

# Monitoring the Monitor: Distracted Institutional Investors and Board Governance

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## **Monitoring the Monitor: Distracted Institutional Investors and Board Governance**

### **Abstract**

While board decisions are crucial to shareholder wealth, the literature often overlooks how shareholder monitoring shapes board governance. Using exogenous variations in investor monitoring intensity caused by unrelated return shocks in portfolio firms, we find that institutional investor distraction weakens board oversight. Distracted institutional investors are less likely to use their votes to discipline ineffective independent directors. As a result, independent directors miss more meetings and firms also hold fewer board meetings. Further, firms with distracted institutional investors have more conflicted directors on their boards, experience higher CEO excess pay and accept greater earnings management, indicating poorer board monitoring quality. Our findings suggest that institutional investor monitoring represents an important determinant of board monitoring incentive.

**Keywords:** *Board of directors, Shareholder activism, Institutional investors, Board monitoring, Shareholder voting, Corporate governance.*

**JEL classification:** *G23, G34.*

## 1. Introduction

Large shareholders and the board of directors are two key corporate governance mechanisms. Due to the legal and regulatory limits on the power of large shareholders in the United States<sup>1</sup>, large shareholder actions are primarily channeled through the board of directors. The board of directors serves as the “gatekeeper” of all shareholder proposals, and approves almost all major corporate decisions. The board is also charged with monitoring management, hiring and firing of CEOs, and setting executive compensation. Board decisions are crucial to enhancing shareholder value. Yet, since the exchange listing rule changes in 2003, boards of directors are primarily composed of outside directors with limited knowledge of firm operations and weak financial incentives to closely monitor management. This raises an important issue of how reliable are boards of directors in representing shareholder interests.

While the board is a powerful governance mechanism for monitoring managers, what motivates directors to monitor? Who monitors the board monitors? Shareholders have implicit rights to monitor the board given their power to elect directors, but due to the classic free rider problem, few shareholders in diffusely-held corporations have sufficient financial incentives or expertise to closely monitor the board (Berle and Means, 1932). The fundamental problem is that a small shareholder bears the full cost of monitoring, but only captures a tiny fraction of the resulting gain in firm value. One major exception to this statement are institutional shareholders, who are financially sophisticated, often hold relatively larger investment positions, and are able to persuasively communicate with other institutional shareholders about their assessments of firm performance.

We examine whether institutional investors improve board monitoring. Several recent studies show that institutional investors in general improve corporate decision making and

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<sup>1</sup> In the U.S. shareholders cannot directly initiate business transactions or charter amendments, nor modify those proposed by directors. In contrast, shareholders in the U.K., Japan, and France can force these decisions if the proposals receive a majority vote (Hansman and Kraakman, 2001).

thus, firm value.<sup>2</sup> However, the evidence of successful shareholder activism on board governance to date remains very limited. Moreover, given the significant board powers over major corporate decisions, the success of shareholder activism generally cannot be achieved without investors exerting influence over the board of directors. Yet, strong boards and large outside shareholders are often seen as alternative mechanisms for constraining agency problems (Bebchuk and Weisbach, 2010). Our study helps to extend our current understanding of how institutional investors improve firm performance by exerting influence over the board of directors. We show that institutional monitoring affects board incentives to monitor. Reduced institutional monitoring leads to the appointment of weaker new directors, worse board structures, and more generally, lowers the effectiveness of board monitoring. As a result, firms with reduced institutional monitoring hold fewer board meetings, exhibit higher CEO excess pay, and experience greater earnings management, which are all associated with worse board oversight.

The large literature on monitoring by institutional investors often focus on two channels of influence: 1) improve governance through “voice” (active intervention), which usually involves private negotiations with management and boards and voting on governance issues, and 2) improve governance by threat of “exit.” We develop hypotheses below to highlight the possible channels through which institutional investors may or may not actively intervene in board governance.

There are reasons why institutional investors may actively intervene to improve board governance. Studies that go “behind-the-scenes” generally show evidence that institutional investors actively intervene by engaging management and directors in active discussions.<sup>3</sup> Less is understood about whether such interventions result in changes in board structure and director incentives. A board of directors is the only representation that shareholders have in

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<sup>2</sup> For instance, Doidge, Dyck, Mahmudi and Virani (2015); Appel, Gormley and Keim (2016); Kempf, Manconi and Spalt (2016); and Li, Liu, and Wu (2016).

<sup>3</sup> See e.g., Becht et al. (2010); Carleton, Nelson, and Weisbach (1998); McCahery, Sautner, and Starks (2016).

the firm that makes or approves major corporate decisions. Thus, the incentives of boards to act in shareholder interests is very important in minimizing agency problems within the firm. It is unclear, however, whether the labour market for directors sufficiently punishes poorly-performing directors (Fahlenbrach, Low, and Stulz, 2016).<sup>4</sup> Furthermore, independent directors may have insufficient financial incentives to actively monitor a firm's management on a consistent basis (Yermack, 2004). Moreover, the existing literature documents that certain types of directors are ineffective monitors. For example, independent directors who are more socially dependent on the CEO, busy directors, non-domestic directors, and co-opted directors tend to be less effective monitors.<sup>5</sup> In the absence of effective board monitoring, institutional investors can be exposed to severe agency problems and experience significant losses. Thus, monitoring boards to ensure they perform their fiduciary duties should be a critical channel through which investors can seek to maximize their returns on investments.

On the other hand, institutional investors may not actively intervene to improve board governance for various reasons. First, shareholder monitoring is subject to the classical free-rider problem as discussed in Grossman and Hart (1980) and Shleifer and Vishny (1986). Specifically, institutional investors bear all the costs of intervention, but only realize a fraction of the benefits. Even if an institutional investor has a stake large enough to justify its monitoring costs, it may still not intervene or intervention might be hindered for various other reasons (Kahn and Winton, 1998; Edmans and Manso, 2011). Second, the threat of exit makes active intervention less important as the potential stock underperformance upon exit by blockholders may be a sufficient threat to motivate managers to work hard (Kahn and

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<sup>4</sup> Past literature on the directorial labor market impact of poor monitoring by directors mostly focuses on extreme events such as earnings restatements (Srinivasan, 2005), financial fraud lawsuits (Fich and Shivdasani, 2007), bankruptcies (Gilson, 1990), and option backdating (Ertimur, Ferri, and Maber, 2012).

<sup>5</sup> See for example, Chidambaran, Kedia and Prabhala (2011), Coles, Daniel, and Naveen (2014), Falato, Kadyrzhanova, and Lel (2014), Fich and Shivdasani (2006), Fracassi and Tate (2012), Hwang and Kim (2009) (2012), Masulis and Mobbs (2014), and Nguyen (2012).

Winton, 1998; Maug, 1998).<sup>6</sup> Third, certain types of institutional investors do not have the appropriate incentives to pursue costly intervention. For example, passive investors may simply track the index and invest in many firms to diversify their portfolio risks. Similarly, “grey investors” may not have incentives to monitor the board, but to be manager-friendly, so as to continue to sell their companies’ products to the firm (Davies and Kim 2007).

Finally, even if institutional investors actively intervene to change firm policies, it is unclear whether shareholder monitoring and board monitoring are close substitutes for mitigating shareholder-manager agency conflicts. Institutional shareholders can directly monitor management and thus, obtain direct influence over major corporate decisions, which negates the need to intervene in board governance. Also, activist institutional investors can join the boards to directly effect changes (Gow, Shin, and Srinivasan, 2014) without the need to influence monitoring by other board members. Thus, it is unclear whether institutions actively intervene to affect board governance.

We construct an investor distraction measure to test the above hypothesis. As Edmans (2014) observes, identifying a causal effect of shareholder activism on firm governance is difficult since changes in ownership structure may be the result of changes in expected firm profits, instead of being the cause of them. Following Kempf, Manconi, and Spalt (2016), we address such endogeneity concerns by utilising the exogenous variations in institutional shareholder attention caused by exogenous return shocks to other portfolio firms in unrelated industries to capture reductions in the level of institutional shareholder monitoring. Consider the following example helps to illustrate a monitoring distraction. Suppose there are two large stock holdings in a mutual fund investor’s portfolio, namely a bank, and a pharmaceutical firm. When the pharmaceutical industry is experiencing a large return shock, the mutual fund manager needs to allocate more time and effort to monitoring the pharmaceutical firm.

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<sup>6</sup> Recent models have however shown that the exit mechanism may sometimes complement and strengthen the voice mechanism (e.g., Edmans and Manso, 2012).

Assuming the attention and effort of a fund manager is in limited supply, we expect the bank to receive less attention, hence reducing the monitoring intensity the mutual fund manager gives to the bank.<sup>7</sup> To the extent that shocks to a fund's portfolio firms in other industries are unrelated to the focal firm's fundamentals, this measure captures the exogenous variation in institutional investor monitoring intensity that is orthogonal to the focal firm's fundamentals.

Generalizing on this idea, we aggregate industry shocks using the weights of the shocked industries in an institutional shareholder's portfolio, to construct an investor-level measure of exogenous distractions experienced by each institutional shareholder towards a given firm in a given quarter. Next, we construct a focal firm-level investor distraction measure by summing the distraction levels of all the firm's institutional shareholders, weighting them by each institution's importance in the focal firm's ownership structure, since institutional shareholders with small shareholdings are unlikely to exert much monitoring effort, even in the best of times.

Shareholder voting in director elections represents a primary mechanism for owners to exert influence over boards and ultimately corporate decisions. To uncover the observable channel through which investor distraction affects director incentives to monitor, we first investigate the voting behavior of institutional investors in director elections. Using the investor-level measure for mutual fund distraction, we find that mutual funds are less likely to challenge director candidates with negative votes or withhold their votes when they are distracted. Economically, a 1% rise in a mutual fund investor's distraction level is associated with a decline in the likelihood that the investor votes against an independent director candidate in the annual shareholder meeting by 2.8%. Moreover, the results are stronger

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<sup>7</sup> In a similar manner, Kacperczyk, Van Nieuwerburgh, and Veldkamp (2016) model how mutual fund managers, due to their finite mental capacity, optimally choose to allocate their limited attention to different information depending on the business cycle. Consistent with the idea of limited resources on the part of institutional investors, in their survey of institutional investors, McCahery, Sautner, and Starks (2016) find that limited resources (personnel) and "too many firms in our portfolio" rank as important impediments to shareholder activism.

among a subset of directors who tend to be less effective monitors: a 1% rise in the mutual fund investor's distraction level leads to a 4.3% fall in the likelihood of the investor voting against directors who are busy or are socially-connected to the CEO.

Further, we examine how the distraction by multiple institutional investors of a firm affects director voting outcomes. We find that independent directors with a negative ISS voting recommendation receive significantly more favourable votes from institutional shareholders, when these investors are distracted. Economically, a 1% increase in investor distraction raises the percentage of favourable votes received by an independent director with a negative ISS recommendation by 1.5%. Institutional investor distraction also significantly increases the proportion of favourable votes received by all independent directors, after we exclude firms that have dual-class shares structures and closely-held firms where institutional investors have weak voting power. We further decompose total distraction and find that the effect of a distraction at active monitoring institutions is more pronounced, while a distraction at a grey institution has no significant effect. In addition, the sensitivity of director departures to negative ISS recommendations and poor voting results is also significantly lower when institutional shareholders are distracted.

Taken together, the voting results above indicate that independent directors are significantly less likely to be disciplined by proxy voting outcomes when institutional shareholders are distracted. This result is more pronounced for controversial director candidates such as busy and socially dependent directors, and directors with negative ISS recommendations. We thus examine how weakened board oversight by institutional shareholders affects director monitoring intensities. We find that independent directors miss more board meetings when institutional shareholders are distracted. Specifically, a 1% rise in the distraction level leads to about 0.3% increase in the probability that a director attends less than 75% of board meetings. Consistent with Masulis and Mobbs (2014) who find that



independent directors less effort to smaller and less prestigious firms, the distraction effect on independent director voting is weaker in larger firms and stronger in smaller firms.

We also find that investor distraction is significantly associated with lower board meeting frequencies. Specifically, we find that a 1% rise in the institutional investor distraction is associated with a decline in the number of board meetings over the year by up to 6%. To the extent that the meeting attendance record and frequency of board meetings are important signals of director monitoring efforts, these findings suggest that the institutional investor monitoring has important implication for director efforts and monitoring incentives.

Finally, we examine how institutional investor distraction affects board monitoring effectiveness. We first test whether institutional investor distraction leads poorer board composition. We find strong evidence that when institutional investors are distracted, firms appoint significantly more controversial directors, who are busy directors or have social ties with the CEOs. Economically, a 1% rise in institutional investor distraction leads to nearly 2% rise in the likelihood of controversial directors serving on the board. Institutional investor distraction also leads to significantly greater CEO excess pay. Economically, 1% increase in investor distraction is predicted to raise the chance of high excess CEO pay by 3.6%. In addition, firms with distracted investors exhibit significantly more earnings management. Taken together, institutional shareholder distraction leads to significantly poorer board monitoring quality and effectiveness.

Our paper contributes to the literature on corporate governance in several ways. First, our paper contributes to the literature by extending our understanding of what motivates independent directors to do their job well and monitor management carefully. While it is well known that board of directors make important corporate decisions with economically large impacts on shareholder value, director incentives to monitor managers are not well-understood. It is unclear why directors with limited financial incentives are willing to exert

effort to monitor managers (Yermack, 2004). Fama and Jensen (1983) argue that director reputational concerns help improve their incentives, and recent studies show that reputational concerns affect director incentives to perform their roles as effective monitors.<sup>8</sup> We improve our understanding of director incentives by showing that monitoring by institutional investors matters for effective director monitoring incentives.

Second, our study shows that institutional shareholder monitoring enhances board effectiveness, and furthers our understanding of how institutional investors intervene to improve board governance and firm value. Existing studies that examine shareholder interventions in corporate governance emphasize the actions of shareholder activists, including the use of proxy contests and law suits.<sup>9</sup> However, such observable shareholder activism is rare and only happens to a relatively small group of firms, and is conducted by a very select group of activist institutional investors such as hedge funds.

Given that board powers are large and wide-ranging, improvements in corporate decisions and firm value can hardly be achieved without an effective board. Thus, we argue that board monitoring is a much more important channel through which shareholders can maximize their share value. Given its importance, evidence on shareholder actions to improve board functioning is surprisingly scarce.<sup>10</sup> We help fill this gap in the existing literature, and show that monitoring by institutional investors in general significantly improves board effectiveness. Importantly institutional monitoring affects board monitoring effectiveness on

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<sup>8</sup> For instance, Jiang, Wan, and Zhao (2016); Masulis and Mobbs (2014); Levitt and Malenko (2016).

<sup>9</sup> See e.g., Brav et al. (2008) on hedge fund activism, Del Guercio and Hawkins (1999) on the impact of shareholder proposals put forward by public pension funds, Doidge et al. (2016) on the activities of Canadian Coalition for Good Governance, a formal collective action organization of institutional investors, Del Guercio, Seery, and Woidtke (2008) on vote-no campaigns, Gillian and Starks (2000) on detailed analysis of shareholder proposal voting outcomes. See also Gillian and Starks (2007), Denes, Karpoff, and McWilliams (2016) for reviews on shareholder activism.

<sup>10</sup> Outside shareholders can submit Rule 14a-8 shareholder proposals relating to board independence and other board issues but they are often ineffective in eliciting change (Gillian and Starks, 2007; Denes, Karpoff, and McWilliams, 2016). Activist shareholders can also organize “just vote no” campaigns to withhold votes from directors but Del Guercio, Seery, and Woidtke (2008) show that such campaigns are often targeted at large, poorly performing firms and are typically sponsored by public pension funds. The frequency of such campaigns are also not frequent, they find only 112 publicly announced campaigns for the 13 year period from 1990 to 2003.

a regular basis, and not just on an ad-hoc basis. Furthermore, we show that the impact of institutional investor monitoring goes well beyond simply engaging management and boards of directors to effect changes in firm policies. We show that a lack of monitoring by institutional investors can lead to declining board effectiveness, in part due to poorly chosen changes in board composition and in part due to the existing directors reducing their own monitoring efforts in response to reduced pressure from institutional investors.

Our study is also related to the literature that how corporate governance mechanisms interact with each other. Existing evidence is mixed as to how governance mechanisms interact with each other (Agrawal and Knoeber, 1996; Cremers and Nair, 2005; Gillan, Hartzell, and Starks, 2011), and it remains unclear whether the monitoring roles of the board and institutional shareholders are complements or substitutes. We contribute to this literature by showing that the monitoring function of corporate boards, a key internal governance mechanism, depends crucially on the effectiveness of institutional investor shareholder monitoring, which acts as a complementary internal governance mechanism.

Lastly, we contribute to the literature that examines the impact of institutional investor monitoring on firm policies and governance outcomes. Monitoring by institutional investors is found to have a positive impact on a firm's governance indices, CEO compensation, mergers and acquisitions profitability, firm risk-taking and reduced earnings management.<sup>11</sup> However, endogeneity makes it difficult to interpret the results. For example, Chung and Zhang (2011) conclude that the positive association between institutional ownership and good governance structure is driven by institutional investors gravitating towards firms with good governance so as to minimize their own monitoring costs. Recent studies have used the annual reconstitution of the Russell 1000 and 2000 indexes as an exogenous shock to examine how changes in passive institutional ownership affect firm

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<sup>11</sup> Examples include: Hartzell and Starks (2003), Aggarwal et al. (2011), Chen, Harford, and Li (2007), Cornett, Marcus, Tehranian (2008 Aghion), Van Reenen, and Zingales (2013), and Kim and Lu (2011).

governance and policies.<sup>12</sup> Our study differs from theirs in that we focus on how institutional shareholder monitoring intensity affects board monitoring intensity and we examine all types of institutional investors, not just passive institutional investors.

## 2. Variable constructions, data, and descriptive statistics

### 2.1. Distraction measure

We follow Kempf, Manconi, and Spalt (2016) to construct a distraction measure for each institutional investor  $i$  in a given firm  $f$ . We first identify industry sectors that are unrelated to firm  $f$  in investor  $i$ 's portfolio which suffer serious return shocks to determine when investor  $i$  is likely to be distracted by these exogenous events in other industries and is thus likely to shift his attention away from firm  $f$ . These industry shocks are then aggregated across all the industry sectors in the institutional investor's portfolio. Second, we aggregate the investor-level distraction measure across all institutional investors of the firm to arrive at a firm-level distraction measure.

To calculate these two distraction measures, we define the level of distraction experienced by the institutional investors of firm  $f$  in a given quarter  $q$  as:

$$Total\ Distraction_{f,q} = \sum_{i \in f} \sum_{IND \neq IND_f} w_{i,f,q-1} \times w_{i,q-1}^{IND} \times IS_q^{IND}$$

where  $i$  denotes firm  $f$ 's institutional investor at the end of quarter  $q-1$ ,  $IND$  denotes Fama-French 12 industry sector, and  $IND_f$  denotes the industry sector in which firm  $f$  belongs.  $IS_q^{IND}$  is an indicator variable equal to one if industry  $IND$  experiences a shock in quarter  $q$ , and zero otherwise. An industry is deemed to have experienced a shock if the industry's return for the quarter is either the highest or lowest across all the Fama-French 12 industry

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<sup>12</sup> Appel, Gormley, and Keim (2016) find that an increase in passive institutional ownership increases board independence while Schmidt and Fahlenbrach (2016) find no change in board independence and appointments of independent directors are met with worse announcement returns when passive institutional ownership increases.

sectors. Next, we weight these shocks to capture their economic importance. The variable  $w_{i,q-1}^{IND}$  denotes the weight of industry sector  $IND$  in investor  $i$ 's portfolio in the prior quarter  $q-1$ , which represents the importance of industry sector  $IND$  in institutional investor  $i$ 's portfolio.

The two terms,  $w_{i,q-1}^{IND}$  and  $IS_q^{IND}$ , capture investor  $i$ 's level of distraction away from firm  $f$ , when events occur in unrelated industries of investor  $i$ 's portfolio. To aggregate across institutional investors of a firm, we weight the level of distraction of each investor  $i$  in firm  $f$  by  $w_{i,f,q-1}$  which denotes the importance of investor  $i$  in firm  $f$  in the prior quarter,  $q-1$ . Investor  $i$  have more weight if 1) firm  $f$  has more weight in  $i$ 's portfolio and 2) investor  $i$  owns a larger fraction of firm  $f$ 's shares. Following, Kempf et al. (2016), we compute  $w_{i,f,q-1}$  as:

$$w_{i,f,q-1} = \frac{QPFWweight_{i,f,q-1} + QPercOwn_{i,f,q-1}}{\sum_{i \in F, q-1} (QPFWweight_{i,f,q-1} + QPercOwn_{i,f,q-1})}$$

where  $PFweight_{i,f,q-1}$  is the weight of the market value of firm  $f$  in investor  $i$ 's portfolio, and  $PercOwn_{i,f,q-1}$  is investor  $i$ 's percentage ownership in firm  $f$ . The former measures how much time the investor is likely to spend in analyzing firm  $f$ , and the latter measures how much influence investor  $i$  can have in the firm. We sort all stocks held by investor  $i$  into quintiles by  $PFweight_{i,f,q-1}$  and all investors of firm  $f$  into quintiles by  $PercOwn_{i,f,q-1}$ .  $QPFWweight_{i,f,q-1}$  and  $QPercOwn_{i,f,q-1}$  take values from 1 to 5 depending on which quintile  $PFweight_{i,f,q-1}$  and  $PercOwn_{i,f,q-1}$  fall within, respectively. The weights  $w_{i,f,q-1}$  sum to 1 for each firm  $f$  after scaling by the denominator. It follows that higher values of *Total Distraction* indicates that the institutional shareholders in firm  $f$  are more distracted by attention-grabbing returns from unrelated industry sectors, and therefore their overall monitoring intensity of firm  $f$ 's board is temporarily reduced.

There are several important advantages of using this distraction measure. First, to the extent that the shock to the portfolio firms in another industry are unrelated to the focal firm's fundamentals, this measure captures the exogenous variation in institutional shareholder monitoring that is orthogonal to the focal firm's fundamentals. Moreover, the shareholder distraction measure accounts for the importance of the shocked industries to the institutional shareholder by using their portfolio weights, and for the firm-level distraction measure, we further adjust for the importance of each institutional shareholder's distraction using their percentage ownership in firm  $f$ . Thus, we are able to measure the *magnitude* of the distractions experienced by individual institutional shareholders and the resulting impact of the distraction on the monitoring intensity of firm  $f$ 's board in a given period. These features allow us to further investigate the cross-sectional variation of their effects. Finally, as we are able to measure the distraction level of each institutional shareholder, we are able to differentiate among institutional investors whose distraction is likely to matter most for monitoring of boards, which provides us with natural counterfactuals where the distraction measure is least likely to have any discernible impact.

In addition to our main distraction measure, we also calculate several alternative distraction measures. Since we have the voting data on individual mutual fund, we can analyze the voting behavior of mutual fund investors when they become distracted. We calculate a mutual fund distraction metric using a similar approach as above, except that we do not aggregate up the fund-level measures across all the mutual funds holding shares in the firm. To construct a fund-level distraction measure, we merge the CRSP mutual fund sample with the Thompson-Reuters mutual fund holding database (S12 fillings).<sup>13</sup> We also construct distraction measures focusing on institutional investors that are most likely and least likely to monitor. In addition, we construct distraction metrics based on the firm's largest 5, 10, or 20

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<sup>13</sup> Since the fund number from S12 filings is reused, we use the WFICN from MFLINKS file as the unique fund identifiers to merge CRSP mutual fund sample and S12 datasets.

institutional shareholders to capture only the largest and therefore most influential shareholders. Additionally, we calculate distraction measures differentiating between positive and negative industry shocks, where positive (negative) shocks refer to situations where the industry sector has the highest (lowest) stock returns across all 12 Fama-French industry sectors.

## *2.2. Data and sample formation*

Our main sample comes from the intersection of several databases. We start with firm-years in the RiskMetrics director database, which contains information on board structure and director characteristics. We obtain information on institutional investors' shareholdings from Thomson-Reuters Institutional Holdings (13F) database to construct the distraction measure. We then merge the director and institutional holding data with the firm accounting and stock returns data from Compustat and CRSP, respectively.

In the initial merged dataset, firm-years with missing information on board structure, missing values for the distraction measure, and missing values for the main control variables from Compustat are deleted. Financials and utilities are also excluded. We include all outside directors in our merged sample. In our main analysis, we focus on independent directors and use grey directors as a control group for placebo tests.<sup>14</sup> Requiring information on major control variables results in a sample that consists of 114,293 independent director-firm-years from 16,391 firm-year observations for 17,032 unique directors in 2,155 unique firms for the period 1996 to 2013.

We also obtain shareholder voting data from ISS Voting Analytics for the period 2003 to 2012 and director social ties data from BoardEx since 2004. We merge ISS Voting Analytics and BoardEx with RiskMetrics director data using company and director names.

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<sup>14</sup> Unlike independent directors, grey directors are not viewed as reliable monitors of management. Therefore, if institutional monitoring affects director incentives to monitor management, we expect stronger results for the independent directors compared to the grey directors.

After requiring director election results data from Voting Analytics and director-CEO social ties data from BoardEx, we end up with 45,966 director elections in 6,952 shareholder meetings of 1,408 unique firms for the period 2004 to 2012. In these elections, we observe 7,848 mutual-fund-years casting 1,717,725 votes.

### 2.3. Descriptive statistics

Table 1 provides summary statistics for our key variables. Detailed descriptions of each of the variables can be found in Appendix A. Panel A summarizes the means, medians, 25<sup>th</sup> and 75<sup>th</sup> percentile, and the standard deviation of the institutional investor distraction measures. For our fund-level distraction measure, the mean and median mutual fund distraction in our sample is 0.15 and 0.14 respectively, with a standard deviation of 0.07. The mean and median firm-level distraction measure, *Total Distraction*, in our sample is 0.17, while the 25th percentile and 75th percentile values are 0.13 and 0.21, respectively. The distribution of our distraction measure across firms is in line with Kempf, Manconi, and Spalt (2016). We further decompose the firm-level distraction measure to take into account the type of institutions where *Monitoring Distraction (Grey Distraction)* is calculated based on the distraction levels of institutions who are most (least) likely to monitor such as investment companies, independent investment advisors, and public pension funds (bank trusts, insurance companies, corporate pension funds).

Panel B reports summary statistics for director election voting outcomes at the director-firm-election date level and director characteristics at the director-firm-year level. Among the 45,966 director elections, independent director candidates on average receive 96% of “For” votes and 94% of the proposals are recommended favorably by ISS.<sup>15</sup> These proposal-level statistics are similar to those in Cai, Garner, and Walkling (2009).

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<sup>15</sup> We include director elections involving plurality voting and majority voting. Under plurality voting, shareholders can vote “for” or withhold their votes, while under majority voting, shareholders can vote for or vote against a director (Ertimur, Ferri, and Oesch 2015).



*Controversial Director* is an indicator variable equals to one if the director holds more than 3 other directorships during the year, or if the director shares common social ties with the CEO, and zero otherwise. Directors who attend the same educational institutions and/ or non-business organization as the CEO are deemed to be socially connected to the CEO.<sup>16</sup> Requiring social ties data from BoardEx restrict the number of observations to 50,205 director-firm-years. 15% of the directors in our sample are identified as controversial directors, out of which 10% are socially linked to the CEO and 6% are busy directors in our sample. Only 2% of the directors in our sample have attendance problems and director departures are also infrequent events with only 8% of director-firm-year observations see a director leaving the board.

The mean (median) director age is 62 (63) years old and mean board tenure is 11 years and the median is 10 years. Independent directors have on average 1.7 other directorships, with a median number of directorships of 1. Moreover, independent directors generally have weak financial incentives with the mean (median) director equity stake in the firm being only 0.1% (0.03%). This is consistent with our discussion in the introduction section that independent directors in general may not have sufficient financial incentives to deliver strong performance. In addition, 12% of the directors are females and 84% of the independent directors are members of major committees of the board who make important firm decisions.

We report descriptive statistics for board and firm characteristics in Panel C of Table 1 at the firm-year level. The mean and median percentage “for” votes received by

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<sup>16</sup> Although BoardEx uses a unique identifier for each of the educational institutions in the database, the same educational institution may appear under different identifiers (e.g. Harvard University and Harvard Business School). To remedy this problem, we manually match the names of the educational institutions and create new identifiers that uniquely identify each educational institution. For shared social ties at non-business organizations, we include connections at charities, social clubs, and armed forces, and exclude those compulsory professional and industrial organizations where social interaction is unlikely due to the compulsory nature of membership in the organizations (e.g. American Bar Association). For social ties, we start our sample from 2004 because BoardEx only covers limited number of firms before 2004

independent directors is 96% and 98% respectively, which is similar to the director-level statistics. For the period 2004-2012, only 13% of firm-years implement majority voting. The information on staggered board and dual-class ownership structure is from RiskMetrics Governance Database and is available for 13,990 firm-years in our sample. 58% of firm-years in our sample have staggered board provisions. By comparison, only 10% of the firm-years have dual-class ownership structures. Also, the median firm in our sample has 9 directors on the board, and 70% of all directors are independent.

In addition, institutional investors on average own 88% of the common shares in our sample firms, where 47% of the ownership comes from monitoring institutions, and 16% comes from grey institutions. Our statistics indicate that monitoring institutions that have better monitoring incentives are also likely to have large positions and significant voting power to influence the firm's governance.

### **3. Shareholder distraction and voting**

#### *3.1. Mutual fund distraction and fund votes*

In this section, we examine institutional investor voting behavior as an observable channel through which institutional investor distraction affects director's incentives to monitor. Director elections are an important mechanism for shareholders to improve a firm's governance by voting for directors who better represent their interests. Thus, shareholder votes in director elections serve as a critical channel for shareholders to monitor directors' efforts, and a disciplinary mechanism for poorly-performed directors (See e.g., Aggarwal, Dahiya, and Prabhala 2015).

We first look at investor-level distraction and their voting behavior. Only since 2003 are mutual funds required to disclose their votes through N-PX filings to the Securities and Exchange Commission (SEC). Therefore, our mutual fund voting data is only available

from 2003 onwards. We further filter the shareholder votes sample by requiring the mutual funds to be an actively-managed equity funds, and discuss the formation of the sample with more details in Appendix B. For each director election, a mutual fund can vote “For”, “Against” or withhold their votes. According to Cai, Garner, and Walkling (2009), shareholders can express their dissatisfaction by withholding votes, thus “Withhold” is functionally equivalent to “Against”. Therefore, we classify “withhold” as well as “Against” votes as negative votes because withholding votes is functionally equivalent to voting against a proposal, since the final outcome of the voting depends on the percentage of “For” votes among the total votes cast.

We can observe 1,710,792 votes by mutual funds for 47,319 unique director election proposals for 2003-2012. On average, there are only 7% of mutual fund votes are either “against” or “withhold” votes. We first examine the link between investor distraction and investor votes by mutual funds in director elections. The dependent variable we use is *Oppose Director*, which is an indicator variable that equals 1 if the mutual fund votes against or withholds its vote for a particular director in the annual election. We use OLS regressions, *interacted* with fund and year and director election proposal fixed effects in all our specifications, and standard errors clustered at the fund level. Importantly, the *interacted* fund and year fixed effect allows us to control for time-varying fund characteristics including fund performance and fund flows. The director election proposal election fixed effect allows us to control for characteristics for each election proposal, including time-varying director characteristic, firm performance, and ISS recommendation for the elected director. These fixed effects will also wipe out any variations within each director-firm-year. We report our OLS regression results in Table 2.

Not all outside directors are the same. Independent directors are considered to be more effective monitors than grey directors, and we expect shareholders use votes to exert

control of the board primarily through independent directors, but not grey directors. In Panel A of Table 2, we report mutual fund vote results for all outside directors, and compare the effect of fund distraction on the shareholder votes for these two groups of directors. Shareholder votes for grey directors in Model (3) serve as a counterfactual for independent directors in Model (2). We dropped 702 observations due to perfect collinearity between the oppose director variable and the fixed effects in Model (2) and (3), so the sum of number of observations in these two models does not sum up to the number of observations in Model (1).

In Model (1) & (2) of Panel A, we find that the coefficient on *mutual fund distraction* is -0.002 and statistically significant at 5% level. This suggests that mutual fund investors are significantly less likely to challenge management's recommendation on outside and independent director election candidates, when they are distracted during the year. Economically, a 1% increase in the investor's distraction will decrease the chance that the investor votes against an outside director candidate in elections by 2.8% ( $0.002/0.07$ ), adjusted for the unconditional probability of voting against the director (0.07). Also, we use the subsample of grey director as a placebo test and observe no significance effect of fund distraction. This is consistent with our expectation that institutional investors primarily use vote to oversee the board monitors, which are primarily independent directors.

In Panel B, we focus on independent directors and split them into controversial and non-controversial candidates. Controversial candidates are those independent director candidates who hold more than 3 external directorships during the year, or if the director shared common educational institution with or membership of social clubs with the firm's current CEO. We find that the coefficient on *mutual fund distraction* is -0.003 in model (1) and statistically significant at 1% level, suggesting that the impact of fund distraction on the voting pattern is more pronounced for controversial independent directors. The coefficient of fund distraction in the subsample of non-controversial directors is reported in Model (2) of

Panel A, and it is not significant. This indicates that mutual funds are significantly less likely to discipline ineffective directors when they are distracted, but distraction has no effect on the votes for non-controversial directors.

Iliev and Lowry (2014) find that most mutual fund investors are active voters and place little weight on ISS recommendations. Although negative ISS recommendations can capture some ineffective director candidates, they have important limitations and have been accused of making “blanket recommendations” that are uniform recommendations for or against certain director or firm characteristics. We expect mutual funds reduce their own research in director elections, and more likely to vote relying on ISS recommendations when they are distracted. Although the coefficients of fund distraction in model (3) and (4) of Panel B are not significant, we will further exploit voting behaviors by active monitoring institutional investors in Table 3.

We also expect that the monitoring role of institutional investors on the board is stronger when they have more voting powers in the firm. In Panel C, we explore the mutual fund votes in the subsample firms where their votes are more powerful. In Model (1), we exclude firms that have dual-class shares structures or have more than 50% insider ownerships, since the voting rights of shareholders are significantly constrained. In Model (2), we further exclude family firms<sup>17</sup> but the requirement of family firm data also significantly reduces our sample size. We find that the coefficient on *mutual fund distraction* is -0.006 in model (1) and statistically significant at 5%, indicating a much stronger effect of fund distraction in firms without voting power constraints.

In an untabulated test, we examine fund distraction in the sample of all mutual funds covered by ISS Voting Analytics without requiring the fund to be actively-managed. We obtain qualitatively similar results.

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<sup>17</sup> Family firm data is from David Reeb’s personal webpage and available for 2000 largest firms for 2001-2010. <http://www.ronandersonprofessionalpage.net/data-sets.html>

### 3.2. Firm investor distraction and director election results

We further examine the impact of the distraction by the firm's institutional investors on the director election outcome and report OLS results in Table 3. Although independent directors on average receive 96% favorable votes in our sample, which is much more than sufficient to be elected or re-elected, poor vote results still serve as an effective mechanism to punish ineffective directors (Fischer et al., 2009; Aggarwal, Dahiya, and Prabhala, 2015). Our dependent variable is *Percent "Yes" Votes for a Director*, which is the natural logarithm of the number of "for" votes received by a particular director candidates divided by the sum of the "for", "against" and "withhold" votes. We also control for director and firm characteristics that are likely to affect the director's vote result, and the average percentage of "Yes" votes received by all the independent directors in the firm for a given year. All the estimates in Table 3 are from OLS regressions with director, firm and year fixed effects, and standard errors are clustered by directors.

In Model (1) – (4) of Panel A in Table 3, we test investor distraction on director election results in the full sample of firms. Although ISS recommendations have important limitations in identifying ineffective directors, Cai, Garner and Walking (2009) find that ISS recommendations have significant economic impacts on shareholder votes. Thus we also interact negative ISS recommendation with distraction in Model (2), to test whether the effect of ISS recommendation is strengthened or weakened when investors are distracted. We find that coefficient on total distraction is not significant in Model (1), but the coefficient on *Negative ISS* is negative and significant, which is consistent with Cai, Garner and Walking (2009)'s findings. Moreover, but the coefficient of the interaction term in Model (2) is significantly negative, suggesting that directors with less favourable views from the ISS receive significantly more "Yes" votes, when institutional investors are distracted.

Economically, directors with negative ISS recommendation will receive 1.5% more “Yes” votes when there is a 1% increase in the institutional investor distraction. This result indicates that institutional investors in general tend to overlook the ISS recommendations, and are less likely to use votes to discipline potentially problematic director candidates.

In Model (3) and (4) of Panel A, we decompose the total distraction into monitoring and grey distraction. Monitoring distraction measures the distraction by institutional investors who are likely to be better monitors of the firm, including investment companies, independent investment advisors, and public pension funds. Grey distraction captures the distraction by institutional investors who tend to be less independent from the management due to potential business ties, including banks, insurance companies, and corporate pension funds. We do not find significant distraction effect by monitoring and grey institutional investors in Model (3). However, we do observe significant distraction effect by monitoring and grey institutional investors for directors with negative ISS recommendations in Model (4).

As pointed out by Iliev and Lowry (2014), most monitoring institutions like mutual funds are active voters who independently analyze the voting issues, and tend to place little weight on ISS recommendations. Thus we expect monitoring institutions have fewer independent assessments of director candidates and increase their reliance on ISS recommendations when they are distracted. Consistent with this prediction, we find that the coefficient of the interaction of monitoring distraction and negative ISS recommendation in Model (4) is negative and significant, indicating a stronger effect of ISS recommendations on director voting outcomes. By comparison, grey institutions have opposite responses to ISS recommendations when they are distracted. We find that the coefficient of the interaction of grey distraction and negative ISS recommendation is positive, indicating that grey institutional investors are likely to ignore ISS recommendations when they are distracted. Overall, the effect of grey institutions on the relation between ISS recommendation and

director vote results dominates that of monitoring institutions, leading to the positive interaction coefficient of total distraction and negative ISS as reported in Model (2).

In Model (5) and (6), we exclude firms that have dual-class shares structures or have more than 50% insider ownerships (closely-held firms), since the voting rights of institutional shareholders are significantly constrained. After the exclusion, we find a significantly stronger effect of total distraction and monitoring distraction. The coefficient of firm distraction in Model (5) is positive and statistically significant at 5%. Economically, one standard deviation (a 1%) increase in investor distraction will increase the percentage of favourable votes received by the directors by 0.1% (0.003%). The coefficient of monitoring distraction in Model (6) is positive and statistically significant at 5% is statistically significant at 5%, whilst the distraction by grey institutions is not statistically significant. Economically, one standard deviation (a 1%) rise in the distraction by monitoring institutions will increase the percentage of favourable votes received by the directors by 0.2% (0.006%). This economic magnitude is twice larger than that of average investors as reported in Model (5).

In Panel B of Table 3, we further exclude family firms from our sample and find consistent results where the requirement of family firm data will yield a much smaller sample. Importantly, our results are most pronounced in this sample, suggesting that impact of shareholder distraction on director election is more significant for firms with more controls by the institutional investors. Similar to Table 2, we use grey directors' vote results as counterfactuals to independent directors, and show that institutional investor distraction has no significant effect on grey directors. This result confirms that voting for independent directors is a more effective channel for investors to exert control of the board and ultimately corporate decisions.



Overall, we findings support the view that directors generally face less pressure for performance through election vote results when institutional investors are distracted, this effect is more pronounced for directors with negative ISS recommendations.

### *3.3. The sensitivity of director departures to negative ISS recommendation and shareholder voting*

We examine the impact of shareholder distraction on the sensitivity of directors' departures to negative ISS recommendation and director election results. In this section, the dependent variable in all columns is *Director Departure*, an indicator variable equals 1 if the director leaves the board in the following year and 0 otherwise. We first examine the firm distraction and the sensitivity of director departures to negative ISS recommendations. The focal variable of our analysis is the interaction term of firm distraction and negative ISS recommendations.

We estimate OLS regressions with *interacted* industry and year fixed effects and the results are reported in Table 4. Standard errors are clustered by directors in all specifications. In Model (1) of Panel A, we include all outside directors in our sample and find that the coefficient on firm distraction is negative and the coefficient on the interaction term between firm distraction and negative ISS recommendation is positive. Although these coefficients are not statistically significant, the sign of the interaction coefficient suggests that the investor distraction weakens the sensitivity of director departure to negative ISS recommendations for that specific director.

We further perform subsample analysis to identify the scenarios where investors distraction matter the most. Specifically, in Model (2) and (3) of Panel A in Table 4, we include only independent directors in our sample and find that the results are more pronounced compared with Model (1), suggesting that the role of shareholder distraction is

particularly important for the departure decision of independent directors. Economically, 1% rise in institutional investor distraction will weaken the chance for a director with unfavorable ISS recommendations to depart by 3.5%. We find a stronger effect of the distraction by monitoring institutions. Consistent with prior results, investor distraction has no effect on the departures of grey directors as reported in Model (4) of Panel A.

Since poor vote results can serve as an effective mechanism to embarrass or punish ineffective directors (Fischer et al., 2009; Aggarwal, Dahiya, and Prabhala, 2015), we further examine whether in the sensitivity of board turnovers to vote results changes as a result of investor distraction. These results are reported in Panel B of Table 4. The results in Model (1) suggest that the investor distraction significantly weakens the sensitivity of outside director departures to vote results. Economically, 1% rise in investor distraction will weaken the vote-departure sensitivity by 8%. In Model (3), we find the effect of investor distraction on director departure decisions mainly comes from the distraction by monitoring institutions in the subsample of independent directors, but not from the subsample of grey directors.

#### **4. Shareholder distraction and board monitoring intensity**

##### *4.1. Board meeting attendance*

In this subsection we examine whether following a rise in institutional investor distraction, there is a change in the likelihood of outside directors missing a board meeting. Attendance records can serve as an important indicator of the role of outside directors for at least two reasons. One is that attendance records are an observable measure of director performance, which allows us to investigate whether directors behave differently after one or more major shareholders becomes distracted. Another reason is that attending board meetings is a direct way for directors to obtain the information necessary to carry out their duties and exert influence over firm managers. Thus, to the extent that the shareholders' monitoring

intensities decrease when they shift attention away from the firm, we would expect that outside directors would miss more board meetings.

Our director sample consists of 126,778 director-firm-year observations after requiring information on director characteristics and firm financial information, and declines to 60,558 director-firm-years if we further require data on director meeting fees. We estimate linear probability model where our dependent variable is an indicator variable that equals one if a director attends fewer than 75% of a firm's board meetings during the past fiscal year and zero otherwise.<sup>18</sup> The explanatory variables are based on the control variables used in Adams and Ferreira (2009), Masulis, Wang, and Xie (2012) and Masulis and Mobbs (2014). The key explanatory variable in the regressions is *firm distraction*. To account for the time invariant firm and director characteristics, we include firm and director fixed effects in OLS regressions and industry fixed effects in Logit regressions. We also include year fixed effects to account for any possible time trend in OLS and Logit regressions.<sup>19</sup> We follow Petersen (2009) and use robust standard errors clustered at the director level.

Our results are reported in Panel A of Table 5. In Model (1), we include all outside directors in our sample and find that the coefficient on *firm distraction* is positive and statistically significant at 10%, suggesting that outside directors miss more board meeting once institutional shareholders become distracted. Economically, a 1% rise in the distraction level leads to about 0.3% increase in the probability that the director will attend fewer than 75% of the board meetings. In Model (2) - (3), we perform subsample analysis and find the impact of shareholder distraction on meeting attendance concentrated in independent directors.

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<sup>18</sup> Public firms in the U.S. are required to disclose directors' attendance records at board meetings in their annual proxy statement. In particular, they are required to disclose if any director has attended fewer than 75% of the board meetings during a fiscal year. We obtain this information from the Riskmetrics (formerly IRRC) database and match it with director information from BoardEx. We also obtain from ExecuComp database information about director meeting fees. Unfortunately, the meeting fee and board meeting frequencies information is only available for 1996-2006.

<sup>19</sup> In untabulated tests, we find that the distraction's effect on director attendance is significantly weakened in the Post-SOX period. This result is consistent with findings from Masulis and Mobbs (2014).

Importantly, in Model (3), we include an interaction term between *distraction* and the book value of value of total assets and find that the coefficient is negative and significant, suggesting that the impact of shareholder distraction on director meeting attend is more pronounced in smaller firms. This result is consistent with those reported in Masulis and Mobbs (2014) that directors distribute more efforts toward their larger and more prestige firms due to personal reputation concerns, and thus allocate less time and energy in smaller firms when they are busy. In Panel B of Table 4, we estimated logit models with industry and year fixed effects and obtain qualitatively similar results.

For control variables, we find that directors holding a greater number of directorships tend to miss more board meetings. We also find that directors at smaller boards, female directors and directors with major committee memberships tend to miss fewer meetings. These findings are in line with previous studies, such as Adams and Ferreira (2009) and Masulis and Mobbs (2014). Overall, we find strong evidence that the existing directors become less attentive when institutional investors become distracted, highlighting the important impact that institutional shareholder monitoring has on director monitoring intensities. This effect is found to be stronger for smaller firms and weaker for larger and more prestige firms.

#### *4.2. Board meeting frequencies*

In addition to the monitoring intensities of individual directors, we examine the impact of institutional shareholder distraction on board meeting frequencies. Prior literature suggests that board meeting time is an important board attribute that can increase firm value. Directors are more likely to perform their duties of monitoring managers if they meet more frequently (Lipton and Lorsch, 1992, Conger et al., 1998).

In the regression analysis, our dependent variable is the natural logarithm of number of board meetings at the firm in the prior financial year and we cluster standard errors at the firm level. Our results are reported in Table 6. We present results with OLS regressions using industry and year fixed effects in Model (1) and (2), and firm and year fixed effects in Model (3) and (4). Economically, a 1% rise in the institutional investor distraction is associated with a decline in the number of board meetings over the year by up to 6% using industry and year fixed effects, and the number of board meetings over the year decreases by up to 3% using firm and year fixed effects.

## **5. Shareholder distraction and board monitoring effectiveness**

### *5.1. Board structure*

In this section, we examine whether a rise in institutional investor distraction reduces the longer term monitoring intensities of boards, by allowing the board to select directors who are less effective monitors. Previous literature documents that board composition is a key determinant of board monitoring qualities. By appointing effective monitors on the board, shareholders can exert their power over important corporate decisions, and ultimately improve firm performance.

We identify two types of “controversial directors” whose monitoring incentives could potentially be compromised. The first type of controversial directors is directors who are socially connected to the CEO. It is well established from existing literature that socially dependent directors tend to be friendlier to the management and thus, are less aggressive and less effective monitors (Hwang and Kim 2009, 2012; Chidambaran, Kedia and Prabhala, 2011; Fracassi and Tate, 2012; Nguyen, 2012). CEO-director ties lead to a decline in CEO overall turnover-performance sensitivity, and CEOs also extract more private benefits from the firm, which significantly reduce firm values. The second type of controversial director is

directors who are busy and have more than three external directorships. Several studies show that busy directors are more likely to be distracted and tend to be less effective firm monitors. In particular, busy directors who have limited time and energies are more likely to miss more board meetings and detrimental to firm value (Fich and Shivdasani, 2006; Falato, Kadyrzhanova, and Lel, 2014; Masulis and Mobbs, 2014).

The dependent variable in Table 7 is *controversial director*, an indicator variable equals one if the director-year is either a busy director or a director who has social ties with the CEO and zero otherwise. We also include firm fixed effects to control for the time-invariant firm characteristics that could potential affect the board structure. Our OLS regression results are reported in Table 7.

In Model (1) to (2), we focus on the independent directors and find that the coefficient on shareholder distraction is positive and significant, suggesting controversial directors are more likely to serve as independent directors on the board when the institutional investors are distracted. This result remains statistically significant at 1% using industry and year fixed effects and significant at 5% using firm and year fixed effect. Economically, 1% rise in investor distraction will lead to 1-2% increase in the chance that controversial directors serve as independent directors on the board.

In Model (3) and (4), we include an interaction term of investor distraction and a dummy variable for CEO-chairman duality and find that the coefficient is positive, suggesting that the impact of institutional investor distraction on board composition is more pronounced when the CEO has more power. In Model (5) and (6), we separately examine the appointment of grey directors and find insignificant results, suggesting that the impact of investor distraction is again more pronounced for independent directors.

Overall, we find strong evidence that investor distraction adversely affects the selection of board members. More specifically, directors with lower monitoring intensities

are more likely to be elected or re-elected when institutional investors shift their attentions away from the firm. These results also suggest that entrenched CEOs make use of the opportunity during which outside institutional investors are distracted to change the board structure, further worsening board governance. It is also possible that as existing board members are less vigilant during periods when institutional investors are distracted, they allow the CEOs to appoint friendlier directors to the board.

In an untabulated test, we repeat this analysis in the subsample of new director appointments and director departures. We find that the effect of total distraction is significant in the subsample of director appointments, but not departures, indicating that the changes in board structures is driven by new director appointments.

## 5.2. *CEO pay*

We study the impact of shareholder distraction on CEO pay in this section. In our regression analysis, the dependent variable *High CEO Pay*, a dummy variable that equals 1 if the abnormal CEO compensation is greater than the sample median. We define abnormal CEO compensation as the residual from a regression where the dependent variable is the natural logarithm of the total CEO compensation and independent variable include log assets, total firm risk, and interacted industry and year dummies. Across all regressions, we include firm fixed effects to control for the time-invariant unobservable firm characteristics that could potentially affect CEO pay. Our results are reported in Table 8. We find that the coefficient of institutional investor distraction is positive and statistically significant at 5%, suggesting that the abnormal CEO pay is higher when the shareholder is distracted. Economically, 1% increase in investor distraction is predicted to increase the chance of high excess CEO pay by 3.6%. This result is stronger for firms with CEO-chairman duality and more busy directors on

the board. The above results remain robust to the inclusion of additional firm controls in Models (4) – (6).

### *5.3. Earning management*

In this section, we follow Dechow, Sloan, and Sweeney (1995) to calculate discretionary accruals and examine the relation between shareholder distraction and earning management. Our dependent variable is the natural logarithm of 1 plus discretionary accruals. Across all regressions, we include firm fixed effects to control for the time-invariant unobservable firm characteristics that could potentially affect CEO pay. Our results are reported in Table 9. We find that the coefficient on shareholder distraction is positive and statistically significant, suggesting that the firms perform more earning management when institutional investors are distracted. The economic magnitude is also large. A 1% increase in institutional investor distraction yields more than 2% increase in discretionary accruals. This effect is stronger in firms with more socially dependent directors, and robust to adding additional firm controls.

## **6. Conclusion**

We examine whether shareholder distraction causes poorer board governance. Using exogenous variations in institutional monitoring intensity caused by time-variations in the level of attention allocated to stocks in the institutional investor's portfolio, we find that decreased institutional monitoring intensity weakens board oversight. Distracted institutional investors are less likely to use their votes as disciplining device for ineffective independent directors. Independent directors on average receive significantly favorable votes, and this effect is stronger for directors with negative ISS recommendation and poor vote results. This leads to lower board monitoring intensity. Specifically, independent directors miss more meetings and firms with distracted institutional investors also hold fewer board meetings.



Further, firms with distracted institutional investors also appoint more conflicted directors to the board, experience higher CEO excess pay and accept greater earnings management, indicating poorer board monitoring quality.

Overall, we find strong evidence that distracted institutional investors causes poorer board governance through fewer disciplinary votes in director elections. Our study shows that institutional investors in general improve board governance, and thus extends the current understanding of how institutional investors participate in corporate governance. Moreover, we also show that shareholder monitoring provides strong incentives for directors to exert more monitoring efforts and do their jobs well.

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**Table 1: Summary Statistics**

The main sample comes from the intersection of RiskMetrics director database, Thomson-Reuters Institutional Holdings (13F) database, Compustat, and CRSP. The main sample consists of 114,293 director-firm-years and 16,391 firm-year observations for the period 1996 to 2013. Appendix A provides detailed variable descriptions.

Variable	N	Mean	Median	25%	75%	STD
<i>Panel A: Distraction Measures</i>						
Mutual Fund Distraction	7,848	0.15	0.14	0.1	0.18	0.07
Total Distraction	16,391	0.17	0.17	0.13	0.21	0.06
Monitoring Distraction	16,391	0.06	0.06	0.04	0.07	0.02
Grey Distraction	16,391	0.02	0.02	0.02	0.03	0.01
<i>Panel B: Director Characteristics (Director-firm-year level)</i>						
Percent "Yes" Votes for a Director	45,966	0.96	0.98	0.96	0.99	0.08
Negative ISS	45,966	0.06	0	0	0	0.25
Controversial Director	50,205	0.15	0	0	0	0.36
Attendance < 75%	114,293	0.02	0	0	0	0.13
Director Departure	107,816	0.08	0	0	0	0.28
Director Age	114,293	62.40	63.00	57.00	68.00	8.23
Director Tenure	114,288	11.32	10.00	5.00	16.00	7.49
Number of Directorships	114,293	1.67	1	1	2	1.03
Director Own (%)	114,293	0.1	0.03	0.01	0.11	0.15
Female Director	114,293	0.12	0	0	0	0.33
Major Committee Member	114,293	0.84	1	1	1	0.37
<i>Panel C: Firm Characteristics (Firm-year level)</i>						
Average Director Percent "Yes"	12,866	0.96	0.98	0.95	0.99	0.07
Majority Voting	12,866	0.13	0	0	0	0.34
Staggered Board	13,990	0.58	1	0	1	0.49
Dual-Class Shares	13,990	0.10	0	0	0	0.30
Board Size	16,391	9.01	9.00	7.00	10.00	2.32
Board Independence	16,391	70.20	72.73	60.00	83.33	16.60
Old Firm	16,391	24.93	19.00	10.00	35.00	19.79
Total Assets	16,391	6293.01	1237.87	492.70	3775.89	26498.87
Sales Growth	16,391	0.75	0.74	0.70	0.79	0.14
ROA	16,391	0.17	0.16	0.11	0.23	0.19
Institution Own	16,391	0.88	0.85	0.68	1.00	3.16
Monitoring Own	16,391	0.47	0.50	0.34	0.63	0.23
Grey Own	16,391	0.16	0.17	0.11	0.22	0.09
Tangibility	16,391	0.31	0.23	0.12	0.42	0.26
Leverage	16,391	0.24	0.21	0.05	0.35	0.24
MTB	16,391	2.20	1.68	1.27	2.45	1.80
Meeting Fee	9,184	1.13	1.00	0.00	1.50	0.97

Director Retainer	9,184	24.54	23.14	15.00	32.00	17.14
Number of Meetings	8,847	7.22	6.00	5.00	9.00	3.12
CEO-Chairman Duality	13,480	0.62	1	0	1	0.49
CEO Own	15,005	0.03	0.00	0.00	0.01	0.06
Excess CEO Pay	15,158	0.00	0.07	-0.38	0.49	1.10
Discretionary Accruals	15,346	-0.01	-0.02	-0.09	0.05	0.40

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**Table 2: Mutual Fund Distraction and Fund Votes for Director Election Proposals.**

This table reports the OLS regression results of fund-level distraction on mutual funds' votes for director election proposals. The initial sample consists of 1,717,725 fund votes for 45,966 independent director elections in 6,237 shareholder meetings for the period 2004 to 2012. The dependent variable, *Oppose Director*, is an indicator variable equals to one if the mutual fund votes "against" or "withhold" for a particular director election proposal, and zero otherwise. This variable is at the fund-firm-director-election date level. The key independent variable, *Mutual Fund Distraction* is the fund-level proxy for how much the mutual fund investor is distracted over the past quarter immediately before the voting date. *Controversial Directors* are independent directors who hold more than 3 other directorships during the year, or if the director attends the same educational institutions and/ or non-business organization as the CEO. Panel A reports fund votes for all outside director candidates. Panel B show results where the sample of independent director candidates are divided based on whether they are controversial or not or whether they have a negative ISS recommendation. Panel C shows results in the subsamples of firms where institutional investor voting are likely to be more effective. Appendix A provides detailed variable descriptions. We use *interacted* fund and year fixed effects to account for time-varying fund characteristics, and director election proposal fixed effects (equivalent to director-firm-year FE) to account for time-varying director and firm characteristics. Standard errors are clustered by fund. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

Panel A: Outside, Independent, and Grey Director Candidates				
	Outside directors	Independent directors	Grey directors	
	(1)	(2)	(3)	
Ln(Mutual Fund Distraction)	-0.002** (-2.02)	-0.002** (-2.02)	-0.002 (-0.84)	
Fund-year FE	Y	Y	Y	
Director Election Proposal FE	Y	Y	Y	
N	1,717,725	1,597,308	119,715	
Adjusted R <sup>2</sup>	0.355	0.355	0.362	
Panel B: Independent Director Candidates Only				
	Controversial candidates	Non-controversial candidates	Candidates with negative ISS	Candidates with non-negative ISS
	(1)	(2)	(3)	(4)
Ln(Mutual Fund Distraction)	-0.003*** (-2.72)	-0.001 (-0.73)	-0.005 (-1.12)	-0.001 (-1.50)
Fund-year FE	Y	Y	Y	Y
Director Election Proposal FE	Y	Y	Y	Y
N	531,095	1,065,957	104,580	1,491,884
Adjusted R <sup>2</sup>	0.345	0.363	0.646	0.248
Panel C: Independent Director Candidates in Non-Dual-Class-Shares & Non-Closely-Held Firms				
	Exclude dual-class-shares, closely-held firms	Exclude dual-class-shares, closely-held & family firms		
	(1)	(2)		
Ln(Mutual Fund Distraction)	-0.006** (-2.44)	-0.004 (-0.95)		
Fund-year FE	Y	Y		
Director Election Proposal FE	Y	Y		
N	1,505,079	793,959		
Adjusted R <sup>2</sup>	0.355	0.362		

**Table 3: Institutional Investor Distraction and Director Election Results**

This table reports the OLS regression results of firm-level distraction on director election outcomes. The initial sample consists of 45,966 independent director elections in 6,237 shareholder meetings for the period 2004 to 2012. The dependent variable is the natural logarithm of *Percent "Yes" Votes for a Director*, which is the number of “for” votes received by a particular director candidates divided by the sum of “for”, “against,” and “withhold” votes. *Total Distraction* is the average distraction of the firm’s institutional investors over the past 4 quarters immediately before the meeting date. *Monitoring Distraction* is the distraction by monitoring institutions only, including investment companies, independent investment advisors, and public pension funds. *Grey Distraction* is the distraction by bank trusts, insurance companies, corporate pension funds, and other institutions. Columns (1) to (4) in Panel A present results for all RiskMetrics firms with director votes data from ISS Voting Analytics, and columns (5) and (6) in Panel A present results in the subsample of RiskMetrics firms that do not have dual-class share structures and where the firms’ insider ownership is less than 50%. Panel B present results in the subsample of RiskMetrics firms that are not family firms, do not have dual-class share structures, and the firms’ insider ownerships is less than 50%. Appendix A provides detailed variable descriptions. Standard errors are clustered by directors. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

**Panel A: Vote Results of Independent Directors**

	<i>All Firms</i>				<i>Exclude Closely-held &amp; Dual-class Share Firms</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Total Distraction): a	-0.000 (-0.27)	-0.001 (-1.38)			0.003** (2.57)	
Negative ISS: b	-0.129*** (-37.70)	-0.172*** (-8.63)	-0.129*** (-37.70)	-0.139*** (-9.80)	-0.188*** (-41.62)	-0.188*** (-41.61)
a * b		0.015** (2.20)				
Monitoring Distraction: c			0.001 (0.57)	0.008*** (4.34)		0.006** (2.39)
Grey Distraction: d			-0.003 (-1.58)	-0.014*** (-6.54)		-0.004 (-1.11)
c * b				-0.060*** (-4.60)		
d * b				0.112*** (8.07)		
Attendance < 75%	-0.066*** (-7.37)	-0.066*** (-7.33)	-0.066*** (-7.36)	-0.069*** (-7.74)	-0.110*** (-8.89)	-0.110*** (-8.88)
Number of Directorships	-0.003 (-1.51)	-0.003 (-1.54)	-0.003 (-1.46)	-0.003 (-1.58)	-0.000 (-0.17)	-0.000 (-0.10)
Ln(Director Tenure)	-0.001 (-0.72)	-0.001 (-0.77)	-0.000 (-0.60)	-0.001 (-0.87)	-0.003** (-2.54)	-0.003** (-2.43)
Ln(Director Age)	0.032 (0.92)	0.031 (0.91)	0.032 (0.94)	0.035 (1.02)	0.046 (0.91)	0.047 (0.93)
Director Own	0.000 (0.12)	0.000 (0.10)	0.000 (0.04)	0.000 (0.04)	-0.000 (-0.05)	-0.000 (-0.11)
Average Director Percent "Yes"	0.809*** (86.96)	0.808*** (86.97)	0.809*** (86.76)	0.792*** (85.24)	0.706*** (61.16)	0.706*** (61.21)
Old Firm	0.000 (0.39)	0.000 (0.39)	0.001 (0.51)	0.001 (0.61)	0.003** (2.20)	0.004** (2.34)
Ln(Total Assets)	0.000 (0.34)	0.000 (0.28)	0.000 (0.38)	0.000 (0.37)	0.002 (1.01)	0.002 (1.01)
Sales Growth	0.006** (2.44)	0.006** (2.38)	0.006** (2.28)	0.006** (2.36)	0.006** (2.00)	0.006* (1.72)
ROA	-0.001 (-0.56)	-0.001 (-0.61)	-0.001 (-0.47)	-0.001 (-0.76)	0.000 (0.09)	0.000 (0.16)
Inst Own	0.001 (0.89)	0.001 (0.93)			0.001 (1.55)	
Staggered Board	0.005*** (3.45)	0.005*** (3.51)	0.005*** (3.50)	0.006*** (3.63)	0.004* (1.91)	0.005** (1.99)
Dual Class	-0.000 (-0.07)	-0.000 (-0.03)	-0.000 (-0.17)	-0.000 (-0.03)	0.000 (.)	0.000 (.)
Majority Voting	0.001 (1.46)	0.001 (1.44)	0.001 (1.52)	0.001 (0.95)	0.001 (1.27)	0.001 (1.25)
Monitoring Own			0.002** (2.49)	0.002*** (2.69)		0.003*** (2.77)
Grey Own			-0.002 (-1.60)	-0.002 (-1.49)		-0.002 (-1.51)
Director FE	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
N	45966	45966	45966	45966	31566	31566
Adjusted R <sup>2</sup>	0.808	0.808	0.808	0.811	0.837	0.837

**Panel B: Vote Results of Independent and Grey Directors in the Subsample of Firms Excluding Family Firms, Closely-held, and Dual-class Share Firms**

	<i>Exclude Family Firms, Closely-held &amp; Dual-Class Share Firms</i>		
	Outside Directors	Independent Directors	Grey Directors
	(1)	(2)	(3)
Ln(Total Distraction)	0.005** (2.30)	0.006** (2.55)	-0.013 (-0.40)
Negative ISS	-0.217*** (-32.01)	-0.205*** (-30.05)	-0.309*** (-7.42)
Attendance < 75%	-0.125*** (-6.45)	-0.125*** (-5.83)	-0.173** (-2.32)
Number of Directorships	0.004 (0.84)	0.008* (1.82)	-0.020 (-0.32)
Ln(Director Tenure)	-0.003 (-1.48)	-0.003 (-1.39)	-0.019 (-0.35)
Ln(Director Age)	0.011 (0.12)	0.003 (0.03)	0.552 (0.53)
Director Own	-0.000 (-0.35)	-0.001 (-0.45)	0.007 (0.76)
Average Director Percent "Yes"	0.628*** (34.23)	0.660*** (36.74)	0.517*** (6.60)
Old Firm	-0.002 (-0.62)	0.000 (0.14)	-0.073 (-0.80)
Ln(Total Assets)	0.003 (1.13)	0.003 (1.14)	0.009 (0.24)
Sales Growth	-0.016** (-2.03)	-0.012 (-1.53)	-0.062 (-0.67)
ROA	0.020* (1.91)	0.019* (1.78)	0.111 (0.93)
Inst Own	0.000 (0.09)	-0.001 (-0.25)	-0.019 (-0.25)
Staggered Board	0.002 (0.60)	0.003 (1.00)	0.020 (0.42)
Majority Voting	-0.001 (-0.64)	-0.002 (-0.86)	0.011 (0.39)
Director FE	Y	Y	Y
Firm FE	Y	Y	Y
Year FE	Y	Y	Y
N	12075	11355	408
Adjusted R <sup>2</sup>	0.852	0.860	0.670

**Table 4: Investor Distraction, Director Votes, and Director Departures**

This table reports OLS regression results of the effect of institutional investor distraction on the sensitivity of director departures to director election votes. The dependent variable is *Director Departure*, an indicator variable that equals to one if the director leaves the board in the following year and zero otherwise. *Total Distraction* is the average distraction of the firm's institutional investors over the past 4 quarters immediately before the meeting date. *Monitoring Distraction* is the distraction by monitoring institutions only which includes investment companies, independent investment advisors, and public pension funds. *Grey Distraction* is the distraction by bank trusts, insurance companies, corporate pension funds, and other institutions. Appendix A provides detailed variable descriptions. Standard errors are clustered by directors. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

**Panel A: Firm Distraction and the Sensitivity of Director Departures to Negative ISS Recommendation**

	<i>All Outside Directors</i>	<i>Independent Directors</i>		<i>Grey Directors</i>
	(1)	(2)	(3)	(4)
Firm Distraction: a	0.008 (0.88)	0.008 (0.89)		0.012 (0.32)
Negative ISS: b	0.082* (1.71)	0.105** (1.96)	0.055** (2.20)	-0.033 (-0.25)
<i>a * b</i>	-0.028 (-1.63)	-0.035* (-1.86)		0.003 (0.07)
Monitoring Distraction: c			0.005 (0.75)	
<i>b * c</i>			-0.024** (-2.01)	
Grey Distraction			-0.017 (-1.35)	
Attendance < 75%	0.131*** (5.35)	0.131*** (5.08)	0.131*** (5.08)	0.148 (1.59)
Director Age	0.144*** (11.23)	0.149*** (11.21)	0.149*** (11.21)	0.134*** (2.83)
Number of Directorships	-0.020*** (-3.98)	-0.019*** (-3.77)	-0.019*** (-3.76)	-0.026 (-1.02)
Tenure	0.011*** (4.13)	0.013*** (4.44)	0.013*** (4.60)	-0.010 (-0.75)
Director Own	0.011*** (5.84)	0.008*** (3.93)	0.008*** (3.82)	0.007 (1.25)
Ln(Institution Own)	0.001 (0.47)	0.001 (0.31)	0.002 (0.65)	0.005 (0.32)
Old Firm	-0.004 (-1.22)	-0.002 (-0.77)	-0.002 (-0.51)	-0.016 (-1.14)
Ln(Total Assets)	0.007*** (4.66)	0.005*** (3.33)	0.005*** (3.09)	0.014*** (2.34)
Sales Growth	-0.022 (-1.31)	-0.017 (-0.97)	-0.018 (-1.03)	-0.064 (-0.79)
ROA	-0.049*** (-3.28)	-0.051*** (-3.26)	-0.050*** (-3.15)	-0.004 (-0.08)
Staggered Board	-0.024*** (-8.72)	-0.022*** (-7.75)	-0.022*** (-7.65)	-0.057*** (-4.20)
Ln(Board Size)	0.041*** (4.73)	0.036*** (4.05)	0.036*** (4.06)	0.063 (1.59)
Ln(Board Independence)	-0.003 (-0.35)	0.012 (1.26)	0.014 (1.46)	0.005 (0.40)
Monitoring Own			-0.001 (-0.36)	
Grey Own			-0.008 (-1.62)	
Industry-year FE	Y	Y	Y	Y
Observations	35378	32419	32401	2903
Adjusted R <sup>2</sup>	0.021	0.020	0.020	0.001

**Panel B: Firm Distraction and the Sensitivity of Director Departures to Director Vote Results**

	<i>All Outside Directors</i>	<i>Independent Directors</i>		<i>Grey Directors</i>
	(1)	(2)	(3)	(4)
Ln(Total Distraction): a	-0.364* (-1.71)	-0.350 (-1.49)		-0.552 (-0.94)
Percent "Yes" Votes for a Director: b	-0.264** (-2.00)	-0.257* (-1.77)	-0.159*** (-3.11)	-0.361 (-0.99)
$a * b$	0.081* (1.73)	0.078 (1.51)		0.126 (0.98)
Monitoring Distraction: c			-0.300** (-2.52)	
$b * c$			0.066** (2.56)	
Grey Distraction			-0.017 (-1.36)	
Attendance < 75%	0.120*** (4.87)	0.119*** (4.58)	0.121*** (4.65)	0.149 (1.55)
Director Age	0.150*** (11.61)	0.153*** (11.46)	0.153*** (11.44)	0.146*** (3.06)
Number of Directorships	-0.021*** (-4.16)	-0.020*** (-3.99)	-0.020*** (-4.01)	-0.018 (-0.68)
Tenure	0.011*** (3.91)	0.012*** (4.30)	0.013*** (4.42)	-0.012 (-0.94)
Director Own	0.010*** (5.49)	0.008*** (3.76)	0.008*** (3.71)	0.006 (1.03)
Ln(Institution Own)	0.001 (0.41)	0.001 (0.23)	0.001 (0.51)	0.006 (0.37)
Old Firm	-0.004 (-1.44)	-0.003 (-0.94)	-0.002 (-0.72)	-0.018 (-1.29)
Ln(Total Assets)	0.007*** (4.69)	0.005*** (3.35)	0.005*** (3.14)	0.015** (2.45)
Sales Growth	-0.025 (-1.43)	-0.019 (-1.10)	-0.020 (-1.13)	-0.057 (-0.70)
ROA	-0.049*** (-3.22)	-0.050*** (-3.17)	-0.049*** (-3.08)	-0.005 (-0.10)
Staggered Board	-0.024*** (-8.70)	-0.021*** (-7.66)	-0.021*** (-7.57)	-0.062*** (-4.46)
Ln(Board Size)	0.042*** (4.75)	0.036*** (4.06)	0.037*** (4.07)	0.074* (1.85)
Ln(Board Independence)	0.001 (0.12)	0.016 (1.59)	0.018* (1.78)	0.008 (0.61)
Monitoring Own			-0.002 (-0.45)	
Grey Own			-0.008 (-1.45)	
Industry-year FE	Y	Y	Y	Y
Observations	34767	31876	31858	2831
Adjusted R <sup>2</sup>	0.022	0.021	0.021	0.001

**Table 5: Institutional Investor Distraction and Directors' Meeting Attendance**

This table reports results of institutional investor distraction on individual director's attendance at board meetings from Logit and OLS regressions. The dependent variable in all columns is *Attended <75% of Meetings*, an indicator variable that equals to one if a director attended fewer than 75% of a firm's board meetings during the past fiscal year and zero otherwise. *Total Distraction* is the average distraction of the firm's institutional investors over the past 4 quarters immediately before the meeting date. The sample period in Panel A is from 1996 to 2006 because meeting fee-related variables are only available for this period, and the sample period in Panel B is 1996-2013. Appendix A provides detailed variable descriptions. Standard errors are clustered by directors. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

**Panel A: Linear Probability Models**

	<i>All Outside</i>	<i>Independent</i>		<i>Grey</i>
	(1)	(2)	(3)	(4)
Ln(Total Distraction): a	0.003*	0.002	0.028*	0.009
	(1.71)	(1.12)	(1.80)	(1.24)
Ln(Total Assets): b	-0.002	-0.002	0.001	0.001
	(-1.28)	(-1.36)	(0.50)	(0.30)
a * b			-0.001*	
			(-1.69)	
Number of Directorships	0.002*	0.002*	0.002*	-0.001
	(1.65)	(1.77)	(1.78)	(-0.16)
Director Own	-0.004***	-0.002**	-0.002**	-0.005*
	(-4.47)	(-2.15)	(-2.20)	(-1.76)
Ln(Director Age)	-0.060	-0.111**	-0.113**	0.107
	(-1.27)	(-2.06)	(-2.09)	(0.64)
Director Tenure	0.007***	0.006***	0.006***	0.022***
	(3.45)	(2.60)	(2.64)	(2.84)
Old Firm	-0.003	-0.003	-0.003	-0.015
	(-1.46)	(-1.28)	(-1.32)	(-1.53)
Sales Growth	-0.007	-0.006	-0.006	-0.006
	(-1.61)	(-1.43)	(-1.41)	(-0.49)
ROA	-0.008*	-0.007	-0.007	-0.014
	(-1.79)	(-1.47)	(-1.47)	(-1.08)
Ln(Institution Own)	0.000	0.000	0.000	0.005*
	(0.82)	(0.03)	(0.01)	(1.82)
Director FE	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Observations	60557	49625	49625	10210
Adjusted R <sup>2</sup>	0.035	0.038	0.039	0.048

**Panel B: Logit Regressions**

	<i>All Outside</i>	<i>Independent</i>		<i>Grey</i>
	(1)	(2)	(3)	(4)
Ln(Total Distraction): a	0.279** (2.08)	0.266* (1.78)	2.519** (2.39)	0.313 (1.14)
Ln(Total Assets): b	-0.077** (-2.33)	-0.094** (-2.50)	0.210 (1.44)	-0.026 (-0.38)
a * b			-0.107** (-2.16)	
Number of Directorships	0.089*** (2.94)	0.077** (2.28)	0.078** (2.33)	0.154** (2.43)
Director Own	-0.068* (-1.91)	-0.036 (-0.83)	-0.036 (-0.83)	-0.162** (-2.55)
Ln(Director Age)	-0.837*** (-2.84)	-1.257*** (-3.98)	-1.266*** (-4.01)	0.424 (0.72)
Director Tenure	0.011 (0.20)	0.035 (0.55)	0.035 (0.55)	-0.112 (-1.13)
Old Firm	-0.101 (-1.28)	-0.086 (-1.00)	-0.084 (-0.98)	-0.144 (-0.78)
Sales Growth	-0.251 (-1.12)	-0.194 (-0.76)	-0.176 (-0.69)	-0.383 (-0.85)
ROA	-0.074 (-0.54)	-0.121 (-0.79)	-0.132 (-0.87)	0.095 (0.31)
Ln(Institution Own)	-0.165 (-1.52)	-0.041 (-0.33)	-0.026 (-0.20)	-0.489** (-2.56)
Board Size	0.864*** (5.19)	1.030*** (5.42)	1.028*** (5.41)	0.390 (1.16)
Female Director	-0.220** (-1.96)	-0.204* (-1.73)	-0.206* (-1.75)	-0.353 (-1.05)
Major Committee Member	-0.396*** (-4.27)	-0.378*** (-3.18)	-0.375*** (-3.16)	-0.388** (-2.51)
Meeting Fee	-0.014 (-1.31)	-0.020* (-1.72)	-0.020* (-1.72)	0.016 (0.70)
Number of Meetings	-0.201** (-2.18)	-0.137 (-1.34)	-0.132 (-1.29)	-0.436* (-1.95)
Director Retainer	-0.034*** (-3.27)	-0.031*** (-2.71)	-0.031*** (-2.71)	-0.042** (-1.97)
Industry FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Observations	126778	109879	109879	15393
Adjusted R <sup>2</sup>	0.153	0.128	0.128	0.227



**Table 6: Investor Distraction and Board Meeting Frequencies**

This table reports results of institutional investor distraction on firm-level board meeting frequencies from OLS regressions. The sample covers the period 1996 to 2006 as data on board meeting frequencies are only available for this period. *Total Distraction* is the average distraction of the firm's institutional investors over the past 4 quarters immediately before the meeting date. The dependent variable is the *Number of Board Meetings* and is equals to the natural logarithm of the number of board meetings over the fiscal year. Standard errors are clustered by firm. Appendix A provides detailed variable descriptions. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

	Dependent Variable: Ln (Number of Board Meetings)			
	(1)	(2)	(3)	(4)
Ln(Total Distraction)	-0.062*** (-3.63)	-0.050*** (-2.82)	-0.028** (-2.18)	-0.015 (-1.08)
Meeting Fee	0.002 (0.93)	0.001 (0.66)	0.005** (2.47)	0.005** (2.28)
Old Firm	0.001 (0.09)	-0.014 (-1.12)	0.044* (1.82)	0.035 (1.38)
Ln(Total Assets)	0.043*** (9.66)	0.044*** (8.33)	0.023* (1.88)	0.035** (2.47)
Sales Growth	-0.141*** (-3.98)	-0.108*** (-2.89)	-0.098*** (-3.63)	-0.080*** (-2.77)
ROA	-0.107*** (-2.69)	-0.091** (-2.35)	-0.056** (-1.97)	-0.054** (-2.01)
Ln(Institution Own)	0.038** (2.40)	0.005 (0.30)	-0.001 (-0.08)	-0.010 (-0.56)
Board Size		-0.000 (-0.17)		-0.002 (-0.65)
Board Independence		0.038*** (3.11)		0.011 (1.58)
CEO-Chairman Duality		-0.026** (-2.35)		-0.030*** (-2.83)
CEO Ownership		-0.435*** (-4.34)		-0.077 (-0.54)
Observations	11,099	9,486	10,882	9,276
Adjusted R <sup>2</sup>	0.092	0.112	0.502	0.513
Firm FE	N	N	Y	Y
Industry FE	Y	Y	N	N
Year FE	Y	Y	Y	Y

**Table 7: Investor Distraction and Board Structure**

This table reports results of institutional investor distraction on individual director characteristics from OLS regressions for the period 2004 to 2013 as information on director social ties from BoardEx is available only for this period only. The dependent variable, *Controversial Director*, is an indicator variable equals to one if the director holds more than 3 other directorships during the year, or if the director attends the same educational institutions and/ or non-business organization as the CEO, and zero otherwise. *Total Distraction* is the firm-level proxy for how much institutional investors are distracted over the past 4 quarters immediately before the meeting date. Appendix A provides detailed variable descriptions. Standard errors are clustered by directors. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

	Dependent Variable = Controversial Director					
	Independent Directors				Grey Directors	
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Total Distraction): a	0.018*** (3.10)	0.011** (2.23)	-0.011 (-1.25)	-0.005 (-0.71)	0.030 (1.45)	0.014 (0.87)
CEO-Chairman Duality: b			-0.093*** (-2.89)	-0.074*** (-3.09)		
a * b			0.049*** (4.32)	0.030*** (3.70)		
Old Firm	0.007 (1.01)	-0.001 (-0.08)	0.005 (0.72)	0.003 (0.29)	0.012 (0.56)	0.032 (1.03)
Ln(Total Assets)	0.032*** (11.58)	0.018*** (2.80)	0.030*** (10.16)	0.017** (2.35)	0.036*** (5.35)	-0.009 (-0.37)
Sales Growth	-0.069*** (-3.81)	-0.003 (-0.20)	-0.064*** (-3.24)	0.004 (0.25)	0.003 (0.05)	0.125** (2.21)
ROA	0.055*** (2.60)	0.018 (1.08)	0.047** (2.10)	0.008 (0.44)	0.042 (0.85)	0.020 (0.41)
Inst Own	-0.003 (-1.10)	-0.004** (-2.38)	-0.009 (-0.71)	0.017 (1.58)	-0.008 (-0.70)	-0.005 (-0.58)
Staggered Board	0.021*** (3.24)	0.029*** (2.76)	0.019*** (2.77)	0.033*** (2.85)	0.031 (1.42)	0.043 (1.11)
Observations	52847	52746	45539	45460	4762	4583
Adjusted R <sup>2</sup>	0.371	0.455	0.300	0.394	0.447	0.656
Firm FE	N	Y	N	Y	N	Y
Industry FE	Y	N	Y	N	Y	N
Year FE	Y	Y	Y	Y	Y	Y

**Table 8: Institutional Investor Distraction and Abnormal CEO Pay**

This table reports the OLS regression results of institutional investor distraction on the firm's abnormal CEO pay. The dependent variable in all columns is *High CEO Pay*, which is an indicator variable equal to one if the abnormal CEO compensation is greater than median abnormal pay in the sample and zero otherwise. Abnormal CEO compensation is the residual from a regression where the dependent variable is the natural logarithm of the total CEO compensation and independent variables include log assets, total firm risk, and *interacted* industry and year dummies. *Total Distraction* is the firm-level proxy for how much institutional investors are distracted over the past 4 quarters immediately before the meeting date. Appendix A provides detailed variable descriptions. Standard errors are clustered by firm in all regressions. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

	Dependent Variable: High CEO Pay					
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Total Distraction): <i>a</i>	0.036** (2.07)	-0.001 (-0.04)	0.013 (0.49)	0.049*** (2.78)	0.023 (0.80)	0.035 (1.35)
CEO-Chairman Duality: <i>b</i>		-0.108 (-1.53)			-0.119* (-1.69)	
<i>a * b</i>		0.045* (1.84)			0.047* (1.93)	
% Busy Directors: <i>c</i>			-0.480** (-2.20)			-0.534** (-2.47)
<i>a * c</i>			0.189** (2.49)			0.204*** (2.72)
Old Firm	-0.020 (-0.94)	-0.058** (-2.24)	-0.023 (-0.94)	-0.019 (-0.92)	-0.059** (-2.25)	-0.020 (-0.80)
Ln(Total Assets)	-0.074*** (-7.14)	-0.087*** (-6.53)	-0.079*** (-6.14)	-0.058*** (-5.34)	-0.062*** (-4.49)	-0.052*** (-3.84)
Sales Growth	0.026 (0.91)	-0.003 (-0.09)	0.018 (0.47)	0.025 (0.82)	-0.006 (-0.16)	0.017 (0.44)
ROA	0.040** (2.12)	0.048* (1.73)	0.079** (2.15)	0.031* (1.66)	0.035 (1.30)	0.043 (1.30)
Inst Own	0.056*** (3.96)	0.107*** (5.22)	0.078*** (4.75)	0.045*** (3.16)	0.089*** (4.39)	0.062*** (3.84)
Tangibility				-0.062 (-1.56)	-0.072 (-1.50)	-0.087* (-1.87)
Leverage				-0.030 (-1.27)	-0.030 (-1.02)	-0.042 (-1.58)
MTB				0.022*** (6.13)	0.028*** (6.53)	0.030*** (7.28)
Board Independence				0.064*** (4.19)	0.063*** (3.69)	0.059*** (3.42)
Ln(Board Size)				-0.026 (-0.96)	-0.042 (-1.33)	-0.046 (-1.39)
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	26779	19065	18652	26763	19051	18652
Adjusted R <sup>2</sup>	0.308	0.300	0.302	0.311	0.303	0.302

**Table 9: Institutional Investor Distraction and Earning Management**

This table reports the OLS regression results of institutional investor distraction on firm's discretionary accruals. The dependent variable in all columns is the natural logarithm of one plus discretionary accruals. *Discretionary Accruals* are calculated using the modified Jones model as in Dechow, Sloan, and Sweeney (1995). *Total Distraction* is the firm-level proxy for how much institutional investors are distracted over the past 4 quarters immediately before the meeting date. Appendix A provides detailed variable descriptions. Standard errors are clustered by firm in all regressions. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

	Dependent Variable: Ln(1+Discretionary Accruals)			
	(1)	(2)	(3)	(4)
Ln(Total Distraction): a	0.028*** (2.79)	-0.097*** (-5.18)	0.024** (2.43)	-0.098*** (-5.16)
% Social Ties: b		-0.627* (-1.96)		-0.588* (-1.87)
a * b		0.192* (1.80)		0.180* (1.71)
Old Firm	-0.014 (-1.23)	-0.028 (-1.55)	-0.015 (-1.34)	-0.028 (-1.56)
Ln(Total Assets)	-0.010* (-1.77)	-0.026** (-2.57)	-0.015** (-2.53)	-0.028*** (-2.61)
Sales Growth	-0.018 (-0.92)	0.077** (2.01)	-0.024 (-1.16)	0.072* (1.95)
ROA	0.004 (0.36)	-0.059 (-1.34)	0.006 (0.63)	-0.063 (-1.33)
Inst Own	-0.013* (-1.78)	-0.000 (-0.03)	-0.013* (-1.73)	-0.002 (-0.12)
Tangibility			-0.017 (-0.75)	-0.036 (-0.77)
Leverage			0.038** (2.52)	0.029 (1.00)
MTB			-0.002 (-0.74)	0.006 (1.13)
Board Independence			0.011 (1.26)	0.017 (0.82)
Ln(Board Size)			0.008 (0.56)	0.018 (0.71)
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Observations	23862	9936	23848	9926
Adjusted R <sup>2</sup>	0.032	0.034	0.033	0.033

**Table 10: Volume-based Measure of Institutional Investor Distraction and Board Governance**

This table reports the OLS regression results of volume-based institutional investor distraction on the firm's various aspects of board governance. *Volume-based Distraction* is the volume-based firm distraction over the past 4 quarters immediately before the meeting date. *Attendance < 75%* is an indicator variable equals 1 if the director has attended less than 75% of the board meetings during the year. *Social tie* is a dummy variable equals 1 if the director is connected with the firm's current CEO through education or other activities and 0 otherwise. Information of social tie is from BoardEx and is available for the 2004-2013 period. *Busy Director* is a dummy variable equals 1 if the director has 3 or more external directorships within the RiskMetrics universe and 0 otherwise. The dependent variable in Panel A is *Percent "for" Votes*, which is the natural logarithm of the number of "for" votes received by a particular director candidates divided by the total outstanding shares. Standard errors are clustered by directors in all columns. \*\*\*, \*\*, and \* indicates statistical significance of 1%, 5%, and 10% respectively.

	Attendance < 75%		Busy Director	Social Tie	"for" Votes%
	(1)	(2)	(3)	(4)	(5)
Volume-based Distraction: a	0.003 (1.17)	0.038** (2.21)	0.014*** (2.94)	0.006** (2.10)	0.046* (1.68)
a * b		-0.002** (-2.07)			
Old Firm	-0.003 (-1.37)	-0.003 (-1.39)	0.018*** (2.93)	0.011* (1.80)	0.028 (1.26)
Ln(Total Assets): b	-0.002 (-1.37)	0.002 (0.96)	0.017*** (5.29)	0.005 (1.38)	0.024 (1.22)
Sales Growth	-0.006 (-1.51)	-0.006 (-1.46)	-0.018*** (-2.87)	0.000 (0.04)	-0.027 (-0.64)
ROA	-0.008* (-1.80)	-0.008* (-1.80)	-0.007 (-1.08)	0.000 (0.05)	0.035 (1.43)
Inst Own	0.000 (0.68)	0.000 (0.65)	0.001 (1.19)	0.004** (2.26)	-0.012 (-1.17)
Number of Directorships	0.002* (1.65)	0.002* (1.66)			
Director Own	-0.004*** (-4.47)	-0.004*** (-4.58)			
Ln(Director Age)	-0.062 (-1.30)	-0.064 (-1.35)			
Ln(Tenure)	0.007*** (3.59)	0.008*** (3.64)			
Negative ISS					-0.291*** (-19.80)
Firm FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
Sample Period	1996-2013	1996-2013	1996-2013	2004-2013	2003-2012
Observations	125191	125191	155650	102011	61099
Adjusted R <sup>2</sup>	0.153	0.153	0.115	0.173	0.251

## Appendix A: Variable Definitions

Variable	Definition
<i>Panel A: Distraction Measures</i>	
Mutual Fund Distraction	Fund-level proxy for how much the mutual fund is distracted over the quarter immediately before the voting date. It is the weighted average return shocks across Fama French 12 industries, unrelated to the focal firm, held by the mutual fund. The weights are based on the investor's portfolio weights in the shocked industries.
Total Distraction	Firm-level proxy for how much institutional investors are distracted over the past 4 quarters immediately before the annual meeting date/fiscal year end. It is the weighted average distraction of institutional investors in the firm. We calculate the investor-level distraction measure as the weighted average return shocks across industries, unrelated to the focal firm, held by the investor. The return shocks are weighted by the investor's portfolio weights in the shocked industries.
Monitoring Distraction	Similar to the firm-level distraction measure, but only accounts for institutional investors classified as monitoring institutions. Monitoring institutions include investment companies, independent investment advisors, and public pension funds.
Grey Distraction	Similar to the firm-level distraction measure, but only accounts for institutional investors classified as grey institutions. Grey institutions include bank trusts, insurance companies, corporate pension funds, and other institutions.
<i>Panel B: Director Characteristics</i>	
Controversial Director	An indicator variable equals to one if the director holds more than 3 other directorships during the year or if the director shares a social tie with the current CEO, and zero otherwise. A social tie exists if the CEO and director attends a common educational institution or are members of the same non-business organization.
Attendance < 75%	An indicator variable equals one if the director attended less than 75% of the board meetings during the year, and zero otherwise.
Percent "Yes" Votes for a Director	The number of "for" votes received by a particular director candidate divided by the sum of "for," "against," and "withhold" votes. This variable is at the firm-director-election date level.
Negative ISS	An indicator variable equals to one if the ISS recommendation for the director candidate is either "against" or "withhold," and zero otherwise.
Director Departure	An indicator variable equals to one if the director leaves the board, and zero otherwise.
Director Age	Director's age.
Director Tenure	Number of years the director has been on the board.
Number of Directorships	Number of directorships held by the director within the RiskMetrics universe during the year, excluding the focal firm.
Director Own	Director's percentage ownership in the firm obtained from RiskMetrics Director database.
Female Director	An indicator variable equals to one if the director is female, and zero otherwise.
Major Committee Member	An indicator variable equals to one if the director is a member of either the nominating, audit, compensation, or corporate governance committee, and zero otherwise.
<i>Panel C: Firm Characteristics</i>	
Average Director Percent "Yes"	The mean percentage of "for" votes received by all the independent directors in the firm in a particular year. This variable is at the firm-election date level.

Majority Voting	An indicator variable equals to one if the firm requires the director to receive more than 50% “Yes” votes from the shareholders to be successfully elected.
Staggered Board	An indicator variable equals to one if only part of the directors on the board are elected each year, and zero otherwise.
Dual-Class Shares	An indicator variable equals to one if the company has more than one class of common shares, and zero otherwise.
Board Size	Number of directors on the board.
Board Independence	Percentage of board members who are independent directors.
Old Firm	Indicator variable equals to one if the firm's age is greater than the median firm age, and zero otherwise.
Total Assets	Book value of total assets in millions of dollars.
Sales Growth	$\ln(1 + \text{sale}/\text{lagged sale})$ .
ROA	Earnings before interest, taxes, depreciation and amortization/Beginning-year total assets.
Institution Own	Total percentage ownership from all institutional investors.
Monitoring Own	Total percentage ownership from investors that are monitoring institutions which includes investment companies, independent investment advisors, and public pension funds.
Grey Own	Total percentage ownership from investors that are grey institutions which includes bank trusts, insurance companies, corporate pension funds, and other institutions.
Tangibility	$(\text{Property, Plant and Equipment} - \text{Total (Gross)}) / \text{Lagged Book Value of Assets}$
Leverage	$(\text{Total current debts} + \text{Long term debts}) / \text{Lagged Book Value of Assets}$
MTB	$(\text{Book Value of Assets} - \text{Book Value of Equity} + \text{Market Value of Equity}) / \text{Lagged Book Value of Assets}$
Meeting Fee	Dollar value of fees paid to all the directors to attend the board meetings during the year. This variable is only available for 1996-2006.
Director Retainer	Fixed annual payment to the director.
Number of Meetings	Number of board meetings held by the firm during the year.
CEO-Chairman Duality	An indicator variable equals to one if the CEO is also the chairman of the firm's board, and zero otherwise.
CEO Own	CEO's percentage ownership in the firm.
High CEO Pay	An indicator variable equals to one if the abnormal CEO compensation is greater than the median abnormal pay in the sample, and zero otherwise. Abnormal CEO compensation is the residual from an OLS regression where the dependent variable is the natural logarithm of the total CEO compensation and the independent variables include log assets, total firm risk, and industry-year dummies.
Discretionary Accruals	A proxy for earnings management calculated using the modified Jones model as in Dechow, Sloan, and Sweeney (1995).

## Appendix B: The Mutual Fund Votes Sample in Table 2

We examine how mutual fund investors vote when they are distracted in Table 2. Our initial mutual fund investors sample is drawn from the CRSP survival bias free mutual fund database.

Following previously studies including Kacperczyk, Sialm, and Zheng (2008) and Dimmock, Gerken, Ivkovic, and Weisbenner (2016), we focus on actively-managed domestic equity funds and eliminate balanced, bond, international, money market, and sector funds. We also remove funds that hold less than 10 stocks and have less than two million total net assets.<sup>20</sup>

We then merge the mutual fund holding data with ISS Voting Analytics database using fund and fund family names. Only since 2003, mutual funds are required to disclose their votes through N-PX filings to the Securities and Exchange Commission (SEC). Therefore, our mutual fund voting data is only available from 2003 onwards.

Our dataset contains information on the number of votes casted by each mutual fund investor for each of the directors up for election during the annual general meeting. For each fund vote, we can observe whether the mutual fund shareholder vote “For,” “Against,” or “Withhold” the vote for each director election proposal in the investee company’s annual meeting.

To obtain information on director classification and characteristics, we further restrict our mutual fund vote sample to votes for director elections. We match companies from ISS Voting Analytics to RiskMetrics using CUSIP, ticker, and company names. Then, we extract director names from the item description in ISS Voting Analytics, and match them to the director names from the same company in the RiskMetrics director database. We manually verify these company and director matches. With these procedures, we are able to match 98% director election proposals from ISS Voting Analytics to RiskMetrics.

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<sup>20</sup> Following previous studies, we identify the type of fund by Lipper classification, which becomes populated since 1998. For example, we identify actively-managed US equity funds with objective code "G", "GI", "LSE", or "SG", or the classification code "LCCE", "LCGE", "LCVE", "LSE", "MCCE", "MCGE", "MCVE", "MLCE", "MLGE", "MLVE", "SCCE", "SCGE", or "SCVE". To further exclude index funds, we manually checked the fund names to further exclude index funds.