

# The dark side of outside directors: Do they quit ahead of trouble?

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## Abstract

Outside directors have incentives to resign to protect their reputation or to avoid an increase in their workload when they anticipate that the firm on whose board they sit will perform poorly or disclose adverse news. We call these incentives the dark side of outside directors. We find strong support for the existence of a dark side. Following surprise director departures, affected firms have worse stock and operating performance, are more likely to suffer from an extreme negative return event, are more likely to restate earnings, have a higher likelihood of being named in a federal class action securities fraud lawsuit, and make worse mergers and acquisitions. Consistent with the market inferring bad news from surprise departures, the announcement return for surprise director departures is negative.

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Corporate governance reforms following the corporate scandals of the turn of the century focused heavily on increasing the representation of outside directors on boards. Listing standards on U.S. exchanges were changed to require boards to have a majority of outside directors. Many countries have introduced requirements on the percentage of outside directors on boards as well as on the fraction of outside directors on the nominating committee, compensation committee, and audit committee (see IOSCO (2007)).

Although governance activists have been strong proponents of having more outside directors on boards, the theoretical and empirical academic literature has been more ambiguous. The theoretical literature points to costs and benefits of having more outside directors on the board. In particular, outside directors may have weaker incentives to expend effort, may have higher information acquisition costs, and may be more dependent on the CEO for their information (see, e.g., Fama and Jensen (1983), Adams and Ferreira (2007), Harris and Raviv (2008), and Kumar and Sivaramakrishnan (2008)).<sup>1</sup> Recent empirical papers on the structure and role of the board of directors (e.g., Boone et al. (2006), Coles et al. (2008), Duchin et al. (2010), and Linck et al. (2008)) have found evidence that firms structure their boards according to their monitoring and advising needs and take the costs and benefits of outside directors into account.

In this paper, we focus on the supply of director labor – the willingness of independent directors to provide board service. While the benefits and costs of independent directors from the perspective of the firm have been studied extensively, we know little about when independent directors decide to continue to serve on boards and when they decide to resign. We argue that independent directors have strong incentives to leave boards when they anticipate the firm to perform poorly and/or to disclose adverse information. We call these incentives the dark side of outside directors, and find strong empirical evidence that directors respond to these incentives. Importantly, these incentives do not appear to have

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<sup>1</sup> It is therefore possible for firm performance to fall as the board becomes more independent. Though some papers find that firm performance increases with board independence (see, for instance, Black and Kim (2012), Aggarwal et al. (2009), and Dahya et al. (2008)), other papers find no relation between board independence and performance (see, for instance, Bhagat and Black (2002)). Duchin et al. (2010) find that for firms where outside directors face high information acquisition costs, performance falls following the forced addition of outside directors after SOX.

been reduced by the corporate governance changes made in response to various corporate scandals in the early 2000s. In fact, our results are equally strong when we focus on the second half of our sample period.

Inside and outside directors face different trade-offs when deciding whether to stay on the board or resign. An inside director who resigns from the board most likely also has to resign from his job. Consequently, an inside director who has doubts about the firm's future or knows that the firm will reveal bad news may find that her best course of action is to stay on the board and work to improve the firm's performance. In contrast, an outside director in the same situation who does not resign faces the risk of experiencing a loss of reputation as an outside director when the bad news breaks. Such a loss of reputation may make it harder for the director to obtain other board seats and perhaps even to keep the seats she already has. Furthermore, the director would likely face an increase in her workload as the firm undergoes change and restructuring.

Researchers have shown that directors who sit on boards of firms in trouble see their reputations tarnished and face consequences in their future employability as directors. For example, Fich and Shivdasani (2007) find that following a financial fraud lawsuit in firms where they are directors, outside directors experience a decline in other board seats they hold. Srinivasan (2005) finds that outside directors of firms that restate earnings lose reputational capital. Gilson (1990) documents fewer board seats for outside directors after having served on boards of companies that experience financial distress, and Coles and Hoi (2003) and Harford (2003) show that outside directors have fewer new directorships if the board supports actions that are against shareholders' interests. Further, directors benefit from sitting on boards of better performing firms. For example, Yermack (2004) and Ferris et al. (2003) find that directors who sit on the board of better performing firms are more likely to receive additional directorships in the future. Not only do directors face a loss in reputation when they sit on boards of troubled firms, they also face a significant increase in their workload. Vafeas (1999), for example, demonstrates that the frequency of board meetings increases following poor stock returns.

Given the evidence on the costs to outside directors of being associated with troubled firms, it seems natural to ask whether outside directors anticipate trouble and leave firms before they are affected. To

investigate this dark side of outside directors, we first examine under what circumstances outside directors leave firms. Using Cox proportional hazard models, we find that directors are more likely to turn over if they are of retirement age (70 years old and above), if they had attendance problems in prior years, if they were recently appointed to boards of other firms, and if they were not on the key subcommittees of the board. With respect to firm characteristics, we find that directors are more likely to leave if the firm had poor stock and accounting performance, if there is higher uncertainty, if the firm is larger, and if the CEO left during the prior year. This evidence is supportive of the view that outside directors are more likely to quit when the firm is performing poorly. However, these findings are not evidence on the dark side hypothesis since directors who resign because the firm performed poorly have presumably already suffered the reputation loss. A more direct test of the dark side hypothesis is that directors are more likely to quit when they expect the firm to perform poorly and to disclose bad news. In that case, they can at least partly and possibly totally escape the reputation loss and increased work load.

To carry out tests of the dark side hypothesis, we need to have a proxy for unexpected or surprise director departures, as we would not expect future negative firm outcomes to be related to expected director departures. We create three measures of surprise director departures that are based on director and firm characteristics. Most firms have a mandatory director retirement age. A recent survey shows that the average mandatory retirement age is 71.4 years.<sup>2</sup> We define our first measure of surprise outside director departures as any outside director turnover prior to the age of 70, and unrelated to a director death. Our second and third measures are based on the Cox proportional hazard regressions. For the second measure, we specify a model of director turnover using additional director characteristics beyond director age, and define an unexpected director departure as a departure that happens even though the survival function for serving one more year as a director is above 75%.<sup>3</sup> For our third measure, we include both director and firm characteristics in the Cox regressions, and define the unexpected director departure

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<sup>2</sup> The executive search firm Spencer Stuart reports in their 2009 Spencer Stuart Board Index publication (<http://content.spencerstuart.com/sswebsite/pdf/lib/SSBI2009.pdf>) that, in 2004, 77% of S&P 500 firms had a mandatory retirement policy for outside directors. For these firms, 88% set the mandatory retirement age at 70 or 72.

<sup>3</sup> This cutoff is arbitrary. Our results are generally similar if we use a cutoff of 50% or 90%.

as a departure that happens even though the survival function for serving one more year as a director is above 75%.

Using these three measures, we find that unexpected director departures are strongly significant in our regressions predicting future adverse events. Following surprise director departures, affected firms have significantly worse stock and accounting performance, are significantly more likely to suffer from an extreme negative return event, are significantly more likely to restate earnings, have a significantly higher likelihood of being named in a federal class action securities fraud lawsuit, and undertake mergers and acquisitions with worse announcement returns. Our results are also economically significant. For example, the surprise departure of an outside director increases the probability of an earnings restatement by 0.5 percentage points and the probability of future litigation by 1.1 percentage points. Restatements affect 1.57% of all sample firm-years and litigation affects 3.78% of all firm-years. Hence, while the absolute effect may be considered as small, the relative effects are economically large: The surprise departure of an outside director increases the probability of a restatement by 32% and the probability of being named in a federal class action securities fraud lawsuit by over 29%. The results are consistent with directors leaving in anticipation of adverse events to protect their reputation or to avoid an increased workload.

Our findings on the predictability of 1-year stock returns following surprise director departures are surprising. If unexpected director departures are predictably associated with future adverse events, why does the market not incorporate the information fully into stock prices at the announcement? We examine how the stock market reacts to the announcement of sudden director departures, using a carefully constructed subsample of director departures that is free of confounding corporate announcements. Because mandatory reporting of director departures started in 2005, our sample of departure announcements overlaps with the financial crisis, which makes inferences more difficult. After taking the crisis into account, we find that the average and median stock market reaction to sudden director departures is negative and statistically significantly worse than the announcement returns to expected

director departures. Hence, the market does, at least partially, incorporate the information contained in surprise director departures into stock prices.<sup>4</sup>

One concern with our findings is that the director might not be leaving in anticipation of the bad event but that instead it is the director's departure that causes the event because the firm loses a good adviser and/or monitor. Presumably, a newly hired replacement outside director would not have the ability to impact the firm as much as the departing one who has experience with the firm and has gained credibility with the board over the years. However, this alternative explanation appears unlikely to be true. There is nothing in this explanation suggesting that a routine retirement would not be as likely to be followed by adverse outcomes as a surprise departure. Since our empirical results find that adverse outcomes follow unexpected departures but not expected departures, our empirical work is not supportive of the reverse causality explanation for our results.

There are other reasons that directors could leave unexpectedly. For instance, a director could leave because of poor health, or she could leave because she feels powerless to prevent the board from taking what she perceives to be bad decisions. Finally, she could be fired. Directors leaving unexpectedly because of poor health (we do exclude directors who die from our sample) would bias us against finding our results. Directors who leave because they feel isolated leave when they are needed most. Directors who are fired would make our interpretation of the results incorrect. We examine whether the possibility of firings of directors is important enough to undermine our conclusions and find that it is not.

The literature on the determinants of director turnover and career concerns of outside directors is limited. Yermack (2004) finds that director turnover is negatively related to the firm's stock return during the year of turnover and the previous year. Asthana and Balsam (2010) also find that directors are more likely to leave after poor performance, if the firm pays directors poorly, and if the firm is riskier. Brown and Maloney (1999) document that outside directors are more likely to depart prior to bad acquisitions. Agrawal and Chen (2011) examine 181 director resignations in 80 firms with median asset value of \$13.5

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<sup>4</sup> There is a large literature in finance showing that long-run returns are predictable following certain types of corporate events (for instance, equity issues and earnings announcements), therefore our evidence of under-reaction may not be so surprising in light of that literature.

million between 1995 and 2006 in which the director resigned amid dispute, filed a letter detailing his reasons for departures, and required that this letter be made public. They find a negative stock market reaction to the announcement of these disputes. In addition, affected firms have lower performance in the year following the dispute and are statistically significantly more likely to delist in the years following the disputed departure. Dewally and Peck (2010) analyze 52 announcements of director departures in which the directors publicly announce their resignation and compare these departures with 52 ‘quiet’ director departures. They find that younger directors who are active professionals are more likely to publicly announce their departures at poorly performing firms. Dewally and Peck (2010) interpret their evidence as consistent with these directors wanting to protect their reputation. It is difficult to generalize from these small sample studies and infer motivations and consequences of director departures for firm outcomes in general. This is especially the case since the circumstances surrounding the director departures examined in the above studies are very unique. We show that director departures, even when unannounced, have similar consequences as announced departures. Consistent with our findings, Bar-Hava and Segal (2010) examine, using a sample of over 900 director departures between 2004 and 2007, whether directors truthfully state the reason for departure. They classify the stated reasons for departure into four categories, one of which is “disagreement.” They show that all categories of director departures are related to an increase in risk of litigation and conclude that not all directors truthfully tell why they have left the firm. In contrast to their study, we do not focus on the reasons directors give for their resignations but instead explore whether unexpected resignations predict adverse performance and news for a large sample compared to existing related studies, as we have 7,154 departures from 2,282 distinct firms.

The remainder of the paper is structured as follows. Section 1 introduces the sample and databases we use. Section 2 examines the determinants of director departures. We analyze the performance of firms with outside director departures in Section 3, and examine additional outcome variables in Section 4. Section 5 examines the announcement returns to surprise director departures. We discuss alternative explanations for our results in Section 6, and Section 7 concludes.

## 1 Data sources and construction of the sample

Our initial sample is formed by matching Standard and Poor's Compustat database with a database of directors obtained from the RiskMetrics (formerly IRRC) Directors Database. We follow each director through time from one proxy statement to the next.<sup>5</sup> If a director is no longer listed in the subsequent proxy statement, he is defined as having left the board. Non-departing directors are those who continue to be listed in the subsequent proxy statement. Since we do not have the exact date of departure, we define the date of the subsequent proxy statement as the departure or event date.<sup>6</sup> Since our identification of departures depends on comparing adjacent proxy statements, we delete observations for which we cannot find any subsequent proxy statements or for which the next proxy statement is more than 450 days away. We further require that the firm has non-missing values for all the control variables we use in the Cox regression and a link to the Center for Research in Security Prices (CRSP) database in the fiscal year end just prior to the event date. Firm-years with more than five directors departing are deleted as these are likely subject to a corporate control event. We further require that the director is neither an inside director nor a linked director as defined by RiskMetrics. RiskMetrics provides information on director tenure, which allows us to estimate the Cox proportional hazard regressions on director time to turnover. We also delete firm-year observations where there are missing values for the director characteristics used in the Cox regression for any of the directors. The final sample consists of 95,690 outside director-firm-years (14,428 firm-proxy years) with 23,035 outside directorships, of which 7,154 end with a departure while the firm is in our sample. The sample covers 2,282 distinct firms, 16,497 distinct directors, and spans the period from 1999 to 2010.

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<sup>5</sup> There is a change in the director identifier in RiskMetrics in 2004. In addition to the director identifiers provided by RiskMetrics, we use a name and age matching algorithm to match directors across the sample period.

<sup>6</sup> We have announcement dates of director departures for a subset of our sample, because changes in disclosure rules enacted in August 2004 require firms to announce director departures via 8-K statements. In about half of the cases, the actual departure date is announced a few months or days prior to the proxy date. For the other half of departures, firms either fail to file the required document, or announce the director departure in the proxy statement itself. Therefore, the departure date we have determined is the upper bound on the actual departure date. For brevity, we also refer to the subsequent proxy date as event date for non-departing directors.



We obtain accounting data from Compustat and stock return data from CRSP. RiskMetrics is used to obtain information on director characteristics and board characteristics. S&P's Execucomp database is used to gather information on CEO ownership and CEO turnover. All continuous variables are winsorized at the 1% level in both tails.

Data on accounting restatements come from two sources. For the period 1999 to 2006, the data come from the list of restatements compiled by the U.S. Government Accountability Office (GAO). Starting in 2000, we supplement the data with information on restatements from Audit Analytics. Data on firms that have been named in federal class action securities fraud lawsuits come from the Stanford Law School Securities Class Action Clearinghouse ([securities.stanford.edu](http://securities.stanford.edu)). The Clearinghouse maintains an index of filings since the passage of the Private Securities Litigation Reform Act of 1995. SDC Platinum is the data source for announcement dates and deal characteristics of mergers and acquisitions (M&A) undertaken by sample firms. We obtain information on director departure announcement dates from the Director and Officer Changes database provided by Audit Analytics for the period 2005-2010.

## **2 The determinants of director departures**

Table 1 describes summary statistics for our sample. The summary statistics for director characteristics in Panel A are at the director-firm-year level and are separated by whether the director is departing or not. The unconditional probability that a director departs in a director-firm-year is 7.5%. The firm characteristics in Panel B are at the firm-year level, and are split by whether or not there is at least one outside director departure in a firm year. 36.8% of firm-years are affected by at least one outside director departure.

Panel A confirms the results of the aforementioned *Spencer Stuart* Director Study. The typical departing director is older than 69. Interestingly, directors seem to be staying on beyond the age of 65, the typical age for CEOs to step down from active duty (see, e.g., Warner et al. (1988), Huson et al. (2001), and Kaplan and Minton (2012)). The median tenure for a departing director is longer than that of a remaining director (9 years versus 7 years). Table 1 shows that 1.7% of director departures are due to

death. Using the RiskMetrics dataset, we are able to determine whether the director is a CEO or non-CEO executive of another firm in our database at the time of the event date or departure date. Panel A shows that 11.8% of the departing directors are current CEOs of another firm while 15.9% of the non-departing directors are current CEOs. Similarly, departing directors are less likely to be current non-CEO executives than non-departing directors. Departing directors are significantly more likely than non-departing directors to carry the designation “Retired” in RiskMetrics, which is not surprising given their age at departure. Somewhat surprisingly, the membership on the board’s subcommittees does not vary much between departing and non-departing directors. Departing directors are significantly less likely to be appointed to other boards. One plausible explanation for this surprising result is that it is related to the age of departing directors and to the mandatory retirement policy of many firms. Finally, departing directors are significantly more likely to have had an attendance problem in the last year of their tenure – the percentage of departing directors with attendance problems is at 3.9% more than double the percentage of non-departing directors with attendance problems (1.6%).

Panel B of Table 1 shows that there are more outside director departures in larger and older firms. Outside director departures are more frequent in firm years where accounting and stock returns are poor. This fact mirrors results of studies of CEO turnover (e.g., Warner et al. (1988) and Kaplan and Minton (2012)) and is consistent with the finding of Yermack (2004) for director departures in his sample. Outside director departures are less frequent if the board is relatively small, the proportion of inside directors is relatively high, and CEO ownership is high.

Table 2 shows results from Cox proportional hazard regressions of the tenure of each outside director until her turnover (the event) or until the firm leaves the sample (the censoring event). Column 1 shows proportional hazard regressions where we include only director characteristics as explanatory variables, and column 2 adds firm characteristics to the list of covariates. Columns 3 and 4 repeat the analysis of columns 1 and 2, but use the second half of the sample only. Throughout the empirical analysis, we provide results using the entire sample as well as the post-2004 sample. The analysis of the latter half of our sample serves two purposes. First, we would like to understand whether the patterns we document

still exist in a period that followed important changes in laws and exchange requirements affecting governance and which was marked by a heightened interest in corporate governance issues. If our results were driven by the early part of our sample, the relevance of our findings going forward would be questionable. Second, the analysis of director departure announcement returns is restricted to the latter half of the sample, as mandatory reporting of director departures only started in late 2004.

Table 2 reports hazard ratios, i.e. exponentiated coefficients. The hazard ratios allow us to quantify the economic magnitude of the explanatory variable. For example, holding the other covariates constant, each additional board seat reduces the annual hazard of director turnover in column 2 by 2.1 percentage points ( $0.979 - 1$ ).<sup>7</sup> By far the largest economic effects come from the age indicator variable equal to one if the director is older than 69 and the death indicator variable. Holding the other covariates constant, being older than 69 increases the annual hazard of director turnover by a factor of 3.174, or 217%. Director death increases the hazard of director turnover by 900%.<sup>8</sup> Controlling for other covariates, being a current executive decreases the hazard of director turnover, while being retired increases the hazard by approximately 15%. Interestingly, being a member of the audit, compensation, or nominating committee of the board decreases the hazard of turnover by, depending on the specification, between 11-16%. If a director was appointed to the board of a different firm in the prior year, it increases the hazard of turnover by an economically significant 22%. The magnitude of the effect can potentially be explained by limits on the number of directorships an executive may have so that he has to choose between mandates. If a director had attendance problems in the prior year, he is 100% more likely to turnover. Columns 3 and 4 repeat the regressions for the second half of our sample, with generally economically and statistically similar results. The results of columns 3 and 4 suggest that the relation between director characteristics

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<sup>7</sup> This negative relation between director turnover and board seats is consistent with results by Srinivasan (2005) and Asthana and Balsam (2010).

<sup>8</sup> By definition, directors who died also departed from the board. In untabulated results, we construct the surprise departure measures by deleting observations of director departures due to death prior to estimating the COX regressions, and estimate all regressions of Sections 3 to 5 using this alternative specification of surprise director departures. The results are economically and statistically similar.

and turnover hazard is relatively constant in the time-series and were not materially affected by the passage of the Sarbanes-Oxley act.

Turning to firm characteristics, column 2 shows that poorer performance, both in terms of ROA and stock returns, increases the hazard of director turnover, which is consistent with the results reported by Yermack (2004). Higher return volatility increases the hazard of turnover. A large effect of an increase of almost 30% in the hazard of turnover is observed whenever the CEO of the firm steps down in the previous year, which is consistent with results reported by Hermalin and Weisbach (1988) and Farrell and Whidbee (2000). There is a smaller chance of outside director turnover if CEO ownership is large, the board of directors is small, and if there are fewer outside directors to begin with. The results in column 4 that are based on the latter half of the sample are again consistent with column 2, with the exception of the firm size and stock return results.

Our subsequent analysis requires a measure of unexpected outside director turnover. One approach would be to collect disclosures of director departures and to evaluate the reasons given by directors for their departure. Such an approach does not seem appropriate for this study for at least three reasons. First, firms have only been required to disclose director departures systematically in 8-K reports (item 5.02 – Departure of Directors or Principal Officers) since August 2004.<sup>9</sup> If we used these disclosures, we would lose half of the time-series available to us. Second, Bar-Hava and Segal (2010) argue and provide evidence that outside directors have incentives not to disclose the true reasons for their departure in 8-K reports, which limits the usefulness of the disclosures. Third, using a newspaper article search to identify disclosures about director resignations would pose similar problems. In addition, many director departures are not publicly announced in newspapers and, even if they are announced, often no reason for departure is given.

In the following, we use our empirical analysis of director departures in Table 2 to construct measures of unexpected director departures. Since we are interested in departures unrelated to routine retirements,

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<sup>9</sup> Prior to 2004, departures of directors were only disclosed in the 8-K report for departures due to disagreement. Disclosure was required only if the departing director explicitly requested that the nature of the disagreement with the firm be publicly disclosed (see Agrawal and Chen (2011) and Bar-Hava and Segal (2010) for details).

and given the very strong effect of the director age indicator variable (above 69) on the hazard of turnover, our first measure of unexpected turnover is defined as any turnover that happens prior to the director turning 70 and not due to director death (surprise departure measure (1)). While this measure is likely to be noisy, it has some appeal because of its simplicity.<sup>10</sup> Our second measure is based on the Cox proportional hazard regression in Table 2, column 1 (surprise departure measure (2)). For each director-firm-year observation, we calculate the survival function that measures the probability that the director will stay an additional year on the board of directors. If this function is higher than 75%, but the director nevertheless steps down, we classify his departure as unexpected. Surprise departure measure (3) is defined as all outside director departures in which the one-year outside director survival function from the Cox proportional hazard model in Table 2, column 2 is higher than 75%, but the director nevertheless departs. For the post-2004 period, we define similar measures of surprise departures using the regressions underlying columns 3 and 4 of Table 2.

Table 3 shows the yearly frequency of director departures that are classified as a surprise at the director-firm-year level (Panel A) and the firm-year level (Panel B). Out of 7,154 outside director departures, 55.5% of the departures are classified as surprise departures using our first measure while 30.0% (29.6%) of the departures are classified as surprise departures using the second (third) measure.<sup>11</sup> Conditional upon a departure, the correlation between the first and second measure of surprise departures is 56%. The correlation between the second and third measure is 91%. The departures are fairly spread out over the sample period. There is no major clustering of director departures or surprise departures in any year. In particular, we do not observe a significant increase in director turnover around the implementation of the Sarbanes-Oxley Act in 2002. At the firm-year level (Panel B), out of 5,308 firm-

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<sup>10</sup> The measure could potentially be improved upon by declaring departures of directors younger than 70 nevertheless as expected if the director holds multiple board seats and leaves all boards at the same time. Such a clustered departure could indicate a departure that is unrelated to problems at a specific firm; for instance, it could occur because of health reasons or because the director took on a new job that prohibits directorships (e.g., a full-time political appointment in the U.S. government). A random check of our sample suggests that the incidence of these reasons for departure is very small.

<sup>11</sup> Using a survival function cutoff of 90% would reduce the surprise departures under both the second and third measures to 10% and using a cutoff of 50% would increase the surprise departures under both measures to 51%.

years with at least one director departure, 61.3% of firm-years have at least one surprise director departure based on the first measure, 35.4% of firm-years have at least one surprise director departure based on the second measure, and 35.2% of firm-years have at least one surprise departure based on the third measure.

### **3 Outside director departures and future performance**

In this section, we analyze whether surprise departures of directors are related to future firm performance. We start with stock returns in section 3.1, followed by accounting performance in section 3.2.

#### **3.1 Stock returns**

We analyze stock returns in firms with and without outside director departures using a calendar-time portfolio approach. Each month, we sort firms into two portfolios based on whether there is at least one outside director departure. Firms are added into the assigned portfolio in the month after the departure date or event date (when there is no departure) and held for 12 months or until the next proxy date occurs. Firm-years with inside or linked director departures are excluded as these director departures are likely to be associated with CEO and top executive turnover. This filter reduces the sample size to 11,151 firm-year observations. We calculate value-weighted and equal-weighted portfolio returns in excess of the 1-month risk-free interest rate. Table 4 shows the mean and median return for each portfolio as well as the return to a long-short portfolio in which the firms with outside director departures are bought and firms without outside director departures are sold. Columns 1 and 2 show mean and median returns for value-weighted portfolios, and columns 3 and 4 show the same statistics for the equal-weighted portfolios.

Panel A compares the return of the outside director departure portfolio (Portfolio 1) – both expected and unexpected departures – with the return of the no director departure portfolio (Portfolio 2). The portfolio that goes long the firms in which outside directors depart and short the firms where no outside directors depart produces a monthly return of between minus 6 and minus 13 basis points. Only the median difference of the equal-weighted portfolio is statistically different from zero.

Panels B through D decompose firm-years with outside director departures further into firm-years with expected and unexpected departures using surprise departure measures (1), (2), and (3). We now form three portfolios. Portfolio 1S contains firm-years in which there is at least one unexpected outside director departure, while portfolio 1E contains firm-years in which all the departures are expected. Portfolio 2 is defined as before. Panels B through D of Table 4 show that the long-short strategy “portfolio 1S – portfolio 2” is generating negative returns while the returns to the long-short strategy “portfolio 1E – portfolio 2” are essentially zero. The effects are weaker for the coarse measure (1) that is based on age alone. The results are statistically and economically significant for both value-weighted and equal-weighted portfolios using surprise departure measures (2) and (3). They are economically large with monthly returns of between minus 27 and minus 52 basis points, depending on the specification.

Panels E and F of Table 4 repeat the analysis for surprise departure measures (2) and (3) in the post-2004 period. Although the results are based on a shorter time series, the results are economically and statistically significant, with the long-short portfolio that is long firms with surprise outside director departures generating excess returns of minus 18 to minus 62 basis points, depending on the specification.

One possible explanation for the performance differences documented in Table 4 is that they are driven by differences in the characteristics of the two portfolios. Researchers have identified several equity characteristics that explain differences in realized returns. In Table 5, we account for these differences by estimating the four-factor model of Carhart (1997) and Fama and French (1993). For brevity, we only show the alphas from the regressions and only results for surprise departure measures (2) and (3).

Panel A of Table 5 indicates that the long-short portfolio that goes long firms with surprise outside director departures according to measure (2) and short firms with no outside director departures continues to underperform, even after the different characteristics have been taken into account. The estimated monthly alpha of the long-short portfolio is minus 41 basis points for the value-weighted portfolio and minus 27 basis points for the equal-weighted portfolio. Both alphas are statistically significantly different

from zero at the 5% level. There is no statistically significant alpha generated by the long-short strategy that buys firms with expected director departures.

Panel B, in which we use our surprise departure measure (3), shows that firms with surprise departures underperform firms without any outside director departures by 39 basis points monthly on a value-weighted basis and 33 basis points monthly on an equal-weighted basis. There is no statistically significant alpha generated by the long-short strategy that buys firms with expected director departures.

The results for the post-2004 period reported in columns 3 and 4 are economically and statistically similar, with the exception of the equal-weighted portfolio using measure (2).

Overall, the results on stock returns indicate that firms in which outside directors unexpectedly leave underperform firms with no outside director departures in the 12 months following the departure. There is no underperformance in firms with expected departures only.

### 3.2 Accounting performance

We now turn to an analysis of accounting performance. Performance is measured using return on assets (ROA), defined as the ratio of operating income before depreciation over book value of assets. We calculate operating performance pre- and post-director turnover and examine the change in performance around the outside director departure. We measure operating performance before the appointment as the average over event years -2 to -1, where year -1 is the fiscal year ending just prior to the event date. Performance after the director turnover is calculated as the average over event years +1 through +2. The change in performance is the difference of the two averages. To control for industry, prior performance, and time effects, we calculate a performance and industry-adjusted ROA (see, e.g., Barber and Lyon (1996)).<sup>12</sup> We require that the control firms do not have an outside director departure in the same year as

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<sup>12</sup> Performance and industry-adjusted ROA is the difference between the unadjusted ROA and the median ROA of a control group of firms. The control firms are from the same two-digit SIC code and have ROA in year -1 that is within +/- 10% of the firm's ROA. If there is no control firm, we relax the performance requirement to +/- 20% and if there is still no match, we expand to +/- 30% of the firm's ROA.



the departure firm. The ROA is adjusted before averages are taken. Similar to the stock returns analysis, we delete firm-years with inside or linked director departures.

Table 6 shows the mean and median ROA surrounding the departures of outside directors. We report our results in four panels: All departures of outside directors (Panel A), surprise departures using measure (1) (Panel B), and surprise departures using measures (2) and (3) (Panels C and D, respectively).

Panel A of Table 6 shows that the raw performance deteriorates significantly after director turnover. Both mean and median performance changes are negative and statistically significantly different from zero. However, the performance and industry-adjusted changes are small and statistically indistinguishable from zero.

Panels B, C, and D show results for the change in performance around surprise director departures. The mean and median changes in raw ROA around surprise director departures are significantly negative in all specifications. We can gauge the economic significance by relating the change in performance to the pre-turnover ROA. For example, for surprise departure measure (3), the average change in performance is -1.21%. Relative to the average pre-turnover ROA of 13.12%, this is a decrease in performance of about 9.2%. The average change in performance- and industry-adjusted ROA is negative and significant at least at the 10% level for all three surprise director departure measures, while the median change is significant at the 10% level only for measure (3). Columns 3 and 4 of Table 6 show changes in performance for the post-2004 period for surprise departure measures (2) and (3). The mean and median change in raw ROA for firm-years with surprise outside director departures is significantly negative, but the performance- and industry-adjusted changes are indistinguishable from zero.

#### **4 Adverse corporate events following unexpected director turnover**

Our results on stock and operating performance are consistent with a scenario in which the outside director anticipates deteriorating performance at the firm and leaves to protect her reputation or because she anticipates a significantly higher workload. In this section, we attempt to provide additional evidence

that is supportive of our dark side interpretation. We examine earnings restatements, litigation filings, mergers and acquisitions, and negative skewness in the year post-director turnover. These events have been shown to adversely affect the reputational capital of directors belonging to the affected firms (e.g., Fich and Shivdasani (2007) and Srinivasan (2005)) and are of sufficiently high level that directors can be expected to have information on these events.

#### 4.1 Earnings restatements

Hennes et al. (2008) argue that researchers can significantly enhance the power of tests related to restatements by distinguishing between unintentional (due to errors) and intentional (due to irregularities) misstatements. Hence, the dependent variable in our restatement regressions is an indicator variable equal to one if there is an announcement of a restatement due to irregularities during the 12 months following the annual meeting date or director departure date, and zero otherwise. We define a restatement due to irregularities as a restatement which Hennes et al. (2008) classify as intentional, or where the SEC (or other regularity body) is involved, or which Audit Analytics classifies as fraud.<sup>13</sup> The main independent variable of interest is an indicator variable equal to one if there is at least one surprise outside director departure. The control variables are taken as of the fiscal year ending just prior to the annual meeting date or director departure date. We use control variables that have been identified as important in the prior literature (e.g., Larcker et al. (2007) and Srinivasan (2005)).

After requiring that there is information on director departures and control variables, our sample contains 11,660 firm-years out of which 1.57% (183/11,600) are affected by intentional misstatements.<sup>14</sup> One third of the sample firm-years have at least one outside director departure. In untabulated results, the Chi-square test of no association between outside director departures and restating incidence is rejected. Specifically, the frequency of directors who depart from firms who subsequently restate is higher than what is expected under the null hypothesis of random departures.

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<sup>13</sup> We thank Andrew Leone for providing the classification of intentional misstatements pre-2006 on his website.

<sup>14</sup> Year 2008 was dropped when estimating the logistic regressions because there were no restatements due to irregularities.

Table 7 shows the results of logistic regressions in which the left-hand side variable is equal to one if a firm restates earnings due to an intentional misstatement in the 12 months following the event date, and zero otherwise. We show the coefficients from the logistic regressions in the table and the marginal effects of the departure variables are given in brackets below the coefficients and standard errors. In column 1, where we do not distinguish between surprise and expected departures, the coefficient on outside director departure is insignificant. The probability of an intentional misstatement is however significantly positively associated with surprise outside director departures in the prior year, for all three surprise departure measures. The effect appears economically significant. The unconditional probability of a restatement is 1.57%. The marginal effect of 0.005 for surprise departure measure (2) hence signifies that the surprise departure of an outside director increases the probability of a restatement by 32% (0.5/1.57). The coefficients on the control variables are mostly consistent with prior studies. Columns 5 and 6 repeat the analysis for the post-2004 period and surprise departure measures (2) and (3). The coefficients and marginal effects are similar in magnitude to those in columns 3 and 4, but are statistically indistinguishable from zero.

#### 4.2 Shareholder litigation

We use the database on federal class action securities fraud lawsuits provided by the Securities Class Action Clearinghouse of *Stanford Law School* and *Cornerstone Research* to identify instances of alleged financial fraud. The database contains a comprehensive list of filings of federal class action securities fraud lawsuits filed after the Private Securities Litigation Reform Act of 1995.<sup>15</sup> We match this database to our main database by ticker symbols. After requiring non-missing information on director departures and control variables, the sample consists of 13,013 firm-year observations with 492 firm-years (3.78%) of alleged securities fraud. About one-third of the firm-years are associated with an outside director departure. In untabulated results, a Chi-square test of no association between litigation and director

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<sup>15</sup> For other research using federal class action securities fraud lawsuits see, e.g., Bajaj et al. (2003), Fich and Shivdasani (2007), and Black et al. (2006) and the references therein.

departure is rejected. The frequency of director departures prior to litigations is higher than expected under the null hypothesis of random departures.

A drawback to using class action lawsuits to identify financial fraud is that the class action securities fraud lawsuit database contains events where fraud is alleged, but is not actually proven.<sup>16</sup> However, note that this fact biases us against uncovering evidence of directors leaving for reputational concerns prior to filings. One fact that is appealing for our purposes is that Black et al. (2006) convincingly demonstrate that out-of-pocket liability risk from shareholder litigation for outside directors is actually extremely low. To the extent that directors worry about future litigation it therefore seems much more related to reputational rather than financial concerns.

Table 8 shows the results of logistic regressions in which the left-hand side variable is equal to one if there is a class action lawsuit filed during the 12 months following the annual meeting date or director departure date, and zero otherwise. The main independent variable of interest is an indicator variable equal to one if there is at least one surprise outside director departure prior to the lawsuit filing. In the table, we show the coefficients from the logistic regressions. Marginal effects for the departure variables are reported in brackets. In column 1, where we do not distinguish between surprise and expected departures, the coefficient on outside director departure is insignificant. The coefficients on the 3 measures of surprise outside director departures are all statistically and economically significant. The surprise departure of an outside director increases the probability of the filing of shareholder litigation by 0.6 percentage points using measure (1), 1.1 using measure (2), and 0.9 using measure (3). The economic magnitude of this effect can be gauged by comparing this increase in probability relative to the base probability of filing. Relative to the unconditional sample mean probability of 3.78%, the coefficient of 0.6 is equivalent to an increase of 16% in the probability of filing. The surprise departure of a director using measure (2) increases the probability of filing by 29%. The surprise departure of a director using measure (3) yields similar economic effects.

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<sup>16</sup> For more details, the reader is referred to Fich and Shivdasani (2007) and Klausner (2010). Klausner (2010) empirically analyzes the differences between securities class action lawsuits and actual enforcement actions by the SEC.

Regarding the control variables, the incidence of class action securities fraud lawsuits is increasing in firm size and if the firm raised relatively more external financing in the prior year. These findings are consistent with research on shareholder lawsuits that has shown that firms are more likely to be sued if they are larger (see, for instance, Choi (2003)).

Columns 5 and 6 repeat the analysis for the latter half of the sample and show economically and statistically strongly significant results. The economic magnitude is larger than for the entire sample. The strong results can potentially be explained with an increased reputational cost for directors of being associated with a sued firm.

#### 4.3 Mergers and acquisitions

We now examine whether the cumulative abnormal announcement returns to mergers and acquisitions are lower after outside directors unexpectedly left. Lower announcement returns to M&A transactions would be consistent with CEOs pushing for deals in which the primary motive is not shareholder value maximization. We only include completed deals for domestic targets where the transaction value is at least one million dollars and at least 1% of the acquirer's market value prior to the announcement date. Deals where the effective date is more than 1,000 days away from the announcement date are also deleted. We calculate the cumulative abnormal returns of the acquirer over the event window (-1 day, +1 day), where day 0 is the announcement date. The abnormal returns are calculated based on a market model, where the parameters of the market model are estimated using data from days -280 to -61. The main independent variable of interest is an indicator variable which equals one if there is at least one outside director who unexpectedly departs in the 12 months prior to the announcement date. The control variables are similar to those used in prior studies on mergers and acquisitions (e.g., Moeller et al. (2005)). The final sample consists of 1,276 M&A deals; 38% of the deals are associated with an outside director departure prior to the announcement date.

Table 9 shows the results. In column (1), we find that when we do not distinguish between surprise departures and expected departures, the coefficient on the director departure indicator variable is not

significant. When we focus only on the surprise departures in columns 2 to 4, we find that surprise outside director departures in the year prior to M&A transactions are significantly and negatively related to future merger and acquisition announcement returns. The results are economically sizeable. For example, the surprise departure of an outside director using measure (2) is associated with M&A announcement returns that are 1.7% lower than for transactions without prior surprise departures. The other control variables have coefficients that are consistent with the results of prior research (e.g., Moeller et al. (2005)).

Columns 5 and 6 of Table 9 focus on the post-2004 period, and show economically and statistically similar results to those for the overall period.

#### 4.4 Skewness

Outside directors are likely to worry about managerial actions or corporate events that increase the probability of large, negative shocks to firm value. We explicitly examine three events that could lead to such a destruction of firm value in sections 4.1 to 4.3, but there could of course be other corporate events or managerial actions that have the potential to harm shareholders and to damage the reputation of directors. In this section, we take a more indirect approach and analyze whether extreme negative stock returns are more frequent in periods following the surprise departure of outside directors. We define extreme negative returns as follows. A monthly return is defined as extreme if it is at least three standard deviations below the past 24 months' average. We define a firm-year to be an extreme negative return firm-year if at least one of the 12 monthly returns following the proxy date or director's departure is classified as extreme.

We follow Chen et al. (2001) and control for market capitalization, prior stock performance, stock volatility, and stock turnover. Specifically, we include as control variables the natural logarithm of market capitalization in the month of the proxy date or director's departure date (the event date), the average monthly return over the 12 months ending in the month of the event date, the average monthly standard deviation of daily stock returns over the 12 months ending in the month of the event date, and the average

monthly share turnover over the prior 12 months. Turnover is defined as shares traded divided by shares outstanding. Since turnover data for Nasdaq is not comparable with that of NYSE and AMEX stocks, we define a turnover variable for the Nasdaq stocks and another turnover variable for the NYSE/AMEX stocks.<sup>17</sup> The turnover variable for Nasdaq (NYSE/AMEX) stocks is set to zero for NYSE/AMEX (Nasdaq) stocks. After requiring non-missing information for the control variables, our sample contains 14,325 firm-years, with 13.8% of those firm-years exhibiting extreme negative returns. About one-third of the firm-years are associated with outside director departures.

Table 10 shows the results. In column 1, where we do not distinguish between surprise and expected departures, we find that extreme negative stock returns are unrelated to prior director departures. In columns 2 to 4 we focus on surprise outside director departures. Surprise outside director departures are statistically significantly related to extreme negative returns in the year following the director departure using measures (2) and (3). The marginal effects, reported in brackets below the coefficients and standard errors, are economically meaningful. The surprise departure of an outside director increases the probability of a large negative return event by 1.1 to 1.3 percentage points, or, relative to the sample mean of 13.8%, by approximately 8.0 to 9.4 percentage points.

The coefficients on the control variables suggest that firms that experienced positive returns in the past, and firms with lower stock return volatility are more likely to experience an extreme negative stock return event. This is similar to Chen et al. (2001) who examine daily stock return skewness for a sample of NYSE/AMEX firms. Columns 5 and 6 re-estimate the regressions for the post-2004 period, with statistically insignificant and economically weaker results.

#### 4.5 Using an index of bad events

In Tables 7 to 10 we have separately analyzed firm-specific events that could make directors worry about their reputation or increases in their workload. We now create an index of whether a bad event occurs that combines all the outcome variables we studied before. The hypothesis that there is a dark side

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<sup>17</sup> For details, see Atkins and Dyl (1997).

to outside directors is not a prediction that a specific type of bad event is more likely to occur following an unexpected departure, but rather that a bad event, regardless of type, is more likely to occur. Consequently, using an index of whether a bad event occurs is a more direct test of the hypothesis. Further, while the results for the overall sample generally show meaningful economic and statistical significance, some of the results on the post-2004 period are statistically weaker. We believe that this is related to the low power of tests for these individual bad events. Creating an index of bad events will increase the power of the tests for the post-2004 period.

In Table 11, the dependent variable is equal to one if in any of the 12 months following the annual meeting date or director departure date the firm announces a restatement, is subject to a lawsuit filing, has poor announcement returns to an M&A deal, or experiences an extreme negative stock return. The incidence of restatements, lawsuit filings, and extreme negative returns are defined as before. We define a poor M&A announcement return as a return over the event window (-1 day, +1 day) in the bottom quartile of the M&A sample. We have 12,632 sample firm-years with complete data on dependent and independent variables. The independent variables are from the previous tables. The frequency for the bad events indicator variable is equal to 18.8%.

Table 11 shows the results. Column 1 shows that the outside director indicator variable that does not distinguish between surprise and expected departures has no explanatory power. Columns 2 through 4 show that all three surprise departure measures have significant explanatory power for future bad events. The economic magnitude, given in the bracket below the coefficient and standard error, is lower for the more noisy measure (1) that is based on age at departure alone, and doubles for the surprise departure measures (2) and (3) that are based on the Cox proportional hazard regressions. The effect is strongly statistically significant and economically meaningful. The surprise departure of an outside director increases the probability of a future bad event by 3.4% (measure (2)) and 3.1% (measure (3)), respectively. Compared to the sample average of 18.8% for a bad event, this is an increase of 16% to 18%.



Columns 5 and 6 show that the surprise outside director departure using measures (2) and (3) also has strong predictive power for future bad events in the post-2004 period. The economic magnitude of the estimated marginal effect is almost identical to the one for the overall sample. We take these results as evidence that the unexpected departure of an outside director is predictive of future bad events in corporations, even after Sarbanes-Oxley was passed and after a heightened awareness of governance issues was established.

## **5. Announcement returns to unexpected director departures**

We showed in Sections 3 and 4 that surprise director resignations contain a signal of future adverse developments for a company. Yet, investors appear to miss the importance of this signal, given the results in Tables 4 and 5 that the negative abnormal stock returns continue for one year into the future. We now examine whether investors at least partially anticipate problems at firms when directors unexpectedly resign by studying announcement returns to surprise director departures.<sup>18</sup>

To isolate the effect of a surprise director departure from other corporate events, we create a sample of director resignations announced in 8-K filings that occurred around dates on which no other confounding corporate news were communicated. We use the Audit Analytics Director and Officer Changes database, which tracks 8-K filings of director departures after the disclosure changes in 2004, to obtain announcement dates of director departures after January 1, 2005.<sup>19</sup> Out of 7,154 director departures in our entire sample, 3,475 departures have event dates after January 1, 2005. Out of these 3,475 departures, we were able to match 1,931 (55.6%) to Audit Analytics. The missing departures were either not communicated via 8-K filings, although this would be a violation of a reporting requirement, or were

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<sup>18</sup> An analysis of director departure or appointment announcement returns has been carried out by many papers (e.g., Rosenstein and Wyatt (1990), Shivdasani and Yermack (1999), Perry and Peyer (2005), or Nguyen and Nielsen (2010)).

<sup>19</sup> The SEC issued in March 2004 Release No. 34-49424, Additional Form 8-K Disclosure Requirements and Acceleration of Filing Date, which became effective on August 23, 2004. One of the changes to the 8-K relates to departure or election of directors and departure or appointment of principal offices, which are reported in Section 5.02 of the Form. The change to Section 5.02 (departure or election/appointment of directors and principal officers) requires firms to report immediately the resignation by directors and to disclose the reasons for the departure as provided by the departed director (see Bar-Hava and Segal (2010) for details).

communicated directly in the proxy statement. The new disclosure rules require that director departures be filed within 4 business days. Therefore, we look for confounding events within +/- 5 days of the announcement date. We remove director departure announcement dates if any of the following events happen in the vicinity of the 8-K filing (number of non-mutually exclusive confounding events are in parentheses): quarterly earnings announcements (321), dividend announcements (438), acquisition announcements (either as acquirer or target) (19), management guidance announcement (205), or 8-K filings of other director and officer changes (896). While the exclusion of these departures significantly reduces the sample size for the test in this section, we believe it is critical to do so to be able to draw correct inferences.

We are left with 724 departures. We then proceed to exclude director departures that happened during the financial crisis of 2007-2009. The reason for doing this is straightforward. The financial crisis corresponds to a period of extremely high stock return volatility, so that our tests would have little power during that period. Our final sample consists of 361 outside director departure announcements.<sup>20</sup>

Table 12 shows means and medians for market-model adjusted director departure announcement returns. We calculate the cumulative abnormal announcement returns over the event window (-5 day, +1 day), where day 0 is the date the 8-K filing is accepted by SEC. As highlighted by Lerman and Livnat (2010), the new Form 8-K guidance allows the public to receive information of the director departure within five days of its occurrence, thus an event window of (-5, +1) is conservative. The abnormal returns are calculated based on a market model, where the parameters of the market model are estimated using data from days -280 to -61. Panel A shows that the announcement returns for all outside director departures are statistically insignificantly different from zero. Panel B shows results using the simple age-based measure for surprise director departures. Announcement returns to the surprise departure of

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<sup>20</sup> We find in unreported tabulations that firm and director characteristics for the sample of 361 departures with clean announcement dates are economically and statistically similar to the characteristics for the overall sample of director departures post-2004. Therefore, while the sample of announcement returns we analyze is significantly smaller than the overall sample, we do not see an obvious reason to worry about sample selection issues. Interestingly, for the departures classified as surprise departure (both measures (2) and (3)) in this sample, only 2 departures cited disagreement with management as the reason for departure. In the vast majority of cases, no reasons were given or directors cite personal reasons such as “too many commitments” for departure.

directors defined using measure (1) are statistically significantly lower than announcement returns to expected director departures. Panels C and D use our more sophisticated measures of surprise departures.<sup>21</sup> The results show that the announcement returns to surprise director departures are statistically significantly negative in three out of four specifications. The economic magnitude varies between -0.4% and -0.7%. In contrast, the announcement returns to expected director departures are statistically indistinguishable from zero. The last row in each panel shows that the announcement returns to surprise departures are statistically significantly lower than the announcement returns to expected departures.

Overall, the evidence in Table 12 using our clean sample of announced director departures shows that investors partially anticipate the bad future news that the unexpected departure of a director entails. In addition, investors seem to be able to differentiate between anticipated and unanticipated director departures. In unreported regressions, we also examine the cross-sectional determinants of the announcement returns to unexpected director departures. We find that the announcement returns are lower if the director who resigns unexpectedly is a member of the corporate governance committee, if he had attendance problems the prior year, if it is a smaller firm, and if the stock return volatility is higher.

## **6. Discussion of alternative hypotheses and additional robustness tests**

In this section, we discuss several alternative hypotheses and provide additional support for our interpretation that directors are voluntarily leaving in anticipation of bad events.

### **6.1. Are directors fired?**

One concern regarding the interpretation of our results is that directors may not voluntarily leave the firm to protect their reputation and avoid a higher workload, but are fired from the board. We believe that this interpretation is unlikely. First, Yermack (2004) convincingly argues that “For outside directors, the

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<sup>21</sup> We show results using the surprise departure measures calculated based on the full sample. Similar results are obtained if we use the surprise departure measures calculated based on the post-2004 sample.

threat of replacement is more attenuated, since directors do not report to a higher authority that might fire them for poor performance.” Second, the results in Table 2, column 2 show that poor stock returns are more likely to lead to director departures. Assuming that these departures are forced departures, including prior performance as an explanatory variable when defining surprise departure measure (3) will hence result in surprise departures that are more likely to be voluntary. Yet, we show economically and statistically similar results for surprise departure measures (2) and (3) in virtually all tables. Third, we would expect that if directors are replaced for poor performance, it is much more likely to be in a situation where the CEO is replaced as well, but our results hold when we exclude all observations in which inside directors and linked directors depart when estimating the regressions in Tables 7 to 11.

## 6.2. Reverse causality

Another explanation that is potentially consistent with our findings is that the departure of a valuable director causes the adverse events as the firm loses a good adviser and/or monitor. This explanation would however imply that we should also observe that adverse events are more likely to follow routine retirements. We have shown in Tables 7 to 11 that the indicator variable “outside director departure” that measures the departure of any outside director, no matter whether it was expected or unexpected, has no predictive power for future bad events. The predictive power is driven by surprise departures. In untabulated results, we have also included an indicator variable equal to one if all departures were expected in the regressions and find that only the surprise departures significantly predict future bad events. These results are inconsistent with the reverse causality explanation, because losing an experienced director with a deep knowledge of the firm should matter both for expected and unexpected departures.<sup>22</sup> Furthermore, some of the outcome variables we analyzed in Section 4 have in common that they typically take some time from the initial wrongdoing/planning stage to the public announcement. This delay makes a causal interpretation from director departure to event implausible, since directors may

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<sup>22</sup> It is possible that the nomination committee of the board has more time to think about a successor in the case of an expected retirement. Even if this was the case, the new outside director would still have no experience with the firm and not know the other board members.

still be active in the firm at the time of the wrongdoing. For example, Fich and Shivdasani (2007) show summary statistics that the duration of the alleged violation in federal class action lawsuits is, on average, over one year (376 days), and that it takes another 100 days until a lawsuit is filed. Similarly, Agrawal and Cooper (2008) document that the average (median) number of days between the first day of the quarter restated and the restatement announcement date is over 700 days (500 days).

### 6.3. Director resignations and avoidance of loss of reputation

One final concern that should be addressed is that a director who resigns, e.g., ahead of litigation or of an earnings restatement, could still see her reputation affected and even possibly suffer a pecuniary loss if she is named in a lawsuit or an enforcement action. A director who leaves the board once the misconduct has occurred does not protect herself from lawsuits. The director can still be named a defendant regardless of whether she has quit. Nevertheless, resigning ahead of the disclosure has several advantages for a director. First, she is likely to avoid being associated with the bad press and shareholder ire following the announcement of an earnings restatement or shareholder litigation. Second, there is some evidence that a former director is less likely to be named in a lawsuit than a current director.<sup>23</sup> Third, the labor market will look more favorably upon such a director since she is not currently associated with an embattled company. Any firm appointing the director to its board bears less risk associated with adverse disclosures or controversial decisions at the embattled company than if the director were still on the board of that company. Finally, being on the board of the embattled company would make much higher demands on the director's time that would decrease her availability for other positions.

## 7. Conclusion

We show that following surprise outside director departures, affected firms have worse stock performance, worse accounting performance, a greater likelihood of an extreme negative return, a greater

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<sup>23</sup> Agrawal and Chen (2011) and Melnik (2004) show that resigning from boards reduces the probability of being named defendant in subsequent class action lawsuits, even if the litigation relates to events that took place during the director's term in office.

likelihood of a restatement, a greater likelihood of being sued by their shareholders, and lower announcement returns to mergers and acquisitions. Investors partially incorporate the higher incidence of future bad events after surprise director departures because announcement returns to surprise departures are negative and lower than those to expected departures.

Outside directors have incentives to quit to protect their reputation or to avoid increases in their workload when the firm on whose board they sit is likely to experience a tough time either because of poor performance or because of disclosure of adverse actions. Our results suggest that these incentives of outside directors need to be taken into account when evaluating the benefits and costs of increasing board independence. Further research should investigate whether different types of outside directors are more prone to resigning to protect their reputation and whether capital markets react differently to the appointment of such directors. Another useful topic of research would be to analyze the impact of director compensation, director equity holdings, and vesting conditions of director equity grants on directors' incentives to quit to protect their reputation or to avoid an increase in their workload.

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**Table 1. Summary statistics**

The sample consists of 95,690 outside director-firm-years (14,428 firm-years) from 1999 to 2010. Data on board and director characteristics is obtained from the RiskMetrics directors database. Accounting data are from Compustat, stock return data from CRSP, and CEO data from Execucomp. Only outside directors are included; directors who are classified as employees or linked by RiskMetrics are excluded. Panel A shows director characteristics, split by whether the director departed in any given year or not. The statistics in Panel A are at the director-firm-year level. Panel B shows firm characteristics, split by whether at least one outside director departed in a given firm-year. The statistics in Panel B are at the firm-year level. The accounting data is taken from year -1, where year -1 is defined as the fiscal year ending just prior to the event date. Stock returns are buy-and-hold returns over year -1. Return volatility is the standard deviation of daily returns over year -1. The corporate governance data are taken as of the proxy statement prior to the event date. Death is an indicator variable equal to one if the director died. Appointed to another firm is an indicator variable equal to one if the director is appointed to another firm in the RiskMetrics directors database in the one year prior to the event date. Attendance problem is an indicator variable equal to one if the director attends less than 75% of the meetings. Dollar values in Panel B are expressed in 2011 million dollars. Two-sample t-tests (Wilcoxon-Mann-Whitney tests) are conducted to test whether the means (medians) of departure years are significantly different from non-departure years. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

Panel A: Outside director characteristics

	Non-departing directors (n = 88,536)		Departing directors (n = 7,154)	
	Mean	Median	Mean	Median
Tenure (years)	8.52	7.00	10.96***	9.00***
No. of other directorships	1.02	1.00	0.97***	0.00***
Age indicator (64-66) (%)	15.23	-	8.75***	-
Age indicator (67-69) (%)	13.73	-	10.11***	-
Age indicator (above 69) (%)	14.37	-	43.56***	-
Death (%)	0.00	-	1.73***	-
Current CEO director (%)	15.87	-	11.83***	-
Current executive director (%)	10.74	-	7.38***	-
Retired (%)	26.27	-	42.91***	-
Audit committee member (%)	52.33	-	48.31***	-
Compensation committee member (%)	50.43	-	49.54	-
Nominating committee member (%)	42.30	-	41.45	-
Corporate governance committee member (%)	35.88	-	34.88*	-
Appointed to another firm (%)	4.47	-	3.93**	-
Attendance problem (%)	1.63	-	3.94***	-

Panel B: Firm characteristics

	Non-departure firm-years (n = 9,120)		Departure firm-years (n = 5,308)	
	Mean	Median	Mean	Median
Book assets	8037.63	1931.32	13734.25***	3434.50***
Market cap	6380.95	1889.39	8601.30***	2561.15***
Sales	4867.97	1613.51	7076.84***	2401.25***
Firm age (years)	27.31	20.00	32.56***	29.00***
Stock return (%)	13.16	6.45	9.72***	5.11**
Industry stock return (%)	1.53	0.67	2.06	2.58*
Return on assets (ROA) (%)	13.41	13.07	12.05***	11.72***
Return volatility (%)	2.87	2.55	2.70***	2.37***
CEO left indicator (%)	9.35	-	12.55***	-
CEO ownership (%)	2.82	0.39	1.65***	0.24***
Board Size	9.00	9.00	10.29***	10.00***
% of outside directors	67.33	70.00	73.42***	75.00***

**Table 2. Cox proportional hazard regressions of director turnover**

The table reports results from Cox proportional hazard models. The sample consists of 95,690 outside director-firm-years, which track 23,035 directorships. Only outside directors are included; directors who are classified as employees or linked by RiskMetrics are excluded. Columns 1 and 2 reports results for the full sample, while columns 3 and 4 are the results based on data from 2005 to 2010. The time variable is director tenure in years until turnover (the event) or until the firm quits the sample. The status or event variable is outside director turnover. Of the 23,035 directorships, 7,154 directorships end in a departure during our sample (experience the event); all other outside director tenures are treated as right-censored in the regressions. The accounting data are taken from year -1, where year -1 is defined as the fiscal year ending just prior to the date the time variable is measured. Stock returns are buy-and-hold returns over year -1. Return volatility is the standard deviation of daily returns over year -1. The corporate governance data are taken as of the proxy statement prior to the date the time variable is measured. Death is an indicator variable equal to one if the director died. Appointed to another firm is an indicator variable equal to one if the director is appointed to another firm in the RiskMetrics Directors Database in the one year prior to the event date. Attendance problem is an indicator variable equal to one if the director attends less than 75% of the meetings. Age indicator variables are indicator variables equal to one if the director age falls within the specified range, and zero otherwise. CEO left indicator is an indicator variable equal to one if the CEO turned over during the past 12 months. The table reports hazard ratios (exponentiated coefficients). Standard errors are clustered at the director-firm level. Z-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample		Post-2004	
	(1)	(2)	(3)	(4)
No. of other directorships	0.995 -0.50	0.979** -2.25	0.967** -2.31	0.956 *** -3.00
Age indicator (64-66)	0.800*** -5.07	0.787*** -5.43	0.755*** -4.65	0.744*** -4.88
Age indicator (67-69)	0.984 -0.38	0.968 -0.76	0.799*** -3.68	0.789*** -3.88
Age indicator (above 69)	3.111*** 36.55	3.174*** 37.53	2.559*** 21.65	2.574*** 21.86
Death	9.745*** 29.11	9.985*** 29.22	9.906*** 28.59	10.312*** 29.96
Current CEO director	0.948 -1.37	0.929* -1.89	1.076 1.15	1.067 1.02
Current executive director	0.835*** -3.86	0.840*** -3.73	0.937 -0.74	0.931 -0.82
Retired	1.137*** 4.42	1.147*** 4.78	1.193*** 4.55	1.202*** 4.78
Audit committee member	0.834*** -7.78	0.882*** -5.24	0.773*** -7.66	0.810*** -6.10
Compensation committee member	0.849*** -7.04	0.892*** -4.80	0.871*** -4.16	0.902*** -3.02
Nominating committee member	0.838*** -4.38	0.855*** -3.87	0.733*** -3.31	0.782** -2.52
Corporate governance committee member	1.091** 2.02	1.052 1.17	1.115 1.16	1.061 0.61
Appointed to another firm	1.240*** 3.56	1.223*** 3.33	1.317*** 2.89	1.297*** 2.73
Attendance problem	2.045*** 12.17	2.082*** 12.60	1.825*** 4.92	1.858*** 5.10
Log (sales)		1.019** 1.98		1.019 1.42
Log (firm age)		1.010 0.53		0.967 -1.28
Stock return		0.942** -2.11		0.947 -1.08
Industry stock return		0.990 -0.15		0.936 -0.62
Return on assets		0.738** -2.28		0.567*** -2.87
Return volatility (%)		1.059*** 5.17		1.036** 2.15
CEO left indicator		1.274*** 7.19		1.361*** 6.48
CEO ownership (%)		0.985*** -5.33		0.990*** -2.69
Board size		1.015*** 3.49		1.014** 1.97
% of outside directors		1.009*** 9.35		1.007*** 4.68
Year fixed effects	Yes	Yes	Yes	Yes
Number of subjects	23,035	23,035	15,700	15,700
Number of turnovers	7,154	7,154	3,475	3,475
Number of observations	95,690	95,690	51,106	51,106

**Table 3. Frequency of departures**

The table reports the yearly frequency of director departures and also the percentage of departures that are classified as surprise. The statistics in Panel A are at the director-firm-year level while Panel B shows the frequency at the firm-year level. Surprise departure 1 is defined as departures of directors aged 69 and below not due to death. Surprise director departures 2 (3) are departures in which the director survival function from the Cox proportional hazard model in Table 2, Column 1 (Table 2, Column 2) is higher than 75%, but the director nevertheless departs.

Panel A: Director-firm-year observations

Event Year	No. of obs	# depart	% depart	Conditional upon Depart = 1		
				% sur dep 1	% sur dep 2	% sur dep 3
1999	6,492	510	7.9%	48.2%	18.6%	19.0%
2000	7,155	608	8.5%	53.6%	23.5%	23.4%
2001	7,648	656	8.6%	54.6%	27.1%	26.7%
2002	7,384	586	7.9%	54.4%	27.3%	27.1%
2003	7,815	665	8.5%	62.0%	30.7%	29.3%
2004	8,090	654	8.1%	59.8%	26.1%	26.6%
2005	8,249	615	7.5%	56.6%	32.4%	31.9%
2006	8,058	554	6.9%	54.9%	33.6%	31.9%
2007	7,753	601	7.8%	58.7%	31.9%	32.1%
2008	7,941	503	6.3%	52.9%	37.0%	37.2%
2009	9,450	602	6.4%	55.1%	37.9%	37.9%
2010	9,655	600	6.2%	52.3%	33.7%	32.5%
Total	95,690	7,154	7.5%	55.5%	30.0%	29.6%

Panel B: Firm-year observations

Event Year	No. of obs	# depart	% depart	Conditional upon Depart = 1		
				% sur dep 1	% sur dep 2	% sur dep 3
1999	1,064	376	35.3%	55.3%	22.9%	23.1%
2000	1,173	444	37.9%	60.8%	27.7%	27.9%
2001	1,255	464	37.0%	60.3%	33.8%	32.8%
2002	1,189	421	35.4%	61.8%	33.5%	34.0%
2003	1,249	502	40.2%	69.1%	37.6%	36.1%
2004	1,246	487	39.1%	65.9%	32.4%	33.5%
2005	1,247	472	37.9%	61.2%	36.9%	36.2%
2006	1,189	439	36.9%	59.7%	37.1%	35.8%
2007	1,120	447	39.9%	63.3%	38.7%	38.7%
2008	1,104	357	32.3%	58.5%	42.6%	42.6%
2009	1,281	453	35.4%	58.7%	43.3%	43.5%
2010	1,311	446	34.0%	57.6%	37.4%	37.2%
Total	14,428	5,308	36.8%	61.3%	35.4%	35.2%

**Table 4. Univariate analysis of portfolio returns**

The table shows an analysis of stock returns in excess of the risk-free interest rate for different portfolios formed based on outside director departures. The analysis is based on 14,428 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of an employee director or linked director, which reduces the sample to 11,151 firm-years. In Panel A, firms are sorted into two portfolios based on whether there is at least one outside director departure or not and are held in the portfolio for the subsequent 12 months. Portfolio 1 consists of firms where at least one outside director departs, and Portfolio 2 contains firms where there are no outside director departures. In Panels B, C, and D, we split the portfolio of outside director departures into portfolio 1S, consisting of firms with at least one surprise director departure and portfolio 1E, consisting of firms where all director departures are expected. If in a given firm-year, there is both a surprise departure and an expected departure, we assign the firm-year to the surprise departure portfolio. Panel B defines expected director departures as departures of director who died or departures of directors aged 70 and above and treats departures of directors age 69 and below not due to death as surprise departures. Panel C (Panel D) defines surprise director departures as departures in which the director survival function from the Cox proportional hazard model in Table 2, Column 1 (Table 2, Column 2) is higher than 75%, but the director nevertheless departs. Panel E (Panel F) restricts the sample to years 2005 to 2010 and defines surprise director departures as departures in which the director survival function from the Cox proportional hazard model in Table 2, Column 3 (Table 2, Column 4) is higher than 75%, but the director nevertheless departs. The table shows the monthly portfolio excess returns, where the excess returns are calculated by subtracting from the portfolio returns the risk-free rate taken from the Fama-French monthly factor dataset. *t*-tests and signed rank tests are used to test whether the mean and median monthly portfolio returns are significantly different from zero. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Value-weighted portfolio ret		Equal-weighted portfolio ret	
	Mean	Median	Mean	Median
<b>Full sample</b>				
<u>Panel A: Outside director departure</u>				
Outside dir depart (Portfolio = 1)	0.0035	0.0063	0.0078*	0.0109**
No dir depart (Portfolio = 2)	0.0040	0.0079	0.0089**	0.0111**
Portfolio 1 - Portfolio 2	-0.0006	-0.0008	-0.0011	-0.0013**
<u>Panel B: Outside director surprise departure (1)</u>				
Outside dir surprise depart (Portfolio = 1S)	0.0023	0.0040	0.0080*	0.0137
Outside dir expected depart (Portfolio = 1E)	0.0072*	0.0101	0.0090**	0.0106
No dir depart (Portfolio = 2)	0.0044	0.0084	0.0095**	0.0111
Portfolio 1S - Portfolio 2	-0.0021	-0.0025	-0.0015	-0.0022
Portfolio 1E - Portfolio 2	0.0027	0.0001	-0.0005	-0.0010
<u>Panel C: Outside director surprise departure (2)</u>				
Outside dir surprise depart (Portfolio = 1S)	0.0002	0.0057	0.0062	0.0098
Outside dir expected depart (Portfolio = 1E)	0.0039	0.0094	0.0078*	0.0118**
No dir depart (Portfolio = 2)	0.0037	0.0079	0.0092**	0.0111**
Portfolio 1S - Portfolio 2	-0.0035*	-0.0050**	-0.0030***	-0.0030***
Portfolio 1E - Portfolio 2	0.0002	-0.0006	-0.0014	-0.0010
<u>Panel D: Outside director surprise departure (3)</u>				
Outside dir surprise depart (Portfolio = 1S)	0.0001	0.0069	0.0057	0.0086
Outside dir expected depart (Portfolio = 1E)	0.0039	0.0076	0.0082*	0.0121**
No dir depart (Portfolio = 2)	0.0037	0.0079	0.0092**	0.0111**
Portfolio 1S - Portfolio 2	-0.0036	-0.0052**	-0.0035***	-0.0027***
Portfolio 1E - Portfolio 2	0.0002	-0.0010	-0.0010	-0.0006

*Post-2004*

Panel E: Outside director surprise departure (2)

Outside dir surprise depart (Portfolio = 1S)	-0.0002	0.0046	0.0053	0.0120
Outside dir expected depart (Portfolio = 1E)	0.0041	0.0105	0.0059	0.0105
No dir depart (Portfolio = 2)	0.0060	0.0102	0.0070	0.0138
Portfolio 1S - Portfolio 2	-0.0062***	-0.0053***	-0.0018	-0.0036**
Portfolio 1E - Portfolio 2	-0.0020	-0.0019	-0.0011	-0.0001

Panel F: Outside director surprise departure (3)

Outside dir surprise depart (Portfolio = 1S)	-0.0001	0.0053	0.0046	0.0105
Outside dir expected depart (Portfolio = 1E)	0.0039	0.0101	0.0062	0.0119
No dir depart (Portfolio = 2)	0.0060	0.0102	0.0070	0.0138
Portfolio 1S - Portfolio 2	-0.0061***	-0.0049***	-0.0024*	-0.0026**
Portfolio 1E - Portfolio 2	-0.0021	-0.0027	-0.0008	-0.0006

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**Table 5. Monthly performance attribution regressions**

The table shows results of calendar-time portfolio performance attribution regressions. The analysis is based on 14,428 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of an employee director or linked director, which reduces the sample to 11,151 firm-years. Columns 1 and 2 show results for the entire sample, columns 3 and 4 show results for the post-2004 period. In Panels A and B, we split the portfolio of director departures into portfolio 1S of surprise director departures and portfolio 1E of expected director departures. If in a given firm-year, there is both a surprise departure and an expected departure, we assign the firm-year to the surprise departure portfolio. For the full sample, Panel A (Panel B) defines surprise director departures as departures in which the one-year outside director survival function of the Cox proportional hazard model in Table 2, Column 1 (Table 2, Column 2) is higher than 75%, but the director nevertheless departs. For the post-2004 sub-sample, Panel A (Panel B) defines surprise director departures as departures in which the one-year outside director survival function of the Cox proportional hazard model in Table 2, Column 3 (Table 2, Column 4) is higher than 75%, but the director nevertheless departs. The table reports alpha estimates from regressions based on a four-factor performance attribution model for the monthly excess returns of the various portfolios. The four factors are defined in Fama and French (1993) and Carhart (1997). The factors are the returns to zero-investment portfolios designed to capture market (MKTRF), size (SMB), book-to-market (HML), and momentum (UMD) effects, respectively. The coefficients on the four factors are not reported in the table to conserve space. Standard errors are reported in italics. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample		Post-2004	
	Alpha (VW)	Alpha (EW)	Alpha (VW)	Alpha (EW)
<u>Panel A: Outside director surprise departure (2)</u>				
Outside dir surprise depart (Portfolio = 1S)	-0.0011 <i>0.002</i>	0.0026 <i>0.002</i>	-0.0028* <i>0.002</i>	0.0014 <i>0.001</i>
Outside dir expected depart (Portfolio = 1E)	0.0030* <i>0.002</i>	0.0039*** <i>0.001</i>	0.0014 <i>0.002</i>	0.0021 <i>0.001</i>
No dir depart (Portfolio = 2)	0.0029*** <i>0.001</i>	0.0052*** <i>0.001</i>	0.0035*** <i>0.001</i>	0.0032*** <i>0.001</i>
Portfolio 1S - Portfolio 2	-0.0041** <i>0.002</i>	-0.0027** <i>0.001</i>	-0.0063*** <i>0.002</i>	-0.0018 <i>0.002</i>
Portfolio 1E - Portfolio 2	0.0000 <i>0.002</i>	-0.0014 <i>0.001</i>	-0.0021 <i>0.003</i>	-0.0010 <i>0.001</i>
<u>Panel B: Outside director surprise departure (3)</u>				
Outside dir surprise depart (Portfolio = 1S)	-0.0010 <i>0.002</i>	0.0019 <i>0.002</i>	-0.0027* <i>0.002</i>	0.0006 <i>0.001</i>
Outside dir expected depart (Portfolio = 1E)	0.0029* <i>0.002</i>	0.0042*** <i>0.001</i>	0.0013 <i>0.002</i>	0.0025* <i>0.001</i>
No dir depart (Portfolio = 2)	0.0029*** <i>0.001</i>	0.0052*** <i>0.001</i>	0.0035*** <i>0.001</i>	0.0032*** <i>0.001</i>
Portfolio 1S - Portfolio 2	-0.0039* <i>0.002</i>	-0.0033*** <i>0.001</i>	-0.0063*** <i>0.002</i>	-0.0026* <i>0.001</i>
Portfolio 1E - Portfolio 2	-0.0001 <i>0.002</i>	-0.0010 <i>0.001</i>	-0.0023 <i>0.003</i>	-0.0007 <i>0.001</i>

**Table 6. Operating performance around director departures**

The table reports firm operating performance around director departures. The analysis is based on 14,428 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of an employee director or linked director, which reduces the sample to 11,151 firm-years. Return on assets (ROA) is defined as the ratio of operating income before depreciation to book assets. Performance, industry-adjusted ROA is the difference between the unadjusted ROA and the median ROA of control firms. The control firms are firms from the same two-digit SIC code and have ROA in year -1 that is within +/- 10% of the firm's ROA, where year -1 is the fiscal year end just prior to the director's departure date. We require that the control firms not have an outside director departure in year 0. ROA is averaged before and after the event. In Panels B, C, and D, we split director departures into surprise director departures and expected director departures. *t*-tests and signed rank tests are used to determine whether the means and medians are significantly different from zero. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample		Post-2004	
	Mean	Median	Mean	Median
<i>Panel A: Outside director departure</i>				
	<u>ROA</u>			
Before (-2,-1)	0.1275***	0.1206***		
After (+1,+2)	0.1170***	0.1138***		
Change	-0.0105***	-0.0044***		
	<u>Performance, industry-adjusted ROA</u>			
Before (-2,-1)	0.0005	-0.0003		
After (+1,+2)	-0.0011	0.0008		
Change	-0.0016	0.0002		
<i>Panel B: Outside director surprise departure (1)</i>				
	<u>ROA</u>			
Before (-2,-1)	0.1262***	0.1191***		
After (+1,+2)	0.1158***	0.1122***		
Change	-0.0104***	-0.0044***		
	<u>Performance, industry-adjusted ROA</u>			
Before (-2,-1)	0.0010	-0.0001		
After (+1,+2)	-0.0021	-0.0001		
Change	-0.0031*	-0.0006		
<i>Panel C: Outside director surprise departure (2)</i>				
	<u>ROA</u>			
Before (-2,-1)	0.1278***	0.1190***	0.1262***	0.1179***
After (+1,+2)	0.1172***	0.1136***	0.1138***	0.1099***
Change	-0.0106***	-0.0041***	-0.0125***	-0.0044***
	<u>Performance, industry-adjusted ROA</u>			
Before (-2,-1)	0.0019**	-0.0001	0.0022*	-0.0009
After (+1,+2)	-0.0030	-0.0003	-0.0003	-0.0008
Change	-0.0049**	-0.0006	-0.0025	-0.0001
<i>Panel D: Outside director surprise departure (3)</i>				
	<u>ROA</u>			
Before (-2,-1)	0.1312***	0.1217***	0.1315***	0.1193***
After (+1,+2)	0.1191***	0.1152***	0.1178***	0.1135***
Change	-0.0121***	-0.0048***	-0.0136***	-0.0055***
	<u>Performance, industry-adjusted ROA</u>			
Before (-2,-1)	0.0017*	0.0000	0.0023*	-0.0009
After (+1,+2)	-0.0038*	-0.0006	-0.0006	-0.0002
Change	-0.0055**	-0.0016*	-0.0028	0.0000

**Table 7. Outside director departures and subsequent earnings restatements**

The table shows results from logistic regressions of a subsequent earnings restatement announcement following outside director departures. Announcement dates of restatements are from the list of restatements compiled by the U.S. Government Accountability Office (GAO) for years prior to 2006 and supplemented with data from Audit Analytics for years 2000 and onwards. The dependent variable is an indicator variable equal to one if there is an announcement of a restatement due to irregularities during the 12 months following the annual meeting date or director departure date, and zero otherwise. A restatement due to irregularities is a restatement which Hennes, et al. (2008) classified as irregular, or where the SEC (or other regularity body) is involved, or which Audit Analytics classified as fraud. Outside dir (surprise) depart is an indicator variable equals to one if there is at least one outside director (surprise) departure, and zero otherwise. The control variables are measured as of the fiscal year ending just prior to the meeting date or departure date. Cash flow is equal to the sum of net income before extraordinary items and depreciation divided by book assets. External financing is equal to the sum of net equity financing and net debt financing divided by book assets. Cash acquisition is the ratio of cash spent on acquisitions to book assets. Standard errors clustered at the firm level are reported in *italics*. Marginal effects with associated significance for the departure variables are reported in brackets. Intercepts are not reported. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample				Post-2004	
	(1)	(2)	(3)	(4)	(5)	(6)
Outside dir depart	0.162 <i>0.151</i> [0.001]					
Outside dir surprise depart (1)		0.323* <i>0.165</i> [0.003]*				
Outside dir surprise depart (2)			0.509*** <i>0.190</i> [0.005]**		0.640** <i>0.315</i> [0.004]	
Outside dir surprise depart (3)				0.387** <i>0.191</i> [0.004]*		0.507 <i>0.320</i> [0.002]
Board size	-0.002 <i>0.038</i>	-0.002 <i>0.038</i>	-0.002 <i>0.037</i>	0.000 <i>0.037</i>	0.006 <i>0.062</i>	0.008 <i>0.062</i>
% outside directors	-0.004 <i>0.005</i>	-0.005 <i>0.005</i>	-0.005 <i>0.005</i>	-0.004 <i>0.005</i>	-0.018** <i>0.008</i>	-0.018** <i>0.008</i>
Log(sales)	0.257*** <i>0.067</i>	0.257*** <i>0.066</i>	0.256*** <i>0.066</i>	0.257*** <i>0.066</i>	0.111 <i>0.114</i>	0.113 <i>0.115</i>
Stock return	-0.750*** <i>0.291</i>	-0.740** <i>0.288</i>	-0.731** <i>0.287</i>	-0.741** <i>0.289</i>	-0.669 <i>0.487</i>	-0.678 <i>0.491</i>
Cash flow	-1.308*** <i>0.449</i>	-1.297*** <i>0.443</i>	-1.289*** <i>0.452</i>	-1.312*** <i>0.454</i>	-2.887*** <i>0.850</i>	-2.940*** <i>0.845</i>
External financing	2.051*** <i>0.736</i>	2.049*** <i>0.732</i>	2.055*** <i>0.733</i>	2.054*** <i>0.735</i>	2.810* <i>1.564</i>	2.814* <i>1.565</i>
Cash acquisitions	1.016 <i>1.320</i>	1.034 <i>1.321</i>	1.001 <i>1.321</i>	1.007 <i>1.323</i>	-3.518 <i>2.700</i>	-3.466 <i>2.719</i>
Pseudo R-Sq	0.09	0.09	0.09	0.09	0.12	0.12
No. of observations	11,660	11,660	11,660	11,660	5,537	5,537
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

**Table 8. Outside director departures and subsequent litigation**

The table shows results from logistic regressions of the filing of a federal class action securities fraud lawsuit following outside director departures. Data on firms that have been named in federal class action securities fraud lawsuits come from the *Stanford Law School Securities Class Action Clearinghouse*. The dependent variable is an indicator variable equal to one if there is a lawsuit filing during the 12 months following the annual meeting date or director departure date, and zero otherwise. Outside dir (surprise) depart is equal to one if there is at least one outside director (surprise) departure. The control variables are measured as of the fiscal year ending just prior to the meeting date or departure date. External financing is equal to the sum of net equity financing and net debt financing divided by book assets. Standard errors clustered at the firm level are reported in *italics*. Marginal effects with associated significance for the departure variables are reported in brackets. Intercepts are not reported. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample				Post-2004	
	(1)	(2)	(3)	(4)	(5)	(6)
Outside dir depart	0.128 <i>0.098</i> [0.004]					
Outside dir surprise depart (1)		0.199* <i>0.104</i> [0.006]*				
Outside dir surprise depart (2)			0.315*** <i>0.121</i> [0.011]**		0.494*** <i>0.169</i> [0.017]**	
Outside dir surprise depart (3)				0.262** <i>0.122</i> [0.009]*		0.507*** <i>0.169</i> [0.017]**
Board size	0.043** <i>0.021</i>	0.044** <i>0.021</i>	0.045** <i>0.021</i>	0.045** <i>0.021</i>	0.077*** <i>0.029</i>	0.077*** <i>0.029</i>
% outside directors	-0.001 <i>0.003</i>	-0.001 <i>0.003</i>	-0.001 <i>0.003</i>	-0.001 <i>0.003</i>	-0.003 <i>0.005</i>	-0.003 <i>0.005</i>
Log(sales)	0.280*** <i>0.045</i>	0.280*** <i>0.045</i>	0.279*** <i>0.044</i>	0.280*** <i>0.044</i>	0.220*** <i>0.058</i>	0.222*** <i>0.058</i>
Stock return	0.117 <i>0.109</i>	0.117 <i>0.109</i>	0.116 <i>0.109</i>	0.115 <i>0.109</i>	0.110 <i>0.175</i>	0.108 <i>0.175</i>
ROA	-0.411 <i>0.714</i>	-0.400 <i>0.713</i>	-0.382 <i>0.712</i>	-0.412 <i>0.712</i>	1.338 <i>1.066</i>	1.291 <i>1.065</i>
External financing	2.684*** <i>0.425</i>	2.686*** <i>0.425</i>	2.689*** <i>0.424</i>	2.684*** <i>0.425</i>	1.756** <i>0.777</i>	1.762** <i>0.777</i>
Pseudo R-Sq	0.04	0.04	0.04	0.04	0.04	0.04
No. of observations	13,013	13,013	13,013	13,013	6,781	6,781
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

**Table 9. Outside director departures and subsequent M&A announcement returns**

The table examines the announcement returns to M&A deals following outside director departures. The M&A deals are from SDC Platinum. The dependent variable is the cumulative abnormal return to M&A announcements of sample firms. The cumulative abnormal announcement returns are measured over the event window (-1 day, +1 day), where day 0 is the announcement date. The abnormal returns are calculated from a market model, where the parameters of the market model are estimated using the CRSP value-weighted market returns and data from days -280 to -61. Outside dir (surprise) depart indicator is equal to one if there is at least one outside (surprise) director departure in the 12 months prior to the deal announcement date. The accounting data are from the fiscal year end just prior to the announcement. Deal characteristics are from SDC Platinum. The omitted group with respect to private or public target is a subsidiary target. Robust standard errors are reported in *italics*. Intercepts are not reported. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample				Post-2004	
	(1)	(2)	(3)	(4)	(5)	(6)
Outside dir depart	-0.722 <i>0.454</i>					
Outside dir surprise depart (1)		-0.898* <i>0.506</i>				
Outside dir surprise depart (2)			-1.720*** <i>0.641</i>		-2.112*** <i>0.754</i>	
Outside dir surprise depart (3)				-1.664** <i>0.655</i>		-1.856** <i>0.812</i>
Board size	-0.048 <i>0.067</i>	-0.052 <i>0.067</i>	-0.063 <i>0.067</i>	-0.060 <i>0.067</i>	-0.145 <i>0.090</i>	-0.145 <i>0.089</i>
% outside directors	-0.003 <i>0.013</i>	-0.003 <i>0.013</i>	-0.004 <i>0.013</i>	-0.005 <i>0.013</i>	-0.003 <i>0.025</i>	-0.005 <i>0.025</i>
Log(sales)	0.104 <i>0.161</i>	0.101 <i>0.159</i>	0.114 <i>0.160</i>	0.103 <i>0.159</i>	0.485** <i>0.211</i>	0.465** <i>0.209</i>
Book leverage	0.531 <i>1.480</i>	0.513 <i>1.475</i>	0.561 <i>1.476</i>	0.512 <i>1.472</i>	-0.677 <i>2.160</i>	-0.541 <i>2.161</i>
Tobin's Q	-0.207 <i>0.210</i>	-0.203 <i>0.209</i>	-0.194 <i>0.207</i>	-0.194 <i>0.207</i>	-0.166 <i>0.360</i>	-0.149 <i>0.360</i>
Private target indicator	-1.352* <i>0.762</i>	-1.322* <i>0.758</i>	-1.394* <i>0.755</i>	-1.417* <i>0.756</i>	-1.900* <i>1.145</i>	-1.960* <i>1.148</i>
Public target indicator	-3.059*** <i>0.721</i>	-3.021*** <i>0.718</i>	-3.031*** <i>0.717</i>	-3.039*** <i>0.717</i>	-3.737*** <i>1.103</i>	-3.720*** <i>1.104</i>
Same industry indicator	0.546 <i>0.462</i>	0.559 <i>0.462</i>	0.556 <i>0.464</i>	0.560 <i>0.464</i>	0.734 <i>0.614</i>	0.673 <i>0.615</i>
Tender offer indicator	0.444 <i>0.654</i>	0.450 <i>0.657</i>	0.437 <i>0.656</i>	0.414 <i>0.654</i>	0.532 <i>0.840</i>	0.417 <i>0.841</i>
Hostile deal indicator	0.124 <i>1.771</i>	-0.115 <i>1.805</i>	-0.071 <i>1.865</i>	-0.062 <i>1.861</i>	7.743*** <i>2.098</i>	5.725*** <i>2.024</i>
Competed deal indicator	-0.880 <i>1.071</i>	-0.950 <i>1.077</i>	-0.958 <i>1.065</i>	-0.894 <i>1.072</i>	0.778 <i>1.372</i>	0.843 <i>1.374</i>
% cash payment	0.010** <i>0.005</i>	0.010* <i>0.005</i>	0.010** <i>0.005</i>	0.010** <i>0.005</i>	-0.001 <i>0.008</i>	0.000 <i>0.008</i>
Cash flow/assets	2.781 <i>4.000</i>	2.821 <i>3.979</i>	2.445 <i>3.948</i>	2.620 <i>3.952</i>	4.512 <i>3.888</i>	5.124 <i>3.874</i>
Transaction value/acq market value	-0.185 <i>0.712</i>	-0.192 <i>0.707</i>	-0.208 <i>0.705</i>	-0.212 <i>0.705</i>	0.770 <i>0.983</i>	0.758 <i>0.983</i>
Adj R-Sq	0.09	0.09	0.09	0.09	0.12	0.11
No. of observations	1,276	1,276	1,276	1,276	566	566
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

**Table 10. Outside director departures and subsequent extreme negative stock returns**

The table shows results from logistic regressions of extreme negative stock returns following outside director departures. The dependent variable is equal to one if in any of the 12 months following the proxy date or director departure date the monthly return is three standard deviations below the average monthly return over the past two years. Outside dir (surprise) depart indicator is equal to one if there is at least one outside director (surprise) departure. Average monthly stock return is the average of monthly stock returns from the previous 12 months, ending in the month of the departure date or event date. Average stock return standard deviation is the average of the monthly standard deviation of daily stock returns. Log(market capitalization) is the natural logarithmic transformation of market capitalization measured at the date of director turnover, in millions of 2008 dollars. Average turnover is the average of monthly stock turnover, where turnover is defined as shares traded divided by shares outstanding. NYSE (Nasdaq) turnover is set to zero for all Nasdaq (NYSE and AMEX) firms. Standard errors clustered at the firm level are reported in *italics*. Marginal effects with associated significance for the departure variables are reported in parentheses. Intercepts are not reported. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample				Post-2004	
	(1)	(2)	(3)	(4)	(5)	(6)
Outside dir depart	0.014 <i>0.057</i> [0.001]					
Outside dir surprise depart (1)		0.044 <i>0.063</i> [0.003]				
Outside dir surprise depart (2)			0.144* <i>0.075</i> [0.011]*		0.085 <i>0.104</i> [0.006]	
Outside dir surprise depart (3)				0.160** <i>0.075</i> [0.013]**		0.116 <i>0.103</i> [0.009]
Board size	-0.006 <i>0.012</i>	-0.006 <i>0.012</i>	-0.007 <i>0.012</i>	-0.007 <i>0.012</i>	0.013 <i>0.017</i>	0.013 <i>0.017</i>
% outside directors	-0.002 <i>0.002</i>	-0.002 <i>0.002</i>	-0.002 <i>0.002</i>	-0.002 <i>0.002</i>	0.000 <i>0.003</i>	0.000 <i>0.003</i>
Log (market capitalization)	-0.003 <i>0.023</i>	-0.003 <i>0.023</i>	-0.003 <i>0.023</i>	-0.003 <i>0.023</i>	-0.100*** <i>0.031</i>	-0.100*** <i>0.031</i>
Average monthly return	5.404*** <i>1.070</i>	5.406*** <i>1.070</i>	5.426*** <i>1.070</i>	5.412*** <i>1.071</i>	6.736*** <i>1.585</i>	6.731*** <i>1.584</i>
Average stock return standard deviation	-9.176** <i>4.502</i>	-9.288** <i>4.504</i>	-9.495** <i>4.507</i>	-9.435** <i>4.508</i>	-51.086*** <i>7.763</i>	-51.027*** <i>7.755</i>
Average turnover (NYSE, AMEX)	-0.041 <i>0.313</i>	-0.040 <i>0.313</i>	-0.039 <i>0.313</i>	-0.041 <i>0.313</i>	0.705* <i>0.379</i>	0.700* <i>0.379</i>
Average turnover (Nasdaq)	-0.584* <i>0.312</i>	-0.587* <i>0.312</i>	-0.589* <i>0.312</i>	-0.594* <i>0.312</i>	-0.245 <i>0.393</i>	-0.252 <i>0.394</i>
Pseudo R-Sq	0.21	0.21	0.21	0.21	0.31	0.31
No. of observations	14,325	14,325	14,325	14,325	7,221	7,221
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

**Table 11. Outside director departures and subsequent bad events**

The table shows results from logistic regressions of bad events following outside director departures. The dependent variable is equal to one if in any of the 12 months following the annual meeting date or director departure date the firm announces a restatement or bad acquisition, there is a lawsuit filing, or the firm experiences an extreme negative stock return. A bad acquisition is one where the cumulative abnormal announcement return over the event window (-1 day, +1 day) is in the bottom quartile of the sample. A monthly return is considered as extreme negative if it is three standard deviations below the average monthly return over the past two years. Outside dir (surprise) depart indicator is equal to one if there is at least one outside director (surprise) departure. The control variables are measured as of the fiscal year ending just prior to the meeting date or departure date. Intercepts are not reported. Standard errors clustered at the firm level are reported in *italics*. Marginal effects with associated significance for the departure variables are reported in brackets. Intercepts are not reported. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	Full sample				Post-2004	
	(1)	(2)	(3)	(4)	(5)	(6)
Outside dir depart	0.064 <i>0.052</i> [0.009]					
Outside dir surprise depart (1)		0.114* <i>0.059</i> [0.015]*				
Outside dir surprise depart (2)			0.243*** <i>0.069</i> [0.034]***		0.207** <i>0.099</i> [0.030]**	
Outside dir surprise depart (3)				0.220*** <i>0.069</i> [0.031]***		0.214** <i>0.099</i> [0.031]**
Board size	0.015 <i>0.012</i>	0.016 <i>0.012</i>	0.015 <i>0.012</i>	0.016 <i>0.012</i>	0.013 <i>0.018</i>	0.014 <i>0.018</i>
% outside directors	-0.001 <i>0.002</i>	-0.001 <i>0.002</i>	-0.001 <i>0.002</i>	-0.001 <i>0.002</i>	-0.001 <i>0.003</i>	-0.001 <i>0.003</i>
Log(sales)	0.094*** <i>0.023</i>	0.094*** <i>0.023</i>	0.094*** <i>0.023</i>	0.094*** <i>0.023</i>	0.036 <i>0.031</i>	0.037 <i>0.031</i>
Stock return	0.123** <i>0.051</i>	0.124** <i>0.051</i>	0.125** <i>0.051</i>	0.124** <i>0.051</i>	0.160* <i>0.091</i>	0.158* <i>0.091</i>
ROA	-0.401 <i>0.442</i>	-0.394 <i>0.441</i>	-0.386 <i>0.444</i>	-0.397 <i>0.443</i>	-0.364 <i>0.656</i>	-0.373 <i>0.656</i>
External financing	0.848*** <i>0.271</i>	0.854*** <i>0.271</i>	0.863*** <i>0.271</i>	0.862*** <i>0.271</i>	1.060** <i>0.417</i>	1.063** <i>0.417</i>
Cash flow	-0.630* <i>0.360</i>	-0.627* <i>0.359</i>	-0.624* <i>0.362</i>	-0.627* <i>0.362</i>	-0.923 <i>0.591</i>	-0.925 <i>0.590</i>
Cash acquisitions	0.339 <i>0.432</i>	0.334 <i>0.432</i>	0.319 <i>0.432</i>	0.322 <i>0.432</i>	-0.170 <i>0.594</i>	-0.165 <i>0.595</i>
Book leverage	0.293* <i>0.150</i>	0.296** <i>0.150</i>	0.301** <i>0.150</i>	0.296** <i>0.150</i>	0.103 <i>0.212</i>	0.101 <i>0.212</i>
Tobin's <i>Q</i>	0.104*** <i>0.019</i>	0.104*** <i>0.019</i>	0.104*** <i>0.019</i>	0.104*** <i>0.019</i>	0.084* <i>0.043</i>	0.084* <i>0.043</i>
Average stock return standard deviation	-1.806 <i>3.546</i>	-2.007 <i>3.540</i>	-2.267 <i>3.543</i>	-2.095 <i>3.545</i>	-26.864*** <i>6.553</i>	-26.609*** <i>6.548</i>
Average turnover (NYSE, AMEX)	0.707** <i>0.284</i>	0.708** <i>0.284</i>	0.706** <i>0.283</i>	0.707** <i>0.283</i>	1.163*** <i>0.342</i>	1.156*** <i>0.342</i>
Average turnover (Nasdaq)	0.380 <i>0.255</i>	0.373 <i>0.255</i>	0.372 <i>0.255</i>	0.371 <i>0.255</i>	0.515 <i>0.339</i>	0.509 <i>0.340</i>
Pseudo R-Sq	0.13	0.13	0.13	0.13	0.20	0.20
No. of observations	12,632	12,632	12,632	12,632	6,535	6,535
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes



**Table 12. Director departure announcement returns**

The table reports market-model adjusted announcement returns for the filing of departures of outside director. The filing dates are taken from Audit Analytics Director and Officer Changes dataset which tracks 8-K filings of director departures from 2005. Only outside director departures that are matched to Audit Analytics and those outside of the crisis of 2007-2009 are included in the analysis. Announcements of departure filings are deleted if a confounding event happened within +/- 5 days of the filing date. Confounding events include management guidance announcements, quarterly earnings announcements, dividend announcements, director and officer changes filings, and acquisition (either as acquirer or target) announcements. The cumulative abnormal announcement return is calculated over the event window (-5, +1), where  $t = 0$  is the date the filing is accepted by SEC. The abnormal returns are calculated from a market model using the CRSP value-weighted market return. The parameters of the market model are estimated using data from days -280 to -61 relative to the announcement date.  $t$ -tests and signed rank tests are used to determine whether the mean and median cumulative abnormal announcement returns are significantly different from zero, respectively. Two-sample  $t$ -tests (Wilcoxon-Mann-Whitney tests) are conducted to test whether the mean (median) announcement returns to surprise departures are significantly different from those to expected departures. Statistical significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

	N	Mean	Median
<u>Panel A: Outside director departure</u>			
All departures	361	0.0003	-0.0015
<u>Panel B: Outside director surprise departure (1)</u>			
Expected departures	96	0.0076*	0.0057**
Surprise departures	265	-0.0023	-0.0074*
<i>P</i> -value of test of difference		0.042**	0.005***
<u>Panel C: Outside director surprise departure (2)</u>			
Expected departures	196	0.0049	0.0033
Surprise departures	165	-0.0052*	-0.0070*
<i>P</i> -value of test of difference		0.018**	0.036**
<u>Panel D: Outside director surprise departure (3)</u>			
Expected departures	203	0.0039	0.0025
Surprise departures	158	-0.0043	-0.0068*
<i>P</i> -value of test of difference		0.056*	0.084*