.70/ 15.64/ 18.48 respectively. We can only argue for the exclusion restrictions, although it is unlikely that other firms' percentage of directors should have direct impact on the excess votes individual directors obtain.

Columns (1) to (3) of Table 7 report the last stages in our IV-estimation procedure. Consistent with prior estimates, independent directors have better voting outcomes. After instrumenting inside directors, they have negative voting outcomes, while affiliated directors are unrelated to the voting. Given that our instruments are valid, our findings confirm that Independent and Inside are not subject to omitted variable bias. We therefore conclude that independent directors are seen as valuable for shareholders and that inside directors have a negative impact on shareholder satisfaction which is consistent with agency theory and not with stewardship theory.

	(1)	(2)	(3)
	Excess % of votes for		
Independent (instrumented)	0.017** (2.56)		
Inside (instrumented)		-0.021** (-2.16)	
Affiliated (instrumented)			0.013 (1.59)
Gender	-0.001 (-0.57)	-0.001 (-0.67)	0.002** (2.38)
Incumbent	-0.005*** (-3.89)	-0.004*** (-3.67)	-0.004*** (-3.31)
Attendance	-0.075*** (-9.46)	-0.076*** (-9.68)	-0.077*** (-8.14)

Ownership	0.192** (2.43)	0.220** (2.12)	-0.031 (-0.52)
Tenure	-0.001*** (-6.51)	-0.001*** (-5.75)	-0.001*** (-14.43)
Other Public Boards	-0.006*** (-12.37)	-0.006*** (-11.28)	-0.005*** (-13.64)
Age	-0.000** (-2.04)	-0.000* (-1.78)	0.000 (0.97)
Main Shareholder	0.002 (0.69)	-0.002 (-0.64)	-0.006 (-1.49)
Observations	25,216	25,216	20,866
R-squared	0.064	0.043	0.069
Model	2SLS	2SLS	2SLS
F-stat first stage (for excluded instruments)	12.70	15.64	18.48
Industry FE	Y	Y	Y
Year FE	Y	Y	Y

Table 7: Endogeneity concerns. Robust t-values in parentheses clustered on industry. \*, \*\*, \*\*\*, indicate statistical significance at the 1%, 5% and 10% levels, respectively.

## 4. Conclusion

The previous literature gives rise to two competing theories regarding the relationship between board independence and firm performance: the agency theory, which posits a positive relationship between the proportion of independent directors and firm performance and the stewardship theory, which posits the opposite.

The originality of this paper, rather than directly studying the correlation between board independence and firm performance, as in previous studies, is to analyse how investors perceive board independence through director election results. The main idea is that independent directors should receive more ‘for’ votes during director elections if they are valuable to shareholders. Using shareholder voting as a director-level measure of shareholder satisfaction allows for concerns about omitted firm-level characteristics to be overcome<sup>5</sup> and for the proposal of a finer analysis of the value of board independence/affiliation for shareholders (Chen and Guay, 2020).

Overall, our results are consistent with the agency theory. We show that independent directors receive significantly more and inside directors significantly fewer ‘for’ votes in director elections than other board members. Moreover, we show that not all inside and affiliated directors hold the same value for shareholders. While the presence of the founder on the board is positively perceived by shareholders, the presence of employees, investor directors or directors with business relationships with the firm is not appreciated and the presence of family directors has no significant impact on director election outcomes.

Finally, we show that the leadership structure matters to shareholders and that they express their dissatisfaction at the ballot box. Dual CEOs and lead independent directors receive fewer ‘for’ votes but when the roles of chairperson and CEO are separated, CEOs receive more ‘for’ votes and chairpersons are not penalized relative to other board members.

## Notes

<sup>1</sup> Cai et al. (2009) showed the existence of a positive and significant link between board independence and the percentage of votes in favour of a nominee. Hillman et al. (2011) have documented that affiliated directors are positively related to votes withheld but that director independence is not. On the contrary, Ertimur et al. (2018) find a negative relationship between the percentage of votes withheld and director independence. Thus, while previous work tried to establish a link between board independence and director votes we have split our ‘inside directors’ and ‘affiliated directors’ variables into sub-variables to analyze whether all inside and affiliated directors have the same value for shareholders which allows us to better understand the relationship between director independence/affiliation and director election results.

<sup>2</sup> <https://www.sec.gov/>.

<sup>3</sup> The sum of the independent, inside and affiliated directors is greater than 1 since some directors are affiliated and insiders. This is the case, for instance, for family members of the founder who are also the CEO or an employee of the firm.

<sup>4</sup> A definition of these variables is proposed in Table 1.

<sup>5</sup> By omitted firm-level characteristics, we mean both time-invariant and time-varying firm characteristics, such as firm performance, firm growth opportunities, and firm information-environment features. Our approach does not rule out director characteristics, such as director's social network or media exposure.

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