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Monitoring the Monitor: Distracted Institutional Investors and Board Governance

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Abstract

Boards are crucial to shareholder wealth. Yet little is known about how shareholder oversight affects director incentives. Using exogenous shocks to institutional investor portfolios, we find that institutional investor distraction weakens board oversight. Distracted institutions are less likely to discipline ineffective directors with negative votes. Consequently, independent directors face weaker monitoring incentives and exhibit poor board performance; ineffective independent directors are also more frequently appointed. Moreover, we find that the adverse effects of investor distraction on various corporate governance outcomes are stronger among firms with problematic directors. Our findings suggest that institutional investor monitoring creates important director incentives to monitor.

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

JEL Classifications: G23, G34

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Monitoring the Monitor: Distracted Institutional Investors and Board Governance

Abstract

Boards are crucial to shareholder wealth. Yet little is known about how shareholder oversight affects director incentives. Using exogenous shocks to institutional investor portfolios, we find that institutional investor distraction weakens board oversight. Distracted institutions are less likely to discipline ineffective directors with negative votes. Consequently, independent directors face weaker monitoring incentives and exhibit poor board performance; ineffective independent directors are also more frequently appointed. Moreover, we find that the adverse effects of investor distraction on various corporate governance outcomes are stronger among firms with problematic directors. Our findings suggest that institutional investor monitoring creates important director incentives to monitor. (*JEL* G23, G34)

Introduction

Boards of directors play a crucial role in corporate governance. Boards serve as the "gatekeeper" of all shareholder proposals to amend the charter and to approve almost all major corporate decisions. Directors are also charged with monitoring management, hiring and firing of CEOs, and setting executive compensation. The board is a powerful governance mechanism for monitoring managers; however, director monitoring incentives do not appear to be particularly strong. Researchers have questioned whether directors have sufficient financial incentives to motivate them to effectively monitor (Yermack 2004) or whether the labor market for directors effectively punishes poor performance (Harford and Schonlau 2013; Fahlenbrach, Low, and Stulz 2017).[1] This raises important questions about how reliable boards are in representing shareholder interests. What motivates directors to monitor? Who monitors directors? To address these questions, we examine whether monitoring by institutional investors, a major class of shareholders, affects director behavior. There is little existing empirical evidence free of endogeneity concerns that assesses whether institutional monitoring affects directors' efforts to monitor management. We find an array of evidence that exogenous changes in the level of institutional investor monitoring affects director incentives to monitor senior management.

A fundamental question in the literature is, do institutional investors have sufficient incentives to affect firm governance given the classical free-rider problem (Grossman and Hart 1980; Shleifer and Vishny 1986)? Even if they do intervene, institutional shareholders and board monitoring could be close substitutes where institutional investors directly affect firm changes by influencing senior management, without ever going through the board. Yet, there are compelling

[1] Past literature on how the director labor market penalizes poor monitoring by directors primarily focuses on extreme events, such as earnings restatements (Srinivasan 2005), financial fraud lawsuits (Fich and Shivdasani 2007), bankruptcies (Gilson 1990), and options backdating (Ertimur, Ferri, and Maber 2012).

reasons to believe that institutional shareholders might have a tangible impact on board behavior. Boards have major oversight responsibilities along with proprietary information access, and in the absence of effective board monitoring, institutional investors can be exposed to severe agency problems and experience significant losses. Thus, monitoring boards of directors to ensure they perform their fiduciary duties can be a critical channel through which outside investors seek to maximize their returns on investments. Prior studies that report on "behind-the-scenes" institutional investor activities find that they intervene in firms by engaging management and directors in active discussions.[2] In particular, McCahery, Sautner, and Starks (2016) find that 45% of surveyed institutional investors state that they have private discussions with corporate boards outside of management's presence.

To test whether institutional investor monitoring affects board incentives, we construct measures of exogenous distractions of institutional shareholders. Following Kempf, Manconi, and Spalt (2017), we utilize exogenous variations in institutional shareholder attention caused by unrelated industry shocks to their portfolio. We use these shocks to capture changing levels of institutional shareholder monitoring of a focal firm. Suppose a mutual fund investor has two large stockholdings in two unrelated industries, one in a bank and the other in a pharmaceutical firm. When the pharmaceutical industry is experiencing a large return shock due to technological breakthroughs, the mutual fund has incentives to allocate more time and effort to fully understand the impact of technological breakthroughs in the pharmaceutical industry. Assuming the attention and effort of a fund investor is in limited supply, we expect the bank to receive less attention. The mutual fund may also allocate its best portfolio managers and corporate governance analysts to the

[2] See, for example, Becht et al. (2010), Carleton, Nelson, and Weisbach (1998), and McCahery et al. (2016).

pharmaceutical firm. Hence, the exogenous shock to the pharmaceutical industry reduces the mutual fund's monitoring intensity of the bank.[3]

To the extent that industry-level shocks to a fund's portfolio firms are unrelated to a focal firm's fundamentals, the above measure captures *exogenous* variation in an institutional investor's monitoring intensity that is orthogonal to the focal firm's fundamentals. Moreover, when institutional shareholders shift their attention to different "shocked" industries over time, firms in nonshocked industries can experience permanent changes in their corporate governance due to a continual lack of institutional shareholder monitoring over extended periods.

Generalizing on the two-industry portfolio example above, we construct an investor-level measure of exogenous distractions experienced by each mutual fund investor toward a given focal firm in a given quarter. We also construct a firm-level investor distraction measure by summing the distraction levels across all of a firm's institutional shareholders. Kempf et al. (2017) convincingly show that this firm-level distraction measure is negatively related to how much attention institutional investors spend monitoring a firm's activities, such as participating in conference calls and initiating governance-related proposals.

To investigate whether institutional investors influence board governance, we begin by examining voting behavior of institutional investors at annual director elections. Institutional shareholder voting on directors represents a primary mechanism for exerting influence over a firm's board. While directors rarely fail to be reelected, experiencing disciplinary votes nevertheless can be a public embarrassment to a director and adversely affect her reputation and likelihood of being renominated in the future (Aggarwal, Dahiya, and Prabhala 2019). Fos, Li, and

[3] Kacperczyk, Van Nieuwerburgh, and Veldkamp (2016) model how mutual fund managers optimally choose to allocate their limited attention to different information depending on the business cycle. In a survey study, McCahery et al. (2016) find that limited resources (personnel) and "too many firms in our portfolio" impede institutional shareholder activism.

Tsoutsoura (2017) also provide evidence that the director election process can improve alignment of shareholder and director interests.

Using a fund-level measure of mutual fund distraction, we find that mutual funds are less likely to discipline independent directors with negative votes when they are distracted.[4] This distraction effect is particularly important for effective monitoring of independent directors, and especially problematic independent directors who we define as socially connected to the CEO or who are overly busy.[5] Economically, a 1-standard-deviation rise in a mutual fund investor's distraction level is associated with a 7.5% fall in the likelihood of a vote against a problematic director candidate at the annual shareholder meeting. Further tests suggest that distracted institutional investors are less likely to independently evaluate the underlying issues up for vote and tend to exhibit greater reliance on proxy advisor recommendations, especially when voting on problematic independent directors.

Next, we examine how investor distraction at the firm-level affects director voting outcomes. We find that independent directors in general receive significantly fewer disciplinary votes from institutional shareholders when these investors are distracted. Consistent with our fund-level voting findings, this effect is stronger for problematic director candidates. In addition, the sensitivities of subsequent director departures from the board and from major board positions to poor election outcomes are also significantly lower when institutional shareholders are distracted, consistent with weaker disciplinary effects of shareholder votes. Taken together, the voting

[4] In examining board behavior, we focus on independent directors given their importance in monitoring and disciplining managers. Recent research by Nguyen and Nielsen (2010), Knyazeva, Knyazeva, and Masulis (2013), Falato, Kadyrzhanova, and Lel (2014), Guo and Masulis (2015), Fahlenbrach et al. (2017), and Masulis and Zhang (2019) provides evidence based on exogenous shocks and supply effects that board independence leads to improved board monitoring, firm performance, valuation, and CEO incentives.

[5] See, for example, Chidambaran, Kedia, and Prabhala (2011), Coles, Daniel, and Naveen (2014), Fracassi and Tate (2012), Hwang and Kim (2009, 2012), and Nguyen (2012) on how social connections between the CEO and their own directors negatively affect firm governance outcomes and firm value. Also see Fich and Shivdasani (2006), Falato et al. (2014), and Masulis and Mobbs (2014) for evidence of negative valuation effects from busy independent directors.

evidence indicates that independent directors, especially problematic ones, are significantly less likely to be disciplined by director elections when institutional shareholders are distracted.

Next, we analyze whether weakened board oversight by institutional shareholders affects director monitoring efforts. We find that when institutional shareholders are distracted, independent directors miss more board meetings and boards hold fewer meetings. A 1-standard-deviation rise in institutional investor distraction is associated with an almost 17% rise in the likelihood of poor director meeting attendance and the impact is greater among the problematic directors. The number of board meetings also declines by 2.6% with each 1-standard-deviation rise in distraction. Furthermore, institutional investor distraction leads to more problematic independent directors on the board because of the increased likelihood of both new appointments and reappointments of problematic directors.

Finally, we examine how investor distraction affects several important firm outcomes through the effects of problematic directors and ineffective boards. When institutional investors are distracted, firms are more likely to grant their CEOs higher abnormal pay and have lower pay-performance sensitivity, exhibit greater earnings management, have a higher likelihood of undertaking diversifying mergers, and in general have lower equity valuation. Importantly, the negative effect of distraction on various firm outcomes is present only when problematic directors sit on the board or its key committees. Taken together, our results suggest that institutional shareholder distraction leads to significantly poorer director monitoring incentives, which in turn leads to worse governance outcomes.

Our study contributes to the corporate governance literature in several ways. First, we extend our understanding of what motivates independent directors to do their job well and monitor management carefully. While it is well known that boards make important corporate decisions that

have economically large impacts on shareholder value, director incentives to monitor managers are not well understood (Yermack 2004).[6] We advance the literature's understanding of director incentives by showing that institutional investor oversight of boards significantly improves director incentives to more closely monitor senior management. In doing so, we also add to the literature that explores how corporate governance mechanisms interact with each other (Agrawal and Knoeber 1996; Cremers and Nair 2005; Gillan, Hartzell, and Starks 2011) and show that the monitoring roles of a firm's directors and institutional shareholders are complementary.

Second, we contribute to the governance literature by establishing causal links between institutional investor monitoring and board governance outcomes. To avoid obvious endogeneity issues, several recent papers have used annual reconstitutions of the Russell 1000 and 2000 indexes to assess how changes in passive institutional ownership affect firm governance and major corporate policies. However, recent work finds problems with the estimation of a firm's market capitalization at the end of May and a lack of transparency in the Russell methodology for index inclusion in more recent years, which together lead to inconclusive results (Appel, Gormley, and Keim 2019).[7] Wei and Young (2017) also show that many of the conflicting findings in this literature are driven by research design choices that introduce selection bias, rather than capturing an exogenous treatment effect. Following Kempf et al. (2017), our study overcomes the endogeneity challenge in the governance literature by using performance shocks in other industries as major events that distract institutional investors and affect their monitoring intensity.

[6] Several recent studies highlight the role of director reputation concerns and the election process. See, for instance, Fos et al. (2017), Jiang, Wan, and Zhao (2016), and Masulis and Mobbs (2014).

[7] Appel, Gormley, and Keim (2016) find that an increase in passive institutional ownership increases board independence. In contrast, Schmidt and Fahlenbrach (2017) find that after a rise in passive institutional ownership, there is no change in board independence and appointments of independent directors are met with lower announcement returns. They conclude that increases in passive institutional investor ownership lead to increased agency issues.

Third, our study furthers our understanding of how institutional investors intervene to improve board governance. Although prior studies report evidence that institutional investors in general improve corporate decision making, the underlying mechanisms are not well-established.[8] Existing studies that examine shareholder interventions emphasize the actions of shareholder activists during extreme events.[9] Nevertheless, causal evidence on shareholder actions to improve board functioning and governance on a regular basis is surprisingly scarce.[10] We formally test this proposition and show that a crucial governance mechanism through which institutional investors continually exert influence over a firm's internal governance is their annual voting decisions on directors. In reaction to reduced disciplinary votes from distracted investors, we find that directors miss more board meetings and they hold fewer board meetings.

Kempf et al. (2017) uncover an important empirical connection between institutional shareholders distraction and detrimental managerial actions. However, the channels that create these linkages are unclear. We complement their findings in two important ways. First, we explicitly analyze how limited investor attention affects governance outcomes through their voting behavior and the subsequent impact on director incentives. Our main focus is on the impact of shareholder distraction on the board and directors, which is not the focus of the Kempf et al. (2017) study. We show that less institutional investor monitoring leads to declining board effectiveness,

[8] See, for example, Hartzell and Starks (2003), Chen, Harford, and Li (2007), Cornett, Marcus, and Tehranian (2008), Aggarwal et al. (2019), Kim and Lu (2011), Aghion, Van Reenen, and Zingales (2013), Doidge et al. (2016), Appel et al. (2016), Li, Liu, and Wu (2016), and Kempf et al. (2017).

[9] See, for example, 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; and Gillan and Starks (2000) on a detailed analysis of shareholder proposal outcomes at annual meetings. See also Gillan and Starks (2007) and Denes, Karpoff, and McWilliams (2017) for comprehensive reviews of shareholder activism.

[10] Outside shareholders can also submit Rule 14a-8 shareholder proposals relating to board independence and other board issues, but they are often ineffective in eliciting change (Gillan and Starks 2007; Denes et al. 2017). Such shareholder activism events although increasing in frequency are still relatively infrequent (Renneboog and Szilagyi 2011; Denes et al. 2017).

which appears to be in part due to reduced monitoring by independent directors in response to less shareholder voting pressure, and in part due to poorly chosen board appointments. These poorly monitored boards make worse CEO compensation decisions, allow greater earnings management, more frequently undertake diversifying mergers, and in general have lower equity valuation when their institutional investors are distracted. Second, Kempf et al. (2017) provide firm-level evidence that institutional investors are worse corporate monitors when they are distracted. We provide complementary evidence at the fund-level. We find that distracted mutual funds are less likely to discipline ineffective directors with negative votes and they exhibit increased reliance on proxy advisor recommendations in their voting decisions.

1. Variable Construction, Data, and Descriptive Statistics

1.1 Construction of institutional investor distraction

We follow Kempf et al. (2017) and measure shareholder distraction using industry shocks in an institutional investor's portfolio. In addition to their measure of firm-level distraction experienced by all institutional shareholders, we construct an investor-level distraction measure to exploit the stockholdings by each individual mutual fund. We use this investor-level measure to examine how investor distractions affect their voting behavior. For each institutional investor in a given firm in a given quarter, we first identify industry sectors in an institution's portfolio that are subjected to extreme return shocks that are unrelated to the focal firm. We expect these unrelated industry shocks to cause institutions to shift their attention away from the focal firm. To measure a mutual fund investor's level of distraction, we weight shocks in unrelated industry sectors by the investor's ownership percentages in the shocked industry sectors. For each mutual fund investor i in a given focal firm f in a given quarter q, we define an investor-level distraction as

$$Mutual\ Fund\ Distraction_{i,f,q} = \sum_{IND \neq INDf} w_{i,q-1}^{IND} \times IS_q^{IND}, \quad (1)$$

where *IND* denotes Fama-French 12 (FF12) industry sector, and IND_f denotes firm *f's* industry sector.

FF12 industry sectors represent a broad industry classification scheme. It follows that sector-level events are generally unrelated to the fundamentals of individual firms in other FF12 industry sectors. IS_q^{IND} is an indicator variable that equals one if industry *IND* experiences a shock in quarter q, and equals 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 of all the FF12 industry sectors.[11] 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, and as such captures the importance of industry sector *IND* in institutional investor *i*'s portfolio. The sum of the products of $w_{i,q-1}^{IND}$ and IS_q^{IND} across the other industry sectors unrelated to firm *f*, captures institutional investor *i*'s level of distraction away from focal firm *f* due to extreme outcomes in other industry sectors.

Finally, to obtain a firm-level distraction measure for focal firm *f*, we aggregate our investor-level distraction measures across all the institutional investors of firm *f*. Specifically, the level of distraction among the institutional investors of firm *f* in a given quarter q is measured by

$$Total\ Distraction_{f,q} = \sum_{i \in f} \sum_{IND \neq INDf} w_{i,f,q-1} \times w_{i,q-1}^{IND} \times IS_q^{IND}, \quad (2)$$

where $w_{i,f,q-1}$ measures the importance of investor *i* in firm *f* in the prior quarter, q-1. Intuitively, investor *i* has more weight if (1) firm *f* has more weight in investor *i*'s portfolio and (2) investor *i* owns a larger fraction of firm *f*'s shares. We compute $w_{i,f,q-1}$ as

[11] To ensure that our distraction measure does not capture extreme industry sector performance, in all regressions we exclude observations in the two industries experiencing the positive or negative shocks.

$$w_{i,f,q-1} = \frac{QPFweight_{i,f,q-1} + QPercOwn_{i,f,q-1}}{\sum_{i \in F,q-1} (QPFweight_{i,f,q-1} + QPercOwn_{i,f,q-1})}, \quad (3)$$

where $PFweight_{i,f,q-1}$ is the weight of firm *f*'s market value 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* potentially has in firm *f*. We sort stocks held by investor *i* into quintiles by $PFweight_{i,f,q-1}$, and we sort investors of firm *f* into quintiles by $PercOwn_{i,f,q-1}$. Both $QPFweight_{i,f,q-1}$ and $QPercOwn_{i,f,q-1}$ take values from one to five, where five represents the highest quintile. The weights $w_{i,f,q-1}$ sum to one after scaling by the denominator $\sum_{i \in F,q-1} (QPFweight_{i,f,q-1} + QPercOwn_{i,f,q-1})$. Higher values of *Total distraction* indicate that the institutional shareholders in firm *f* are more distracted by the extreme returns of unrelated industry sectors, and therefore their overall monitoring intensity of firm *f's* board is reduced.

1.2 Validity of the distraction measure

Measuring institutional investor distraction in this way comes with two important advantages. First, to the extent that return shocks occur in unrelated industries, this measure captures exogenous variation in institutional shareholder monitoring. This helps to alleviate issues relating to reverse causality and omitted variables, which could affect both institutional investor monitoring levels and firm behavior. Second, by construction the investor-level distraction measure differs across the portfolio firms held by each institutional investor. Thus, we are able to compare the *within-fund* difference in distraction levels toward its portfolio firms, thus essentially taking into account the preferences of individual mutual fund managers to select portfolio firms.

To assess the validity of our distraction measure, we further evaluate the persistence of return shocks in unrelated industries. We find that each industry return shock on average lasts for 1.25 quarters with a maximum duration of 2 quarters. These short-lived industry-level return shocks are likely to be random events and unlikely to cause institutional investors to significantly rebalance their portfolios. This finding is consistent with that of Kempf et al. (2017), who document that a focal firm is unlikely to experience a significant change in an institutional investor's portfolio weight around the return shocks. Therefore, observed changes in the focal firm's board governance are unlikely to be due to changes in stockholdings of distracted institutional investors.

Although industry-level return shocks could be short-lived, the nonshocked industries could be "overlooked" for a significantly longer period, because institutional investors can face a series of short-lived industry shocks in different sectors that continuously absorb their attention. We find that these investor distraction periods on average last 7 quarters. Thus, prolonged weak investor monitoring due to shocks in unrelated industry can lead to significant changes in the focal firm's board governance.

In constructing our main distraction measure, we include both positive and negative industry shocks. Investors can be distracted by unanticipated events like technological boom, new legislation, and court rulings. These events can lead to positive return shocks in some industries, and negative shocks in others. It takes time for investors to fully assess the immediate ramifications of both the positive and negative shocks and to evaluate the shocks' long-term ramifications, even if the shocks themselves are short-lived. Thus, we consider both positive and negative shocks in determining an investor's level of distraction following Kempf et al. (2017). For robustness, we also calculate separate distraction measures based on positive and negative industry shocks.

1.3 Data and sample formation

We construct our main sample by linking several well-known databases. We start with director-firm-year observations in the RiskMetrics Director database, which contains information on board structure and director characteristics, such as director committee membership, meeting attendance, age, tenure, and ownership. Firm accounting and stock returns data are from the Compustat and CRSP databases, respectively.

For our investor-level analysis, we obtain the initial mutual fund investor sample from the CRSP Survivor-Bias-Free U.S. Mutual Fund Database. Following previous studies (e.g., Kacperczyk, Sialm, and Zheng 2008; Dimmock et al. 2018), we focus on actively managed domestic equity funds and eliminate balanced, bond, international, money market, and sector funds.[12] We also remove funds that hold less than 10 stocks and have less than two million total net assets. We then merge this initial sample with the quarterly mutual fund stock holdings data from Thomson-Reuters Mutual Fund Database (S12) to construct the investor-level distraction measure, *Mutual fund distraction*, in Equation (1).[13]

For our director-level and firm-level analysis, we obtain institutional investor shareholdings from the Thomson-Reuters Institutional Holdings (13F) database, which we use to construct our firm-level investor distraction measure, *Total distraction*, in Equation (2). In this case, we include all 13F institutional investors, including banks, insurance companies, public pension funds, and investment companies who manage active funds and/or passive funds.

[12] Following previous studies, we identify the fund types by their Lipper classification to identify actively managed funds. Lipper classifications are generally available from 1998. For example, we identify actively managed U.S. 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 also manually check whether the fund names explicitly contain index names.

[13] The MFLINKS file from WRDS was used to merge the two databases.

We drop firm-years with missing information for our distraction measure, board structure, and other control variables. We exclude firms in heavily regulated financial and utility industries as well as firm-years experiencing industry shocks as defined in Section 1.1. Finally, we exclude firms with dual-class share structures and closely held firms where insiders or directors as a group hold more than 50% of shares, because institutional shareholders are unlikely to have much influence over corporate governance in these firms.[14] Data on dual-class shares and insider ownership come from the RiskMetrics Governance database and ExecuComp, respectively. The RiskMetrics Director database provides information on director ownership. We focus on independent directors in this study, because they are the primary board monitors. Our sample consists of 88,700 independent director-firm-years from 12,889 firm-year observations over the 1996–2013 period.[15]

To examine board characteristics and composition, we further extract information on CEO-director social ties from BoardEx. Although BoardEx reports data from 2000, it becomes much better populated after 2002. Thus, for all our tests involving data from BoardEx, we begin the sample period in 2003 and end it in 2013, resulting in a maximum of 6,402 firm-year observations.

To examine voting outcomes at the firm-level, we obtain shareholder voting data on director election proposals from Institutional Shareholder Services (ISS) Voting Analytics over the 2003–2012 period. We match companies covered by ISS Voting Analytics with RiskMetrics director data 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

[14] Our results are robust to including the firms with dual-class shares and closely held firms, although results are generally weaker as expected. We also additionally exclude family firms as defined by Anderson and Reeb (2003) and find similar results. Family firms have at least one founding family blockholder who owns (or votes) a 5% or greater stake in the firm. The results not tabulated in the main paper are reported in the Internet Appendix, which accompanies this paper.

[15] The sample size varies across tests because of the availability of dependent variables.

company in the RiskMetrics director database. We manually verify these company and director matches. With these procedures, we are able to match 98% of all the director election proposals from ISS Voting Analytics to RiskMetrics among the matched firms. We further merge this data with CEO-director social ties information from BoardEx. After requiring nonmissing voting data and social ties data, we end up with 29,217 individual director elections. We call this sample the director election sample.

To examine fund-level voting patterns, we merge the sample of mutual funds obtained previously with the Voting Analytics database using fund and fund family names. We restrict our mutual fund voting data to votes for director election proposals only. Our resultant data set contains information on the identity of the director standing for election at each annual general meeting and the voting decision of each mutual fund investor for each of the director candidates. For each fund, we observe whether the mutual fund vote "For," "Against," or "Withhold" the vote for each director election proposal. We have 20,594 distinct mutual fund-years and 1,845,333 individual mutual fund votes on director election proposals.

Finally, we also obtain information on CEO ownership from ExecuComp and staggered board data from RiskMetrics Governance database. Information on board meeting frequencies are drawn from two sources. ExecuComp provides this data for the period before 2006, and we use the MSCI GMI Ratings database to extend the data for the remainder of our sample period. Our mergers and acquisitions (M&A) data are drawn from the SDC Plantinum M&A Database. To determine whether a particular director is renominated to the board, we again use data on director election proposals from Voting Analytics.

1.4 Descriptive statistics

Table 1 provides summary statistics for our key variables. Table A1 in the appendix defines the variables. We winsorize all the continuous dependent and control variables at 1% and 99% levels. Table 1A summarizes the means, medians, 25th and 75th percentiles, and standard deviations of the institutional investor distraction measures. For our fund-level distraction measure, the mean and median distraction levels are both 0.14, with a standard deviation of 0.06. The mean and median firm-level distraction measures, *Total distraction*, are both 0.17, whereas the 25th and 75th percentile values are 0.13 and 0.19, respectively. The distribution of our distraction measure is in line with the findings of Kempf et al. (2017).

Table 1B reports summary statistics for our director election sample. Among the 1,845,333 fund votes, negative (i.e., "Against" or "Withheld") votes are rare and only account for 6% of the sample. 93% of the mutual fund votes are consistent with ISS recommendations. Among the 29,217 director election outcomes, the average percentage of "No" votes, that is, defined as the sum of "Against" or "Withheld" votes divided by total votes cast, is 5%, with a median of 2%, and a 75th percentile of 5%.[16] Clearly, negative votes are infrequent, although the maximum percentage of negative votes is 74%. Furthermore, only 6% of ISS recommendations are negative, while 23% of the independent directors are problematic, which are defined as either busy or socially connected to the CEO. A busy director is one who holds three or more directorships in a given year (Fich and Shivdasani 2006). Directors who attend the same educational institutions or the same nonbusiness organization as the CEO are deemed to be socially connected to the CEO. Among the problematic directors, 18% are busy directors and 13% are socially dependent directors. Only 16% of independent directors are not renominated to the board. Among the reelected

[16] We include director elections involving plurality voting and majority voting. Under plurality voting, shareholders can vote "For" or withhold their votes, whereas in majority voting, shareholders can vote "For" or vote "Against" a director (Ertimur, Ferri, and Oesch 2015).

independent directors, 17% resign from all the major board committees (audit, compensation, and nomination).

In Table 1C, we report summary statistics for director characteristics. We find that only 1% of independent directors in our sample have attendance problems defined as missing 25% or more of board meetings. Independent directors hold an average of 1.7 total directorships including the focal firm directorship. The average director is 63 years old with board tenure averaging 5.5 years. Moreover, a director's mean (median) equity stake in the firm is a mere 0.07% (0.02%) of outstanding shares, suggesting that independent directors generally have weak financial incentives. On average, boards hold eight meetings per year.

In Table 1D, we report descriptive statistics for our firm-level analysis. Our firm-level analysis primarily uses the subsample of firm-years with information available in the BoardEx database for the period 2003–2013. Approximately 9% of firm-years have at least one newly appointed director who is considered problematic. On average, 21% of independent directors on the board are considered problematic, with similar proportions on the major committees. The average board has nine members, of whom 76% are classified as independent.

1.5 Empirical methodology

Throughout the paper, we estimate ordinary least squares (OLS) regressions (or linear probability models (LPM) in the case of binary dependent variable) with standard errors clustered by firm. Other than the fund-level analysis, we control for industry-year fixed effects throughout. Our results are robust to different ways of clustering the standard errors, such as at the firm-year level, industry level or industry-year level, and using firm and year fixed effects. Unless otherwise specified, we control for the following firm characteristics throughout: ownership by institutional

investors (*Institutional shares*), institutional investors ownership concentration (*Institutional share HHI*), percentage of independent board members (*Board independence*), number of board members (*Board size*), presence of a staggered board (*Staggered board*), older firms (*Mature firm*), firm size (*ln(Total assets)*), volatility of stock returns (*Firm risk*), firm sales growth (*Sales growth*), operating profitability (*ROA*), and investment opportunities (*Tobin's q*). We also control for the following director characteristics in our director-firm-year level tests: an indicator for director missing 25% or more of the meetings *(Poor meeting attendance*), *Number of directorships*, *Director tenure*, *Director age*, director ownership (*Director shares*), and whether the director sits on a major committee (*Major committee*).[17]

2. Shareholder Distraction and Voting

2.1 Investor-level mutual fund distractions and their voting decisions in director elections

We begin our analysis by examining voting behavior of institutional investors in director elections, as these annual elections represent one critical channel through which outside investors can discipline poor director quality and performance (Fos et al. 2017). Although a vast majority of director elections are uncontested and rejection of standing directors is rare, Aggarwal et al. (2019) show that poor vote results still have disciplinary effects in themselves. They find that these directors are less likely to stand for reelection, while if they remain on the board, they tend to assume less important board roles. These poorly performing directors also suffer from significant reputation losses in the director labor market, resulting in fewer new board appointments and relinquishing more of their other board seats relative to other independent directors.

[17] The results are also robust to controlling for the presence of directors who are primarily employed by the institutional shareholders of the firm, CEO ownership, book leverage, and the proportion of tangible assets.

Table 2 reports our results. Table 2A considers the relation between investor-level distractions and individual investor voting behavior. Our dependent variable is an indicator variable *Oppose director*, which equals one if the mutual fund casts a negative vote for a director in a given election year and is zero otherwise. The key explanatory variable is *Mutual fund distraction*, which is the average level of distraction experienced by the mutual fund in the past four quarters immediately preceding the voting date. We report LPM estimates with two types of fixed effects and with standard errors clustered at the firm level. The first type of fixed effects that we employ are fund-year fixed effects which account for time-varying fund characteristics.[18] The second type of fixed effects is director election proposal fixed effects, which are essentially director-firm-year fixed effects. This allows us to control for any time-varying director and firm characteristics such that we are comparing the impact of varying distraction levels across different mutual funds voting on the same director in the same firm-year. The effects of ISS recommendation for each director candidate and shareholder activist events, such as "just vote-no" campaigns, are subsumed in this set of director election proposal fixed effects.

In Model 1 of Table 2A, the coefficient on *Mutual fund distraction* is -0.043 and statistically significant at the 5% level. This implies that a 1-standard-deviation increase in fund distraction reduces the chance that this investor votes against an independent director candidate by 4.3% (= 0.043*0.06/6%), adjusted for the unconditional probability of a negative vote (6%).

We then examine whether problematic directors, who are often considered weaker monitors, are especially unlikely to be disciplined when institutional investors are distracted. Based on the prior literature, the monitoring incentives of two types of independent directors are

[18] We are able to do so because companies hold their annual general meetings in different quarters when different industries are treated as the "shocked" industries. We are essentially comparing the same fund across different quarters of the same year when their distraction level differs.

often compromised and thus, these directors need more shareholder attention. First, directors who are socially connected to CEOs are found to be management friendly and to be ineffective monitors. In particular, socially connected directors are associated with lower firm value, worse acquisitions, higher earnings management, lower CEO turnover-performance sensitivity, and increased incidence of corporate fraud (Hwang and Kim 2009, 2012; Chidambaran, Kedia, and Prabhala 2011; Fracassi and Tate 2012; Nguyen 2012). Second, busy directors are likely to be overcommitted and are shown to be less effective monitors. In particular, these overcommitted directors are generally associated with lower firm value, weaker profitability, and lower sensitivity of CEO turnover to firm performance (Fich and Shivdasani 2006; Falato et al. 2014; Masulis and Mobbs 2014).[19]

In Models 2 and 3 of Table 2A, we split the independent director sample into problematic and nonproblematic candidates. Most of the significant effects that we found earlier come from the subsample of problematic director candidates. Economically, a 1-standard-deviation increase in investor distraction reduces the chance of an institutional investor voting against a problematic candidate by 7.5% (= 0.075*0.06/6%). We also observe a significant fund distraction effect for nonproblematic director at the 10% level, but this effect is both statistically and economically weaker.[20] Problematic independent directors often receive less support as vigilant investors vote

[19] Our definition of problematic independent director is consistent with the spirit of the ISS voting guidelines, which explicitly mention that they generally recommend voting "No" if a director is busy or lacks independence (https://www.issgovernance.com/file/files/ISS2014USSummaryGuidelines.pdf). However, their classification of busy and nonindependent directors differs from ours and requires a much higher threshold, for example, a director who sits on more than six boards or affiliated directors who are on major board committees. As a result only 6% of our problemtic independent directors receive negative ISS recommendations. Moreover, ISS recommendations have important limitations. For example, ISS have been accused of making "blanket recommendations" that are uniform recommendations for or against all directors of a board/committee. Ertimur et al. (2015) find that more than 60% of negative ISS recommendations on director election proposals are due to committee or board-level issues rather than director-level characteristics.

[20] To test for whether the coefficients on *Mutual fund distraction* is statistically different across the two subsamples, we employ a stacking method whereby we estimate a single regression for the full sample where each of the control variables and fixed effects is interacted with both the problematic director and nonproblematic director indicator

against these weak monitors. Thus, when investors are distracted, they tend to ignore underperformance of problematic independent directors and support their reelections.

In Table 2B, we explore whether distracted mutual funds are less likely to independently evaluate the issues relating to individual proposals and are more likely to rely on proxy advisors when making voting decisions. Iliev and Lowry (2014) find that mutual fund investors vary greatly in their reliance on ISS recommendations and funds actively voting are less likely to rely on ISS recommendations. Our dependent variable is *ISS reliance*, an indicator variable that equals to one if the mutual fund votes with ISS recommendations and zero otherwise.

In Model 1 of Table 2B, the coefficient of *Mutual fund distraction* is 0.053 and statistically significant at the 1% level. This implies that a 1-standard-deviation increase in mutual fund distraction raises the chance that the fund follows ISS voting recommendations by 0.34% (= 0.053*0.06/0.93). In Models 2 to 5 of Table 2B, we split the sample into problematic independent directors and nonproblematic independent directors and further divide the sample into election proposals that receive negative and nonnegative ISS recommendations. We find that distraction increases fund reliance on ISS recommendations mainly for proposals with nonnegative ISS recommendations. Director election proposals with negative ISS recommendations should elicit more investor attention given their infrequency (6%). Thus, we should expect a weaker distraction effect for elections with rare negative ISS recommendations. Importantly, the difference in the

variables. In particular, suppose z and q are, respectively, indicators for our problematic and nonproblematic director subsamples, we estimate the regression: *Oppose director* $= a + \beta_{1z}$ *(Mutual fund distraction*z)* $+ \beta_{1q}$*(Mutual fund distraction*q) + Fund-year FEs*z + Fund-year FEs*q + Election proposal FEs*z + Election proposal FEs*q + e* for the full sample. We then test whether β_{1z} is significantly different from β_{1q}. Throughout the paper, we use this stacking method to test for whether the coefficients on the distraction measures are significantly different across the subsamples. More generally, suppose z and q are, respectively, indicators for the subsamples of *Problematic IDs* and *Nonproblematic IDs*, we then estimate the regression $Y = a + \beta_{1z}$ *(*X_1**z)* $+ \beta_{1q}$ *(*X_1**q)* $+ \beta_{2z}$ *(Control Var*z)* $+ \beta_{2q}$ *(Control Var*q) + FE*z + FE*q + e* on the full sample, where X_1 is our distraction measure, *FE* is the set of fixed effects, and *Control var* represents the set of control variables. After which, we test whether β_{1z} is significantly different from β_{1q}.

coefficient on *Mutual fund distraction* between the nonnegative ISS proposals and negative ISS proposals is statistically and economically stronger only in the subsample of problematic directors. This finding also supports our results in Table 2A. Distracted mutual funds are less likely to vote against directors, especially problematic ones, due to their increased reliance on nonnegative ISS recommendations.

We perform several robustness checks for our main result in Table 2A. First, mutual funds within the same fund families may have similar voting policies. Our results are robust to including interacted fund family and year fixed effects, on top of fund fixed effects and director-firm-year fixed effects. As another validity check, we follow Davis and Kim (2007) and exclude the six largest fund families that are likely to provide pension services to portfolio firms and as a result these institutional investors may act less independently. The results continue to hold. We also use a larger sample where we include both actively managed and passively managed funds. The results are much weaker as expected. Further, when we use Bushee's (1998) classification of institution types, we find a stronger distraction effect for mutual funds that are affiliated with institutions more likely to monitor, such as investment companies, independent investment advisors, and public pension funds, compared to gray institutions.[21] Finally, we construct a mutual fund distraction measure for each of the four quarters preceding the voting date and find that the distraction measure in the quarter nearest to the voting date has the strongest effect over the four quarters.

Overall, our findings show that distracted mutual fund investors are less likely to oppose management recommendations in independent director elections. These findings suggest that directors, especially problematic directors, experience less discipline during general elections and suffer less reputational damage when mutual fund investors are distracted.

[21] The Bushee (1998) classifications are taken from http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html.

2.2 Firm-level investor distraction and director election results

Next, we assess the impact of institutional investor distractions on director election outcomes aggregated to the firm-level. Our dependent variable is *Director "no" votes*, and the key explanatory variable is *Total distraction*, defined as the average distraction of the firm's institutional investors over the past four quarters immediately prior to the annual meeting date. We report LPM estimates and include director fixed effects in addition to the industry-year fixed effects in all the models. In addition to including the standard set of control variables discussed in Section 1.5, we also control for whether the ISS recommendation for the director is negative and the firm's use of majority voting following Cai, Garner, and Walkling (2009).[22]

In Table 3, Model 1, we find that the coefficient on *Total distraction* is negative and statistically significant, indicating that there are fewer negative votes for director candidates when the firm's institutional investors are distracted. Economically, a 1-standard-deviation increase in institutional investor distraction reduces the negative votes received by a director by 2.8% (= 0.028*0.05/5%). In Models 2 and 3, we separate the sample of directors into those who are problematic and those who are not. We find that the coefficient on *Total distraction* is statistically significant only for the subsample of problematic independent directors.[23] A 1-standard-deviation increase in institutional investor distraction decreases negative votes received by a problematic director by 8.8% (= 0.088*0.05/5%).[24] The coefficients on *Total distraction* are also statistically

[22] We do not control for the average percentage of negative votes for the remaining directors, as Gormley and Matsa (2014) point out that this may produce inconsistent estimates and distort inferences. The average percentage of negative votes for the remaining directors and the voting outcomes of individual directors are highly correlated at 0.76.

[23] We omit the control variable *Number of directorships* when separately examining the problematic and nonproblematic directors, as we use the director's number of directorships in constructing our problematic director variable.

[24] To be consistent and for ease of comparison, we use the overall sample mean and standard deviation when calculating the economic magnitudes in subsample analysis.

different across the two subsamples. Our results are also robust to using an indicator variable that equals one if the percentage of negative votes exceeds 10% as the dependent variable. Consistent with the fund-level voting results, these findings suggest that the effect of institutional investor distraction on director election outcomes is more pronounced for problematic independent directors, who are more likely to face negative shareholder assessments in the absence of shareholder distractions.

2.3 Sensitivity of director departures to negative voting results

Aggarwal et al. (2019) find that directors are more likely to leave the board or important board leadership positions after a more negative election outcome, suggesting that annual elections serve as an important disciplining mechanism for directors. We conjecture that this disciplinary effect is weaker when outside institutional investors are distracted. To assess this conjecture, we examine the impact of shareholder distraction on the sensitivity of director departures to election results. We only include directors who are less than 71 years old in the models to exclude board departures due to mandatory retirements (Fahlenbrach et al. 2017).

In Table 4, Model 1, the dependent variable is *Depart board*, an indicator variable that equals one if the director is not renominated to the board in year *t* and equals zero otherwise. We construct this variable by following each director from one election (year *t-1*) to the next (year *t*) in the ISS Voting Analytics database.[25] Models 2 to 5 test for the sensitivity of departures from major board committees to poor voting results. We compare director committee status taken from the RiskMetrics Director database in year *t* with that in year *t*-1. *Depart major committee* is an

[25] Our results are robust to alternatively using an indicator variable for director departures as the dependent variable; that is, we track each director from one year to the next using the RiskMetrics Director database and identify a departure when the director is no longer on the board in subsequent years.

indicator variable that equals one if a major committee member in year *t-1* departs from all the major board committees (audit, compensation and nomination) in year *t* and zero if she continues to sit on at least one major committee. Therefore, in this analysis, we require directors to sit on at least one major board committee in year *t*-1 and continue to sit on the board in year *t*, which further reduces the sample size. In Models 3 to 5, we examine departures from each of the individual committees. *Depart audit* is an indicater variable that equals one if an audit committee member in year *t*-1 leaves the audit committee in year *t* and does not join another major committee and zero if she continues to sit on the audit committee or joins another major committee. *Depart compensation* and *Depart nomination* are defined in a similar manner.

The primary independent variable of interest is the interaction term between *Total distraction* and the *Director "no" votes*. The *Director "no" votes* is based on the last available election results for the director, that is, annual general meeting (AGM) in year *t*-1. [26] *Total distraction* is the average distraction of the firm's institutional investors over the four quarters immediately prior to the AGM in year *t*, and thus, the timing of shareholder distraction is contemporaneous to all the dependent variables in Table 4. The voting results take into account the characteristics of poorly performing directors thus, we do not separately examine problematic directors and nonproblematic directors in this test.

Consistent with Aggarwal et al. (2019), we find that directors who received relatively weaker shareholder support in their last election are less likely to be renominated. Importantly, the disciplinary effect of these voting outcomes is attenuated when institutional investors are distracted. In particular, we find that the coefficients on the interaction term between *Total distraction* and *Director "no" votes* is negative and statistically significant at the 1% level in Model 1, suggesting

[26] For firms with staggered board, we measure *Director "no" votes* as of the last time the director stands for election prior to the AGM in year *t*.

that investor distraction weakens the sensitivity of director departures to prior negative votes. Economically, a 1-standard-deviation increase in distraction weakens the sensitivity of departure to negative votes by 11.6% (=2.318*0.05). Moreover, although poor voting results increase the likelihood of departures from leadership positions on the board, the sensitivity of departures from major committees are attenuated when investors are distracted as shown in Model 2. When we examine director departures from individual committees in Models 3 to 5, we find similar results for departures from audit and compensation committees, but departures from the nomination committee are less sensitive to shareholder distraction.

We undertake several robustness checks. First, we interact *Total distraction* with *Poor meeting attendance* and find a significant negative coefficient on the interaction term, indicating that directors with poor attendance records are less likely to be replaced when institutional investors are distracted. We also find similar results if we replace *Director "no" votes* with an indicator variable that equals to one if a director receives more than 10% negative votes and zero otherwise. Overall, our findings suggest that institutional investor distraction significantly weakens the disciplinary effect of shareholder voting for directors. When institutional investors are distracted, directors who have performed poorly in the elections are less likely to turnover and these underperforming directors are allowed to remain in leadership positions on the board when they should have stepped down.

3. Shareholder Distraction and Board Activities

So far, we show that independent directors are less likely to be disciplined by shareholder voting when institutional investors are distracted. As a result, we would expect that shareholder distraction reduces director and board incentives to diligently monitor management. To test this

proposition, we examine the impact of institutional investor distraction on board activity and composition. Our conjecture is that when outside institutional investors are distracted, they exert less monitoring pressure on the board, so directors reduce their own monitoring efforts by missing scheduled board meetings, scheduling fewer board meetings, and appointing more problematic monitors to the board.

3.1 Independent director meeting attendance

We first examine whether institutional investor distraction raises the likelihood of directors missing board meetings. Attendance records serve as one important indicator of outside director monitoring intensity for at least two reasons. First, it is an observable measure of director performance, which allows us to investigate whether directors behave differently when major shareholders are distracted. Second, board meeting attendance is a direct way for directors to obtain the information necessary to carry out their duties and exert influence over firm managers. To the extent that institutional investor monitoring intensity declines when they shift attention away from the firm, we expect to find that directors miss more board meetings.

Table 5 reports LPM estimates, where our dependent variable, *Poor meeting attendance*, is an indicator variable that equals one if a director missed more than 25% of board meetings over the past year ending just prior to the annual meeting date in year *t*, and zero otherwise.[27] The key explanatory variable in the regressions is *Total distraction*, which measures the average distraction level of all the firm's institutional investors over the past four quarters immediately before the annual meeting date in year *t*.

[27] Our results remain unchanged when we further control for whether the independent director is primarily employed by one of the firm's institutional shareholders and when we use alternative regression specifications, such as logit and probit models, with industry and year fixed effects.

In Model 1, the coefficient on *Total distraction* is positive and statistically significant. Economically, a 1-standard-deviation increase in the investor distraction level leads to a 17% (= 0.033*0.05/1%) rise in the probability that a director exhibits attendance problems, after adjusting for the unconditional probability of poor attendance records. We further compare the impact of investor distraction on the attendance records of problematic and nonproblematic independent directors. The coefficient on *Total distraction* is only statistically significant for the subsample of problematic independent directors and the economic impact is also bigger among the problematic directors compared to the overall sample. We also find that the coefficients on *Total distraction* are significantly different across the two types of directors. Overall, the poorer attendance records of problematic directors are consistent with our previous findings reported in Tables 2 to 4 that problematic directors face significantly weaker disciplinary votes in the face of distracted institutional investors.

In further tests, we find that the distraction effect on director attendance is stronger among smaller firms where directors have weaker reputation incentives to be vigilant monitors (Masulis and Mobbs 2014). In addition, we find that director ownership does not serve as a strong substitute for shareholder monitoring because the impact of shareholder distraction on poor attendance record is not attenuated when directors have higher ownership.

3.2 Board meeting frequencies

Next, we examine how board meeting frequencies are related to institutional shareholder distraction. Previous studies (Lipton and Lorsch 1992; Conger, Finegold, and Lawler 1998; Vafeas 1999) suggest that board meeting frequency is an important measure of board activity and directors perform their monitoring duties more diligently if they meet more frequently. We estimate OLS

regressions using the natural logarithm of the number of board meetings in year *t* as the dependent variable in all the models. *Total distraction* is the average distraction of the firm's institutional investors over the four quarters of year *t*. In addition to the list of standard firm-level control variables, we additionally control for an indicator for whether the firm has announced at least one acquisition during the year as boards are likely to meet more often when undertaking acquisition deals (Vafeas 1999).

Table 6 reports the results. In Model 1, the coefficient on *Total distraction* is negative and statistically significant. Economically, a 1-standard-deviation increase in *Total distraction* reduces the number of board meetings by 2.6% [=exp(-0.525*0.05)-1]. Vafeas (1999) finds that board meeting frequency increases when a firm is underperforming, In Model 2, we find that the sensitivity of board meeting frequency to poor firm performance declines when outside investors are distracted. For this purpose, we include an indicator variable, *Poor Tobin's q,* which equals one if the focal firm's Tobin's q is in the lowest quartile of all firms at the beginning of year *t*, and its interaction term with *Total distraction*. We find that the coefficient on the interaction term is negative and significant, indicating that boards are less diligent in seeking to improve firm performance when institutional shareholders are distracted.

In further analysis, we find similar results using a Poisson count model and when we use an alternative dependent variable, *Fewer board meetings*, which is an indicator variable that equals one if the number of board meetings during the year is less than the number of meetings in the prior year and is zero otherwise. We find that investor distraction significantly increases the likelihood of firms having fewer board meetings in the current relative to the prior year.

3.3 Director appointments

Next, we examine how changes in shareholder attention affect director appointments. By appointing effective monitors to the board, shareholders would be better represented in major corporate decisions, which can ultimately improve firm performance and value. Table 7 reports the results. In panel A, we examine *New problematic ID appointment*, an indicator variable that equals one if the firm has at least one newly appointed problematic independent director in year *t* and is zero otherwise. We follow directors from the AGM in year *t*-1 to year *t* to determine whether any new directors are appointed in year *t*. *Total distraction* is the average distraction over the four quarters ending just prior to the annual meeting date in year *t*. In Model 1, the coefficient on shareholder distraction is positive and statistically significant. Economically, a 1-standard deviation increase in *Total distraction* raises the likelihood of appointing a new problematic director by 10% (= 0.18*0.05/0.09). In Models 2 and 3, we split our sample based on the proportion of problematic independent directors on the nominating committee at the beginning of year *t*, *PID% on nomination committee.*[28] The impact of shareholder distraction on new appointments of problematic directors is stronger among firms with problematic independent directors on the nominating committee.

In panel B, we examine the reappointment of existing directors where the dependent variable is *Problematic ID reappointment*, an indicator that equals one if the firm has reappointed a current problematic director and is zero otherwise. Consistent with the appointments of new directors, when shareholders are distracted, problematic directors are more likely to be reappointed, especially when the nomination committee consists of directors who are problematic. A 1-

[28] The variable *PID% on nomination committee* is likely to be endogenous, although we measure it with a lag, because firms with problematic directors on the board are likely to appoint problematic directors in the future, reflecting the firm's weaker governance. By dividing the sample into two groups based on the existence of problematic directors on the nomination committee and examining the impact of distraction on board appointments within each subsample, we attenuate issues relating to endogeneity. With this empirical design, any unobservable variables driving the likelihood of appointing problematic directors and the presence of problematic directors on the nominating committee are kept constant for all the firms within each subsample.

standard-deviation increase in distraction increases the likelihood of a problematic director being appointed by 3.3% (0.435*0.05/0.66) in the overall sample and 5.1% (= 0.673*0.05/0.66) in the sample of firms with problematic directors on the nomination committee.

Given that we find that problematic directors are less likely to depart in the face of poor voting results and they are also more likely to be appointed/reappointed, we examine the resultant impact on board composition in a robustness test. We find that when institutional investors are distracted, the proportion of problematic directors on all the major board monitoring committees (compensation, audit and nomination) significantly rises and the proportion of problematic directors on the board also increases. In addition, our director appointment result is stronger among firms where CEOs are more powerful, as measured by CEO-chairman duality. Overall, our evidence shows that investor distraction adversely affects board composition resulting in ineffective directors helming the major committees often tasked to monitor management.

4. Shareholder Distraction and Board Monitoring Effectiveness

The decline in board monitoring effectiveness when shareholders are distracted should also manifest itself in governance outcomes that fall within board oversight. In this section, we examine how institutional investor distraction affects CEO compensation levels and structure, earnings management, acquisitions, and firm valuation. In particular, the negative impact of shareholder distraction on governance should be mainly felt by firms with ineffective boards or committee members if weak director incentives are a major channel through which shareholder distractions affect board governance.

Table 8 presents the results of this analysis. The dependent variable in Model 1 of panel A is *High abnormal CEO pay*, an indicator variable that equals one if the firm's abnormal CEO pay

is above the median of all firms in the same fiscal year, and zero otherwise. Following Cai et al. (2009), we define abnormal CEO compensation as the residual from a regression where the dependent variable is the natural logarithm of total CEO compensation and the explanatory variables are *ln(Total assets)*, *ROA*, *Firm risk*, and industry-year fixed effects. In Model 1, we find that a 1-standard-deviation rise in investor distraction is associated with a 5.1% (= 0.536*0.05/0.53) increase in the likelihood of high abnormal CEO pay.

We examine whether investor distraction leads to weaker CEO pay-performance sensitivity in Model 2. The dependent variable is *CEO pay-performance sensitivity*, which is the change in the value of the CEO's annual equity-based compensation in thousands of dollars for a 1% change in the stock price (Delta) in year *t*. We follow the procedure in Hayes, Lemmon and Qiu (2012) to identify the current year's stock and stock option grants and to calculate the delta of a CEO's annual compensation (labelled *"delta_c"* in their paper). A 1-standard-deviation increase in *Total distraction* reduces CEO pay-performance sensitivity by 15.76% (= 143.94*0.05/45.66).

We turn to earnings management in Model 3. To measure earnings management, we follow Dechow, Sloan, and Sweeney (1995) and calculate a firm's discretionary accruals.[29] The coefficient on *Total distraction* is positive and significant. Economically, a 1-standard-deviation increase in distraction raises the level of discretionary accruals by 0.013 (= 0.264*0.05).

Kempf et al. (2017) find that shareholder distraction significantly increases a firm's likelihood of initiating diversifying takeovers. The dependent variable in Model 4 is *Diversifying merger*, an indicator variable that equals one if the firm has undertaken at least one diversifying

[29] Using a modified Jones model, discretionary accruals is defined as total accruals minus the predicted value of total accruals. The predicted value of total accruals is from regressing total accruals on the inverse of total assets, the difference between change of sales and change of accounts receivable scaled by total assets, and plant, property, and equipment (PPE) scaled by total assets. The regression coefficients are estimated annually for each two-digit SIC industry.

merger during the year and zero otherwise. Kempf et al. (2017) uses a sample of all publicly traded firms, we confirm their main results using a sample of S&P 1500 firms and find a positive and significant impact of *Total distraction*. In Model 5, we examine the impact of distraction on *Tobin's q*, which we use as an overall indicator of firm valuation. Firm value falls by 3.37% (= 1.316*0.05/1.95), relative to the average Tobin's q, when investor distraction increases by 1-standard-deviation.[30]

We further split the full sample into firms with and without problematic directors on the relevant board committees or board and report the results of this subsample analysis in panel B of Table 8. The impact of distraction is significant only among firms with problematic directors across almost all the outcome variables. In particular, the effect of *Total distraction* on *High abnormal CEO pay* and *CEO pay-performance sensitivity* is only significant among firms with problematic directors on their compensation committees. Also, firms with problematic members on their compensation committees experience greater economic impacts of shareholder distraction, although the difference in the *Total distraction* coefficients between Models 1 and 2 (or 3 and 4) is not statistically significant. In Models 5 and 6, we find a stronger statistical and economic impact of shareholder distraction on earnings management among firms with problematic directors on their audit committees compared to firms without such directors, where the difference is statistically significant at 10%. In Models 7 and 8, we find that investor distraction significantly affects the likelihood of a diversifying merger for both subsamples of firms with and without problematic directors on the board, although the coefficient of the distraction measure is

[30] The economic magnitude of our result is in line with other studies examing the impact of governance issues on firm value. For example, Fich and Shivdasani (2006) find that the presence of a busy board, that is, the majority of board members are busy, reduces Tobin's q by approximately 4%. Gompers, Ishii, and Metrick (2013) find that on average, a 1-point increase in the G-index leads to a 4.3% reduction in *q*. Fracassi and Tate (2012) examine the impact of social connections on firm value and find that a 1-standard-deviation increase in the number of strictly independent directors, that is, independent directors with no social ties to the CEO, increases Tobin's q by 5.1% relative to its mean.

economically larger in the subsample of firms with problematic directors on the board, where the difference has a *p*-value = .135. Finally, we find that investor distraction significantly and negatively affects Tobin's q only among the firms with problematic directors on the board. The coefficient on *Total distraction* is also economically and statistically stronger among firms with problematic independent directors on their boards compared to firms without such directors.

In further untabulated analysis, we find that shareholder distraction significantly weakens forced CEO turnover-performance sensitivity, and the impact of shareholder distraction is only statistically significant among firms when the nomination committee includes a problematic independent director.[31] We also find that shareholder distraction reduces operating cash flows, but only for firms with problematic directors on the board. Overall, our findings in Table 8 highlight that board governance is an important channel through which shareholder distraction can affect governance outcomes and destroy firm value. Our results also support and complement the findings of Kempf et al. (2017) that firms with distracted shareholders are more likely to make value-destroying acquisitions, cut dividends, grant opportunistically timed stock options to CEO, and less likely to fire poorly performing CEOs. Given that these corporate actions are also within the purview of the board, our results suggest that weaker board governance is one possible channel through which shareholder distractions affect corporate outcomes.

5. Robustness Analysis

5.1 Alternative distraction measures

We undertake further analysis using several alternative investor distraction measures. We reestimate the main results of Tables 3 to 8 and present these findings in panels A to J of Table 9.

[31] Our forced CEO turnover data come from Florian Peters' Web site (http://www.florianpeters.org/data/) as used in Peters and Wagner (2014).

For brevity, only the coefficients and accompanying *t*-statistics of the alternative distraction measures are shown. The impact of distraction should be most evident among institutions most likely to actively monitor managers. In Model 1, we alternatively measure *Monitoring distraction* based on the distractions of institutions most likely to monitor managers, which we define as investment companies, independent investment advisors, and public pension funds. Our main conclusions continue to hold when we use this alternative investor distraction measure. As alternative measures of institutional investors most likely to monitor, we construct distraction metrics based on the firm's largest 10 or 20 institutional shareholders to capture only the largest and therefore most influential shareholders. We find that the results are qualitatively similar.

In the construction of our main distraction measure, we treat both positive and negative industry shocks equally. Models 2 and 3 separate distractions into positive and negative industry shocks. *Distraction (positive shocks)* is the distraction level of the institutional investors calculated based only on positive shocks to their portfolio firms in other industry sectors, while *Distraction (negative shocks)* is calculated based only on similar negative shocks. Positive (negative) distractions refer to situations where the industry sector has the highest (lowest) stock returns over all FF12 industry sectors. Overall, we find similar distraction effects for these two measures. This is expected given that investors tend to have holdings in both positive and negative shocked industries each quarter: the correlation coefficient of distraction from positive shocks and distraction from negative shocks is aproximately 0.9.

In Model 4, we employ an alternative distraction measure based on extreme trading volume across the FF12 industry sectors. In this approach, an industry sector is deemed to have experienced a shock if the industry has the highest trading volume across all twelve industry sectors. Our results are robust to this alternative distraction measure.

In constructing the *Total distraction* variable, we sum across all institutional investors of a focal firm, where we weight the investor-level distraction measure by $w_{i,f,q-1}$, which captures the relative shareholdings that each fund investor has in the firm. One possible concern is that variation in the weights may also cause variation in our measure of investor distraction. To the extent that investors may hold less stock in firms they do not want to monitor, our *Total distraction* measure could introduce some endogenous bias. To address this issue, we construct an *Equal-weighted ownership distraction* measure in Model 5, where we equally weight all the portfolio firms the institutional investor holds; that is, we ignore the $PFweight_{i,f,q-1}$ when constructing $w_{i,f,q-1}$. We find similar distraction effects using this alternative measure.

5.2 Defining problematic directors

Throughout we have defined problematic directors as those who are overly busy or who are socially connected to the CEO as a number of studies have found these directors to be ineffective monitors. However, some studies argue that these types of directors can add value in the form of better advisory services, especially when firms have high advisory needs.[32] Nevertheless, the preponderance of evidence is that these two types of independent directors, rather than these types of *outside* directors, are associated with poorer firm performance.

The focus of our study is on the monitoring role of independent directors, rather than their advising role. The outcome variables that we examine are also governance variables that requires

[32] For example, Schmidt (2015) report that socially connected outside directors are associated with higher acquisition returns when advisory needs are high, and Kang et al. (2018) find that CEO-friendly outside directors are associated with higher firm innovation. Field, Lowry, and Mkrtchyan (2013) report that busy outside directors can offer valuable advisory services due to their board experience and contacts, which is particularly beneficial to firms in their early stages of development. In addition, some other studies argue that busy directors may be of high ability (Adams, Hermalin, and Weisbach 2010). Most of these studies focus on outside directors which includes affiliated (gray) directors, who are frequently found to be ineffective monitors. Our focus is on independent directors only.

director monitoring. Therefore, the beneficial advisory roles of socially connected directors and busy directors are likely to be less important in our setting. Neverthless, in a robustness check, we also tried deleting young firms (firms within 5 years of their IPO) from our sample and find similar results with almost identical coefficients as young firms are rare in our sample of RiskMetrics firms.

Additionally, we perform a robustness check for our definition of problematic independent directors by excluding the independent directors who could be valuable advisors. Celikyurt, Sevilir and Shivdasani (2012) and Field, Lowry, and Mkrtchyan (2013) find that independent directors who are venture capitalists (VC IDs) are likely to serve on the board as valuable advisors rather than as reliable monitors of management, so we exclude VC IDs when defining problematic directors in our robustness tests. We follow Celikyurt et al. (2012) and define VC IDs as directors who have worked or are working for VC firms. The information on director employment history is taken from BoardEx and VC firms are identified using the SDC VentureXpert Database.[33] We find that 3% of all IDs are VCs and 17% of all firms have at least one VC ID. As expected, our main conclusion is robust to deleting VC IDs.[34]

5.3 Other robustness checks

Throughout the paper we divide our sample based on whether the director is a problematic director (in director-level tests) or whether the board or the relevant board committee has a

[33] We also manually check company names to further exclude private equity firms and have identified 344 unique VC IDs in our sample who have worked for 202 unique VC firms. Our statistics on VC IDs are aligned with those of Celikyurt et al. (2012), who find 5% of all directors are VCs in the 1998–2006 period.

[34] Field et al. (2013) argue that busy IDs can be beneficial advisors for firms with high advisory needs, particularly young firms or firms with VC directors. Indeed, we find that the impact of investor distraction on the governance outcomess in Tables 7A and 8B is insignificant in the subsample of firms with at least one busy VC ID on the board (or the relevant committees) and is also not significantly different from firms with only nonbusy independent directors on the board (or the relevant committees). Admittedly, these tests lack power as only 2% of all firm-year observations in our sample have at least one busy VC ID on the board.

problematic director present (in firm-level tests) and use subsample analysis to test for the incremental effects of problematic directors. Empirical studies have often used either subsample or interaction term approach to test for the incremental effects of moderating variables. Therefore, we also use an interaction term approach where we run a single regression for the full sample and interact our distraction measures with indicator variables for the presence of problematic directors and we generally find statistically stronger results.[35]

As a further robustness check, we control for a focal firm's relatedness and supply-chain relatedness to the shocked industry to take into account any indirect economic links between a shocked industry sector and the focal firm. Following Kempf et al. (2017), we use the Hoberg and Phillips (2010) text-based industry classification to define a focal firm's relatedness to the shocked industry as the proportion of all the focal firm *f*'s peers in the same Hoberg-Phillips industry classification experiencing these positive or negative industry return shocks. Additionally, we define a firm's supply-chain relatedness as the proportion of focal firm *f*'s major customers or suppliers experiencing these positive or negative industry return shocks.[36] Our results remain robust after including these two added control variables.

We also check whether our results are driven by the presence of distracted directors who sit on the boards of other firms in shocked industries (Masulis and Zhang 2019). Our results are robust to deleting these directors in the director-firm-year analysis and firms with at least one such distracted director in the firm-year analysis.

[35] As an example, suppose z is a subsample indicator and X_1 is the distraction measure, we would then estimate the regression $Y = a + \beta_1 (X_1 * z) + \beta_2 X_1 + \beta_3 z + \beta_4 Control\ var + FE + e$ on the full sample. *FE* is the set of fixed effects, and *Control var* is a set of control variables. The significance on β_1 would then indicate whether the incremental effects of problematic directors are significant.

[36] We thank Jared Stanfield for sharing the gvkey of customer firms in Compustat Segment files as used in Harford, Schonlau, and Stanfield (2019).

6. Conclusion

We examine whether shareholder monitoring affects director incentives to monitor managers. Using exogenous variations in institutional monitoring intensity caused by time-variation in the level of attention allocated to stocks in an institutional investor's portfolio, we find that reduced institutional monitoring intensity weakens board oversight. Distracted institutional investors are less likely to use their votes as a disciplining device for ineffective independent directors. Independent directors on average receive significantly more favorable votes when outside institutional investors are distracted, and the distraction impact is stronger for problematic director candidates who have weaker monitoring qualities. Furthermore, independent directors, especially problematic directors, are less likely to depart from the board or step down from leadership positions following poor voting outcomes, implying that the disciplinary and reputational effects of voting on an independent director's incentives are weaker in the presence of distracted investors.

We further find that as a result of weakened institutional investor monitoring, board monitoring intensity declines. Specifically, individual independent directors miss more meetings and firms with distracted institutional investors hold fewer board meetings, and appoint more conflicted or overcommitted independent directors to the board. Lastly, we find that the negative impact of shareholder distraction on various governance outcomes is stronger when a board's monitoring ability is compromised by existing problematic independent directors, suggesting that one of important channels through which investor distraction affects firm governance is through their impact on board monitoring.

Overall, we find strong evidence that distracted institutional investors cause poorer board governance, in part through fewer disciplinary votes in director elections. Boards generally have

primary responsibility for monitoring management performance. Our study shows that the board monitors themselves need to be monitored by shareholders. Outside institutional shareholder monitoring provides one important source of incentive for independent directors to exert more monitoring efforts and to more effectively perform their monitoring duties.

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Appendix

Table A1. Variable definitions

Variable	Definition
A. Distraction measures	
Mutual fund distraction	An investor-level proxy for how much the mutual fund investor is distracted over the four quarters immediately before the voting date. It is the weighted average return shocks across the industries that is unrelated to the focal firm, held by the mutual fund. The weights are based on the investor's portfolio weights in the industries. We use the Fama-French 12-industry classification
Total distraction	A firm-level proxy for how much institutional investors are distracted over the past four quarters immediately before the annual meeting date/fiscal year end. It is the weighted average distraction of the institutional investors in the firm. We calculate the investor-level distraction measure as the weighted average return shocks across industries that is unrelated to the focal firm, held by the investor. The return shocks are weighted by the investor's portfolio weights in the industries. We use the Fama-French 12-industry classification
Monitoring distraction	Total distraction calculated based on the distraction levels of institutions who are most likely to monitor, such as investment companies, independent investment advisors, and public pension funds
Distraction (positive, negative) shocks	Total distraction calculated based on positive (negative) industry-level return shocks
Volume-weighted distraction	Total distraction calculated based on extreme trading volume across the Fama-French 12-industry sectors instead of return shocks
Equal-weighted ownership distraction	Total distraction calculated by equally weighting portfolio firms in institutional investors' shareholdings
B. Director characteristics	
Depart board	An indicator variable that equals one if the independent director leaves the board, and zero otherwise
Depart major committee	An indicator variable that equals one if the director no longer serves on any of the board's major committees (audit, compensation, and nomination committee), but remains on the board, and zero otherwise
Depart audit/compensation/nomination	An indicator variable that equals one if the director leaves the audit, compensation, or nomination committee but remains on the board, and zero otherwise
Director age	The director's age
Director shares	The director's percentage share ownership in the firm
Director tenure	The number of years the director has served on the board
Director "no" votes	The number of "Against" and "Withhold" votes received by a particular director candidate divided by the total number of votes cast. This variable is at the firm-director-election date level
ISS reliance	An indicator variable that equals one if the mutual fund votes with the ISS recommendation and zero otherwise

Major committee	An indicator variable that equals one if the director is a member of the nominating, audit, or compensation committee
Negative ISS	An indicator variable that equals one if the ISS recommendation for the director candidate is either "Against" or "Withhold," and zero otherwise
Number of directorships	The number of directorships held by the director within the RiskMetrics universe during the year, including the focal firm
Oppose director	An indicator variable that equals one if the mutual fund votes "Against" or "Withhold" for a particular director candidate, and zero otherwise. This variable is at the fund-firm-director-election date level
Poor meeting attendance	An indicator variable that equals one if the director attended less than 75% of the board meetings during the year, and zero otherwise
ID	An independent director on the firm's board
Problematic ID or PID	An indicator variable that equals one if the independent director holds 3 or more directorships during the year, and/or if the director shares a social tie with the current CEO, and zero otherwise. A social tie exists if the CEO and director attend a common educational institution or are members of the same nonbusiness organization
C. Firm characteristics	
Acquisition	An indicator variable that equals one if the firm has announced at least one acquisition during the fiscal year and zero otherwise
Board size	The number of directors on the board
Board independence	The percentage of board members who are independent directors using the RiskMetrics classification
CEO pay-performance sensitivity	The change in the value of a CEO's annual equity-based compensation in thousands of dollars for a 1% change in the stock price (Delta)
Discretionary accruals	A proxy for earnings management calculated using the modified Jones model as in Dechow, Sloan, and Sweeney (1995)
Diversifying merger	An indicator variable that equals one if a firm announces at least one diversifying M&A transaction during the fiscal year and zero otherwise An M&A transaction is classified as diversifying if the bidder's FF12 industry classification is different from that of the target
Firm risk	The natural logarithm of the variance of daily returns over the fiscal year
High abnormal CEO pay	An indicator variable that equals one if the abnormal CEO compensation is greater than the median abnormal CEO pay for the year, and zero otherwise. Abnormal CEO compensation is the residual from an OLS regression where the dependent variable is the natural logarithm of total CEO compensation and the control variables include log(assets), ROA, total firm risk, and industry-year fixed effects
Institutional shares	The proportion of the firm's common shares outstanding owned by all institutional investors
Institutional share HHI	The institutional investor ownership concentration in the firm as measured by a Herfindahl-Hirschman index (HHI) as used in Hartzell and Starks (2003)

Majority voting	An indicator variable that equals one if the firm requires a director to receive more than 50% "*For*" votes of the total shares voted to be successfully elected
New problematic ID appointment	An indicator variable that equals one if the firm has appointed at least one new problematic independent director, and zero otherwise
Number of board meetings	The number of board meetings held by the firm during the fiscal year
Mature firm	An indicator variable that equals one if the firm's age over the sample period is greater than the median sample firm age, and zero otherwise
Poor Tobin's q	An indicator variable that equals one if the firm's Tobin's q falls in the bottom quartile of all the sample firms for the year, and zero otherwise
Problematic ID reappointment	An indicator variable that equals one if the firm has reappointed at least one problematic independent director to the board and zero otherwise
PID%	The proportion of problematic directors among the board's independent directors
PID% on audit committee	The proportion of problematic independent directors on the board's audit committee
PID% on comp committee	The proportion of problematic independent directors on the board's compensation committee
PID% on nomination committee	The proportion of problematic independent directors on the board's nomination committee
ROA	Earnings before interest, taxes, depreciation, and amortization/beginning-year total assets
Sales growth	ln(1 + sales/lagged sales)
Staggered board	An indicator variable that equals one if only part of the directors on the board are elected each year, and zero otherwise
Tobin's q	(Total assets - book value of equity + market value of equity)/ beginning-year total assets
Total assets	Book value of total assets in millions of dollars

Table 1. Summary statistics

The main sample comes from the intersection of RiskMetrics director database, Thomson-Reuters Institutional Holdings (13F) database, Compustat, and CRSP. We exclude firms with dual-class share structures and closely held firms, defined as those where insider ownership is greater than 50% or the total board ownership is greater than 50%. We also exclude firms in regulated industries and firm-years with industry return shocks. The final sample consists of 88,700 independent director-firm-years and 12,889 firm-year observations for the period 1996 to 2013. Our sample is further constrained to 29,217 independent director-firm-year observations and a maximum of 6,402 firm-year observations for the period 2003 to 2012 after we require director voting information from the Voting Analytics database and director social ties information from the BoardEx database. Table A1 in the appendix defines the variables.

Variable	N	Mean	Median	25th	75th	STD
A. Distraction measures						
Mutual fund distraction	20,594	0.14	0.14	0.10	0.18	0.06
Total distraction	12,889	0.17	0.17	0.13	0.19	0.05
B. Fund votes and independent director characteristics in the director election sample (2003–2012)						
Oppose director	1,845,333	0.06	0.00	0.00	0.00	0.26
ISS reliance	1,845,333	0.93	1.00	1.00	1.00	0.25
Director "no" votes	29,217	0.05	0.02	0.00	0.05	0.08
Negative ISS	29,217	0.06	0.00	0.00	0.00	0.24
Problematic ID	29,217	0.23	0.00	0.00	0.00	0.42
Depart board	21,648	0.16	0.00	0.00	0.00	0.36
Depart major committee	18,806	0.17	0.00	0.00	0.00	0.37
Depart audit	14,984	0.07	0.00	0.00	0.00	0.27
Depart compensation	14,489	0.07	0.00	0.00	0.00	0.27
Depart nomination	14,305	0.08	0.00	0.00	0.00	0.28
C. Independent director and firm characteristics in the main sample (1996–2013)						
Poor meeting attendance	88,700	0.01	0.00	0.00	0.00	0.12
Number of directorships	88,700	1.71	1.00	1.00	2.00	1.02
Director age	88,700	62.80	63.00	58.00	68.00	7.83
Director tenure (in years)	88,700	5.50	5.00	3.00	8.00	3.76
Director shares (%)	88,700	0.07	0.02	0.00	0.07	0.12
Number of board meetings	11,931	7.58	7.00	5.00	9.00	3.39
D. Board and firm characteristics in the subsample requiring information from BoardEx (2003–2013)						
New problematic ID appointment	6,402	0.09	0.00	0.00	0.00	0.29
Problematic ID reappointment	6,402	0.66	1.00	0.00	1.00	0.48
CEO pay-performance sensitivity ($000s)	4,652	45.66	22.09	7.10	57.44	61.34
Discretionary accruals	6,067	0.02	-0.01	-0.08	0.05	0.40
Diversifying merger	6,134	0.04	0.00	0.00	0.00	0.19
High abnormal CEO pay	6,138	0.53	1.00	0.00	1.00	0.50
Tobin’s q	6,134	1.95	1.62	1.27	2.24	1.08
PID%	6,134	0.21	0.17	0.00	0.33	0.20
PID% on nomination committee	6,402	0.24	0.20	0.00	0.40	0.28
PID% on audit committee	6,134	0.21	0.20	0.00	0.33	0.25
PID% on comp committee	6,134	0.22	0.17	0.00	0.33	0.26
Institutional shares	6,134	0.68	0.81	0.63	0.91	0.33
Institutional share HHI	6,134	0.03	0.03	0.02	0.04	0.03
Board size	6,134	9.09	9.00	8.00	10.00	2.11
Board independence (%)	6,134	75.86	77.78	66.67	87.50	12.84
Staggered board	6,134	0.57	1.00	0.00	1.00	0.49

Table 2. Mutual fund distraction and fund votes for independent director election proposals

This table reports the OLS regression results of fund-level distraction on mutual funds' votes for independent director election proposals for the period from 2003 to 2012. The sample consists of 1,845,333 fund votes. We only include votes by actively managed U.S. domestic equity funds. The dependent variable in panel A is *Oppose director*, which is an indicator variable that equals one if the mutual fund votes "Against" or "Withhold" for a particular independent director election proposal, and zero otherwise. The dependent variable in panel B is *ISS reliance*, which is an indicator variable that equals one if the mutual fund vote with the ISS recommendation (i.e., votes "Against" or "Withhold" when ISS makes negative recommendations or "For" when ISS makes positive recommendations), and zero otherwise. The key independent variable, *Mutual fund distraction* is the investor-level proxy for how much the mutual fund investor is distracted over the past four quarters immediately before the voting date. *Problematic IDs* are defined as independent directors who hold 3 or more directorships, and/ or are socially connected to the CEO. The remaining independent directors are *Nonproblematic IDs. Negative ISS proposals* are defined as director election proposals where the ISS recommendation for the director candidate is either "Against" or "Withhold." We include director election proposal fixed effects (equivalent to director-firm-year fixed effects) to account for time-varying director and firm characteristics. We also include *interacted* fund and year fixed effects to account for time-varying fund characteristics. Standard errors are clustered by firm. *t*-statistics are reported in parentheses, and the difference in the mutual fund distraction coefficients between *Problematic* and *Nonproblematic IDs* (*Negative ISS proposals* and *Nonnegative ISS Proposals*) is reported with the associated *F*-statistic in brackets. *$p < .1$; **$p < .05$; ***$p < .01$.

A. Mutual fund disciplinary vote and fund investor distraction

Dependent variable:	*All*	*Problematic IDs*	*Nonproblematic IDs*
Oppose director	(1)	(2)	(3)
Mutual fund distraction	-0.043**	-0.075**	-0.039*
	(-2.14)	(-2.56)	(-1.81)
Difference in coefficients			-0.036*
between Models 2 and 3: *F*-stat			[3.39]
Fund-year FEs	Yes	Yes	Yes
Election proposal FEs	Yes	Yes	Y
Observations	1,845,333	338,535	1,506,386
Adjusted R^2	.354	.336	.361

B. Mutual fund reliance on proxy advisors and fund investor distraction

Dependent variable		*Problematic IDs*		*Nonproblematic IDs*	
ISS reliance	*All*	*Nonnegative ISS proposals*	*Negative ISS proposals*	*Nonnegative ISS proposals*	*Negative ISS proposals*
	(1)	(2)	(3)	(4)	(5)
Mutual fund distraction	0.053***	0.049**	-0.440*	0.059***	0.041
	(2.87)	(2.07)	(-1.89)	(3.83)	(0.37)
Difference in coefficients between		0.489**		0.018	
Models 2 & 3 / 4 & 5: *F*-stat		[5.00]		[0.03]	
Fund-year FE	Yes	Yes	Yes	Yes	Yes
Election proposal FE	Yes	Yes	Yes	Yes	Yes
Observations	1,845,333	317,535	19,486	1,415,228	90,208
Adjusted R^2	.358	.263	.699	.253	.646

Table 3: Independent director election outcomes and institutional investor distraction

This table reports OLS regression results for firm-level distraction on independent director election outcomes for the period 2003 to 2012. The sample consists of 29,217 independent director elections. The dependent variable is *Director "no" votes*, which is the number of "Against" and "Withhold" votes received by a particular director candidate divided by the total number of votes cast. *Total distraction* is the average distraction of the firm's institutional investors over the past four quarters prior to the meeting date. *Problematic IDs* are defined as independent directors who hold 3 or more total directorships and/or are socially connected to the CEO. Table A1 in the appendix defines the variables. Standard errors are clustered by firm. *t*-statistics are reported in parentheses, and the difference in the *Total distraction* coefficients between problematic and nonproblematic directors is reported with their associated *F*-statistic in brackets. **p* < .1; ***p* < .05; ****p* < .01.

Dependent variable:	*All IDs*	*Problematic IDs*	*Nonproblematic IDs*
Director "no" votes	(1)	(2)	(3)
Total distraction	-0.028*	-0.088**	-0.020
	(-1.82)	(-2.54)	(-1.14)
Negative ISS	0.199***	0.181***	0.211***
	(44.85)	(24.66)	(38.79)
Poor meeting attendance	0.060***	0.059***	0.062***
	(5.64)	(3.13)	(4.75)
Number of directorships	0.001		
	(1.50)		
Director tenure	0.001***	0.001*	0.001**
	(3.07)	(1.87)	(2.45)
Director age	-0.003**	0.000	-0.004**
	(-1.98)	(0.05)	(-2.52)
Director shares	-0.000	-0.000	-0.000
	(-0.41)	(-0.44)	(-0.78)
Major committee	0.004**	0.001	0.005**
	(2.55)	(0.51)	(2.32)
Institutional shares	0.007	0.030***	0.000
	(1.42)	(2.84)	(0.07)
Institutional share HHI	-0.054***	-0.189***	-0.035**
	(-2.73)	(-2.72)	(-2.31)
Board independence	0.000	0.000	-0.000
	(1.02)	(0.67)	(-0.44)
Board size	-0.000	-0.001	-0.000
	(-1.02)	(-1.45)	(-0.03)
Staggered board	0.002	0.003	0.002
	(1.61)	(1.47)	(0.87)
Majority voting	-0.007***	-0.000	-0.010***
	(-5.81)	(-0.03)	(-7.55)
Mature firm	-0.003**	-0.003	-0.002
	(-2.05)	(-1.01)	(-1.14)
ln(Total assets)	-0.001	0.000	-0.002**
	(-0.82)	(0.05)	(-2.08)
Firm risk	0.008***	0.008***	0.008***
	(8.84)	(3.70)	(8.24)
Sales growth	-0.011***	-0.012	-0.013***
	(-2.69)	(-1.34)	(-2.68)
ROA	-0.001	0.001	-0.004
	(-0.49)	(0.52)	(-1.54)
Tobin's q	-0.004***	-0.002*	-0.004***
	(-5.70)	(-1.88)	(-4.75)
Difference in coefficients between Models 2 and 3: *F*-stat		-0.068* [3.10]	
Director FEs	Yes	Yes	Yes
Industry-year FEs	Yes	Yes	Yes
Observations	29,217	7,166	21,342
Adjusted R^2	.558	.555	.574

Table 4. Sensitivity of independent director departures to weak election outcomes and investor distraction

This table reports OLS regression results of the effect of institutional investor distraction on the sensitivity of independent director departure to director election votes for the period 2003 to 2012. We additionally examine the departure of directors from major committees in Columns 2 to 5. We only include independent directors who are 70 and younger in this analysis, to ensure their departures are not due to mandatory retirement. The dependent variable in Column 1 is *Depart board*, an indicator variable that equals one if an independent director is not renominated by the board in year *t* and zero otherwise. The dependent variable in Column 2 is *Depart major committee*, an indicator variable that equals one if a director departs from all of the major committees (audit, compensation or nomination committee) she is sitting on but continues to remain on the board in year *t,* and zero if she continues to sit on at least one major committee in year *t*. We check whether a director departs from a major committee by comparing her committee status in year *t* with that in year *t*-1. Therefore, the sample for Column 2 further requires that an independent director be sitting on at least one major committees in year *t*-1 and continues to remain on the board in year *t*. The dependent variable in Column 3 is *Depart audit*, an indicator variable that equals one if a director leaves the audit committee and does not join another major committee, but continues to serve on the board in year *t*, and zero if she continues to sits on the audit committee or joins another major committee in year *t*. The sample in Column 3 requires that an independent director be a member of the audit committee in year *t*-1 and continues to remain on the board in year *t*. The variables in Columns 4 and 5 are similarly defined, but for directors departing from the compensation committee and nomination committee, respectively. *Total distraction* is the average distraction of the firm's institutional investors over the four quarters immediately before the quarter when the director's renomination status or committee status becomes known. *Director "no" votes* is the number of "Against" and "Withhold" votes received by a particular director candidate divided by the total number of votes cast during the last available election immediately prior to the date used to measure renomination/committee status. Table A1 in the appendix defines the variables. *t*-statistics are reported in parentheses. Standard errors are clustered by firm. *$p < .1$; **$p < .05$; ***$p < .01$.

	Dependent variable:				
	Depart board	*Depart major committee*	*Depart audit*	*Depart compensation*	*Depart nomination*
	(1)	(2)	(3)	(4)	(5)
Total distraction: a	-0.084	0.067	0.008	0.026	-0.150*
	(-0.49)	(1.16)	(0.14)	(0.33)	(-1.70)
Director "no" votes: b	0.495***	0.173**	0.124*	0.086	-0.006
	(3.10)	(2.03)	(1.70)	(1.04)	(-0.06)
a * b	-2.318***	-1.088**	-0.772*	-0.923*	0.117
	(-2.61)	(-2.04)	(-1.67)	(-1.72)	(0.17)
Poor meeting attendance	0.079***	0.014	0.057	0.035	-0.031
	(2.63)	(0.58)	(1.64)	(1.18)	(-1.04)
Number of directorships	0.003	-0.003	0.002	-0.003	-0.006**
	(1.19)	(-1.15)	(0.88)	(-1.33)	(-2.27)
Director tenure	0.003***	0.001	0.002***	0.001	0.000
	(4.00)	(1.32)	(3.95)	(1.59)	(0.61)
Director age	-0.000	0.000	0.000	0.000	0.001**
	(-0.34)	(0.24)	(0.85)	(0.71)	(2.24)
Director shares	0.086***	0.161***	0.036*	0.042*	0.109***
	(2.72)	(5.57)	(1.93)	(1.78)	(3.61)
Major committee	-0.007				
	(-0.58)				
Institutional shares	-0.004	-0.048**	-0.006	0.001	0.016
	(-0.11)	(-2.50)	(-0.43)	(0.06)	(0.61)
Institutional share HHI	0.230	0.170	0.140*	-0.038	-0.060
	(0.95)	(1.43)	(1.68)	(-0.44)	(-0.86)
Board independence	0.000	-0.000	0.000*	0.000	0.000
	(0.50)	(-0.31)	(1.73)	(0.09)	(0.17)
Board size	-0.000	0.008***	0.002*	0.004***	0.000
	(-0.14)	(5.18)	(1.70)	(3.27)	(0.02)
Staggered board	0.232***	-0.003	-0.007**	-0.006	0.008
	(23.48)	(-0.58)	(-2.03)	(-1.55)	(1.44)
Majority voting	-0.021	-0.003	-0.002	0.010*	0.001
	(-1.57)	(-0.53)	(-0.53)	(1.81)	(0.09)
Mature firm	0.001	0.008*	-0.008**	-0.007	-0.008
	(0.09)	(1.81)	(-2.30)	(-1.46)	(-1.27)
ln(Total assets)	-0.011**	0.005*	0.001	-0.001	0.006**
	(-2.55)	(1.88)	(0.66)	(-0.35)	(2.33)
Firm risk	-0.003	0.001	0.001	0.009**	0.011**
	(-0.36)	(0.34)	(0.31)	(2.33)	(2.52)
Sales growth	0.192***	0.026	0.018	-0.012	0.007
	(4.00)	(1.13)	(0.87)	(-0.51)	(0.23)
ROA	-0.113**	0.018	-0.034**	0.006	-0.030
	(-2.48)	(0.68)	(-2.03)	(0.29)	(-0.91)
Tobin's q	-0.003	-0.001	-0.002	-0.003	0.001
	(-0.77)	(-0.45)	(-1.03)	(-1.23)	(0.29)
Industry-year FEs	Yes	Yes	Yes	Yes	Yes
Observations	21,648	18,806	14,984	14,489	14,305
Adjusted R^2	.471	.661	.705	.663	.568

Table 5. Independent director meeting attendance and institutional investor distraction

This table reports OLS regression results of institutional investor distraction on individual independent director's attendance at board meetings from 1996 to 2013. The dependent variable is *Poor meeting attendance*, which is an indicator variable that equals one if an independent director attended fewer than 75% of a firm's board meetings during the year ending just before the annual meeting date in year *t* and zero otherwise. *Total distraction* is the average distraction of the firm's institutional investors over the past four quarters immediately before the annual meeting date in year *t*. Column 1 reports results using the full sample. Columns 2 and 3 examine subsamples of problematic and nonproblematic independent directors, respectively. *Problematic IDs* are defined as independent directors who hold 3 or more total directorships and/or are socially connected to the CEO. The sample period in Columns 2 and 3 is from 2003 to 2013, as coverage of BoardEx database is more comprehensive after 2003. Table A1 in the appendix defines the variables. *t*-statistics are reported in parentheses, and the difference in the coefficients of *Total distraction* between problematic and nonproblematic directors is reported with the associated *F*-statistic in brackets. Standard errors are clustered by firm. **p* < .1; ***p* < .05; ****p* < .01.

Dependent variable:	*All IDs*	*Problematic IDs*	*Nonproblematic IDs*
Poor meeting attendance	(1)	(2)	(3)
Total distraction	0.033*	0.093**	0.002
	(1.68)	(2.27)	(0.07)
Number of directorships	0.003***		
	(2.75)		
Director tenure	0.000	-0.001**	0.000
	(1.53)	(-2.47)	(1.19)
Director age	-0.002*	-0.004*	-0.002
	(-1.82)	(-1.87)	(-1.13)
Director shares	-0.015**	-0.008	-0.015*
	(-2.01)	(-0.77)	(-1.81)
Major committee	0.004*	0.005	0.000
	(1.94)	(1.18)	(0.05)
Institutional shares	0.003	0.004	0.009
	(0.50)	(0.40)	(1.27)
Institutional share HHI	-0.000	0.001	-0.001
	(-0.12)	(0.31)	(-0.50)
Board independence	0.000**	0.000*	0.000
	(2.27)	(1.78)	(0.45)
Board size	0.001***	0.001*	0.001***
	(3.08)	(1.89)	(2.62)
Staggered board	-0.001	0.001	-0.001
	(-0.44)	(0.40)	(-0.55)
Mature firm	-0.001	-0.003	0.000
	(-0.76)	(-0.94)	(0.21)
ln(Total assets)	-0.006***	-0.002	-0.004**
	(-6.15)	(-1.36)	(-2.54)
Firm risk	-0.002**	-0.007***	0.001
	(-2.17)	(-3.26)	(0.44)
Sales growth	-0.000	0.029**	-0.005
	(-0.07)	(2.24)	(-0.78)
ROA	-0.010	-0.049***	0.001
	(-1.38)	(-3.29)	(0.20)
Tobin's q	-0.001*	0.001	-0.001
	(-1.81)	(0.47)	(-1.57)
Difference in coefficients		0.092**	
between Models 2 and 3: *F*-stat		[3.74]	
Director FEs	Yes	Yes	Yes
Industry-year FEs	Yes	Yes	Yes
Observations	88,700	12,769	44,651
Adjusted R^2	.135	.105	.112

Table 6. Board meeting frequencies and investor distraction

This table reports OLS regression results of institutional investor distraction on firm-level board meeting frequencies. The sample covers firms in the RiskMetrics universe for the period 1996 to 2013, where the information on board meeting frequencies is from ExecuComp for 1996 to 2006 and MSCI GMI Ratings for 2007 to 2013. The dependent variable is *ln*(*Number of board meetings)*, which is the natural logarithm of the number of board meetings over the fiscal year *t*. *Total distraction* is the average distraction of the firm's institutional investors over the fiscal year *t*. *Poor Tobin's q* is an indicator variable that equals one if the firm's Tobin's q as of the beginning of year *t* is below the bottom quartile of all firms and zero otherwise. Standard errors are clustered by firm. Table A1 in the appendix defines the variables. **p* < .1; ***p* < .05; ****p* < .01.

Dependent variable: ln(Number of board meetings)	(1)	(2)
Total distraction: a	-0.525*	-0.564*
	(-1.90)	(-1.93)
Poor Tobin's q: b		0.107***
		(3.77)
a * b		-0.389**
		(-2.54)
Acquisition	0.049***	0.047***
	(5.91)	(5.74)
Institutional shares	0.044	0.033
	(1.05)	(0.78)
Institutional share HHI	0.432	0.450
	(1.34)	(1.31)
Board independence	0.003***	0.003***
	(7.64)	(7.31)
Board size	-0.001	-0.001
	(-0.37)	(-0.27)
Staggered board	0.005	0.007
	(0.41)	(0.62)
Mature firm	-0.006	-0.003
	(-0.50)	(-0.24)
ln(Total assets)	0.039***	0.041***
	(8.09)	(8.21)
Firm risk	0.058***	0.056***
	(7.17)	(6.70)
Sales growth	-0.104***	-0.124***
	(-3.00)	(-3.53)
ROA	-0.034	-0.075*
	(-1.06)	(-1.90)
Tobin's q	-0.028***	
	(-5.54)	
Industry-year FEs	Yes	Yes
Observations	11,926	11,926
Adjusted R^2	.186	.180

Table 7. New appointments or reappointments of problematic independent directors and investor distraction

This table reports OLS regression results of institutional investor distraction on board composition and independent director appointments for the period 2003 to 2013. The dependent variable in panel A is *New problematic ID appointment*, an indicator variable equals one if the firm has newly appointed at least one problematic independent director in year *t*, and zero otherwise. We follow directors from the annual meeting in year *t*-1 to that in year *t* to determine whether any new directors are appointed in year *t*. The dependent variable in panel B is *Problematic ID reappointment*, an indicator variable that equals one if the firm has reappointed one or more existing problematic directors in year *t* and zero otherwise. *PID% on nomination committee* is the proportion of problematic directors among the independent directors on the nomination committee at the beginning of year *t*. *Total distraction* is the firm-level shareholder distraction measured over the previous four quarters immediately before the annual meeting date in year *t*. Table A1 in the appendix defines the variables. Standard errors are clustered by firm. *t*-statistics are reported in parentheses, and the difference in the coefficients of *Total distraction* for the subsamples is reported with the associated *F*-statistic in brackets. **p* < .1; ***p* < .05; ****p* < .01.

A. New appointments of problematic independent directors and investor distraction

Dependent variable: New problematic ID appointment	*All*	*PID% on nomination committee >0*	*PID% on nomination committee =0*
	(1)	(2)	(3)
Total distraction	0.180*	0.355**	0.052
	(1.93)	(2.23)	(0.47)
Institutional shares	-0.000	-0.018*	0.013
	(-1.58)	(-1.68)	(0.91)
Institutional share HHI	0.082	-0.058	0.050
	(0.91)	(-0.23)	(0.71)
Board independence	0.001**	0.000	0.000
	(2.46)	(0.82)	(1.28)
Board size	-0.003*	-0.005	0.001
	(-1.67)	(-1.56)	(0.54)
Staggered board	0.005	0.009	0.013*
	(0.80)	(0.85)	(1.86)
Mature firm	0.001	0.001	0.008
	(0.23)	(0.10)	(1.23)
ln(Total assets)	0.024***	0.026***	0.011***
	(7.60)	(5.18)	(2.74)
Firm risk	0.004	0.008	-0.003
	(0.73)	(0.94)	(-0.48)
Sales growth	-0.040	-0.062	-0.017
	(-1.06)	(-0.95)	(-0.34)
ROA	-0.047*	-0.018	-0.016
	(-1.86)	(-0.31)	(-0.50)
Tobin's q	0.006*	0.001	0.008
	(1.89)	(0.17)	(1.56)
Difference in coefficients between Models 2 and 3: *F*-stat		0.303* [2.79]	
Industry-year FEs	Yes	Yes	Yes
Observations	6,402	3,369	3,033
Adjusted R^2	.050	.038	.058

B. Reappointments of problematic independent directors and investor distraction

Dependent variable: Problematic ID reappointment	*All*	*PID% on nomination committee >0*		*PID% on nomination committee =0*
	(1)	(2)		(3)
Total distraction	0.435**	0.673**		0.019
	(2.25)	(2.27)		(0.06)
Institutional shares	0.000***	-0.057**		-0.076
	(8.03)	(-2.33)		(-1.28)
Institutional share HHI	0.022	0.639		0.037
	(0.77)	(1.56)		(1.00)
Board independence	0.003***	0.000		0.002***
	(4.45)	(0.58)		(2.66)
Board size	0.012***	0.002		0.004
	(2.63)	(0.45)		(0.66)
Staggered board	0.000	-0.148***		0.128***
	(0.01)	(-10.90)		(5.56)
Mature firm	0.010	0.021		0.001
	(0.55)	(1.27)		(0.04)
ln(Total assets)	0.047***	0.018***		0.038***
	(6.57)	(2.68)		(3.43)
Firm risk	0.002	-0.013		0.032
	(0.19)	(-0.93)		(1.61)
Sales growth	-0.068	-0.052		0.013
	(-0.90)	(-0.53)		(0.12)
ROA	-0.004	0.069		-0.113
	(-0.06)	(0.55)		(-1.20)
Tobin's q	-0.001	0.006		-0.004
	(-0.15)	(0.53)		(-0.38)
Difference in coefficients between Models 2 and 3: *F*-stat			0.654* [2.78]	
Industry-year FEs	Yes	Yes		Yes
Observations	6,402	3,369		3,033
Adjusted R^2	.118	.093		.184

Table 8. Governance outcomes, institutional investor distraction, and problematic independent directors

This table reports the OLS regression results of how institutional investor distraction affects firm governance outcomes and value through lower director monitoring intensity. Panel A shows results for the full sample and covers the period from 1996 to 2013. In this first panel, the dependent variable in Column 1 is *High abnormal CEO pay*, which is an indicator variable that equals one if the abnormal CEO compensation of the firm is greater than the median abnormal CEO pay of all firms in year *t*, and zero otherwise. Abnormal CEO compensation is the residual from an OLS regression where the dependent variable is the natural logarithm of CEO total compensation and the independent variables include log(total assets), ROA, total firm risk, and interacted industry-year fixed effects. The dependent variable in Column 2 is *CEO pay-performance sensitivity*, which is the change in the value of the CEO's annual equity-based compensation in thousands of dollars for a 1% change in the stock price (Delta) in year *t*. The dependent variable in Column 3 is *Discretionary accruals*, which is calculated using the modified Jones model (Dechow et al. 1995). The dependent variable in Column 4 is *Diversify*ing *merger*, which is an indicator variable that equals one if a firm announces at least one diversifying M&A transaction in year *t* and zero otherwise. An M&A transaction is classified as diversifying if the bidder's FF12 industry classification is different from that of the target company. The dependent variable in Column 5 is *Tobin's q*, which is defined as the market value of a firm's total assets divided by the book value of total assets in year *t*. The sample period in panel B is from 2003 to 2013, as coverage of BoardEx database is more comprehensive after 2003. *PID% on comp committee* is the proportion of problematic independent directors on the compensation committee at the beginning of year *t*. *PID% on audit committee* is the proportion of problematic directors among the independent directors on the audit committee at the beginning of year *t*. *PID%* is the proportion of problematic directors among the firm's independent directors at the beginning of year *t*. These latter three variables are available only for the period 2003–2013 because of BoardEx data availability. *Total distraction* is the average shareholder distraction over the four quarters in year *t*. Table A1 in the appendix defines the variables. *t*-statistics are reported in parentheses, and the difference in the coefficients of *Total distraction* for the subsamples is reported with the associated *F*-statistic in brackets. Standard errors are clustered by firm in all regressions. **p* < .1; ***p* < .05; ****p* < .01.

A. Firm governance outcomes in the full sample

Dependent variable:	High abnormal CEO pay	CEO Pay-performance sensitivity	Discretionary accruals	Diversifying merger	Tobin's q
	(1)	(2)	(3)	(4)	(5)
Total distraction	0.536**	-143.944***	0.264**	0.140***	-1.316*
	(2.57)	(-3.36)	(2.09)	(2.63)	(-1.77)
Institutional shares	0.206***	6.019*	0.001	0.008	0.165*
	(5.29)	(1.93)	(0.06)	(1.18)	(1.75)
Institutional share HHI	-0.343	-28.450	-0.002	-0.022	-3.266**
	(-0.95)	(-0.57)	(-0.17)	(-0.39)	(-2.18)
Board independence	0.004***	0.083	-0.000	-0.000	-0.000
	(7.59)	(1.63)	(-0.20)	(-1.01)	(-0.22)
Board size	0.003	0.380	-0.001	0.000	-0.012
	(0.68)	(0.87)	(-0.32)	(0.22)	(-1.10)
Staggered board	0.016	-2.430	0.003	-0.006	-0.094**
	(0.89)	(-1.37)	(0.63)	(-1.46)	(-2.01)
Mature firm	-0.030*	-2.227	0.001	0.006	-0.124***
	(-1.65)	(-1.39)	(0.12)	(1.43)	(-2.74)
ln(Total assets)	0.024***	23.181***	-0.002	0.013***	-0.043*
	(2.84)	(26.06)	(-0.33)	(6.03)	(-1.93)
Firm risk	-0.022*	-0.418	-0.005	0.002	-0.107***
	(-1.80)	(-0.39)	(-0.92)	(0.74)	(-3.37)
Sales growth	0.051	-2.091	0.006	0.025	1.531***
	(0.92)	(-0.33)	(0.10)	(1.51)	(4.62)
ROA	0.079*	1.563	0.056***	0.009	2.315***
	(1.66)	(0.29)	(2.89)	(0.84)	(4.86)
Tobin's q	0.044***	12.451***	-0.002	0.005*	
	(6.10)	(12.45)	(-0.83)	(1.89)	
Industry-year FEs	Yes	Yes	Yes	Yes	Yes
Observations	12,889	11,982	12,889	12,889	12,889
Adjusted R^2	.098	.371	.378	.042	.28

B. Committee/board composition and firm governance outcomes

	High abnormal CEO pay		CEO pay-performance sensitivity		Discretionary accruals		Diversifying merger		Tobin's q	
	PID% on comp committee >0	*PID% on comp committee=0*	*PID% on comp committee >0*	*PID% on comp committee=0*	*PID% on audit committee>0*	*PID% on audit committee=0*	*PID% >0*	*PID% =0*	*PID% >0*	*PID% =0*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Total	0.870*	0.642	-190.750*	-137.325	1.043*	0.164	0.268***	0.141*	-1.825***	-0.636
	(1.83)	(1.20)	(-1.71)	(-1.54)	(1.83)	(0.65)	(2.73)	(1.66)	(-2.83)	(-0.71)
Difference in adjacent coeffs: *F*-stats	0.228 [0.15]		-53.425 [0.24]		0.879* [2.99]		0.127 [2.23]		-1.189* [2.97]	
Other panel A controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,153	2,985	2,442	2,210	3,061	3,006	4,150	1,984	4,150	1,984
Adjusted R^2	.078	.049	.400	.307	.526	.461	.029	.039	.353	.467

Table 9. Robustness analysis using alternative investor distraction measures

This table replicates our main results using alternative institutional investor distraction measures as robustness analysis. *Monitoring distraction* is calculated based on the distraction levels of institutions who are most likely to monitor, such as investment companies, independent investment advisors, and public pension funds. *Distraction (positive shocks) and Distraction (negative shocks)* are calculated based on positive industry-level return shocks and negative industry-level return shocks, respectively. *Volume-weighted distraction* is calculated based on extreme trading volume across the FF12 industry sectors instead of return shocks. *Equal-weighted ownership distraction* is a distraction measure calculated by equally weighting portfolio firms in institutional investors' shareholdings. All regressions include the control variables that are used in the respective tables previously. All panels include industry-year fixed effects, and panels A and C also include director fixed effects. Table A1 in the appendix defines the variables. Standard errors are clustered by firm in all regressions. *$p < .1$; **$p < .05$; ***$p < .01$.

	Alternative distraction measures				
	Monitoring distraction	Distraction (positive shocks)	Distraction (negative shocks)	Volume-weighted distraction	Equal-weighted ownership distraction
	(1)	(2)	(3)	(4)	(5)
A. Dep var: Director "no" votes					
Alternative distraction	-0.029*	-0.039**	-0.028	-0.047**	-0.028*
	(-1.77)	(-2.04)	(-1.54)	(-2.37)	(-1.75)
B. Dep var: Depart board					
Alternative distraction: a	-0.006	0.019	-0.232	-0.958***	-0.085
	(-0.03)	(0.10)	(-1.11)	(-4.62)	(-0.47)
Director "no" votes: b	0.569***	0.489***	0.439***	0.493***	0.557***
	(3.25)	(3.41)	(2.63)	(3.17)	(3.19)
a * b	-2.751***	-2.791***	-2.363**	-2.596***	-2.655***
	(-2.85)	(-2.95)	(-2.08)	(-2.71)	(-2.78)
C. Dep var: Poor director attendance indicator					
Alternative distraction	0.032	0.040*	0.035	0.050*	0.036*
	(1.61)	(1.74)	(1.51)	(1.92)	(1.78)
D. Dep var: ln(Number of board meetings)					
Alternative distraction	-0.562**	-0.614**	-0.618*	-0.582	-0.498*
	(-2.16)	(-1.97)	(-1.80)	(-1.55)	(-1.81)
E. Dep var: New problematic ID appointment					
Alternative distraction	0.183*	0.202*	0.202*	0.296**	0.198*
	(1.76)	(1.81)	(1.87)	(2.13)	(1.95)
F. Dep var: High abnormal CEO pay					
Alternative distraction	0.625***	0.534**	0.695**	0.713**	0.667***
	(2.86)	(2.51)	(2.45)	(2.06)	(2.75)
G. Dep var: CEO pay-performance sensitivity					
Alternative distraction	-144.951***	-144.309***	-208.614***	-201.995***	-166.801***
	(-3.60)	(-3.13)	(-3.62)	(-3.68)	(-3.67)
H. Dep var: Discretionary accruals					
Alternative distraction	0.306**	0.471***	0.026	0.505***	0.264*
	(2.43)	(3.49)	(0.15)	(2.76)	(1.90)
I. Dep var: Diversifying merger					
Alternative distraction	0.168***	0.186***	0.241***	0.233***	0.168***
	(2.74)	(2.68)	(3.15)	(2.72)	(2.74)
J. Dep var: Tobin's q					
Alternative distraction	-1.686***	-1.354*	-1.717*	-2.447**	-1.465
	(-2.82)	(-1.74)	(-1.78)	(-2.04)	(-1.63)

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