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 are more likely to be delisted from a major stock exchange.

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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)).[1] 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.

[1] 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 (2011), 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.

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 loss of outside director reputation in affected firms above, 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 (above 70 years old), 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 has performed poorly presumably already have 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, but has yet to do so, so that they can at least partly and possibly totally escape the reputation loss and increased work load. A positive relation between director departures and future adverse events is consistent with directors quitting the firm to protect themselves.

To carry out these tests, we focus on unexpected or surprise director departures. Our director turnover regressions show that the most significant predictor of director turnover is directors being of retirement age. We would not expect future negative firm outcomes to be related to these expected director departures. Therefore, we focus on three measures of surprise director departures that are based on director characteristics. Most firms have mandatory director retirement ages, and a recent survey shows that the average mandatory retirement age is 71.4 years.[2] We define our first measure of surprise outside director departures as any outside director turnover prior to the age of 70. Our second and third measure is 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%.[3] For our third measure, we include both director and firm characteristics in the Cox regressions, and define the unexpected director departure again as a departure that happens even though the survival function for serving one more year as a director is above 75%.

[2] 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.
[3] This cutoff is arbitrary. Our results are quantitatively and qualitatively similar if we use a cutoff of 50% or 90%.

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 are significantly more likely to be delisted from a major stock exchange. Our results are also economically significant. For example, the surprise departure of an outside director increases the probability of an earnings restatement by more than 20% and the probability of being named in a federal class action securities fraud lawsuit by over 60%. The results are consistent with directors leaving in anticipation of adverse events to protect their reputation or to avoid an increased workload. We also examine whether directors leave unexpectedly before poor merger decisions, but only find weak evidence.

One concern with our findings is that it could be that the director is not 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 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 this 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 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. For example, we find similar results for departures of directors who receive a director appointment elsewhere. Given that these directors have an active labor market, it is unlikely that they are being fired for being a poor director.

There is limited study of the determinants of director turnover and career concerns of outside directors. Yermack (2004) finds that director turnover is related to bad firm performance, which is consistent with the evidence we report. 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 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 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 a large sample of firms. Furthermore, 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 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. We discuss alternative explanations for our results and robustness tests in Section 5. Section 6 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 Compact Disclosure. Compact Disclosure provides data on the board of directors of publicly listed U.S. firms starting from 1988. We follow each director through time from one proxy statement to the next. 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.[4,5] Our identification of departures depends on comparing adjacent proxy statements, therefore 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 asset data and a link for CRSP in the fiscal year end just prior to the event date. Firm-years with more than five directors departing are deleted as these likely suffer from a corporate control event. We further require that the director is neither an inside director nor a former employee of the firm. Compact Disclosure does not provide information on director tenure. We therefore measure director tenure starting from the first year the director appears in our dataset. Because one of our measures of director surprise departures requires an estimate of director tenure, we start our sample in 1996 to get a

[4] We have checked 30 random director departures and in most cases the actual departure date is announced either a few months prior to the proxy date or in the proxy statement itself. Therefore, the departure date we have determined is the upper bound on the actual departure date.

[5] For brevity, we also refer to the subsequent proxy date as event date for non-departing directors.

more accurate estimate of director tenure. The final sample consists of 188,551 outside director-firm-years (35,001 firm-proxy years) with 63,453 outside directorships, of which 17,295 end with a departure while the firm is in our sample.[6] The sample covers 8,380 distinct firms, 46,400 distinct directors, and spans the period from 1996 to 2004.

We obtain accounting data from Compustat and stock return data from the Center for Research in Security Prices (CRSP). Compact Disclosure is used to obtain information on director characteristics, board characteristics, director and officer ownership, and CEO turnover. All continuous variables are winsorized at the 1% level in both tails.

Data on accounting restatements between 1996 and 2006 come from two sources. For the period 1997 to 2006, the data come from the list of restatements compiled by the U.S. Government Accountability Office (GAO). Prior to that, the data on restatements are hand-collected from a news article search in Factiva.[7] 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). 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) of sample firms. Finally, information on delistings comes from CRSP.

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 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.

[6] Compact Disclosure lists the top officers of the company separately from directors, but does not contain information on grey directors. Therefore, we can determine whether a director is an officer, but not whether a director has business ties with the firm. We define an outside director as a director who is not a current or former officer.

[7] We thank Andy Kim and Helen Zhang for providing us the data on restatements. The restatements data is used and described in Meschke and Kim (2010).

Panel A confirms the results of the aforementioned *Spencer Stuart* Director Study. The typical age for a director to step down is between 70 and 72 years. 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 (2010)). The median tenure for a departing director is less than that of a remaining director (3.05 years versus 3.98 years). Using the Compact Disclosure 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 4.04% of the departing directors are current CEOs of another firm while 5.53% of the non-departing directors are current CEOs. Similarly, departing directors are less likely to be current non-CEO executives than non-departing directors.

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 (2010)) 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 director and officer 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 director characteristics only as explanatory variables, and column 2 adds firm characteristics to the list of covariates. The table 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 by 0.924, i.e., 7.6%.[8] By far the largest economic effect comes from the age indicator variable equal to one if the director is between 70 and 72 years old. Holding

[8] This negative relation between director turnover and board seats is consistent with results by Srinivasan (2005) and Asthana and Balsam (2010).

the other covariates constant, being between 70 and 72 years old increases the annual hazard of director turnover by a factor of 2.042, or 104%.

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 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).

Our subsequent analysis requires a measure of unexpected 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.[9] If we used these disclosures, we would lose much 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.

Hence, 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, and given the very strong effect of the director age (70-72) indicator variable on the turnover hazard, our first measure of unexpected turnover is defined as any turnover that happens prior to the director turning 70 (surprise departure measure (1)). While this measure is likely to be noisy, it has some appeal because of

[9] 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).

its simplicity.[10] 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. Our third measure is based on the Cox proportional hazard regression which includes firm characteristics such as prior stock and accounting returns. 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. 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 departures will hence result in surprise departures that are more likely to be voluntary.[11]

Out of the 17,295 outside director departures, 12,661 departures are classified as surprise departures using our first measure while 8,383 (7,273) departures are classified as surprise departures using the second (third) measure.[12] Conditional upon a departure, the correlation between the first and second measure of surprise departures is 0.46. The correlation between the second and third measure is 0.80. 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 turnover of directors around the implementation of the Sarbanes-Oxley Act in 2002. The percentage of directors who depart

[10] 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). In our sample, out of those directors younger than 70 who depart and who sit on multiple boards, only 564 leave all boards around the same time.

[11] Firms with expected departures, defined using the third measure, indeed have worse performance prior to director turnover than those firms with expected departure measured using surprise departure 2, indicating that this third measure is able to pick up those departures that are more likely to be involuntary following poor performance and to classify them as non-surprise departures.

[12] Using a cutoff of 90% would reduce the surprise departures under measure 2 to 3,709 (21.4%), and using a cutoff of 50% would increase the surprise departures under measure 2 to 13,196 (76.3%). All results we report are robust to using the more stringent cutoff of 90% or using a 50% cutoff.

each year varies between 7% and 9% in most years, although there is a slight spike in 1999 where 11% of the directors departed. At the firm-year level, out of 12,208 firm-years with at least one director departure, 9,389 firm-years have at least one surprise director departure based on the first measure, 6,410 firm-years have at least one surprise director departure based on the second measure, and 5,736 firm-years have at least one surprise departure based on the third measure.[13]

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, and a brief discussion of robustness checks in section 3.3.

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 director departures are excluded as inside director departures are likely to be associated with CEO and top executive turnovers. We calculate equal-weighted portfolio returns in excess of the 1-month risk-free interest rate. Table 3 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. Panel A compares the return of the outside director

[13] We do not observe the exact tenure of directors because we can only measure tenure as of the year the firm first appears in our database. We start our sample in 1996 so that director tenure for existing firms cumulates since 1988, which helps reduce the econometric issue of truncated tenure. Yet, to avoid concerns about biased estimates, we also re-estimate the regressions of Table 2 for a subsample of firms which we are able to match to a different director database that includes accurate director tenure. These data are collected for a sample of large firms covering approximately 20 percent of the Compact Disclosure universe by the Investor Responsibility Research Center (IRRC). The coefficients estimated using the true IRRC tenure and the truncated Compact Disclosure tenure are very similar to each other and also similar to those reported in Table 2.

departure portfolio (Portfolio 1) 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 statistically significant average (median) monthly return of minus 20 basis points (minus 26 basis points).

Panel B decomposes firm-years with outside director departures further into firm-years with expected and unexpected departures using surprise departure measure (1). 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. Panel B of Table 3 shows that the negative stock return to the long-short portfolio of Panel A can be almost entirely attributed to the portfolio that is formed based on firm-years in which there are surprise director departures. The average (median) return to the long-short strategy "portfolio 1S – portfolio 2" is minus 27 basis points (minus 34 basis points), while the return to the long-short strategy "portfolio 1E – portfolio 2" is close to zero and insignificant.

Panel C examines portfolio returns when the sample is split according to outside director surprise departure measure (2). The long-short portfolio that is long firms with surprise outside director departures generates average (median) excess returns of minus 35 (53) basis points per month, while the average return of the long-short portfolio based on expected departures is an insignificant minus 4 basis points.

Panel D examines portfolio returns when the sample is split according to outside director surprise departure measure (3). The results are statistically and economically close to the results of Panels B and C.

One possible explanation for the performance differences documented in Table 3 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 4, we account for these differences by estimating the four-factor model of Carhart (1997) and Fama and French (1993).

Panel A of Table 4 indicates that the long-short portfolio that goes long firms with outside director departures and short firms without those 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 21 basis points and is statistically significant at the 5% level.

Panel B, in which we use our surprise departure measure (1), shows that firms with surprise departures underperform firms without any outside director departures by 25 basis points. Interestingly, the factor loadings on the market and value factors indicate that the long-short portfolio is tilted towards firms with higher market exposure and firms with lower valuations. There is no statistically significant alpha generated by the long-short strategy that buys firms with expected director departures.

Panels C and D show results for the long-short strategy using surprise departure measures (2) and (3). The long-short strategy that buys firms in which there are surprise outside director departures and sells firms with no outside director departures generates a statistically significant benchmark-adjusted monthly excess return of minus 27 basis points for measure (2) and minus 31 basis points for measure (3). The long-short strategy that uses expected director departures generates an excess return that is statistically indistinguishable from zero.

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.

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 -3 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 +3. 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)).[14] We require that the control firms do not have an outside director departure in the same year as the departure firm. The ROA is adjusted before averages are taken. Similar to the stock returns analysis, we delete firm-years with inside director departures.

Table 5 shows the ROA surrounding the departures of outside directors. We again 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).

Consistent with the results of Table 2, we see from Table 5, Panel A, that firms with outside director departures on average underperform industry- and performance-matched firms in the years prior to the outside director turnover, even though we have matched firms based on their performance in year -1. Panel A also shows that raw performance deteriorates significantly after the director turnover using both mean and median change. The results for changes in performance using performance and industry-adjusted changes are weaker and statistically indistinguishable from zero.

Panels B, C, and D show results for the change in performance around surprise director departures. The change in raw ROA is significantly negative around surprise director departures in five out of six 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 -0.77%. Relative to the average pre-turnover ROA of 4.98%, this is a decrease in performance of about 15%. The average change in performance and industry-adjusted ROA is significant at least at the 10% level when using surprise director departure (2) and (3), while the median change is significant at the 5% level only for measure (2).

3.3 Robustness tests

In the two analyses in sections 3.1 and 3.2, we exclude all firm-years with departures of at least one director who is a current or former employee of the firm (7,992 firm-years are deleted). Including firm-

[14] Performance and industry-adjusted ROA is the difference between the unadjusted ROA and the ROA of a control firm. The control firm is the firm that is from the same two-digit SIC code and has ROA in year -1 that is within +/- 10% of the firm's ROA.

years with departures of inside directors is likely to contaminate the results since they may be due to CEO turnover or other top executive departures from the firm. Prior studies have shown that operating performance improves around forced CEO turnover (Huson et al. (2004)) and that CEO turnover is likely to be preceded by poor stock performance (e.g., Warner et al. (1988)). Since director departures are more likely when the CEO leaves, we could be picking up effects of the CEO turnover instead if we were to include these firm-years. In unreported robustness checks, we show that the stock returns to long-short portfolios using surprise outside director departures remain quantitatively and qualitatively similar if we include the firm-years with inside director departures. As for the accounting performance results when including firm-years with inside director departures, the mean and median changes in raw ROA and the mean change in the performance and industry-adjusted ROA are negative and significant for all three measures of departures. The median changes in the adjusted ROA are however insignificant.

4 Adverse corporate events following unexpected director turnover

Our results on 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 delistings 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)).

One concern that should be addressed is that a director who resigns, e.g., ahead of litigation and earnings restatements, 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.[15] Third, the labor market will look more favorably upon such a director since she is not currently associated with an embattled company and the company hiring the director on 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.

4.1 Earnings restatements

We match the database of restating firms to our director database and require that we have complete information on the firm around the restatement date. Figure 1 demonstrates how the dataset is being constructed. We check whether there is any outside director departure during period A and use this variable to predict the probability of a restatement in period B. Therefore, the main variable of interest is an indicator variable which equals one if there is at least one outside director departure during period A. The control variables are taken as of the fiscal year ending just prior to Period B. 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 and that we can calculate the abnormal returns during the restatement announcement period, our sample contains 26,685 firm-years out of which 814 are affected by restatements. 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

[15] 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.

depart from firms who subsequently restate is higher than what is expected under the null hypothesis of random departures.

Table 6 shows the results of logistic regressions in which the left-hand side variable is equal to one if a firm restates earnings in a given firm-year, and zero otherwise. The main variable of interest is an indicator variable equal to one if there is at least one outside director departure in the year prior to the restatement. The probability of a restatement is significantly positively associated with director departures in the prior year. The effect appears economically significant. The unconditional probability of a restatement is 3.05% (814/26,685). The coefficient of 0.006 hence signifies that the departure of an outside director increases the probability of a restatement by 20% (0.006/0.0305). The effect becomes stronger when we use either one of our three measures of surprise outside director departures; the coefficients are 0.008, 0.007, and 0.007 in columns 2, 3, and 4, respectively. A surprise departure of an outside director therefore increases the probability of a restatement by more than 20%.

We carry out several robustness checks. Recent research on earnings restatements has suggested that not all restatements are material or revise earnings downward (e.g., Hennes et al. (2008)). We are interested in restatement events that are material so that they have the potential to adversely affect the director's reputation. Hence, we follow Gleason et al. (2008) and focus on restatements where the announcement period cumulative abnormal return is less than -1%. We do not tabulate these results to conserve space. The announcement period abnormal returns are calculated using the market model, estimated over Day -280 to -61, where Day 0 is the announcement date of the restatement. The abnormal returns are cumulated over Day -1 to Day +1. There are 430 restatements with negative announcement returns of less than -1% in a sample of 26,685 observations.[16] We estimate logistic regressions similar to the ones in Table 6, but where the dependent variable is equal to one if the firm experiences a restatement with abnormal announcement returns less than -1% during the fiscal year, and zero otherwise. The

[16] The average (median) abnormal announcement returns to the 384 restatements with announcement returns greater than -1% is 5.4% (2.9%). The average (median) abnormal announcement returns to the 430 restatements with announcement returns less than -1% is -11.0% (-6.5%).

coefficients on the three measures of surprise outside director departures are all 0.005 and all are significant at least at the 5% level.

For about 43% of all restatements, the restatement announcement date is earlier than the departure date we have determined for the director. This is inevitable as we need to include the firm-years without restatements. Therefore, we cannot simply restrict ourselves to director departures that happen prior to the restatement announcement date since there are no such dates for firm-years without restatements.[17] Remember, however, that the departure date we have determined is the upper bound on the actual departure date, so it could still be that most of these announcements follow the actual departure date of the directors. Since we are predicting restatements using director departures, to alleviate concerns that the restatement may happen before our departure date, we have checked that the results are not materially affected by excluding such cases. The coefficients on the four measures of director departures are all 0.003, with the coefficients on outside director departure and surprise director departure (1) significant at the 10% level.

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.[18] Therefore, the first lawsuit is in 1996. 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 27,148 firm-year observations with 731 firm-years (2.7%) of alleged securities fraud. The exact timing of the matching procedure follows the procedure outlined for earnings restatements in Figure 1. About one-third of the

[17] We could also predict restatement announcements using departures that happen in earlier proxy statements. But since our departure date is already the upper bound, it is unlikely that directors would depart in anticipation of events that happen so far ahead.

[18] 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.

firm-years are associated with an outside director departure. In untabulated results, a Chi-square test of no association between litigation and director departure is rejected. The frequency of director departures prior to litigations is higher than expected.

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.[19] 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 7 shows the results of logistic regressions in which the left-hand side variable is equal to one if in a given firm-year a federal class action securities fraud lawsuit was filed against the firm, and zero otherwise. The main variable of interest is an indicator variable indicating whether there is at least one outside director departure prior to the lawsuit filing. The coefficient on outside director departures is highly statistically and economically significant. The departure of an outside director increases the probability of the filing of shareholder litigation by 0.5%. 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 2.7%, the coefficient of 0.5% is equivalent to an increase of 19% in the probability of filing. Our finer measures that capture surprise departures of directors show even larger effects. The surprise departure of an outside director according to measure (1) increases the probability of filing by 0.8/2.7 = 30%. The surprise departure of a director using measure (2) increases the probability of filing by 1.7/2.7 = 63%. The surprise departure of a director using measure (3) yields similar results.

[19] 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, if stock and accounting returns were poor the prior year, 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 and had poorer returns in the prior year (see, for instance, Choi (2003)). Further, investors can sue firms that issued securities on various grounds.

For about 30% of the class action lawsuits, the filing date is earlier than the departure date we have determined for the director. In untabulated robustness tests, we again delete these cases to alleviate concerns that the litigation filing may happen before the director leaves the firm. Our results remain similar, with the coefficients being 0.003, 0.013 and 0.012 (significant at the 1% level) for surprise departures one through three, respectively.

4.3 Mergers and acquisitions

We now examine whether the incidence of value-destroying mergers and acquisitions is higher after outside directors unexpectedly left and analyze both cumulative abnormal announcement returns and the dollar change in acquirer market capitalization around the announcement of the event. 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. We also calculate the change in acquirer market capitalization from day -2 to day +1 in 2008 million dollars. The main variable of interest is an indicator variable which equals one if there is at least one outside director who 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 2,967 M&A deals; 40% of the deals are associated with an outside director departure prior to the announcement date.

Table 8 shows the results. Panel A analyzes cumulative abnormal announcement returns while Panel B analyzes changes in the market value of the acquiring firm. There is little evidence in Panel A of Table 8 that outside director departures are related to negative merger and acquisition announcement returns. The other control variables have coefficients that are consistent with the results of prior research (e.g., Moeller et al. (2005)).

Panel B shows the change in acquirer market value around the merger announcement, and contains some evidence that surprise outside director departures, when measured with the more complex surprise departure measures (2) and (3), are associated with reductions in acquirer market capitalization following the announcement. The surprise departure of an outside director of the acquiring firm in the year prior to the merger announcement is associated with a decrease in acquirer market capitalization of $169 million (surprise departure measure 2) and $237 million (surprise departure measure 3) around the merger announcement.

4.4 Skewness and delistings

Outside directors are likely to worry in particular about actions that could result in large, negative shocks to firm value. We explicitly examined 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 or managerial actions that have the potential to harm shareholders and to damage the reputation of directors. We now take a more indirect approach and analyze whether extreme negative stock returns or even delistings due to liquidation or bankruptcy are more frequent in periods following the departure of outside directors.

4.4.1 Skewness

We define extreme negative returns as follows. A monthly return is defined as extreme if it is at least 3 standard deviations below the past 24 months' average. We start with the 35,001 firm-years in the

director departure dataset. 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 report results where we define returns using the logarithm of price changes, although results are quantitatively and qualitatively similar if we use simple returns instead.

We follow Chen et al. (2001) and control for the 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.[20] The turnover variable for Nasdaq (NYSE/AMEX) stocks is set to zero for NYSE/AMEX (Nasdaq) stocks. After requiring non-missing information for control firms, our sample contains 34,607 firm-years, with 13.3% of those firm-years exhibiting extreme negative returns. About one-third of the firm years are associated with outside director departures.

Table 9 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. The effect is economically meaningful. The surprise departure of at least one outside director increases the probability of a large negative return event by 1.0% - 1.4%, or, relative to the sample mean of 13.3%, by approximately 7.5% - 10.5%.

The coefficients on the control variables suggest that larger firms, firms that experienced positive returns in the past, and firms with lower stock return volatility are more likely to experience an extreme

[20] For details, please see Atkins and Dyl (1997).

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.

4.4.2 Delistings

We examine delistings because they are the ultimate "bad event" that can happen to a company. However, one issue with looking at delistings is that they rarely come unannounced and that typically a series of bad events has already happened to the firm prior to the actual delisting date. It is hence more difficult to establish whether directors leave in anticipation of the delisting or whether several adverse shocks prior to the delisting are responsible for the departure of the director.

We use the delisting classification of CRSP to identify firms that disappear from stock exchanges due to distress. We include all events with delisting codes between 400 and 500 (liquidations) and between 500 and 600 (dropped by exchange). We start with the 35,001 firm-years in the director departure dataset. We define a firm to have delisted if it appears on the CRSP tapes with a delisting code between 400 and 600 in any of the 12 months following the proxy date or the director's departure. We follow Campbell, Hilscher, and Szilagyi (2008) and control for total firm value, excess stock return, and the relative size of the firm in the regressions. All control variables are measured at the end of the last fiscal year prior to the event date. After requiring non-missing control variables, we are left with 33,604 firm-years, out of which 919 (2.73%) are associated with a delisting event.

Table 10 shows logistic regressions of an indicator variable equal to one if a firm delisted on our outside director departure variables and controls. All three outside director departure variables have positive and significant coefficients. The departure of an outside director increases the probability of being delisted in the next 12 months by 0.3 to 0.5%. Relative to the unconditional probability of being delisted of 2.73%, the probability of being delisted following a surprise outside director departure increases by 11% (surprise departure measure (3)) to 18% (surprise departure measure (2)). The coefficients on the control variables are similar in sign to those reported by Campbell, Hilscher, and

Szilagyi (2008) and suggest that firms with less income, higher leverage, lower excess return, lower stock prices, and higher volatility are more likely to delist.

5. Discussion of alternative hypotheses and additional robustness tests

In this section, we discuss several alternative hypotheses and provide additional tests to support our interpretation that directors are voluntarily leaving in anticipation of bad events. We also undertake additional robustness checks to demonstrate that our results are not driven by the smallest sample firms and to analyze whether our results are affected by the passage of the Sarbanes-Oxley-Act.

5.1. Insider departures

In all tests of this section, we have used indicator variables equal to one if outside directors departed, and zero otherwise. We have neglected the concurrent departure of inside directors because they face a fundamentally different set of tradeoffs when resigning from the tradeoffs faced by outside directors – outside directors give up a directorship to avoid adverse shocks to their reputation and to their work load, while inside directors have to give up their primary job. We have verified that alternative treatments of firm-years in which both outside and inside directors depart does not materially affect our conclusions.

First, we have re-estimated all regressions including an indicator variable equal to one if an inside director departed in a firm-year, and zero otherwise.[21] The coefficients obtained on the outside director departure indicator variables from those regressions are quantitatively and qualitatively similar to the coefficients reported in Tables 6 to 10. Second, we have re-estimated the regressions of Tables 6 to 10 by excluding firm-years in which at least one inside director departs to focus on years in which only outside directors leave. The surprise departure measures (2) and (3) continue to significantly predict shareholder litigations, skewnees, and delistings. The results on restatements become weaker (only the specification

[21] Out of 22,793 firm-years without any outside director departures, 4,642 (20.4%) firm-years have at least one inside director departure. In contrast, out of 12,208 firm-years with at least one outside director departures, 3,350 (27.4%) have at least one inside director departure. The correlation between an indicator variable for outside director departure and inside director departure is 8.0%. Similar numbers are obtained if we examine the surprise departure measures for outside directors.

using surprise departure measure (1) is significant) and the dollar change specifications on mergers and acquisitions become stronger (all three measures of surprise director departure are statistically significant and the dollar change becomes more negative).

5.2. 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 threat of replacement is more attenuated, since directors do not report to a higher authority that might fire them for poor performance." Second, 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 both inside directors and outside directors depart. We also conduct two additional tests to provide support for our interpretation that directors are leaving voluntarily.

In the first test, we look at the subsample of directors that unexpectedly leave one firm, but add a new board seat from a different firm in our sample in the same year. There are 955 such outside director departures from 916 firm-years. Given that these directors have an active labor market, we consider it less likely that they were fired as outside directors because they were bad directors. Our reasoning is corroborated by (unreported) comparisons of the characteristics of firms that the outside directors drop and those that the directors add. Outside directors tend to trade up, that is they leave boards of poorly performing, smaller firms with more risk and take on board seats in larger and more stable firms. We have re-estimated all regressions reported in Tables 6 through 10 by substituting our outside director surprise departure variables with indicator variables for surprise outside director departures of directors with an active labor market. We also control for whether there was at least one outside director departure in all the regressions. The results on litigations and delistings hold qualitatively and quantitatively using these measures of surprise outside director departures with an active labor market. The results on extreme

negative stock returns hold for surprise departure measures (1) and (3) and the results for restatements become statistically insignificant.

5.3. Issues of 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 imply that we should also observe that adverse events are more likely to follow routine retirements. We re-estimated all regressions in Tables 6 to 10 by including an additional indicator variable equal to one if all the departures during the year are expected. The coefficients on the surprise departure measures are similar in economic and statistical magnitude to the results reported in Tables 6 to 10. In contrast, the coefficients on expected departures in the earnings restatement and delisting regressions are insignificant, while the coefficients on expected departures in the litigations and extreme negative return regressions are negative and significant, indicating that litigations and negative returns are *less* likely following director retirements. Overall, our empirical results find that adverse outcomes follow unexpected departures but not expected departures. This evidence is inconsistent with the explanation that bad outcomes happen because good directors leave.

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 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).

5.4. Restricting to sample of big firms

Our sample of firms is based on the Compact Disclosure database, which contains a significant number of smaller firms. The median firm-year in our sample has total assets of approximately $286 million (in 2008 dollars). This is significantly smaller than the median asset value one would obtain from other corporate governance databases such as the director's database of the Investor Responsibility Research Center (IRRC) or Compustat's Execucomp.[22] One concern is therefore that our results are driven by the smallest firms in our sample, and that one would not be able to generalize our results to the set of firms which are most relevant for capital markets and in which most improvements in governance may have been made recently. To alleviate these concerns, we reproduce our results using two subsamples. First, we re-estimate our regressions using only the firms of our sample which are also covered by the IRRC database. Second, we re-estimate our regressions on only the fifty percent largest firms of our sample, i.e. those with total assets exceeding $286 million. The restatement, class action lawsuit, and M&A results are qualitatively and quantitatively similar when using either sub-sample of large firms to those reported in sections 4.1 to 4.3. The results on large negative stock returns do not hold for large firms. For delistings, we can only estimate regressions for the above-median sized firms because delistings of IRRC firms for reasons other than mergers occur too infrequently. For this sample, the coefficients in the delisting regressions are quantitatively and qualitatively similar for surprise departure measures (1) and (2).

The most significant change is observed with respect to the stock return results of Tables 3 and 4. Neither sample of large firms generates a return to the long-short portfolio that is significantly different from zero. This result suggests that investors in the largest firms better understand the possible implications of surprise departures and incorporate the information provided by these surprise departures immediately into the stock price. Thus, it is no surprise that when we calculate value-weighted returns

[22] Note however that our sample firms are significantly larger than those used by, e.g., Agrawal and Chen (2010). The median asset size of our sample is more than 20 times larger than the median asset size of the sample of Agrawal and Chen (2010).

using the full sample, we do not find any significant underperformance of firms with director surprise departures.

5.5. Impact of SOX

A related concern regarding the stock market return results of Tables 3 and 4 is that it is the early time period that is driving the return results, because investors were less concerned about governance and its impact on corporate behavior and performance then. If our results in Tables 3 and 4 were driven by the early part of our sample, these results would be less interesting in the sense that it would cast doubt on the relevance of our finding going forward. We use the corporate scandals in 2001 and the passage of the Sarbanes-Oxley-Act in 2002 as events that made investors more aware of the importance of corporate governance and split our sample accordingly. Our sample of director turnovers ends in 2004 and we can examine returns until the end of 2005. We repeat the return analysis of Tables 3 and 4 using the time period 2002-2005, in which investors should have been more aware of corporate governance and its implications for corporate behavior and performance. While the analysis is using a time-series of 48 months only, and should thus be interpreted with a bit of caution, we do find statistically and economically significant underperformance of the firms with surprise outside director departures post-SOX, mirroring the results of Tables 3 and 4. Therefore, it does not appear that investors in our sample firms assessed the importance of surprise director departures for corporate performance and events more accurately post-SOX.

We also examine whether the passage of SOX had an impact on our findings for the other dependent variables we study. SOX could have made directors more aware of their responsibilities or that SOX increased the danger of being sued even if directors leave prior to the disclosure of adverse shocks. We hence include an interaction term between an indicator variable equal to one for years after 2001 and our measures of surprise departures in the restatement, litigation, M&A, and delisting regressions.[23] If SOX

[23] We only estimate the coefficients on the interaction terms and are not interested in interpreting partial effects (see, e.g., Ai and Norton (2003) and Greene (2010)).

reduced the likelihood that directors leave in anticipation of trouble, we should see that the interaction term is significantly negative when predicting adverse outcomes. The use of 2001 as cutoff year corresponds to the highly-publicized Enron scandal in late 2001 which prompted the implementation of SOX. Using 2002 as cutoff does not make any difference. Our results (untabulated) indicate that SOX did not alter the relation between surprise director departures and future restatements, litigations, and extreme negative return episodes. However, there is some evidence that post-SOX, the effect of surprise departures on delistings is muted.

6. 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 likelihood of a restatement, a greater likelihood of being sued by their shareholders, and a greater likelihood of being delisted. 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 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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Figure 1: Sample construction for tests of earnings restatements and director departures

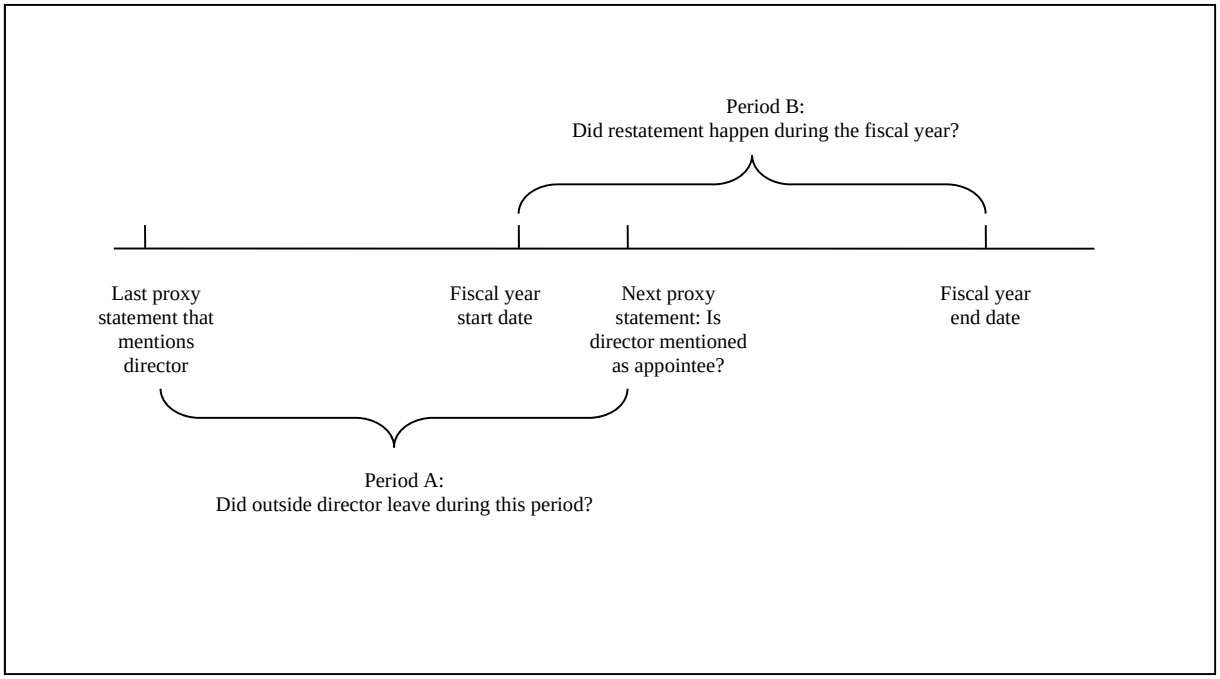

Table 1. Summary statistics

The sample consists of 188,551 outside director-firm-years (35,001 firm-years) in publicly listed U.S. firms from 1996 to 2004. Only outside directors are included; directors who are current and former employees of the firm 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. Accounting data is from Compustat, stock return data from CRSP, and data on director characteristics and governance is from Compact Disclosure. 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 the fiscal year ending just prior to the event date. Return volatility is the standard deviation of daily returns over the fiscal year ending just prior to the event date. The corporate governance data is taken as of the proxy statement prior to the event date. Dollar values are expressed in 2008 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: Director characteristics

	Non-departing directors (n = 171,256)		Departing directors (n = 17,295)	
	Mean	Median	Mean	Median
Age indicator (64-66) (%)	10.93	-	7.12***	-
Age indicator (67-69) (%)	9.78	-	7.49***	-
Age indicator (70-72) (%)	6.34	-	13.31***	-
Age indicator (above 72) (%)	6.98	-	13.48***	-
Tenure (years)	4.84	3.98	4.73***	3.05***
Current CEO (%)	5.53	-	4.04***	-
Former CEO (%)	10.05	-	10.53*	-
Current executive (%)	5.46	-	3.86***	-
Former executive (%)	13.19	-	12.03***	-
No. of other directorships	0.80	0.00	0.63***	0.00***

Panel B: Firm characteristics

	Non-departure firm-years (n = 22,793)		Departure firm-years (n = 12,208)	
	Mean	Median	Mean	Median
Book assets	2175.99	258.41	3841.17***	356.49***
Market cap	1685.36	197.36	2594.69***	255.60***
Sales	1298.73	187.59	2103.09***	232.50***
Firm age (years)	15.88	10.00	17.30***	10.00*
Stock return (%)	22.35	8.26	16.42***	3.50***
Return on assets (ROA) (%)	7.14	10.62	3.44***	8.30***
Return volatility (%)	4.00	3.53	4.17***	3.58**
Board Size	7.67	7.00	9.09***	8.00***
Proportion of inside directors (%)	30.93	28.57	24.61***	21.43***
D&O ownership (%)	24.03	17.60	20.81***	13.69***

Table 2. Cox proportional hazard regressions of director turnover

The table reports results from a Cox proportional hazard model. The sample consists of 188,551 outside director-firm-years, which track 63,453 directorships. Only outside directors are included; directors who are current and former employees of the firm are excluded. 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 63,453 directorships, 17,295 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. 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.

	(1)	(2)
No. of other directorships	0.924***	0.922***
	(-10.43)	(-9.79)
Age indicator (64-66)	0.733***	0.751***
	(-10.46)	(-9.01)
Age indicator (67-69)	0.854***	0.880***
	(-5.43)	(-4.11)
Age indicator (70-72)	2.042***	2.117***
	(32.54)	(31.60)
Age indicator (above 72)	1.817***	1.836***
	(26.44)	(24.33)
Current CEO director	0.898***	0.951
	(-2.68)	(-1.17)
Former CEO director	1.110***	1.113***
	(4.11)	(3.91)
Current executive director	0.830***	0.853***
	(-4.67)	(-3.69)
Former executive director	0.939***	0.915***
	(-2.67)	(-3.50)
Log (sales)		1.035***
		(6.15)
Log (firm age)		0.809***
		(-15.23)
Stock return		0.972***
		(-2.80)
Return on assets		0.569***
		(-12.37)
Return volatility (%)		1.116***
		(27.59)
CEO left indicator		1.171***
		(6.65)
Board size		1.026***
		(10.82)
Proportion of inside directors		0.574***
		(-8.09)
D&O ownership (%)		0.999
		(-1.62)
Number of subjects	63,453	56,508
Number of turnovers	17,295	15,095
Number of observations	188,551	164,452

Table 3. 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 35,001 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of a director who is a current or former employee of the firm, which reduces the sample to 27,009 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. Panel B defines expected director departures as departures of directors age 70 and above and treats departures of directors age 69 and below 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. The table shows the monthly equal-weighted portfolio excess returns, where the excess returns are calculated by subtracting from the equal-weighted 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 returns are significantly different from zero. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Equally-weighted portfolio ret	
	Mean	Median
Panel A: Outside director departure		
Outside dir depart (Portfolio = 1)	0.0089*	0.0097**
No dir depart (Portfolio = 2)	0.0108**	0.0182**
Portfolio 1 - Portfolio 2	-0.0020**	-0.0026***
Panel B: Outside director surprise departure (1)		
Outside dir surprise depart (Portfolio = 1S)	0.0081	0.0102*
Outside dir expected depart (Portfolio = 1E)	0.0107***	0.0123***
No dir depart (Portfolio = 2)	0.0108**	0.0182**
Portfolio 1S - Portfolio 2	-0.0027**	-0.0034**
Portfolio 1E - Portfolio 2	0.0000	0.0006
Panel C: Outside director surprise departure (2)		
Outside dir surprise depart (Portfolio = 1S)	0.0074	0.0089
Outside dir expected depart (Portfolio = 1E)	0.0104**	0.0133***
No dir depart (Portfolio = 2)	0.0108**	0.0182**
Portfolio 1S - Portfolio 2	-0.0035**	-0.0053**
Portfolio 1E - Portfolio 2	-0.0004	0.0020
Panel D: Outside director surprise departure (3)		
Outside dir surprise depart (Portfolio = 1S)	0.0081	0.0108
Outside dir expected depart (Portfolio = 1E)	0.0103**	0.0107**
No dir depart (Portfolio = 2)	0.0112**	0.0156***
Portfolio 1S - Portfolio 2	-0.0031**	-0.0025**
Portfolio 1E - Portfolio 2	-0.0009	-0.0009

Table 4. Monthly performance attribution regressions

The table shows results of calendar-time portfolio performance attribution regressions. The analysis is based on 35,001 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of a director who is a current or former employee of the firm, which reduces the sample to 27,009 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 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 director departures into portfolio 1S of surprise director departures and portfolio 1E of expected director departures. Panel B defines expected director departures as departures of directors age 70 and above and treats departures of directors age 69 and below as surprise 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. Panel C (Panel D) 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. The table reports coefficient estimates from regressions based on a four- factor performance attribution model for the equal-weighted 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. Standard errors are reported in italics. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

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	Intercept	MKTRF	SMB	HML	UMD
Panel A: Outside director departure					
Outside dir depart (Portfolio = 1)	0.0022	0.9574***	0.6808***	0.3033***	-0.2453***
	0.002	*0.040*	*0.040*	*0.051*	*0.027*
No dir depart (Portfolio = 2)	0.0043***	0.8945***	0.7090***	0.2806***	-0.2158***
	0.001	*0.035*	*0.035*	*0.045*	*0.024*
Portfolio 1 - Portfolio 2	-0.0021**	0.0629***	-0.0282	0.0228	-0.0295*
	0.001	*0.022*	*0.022*	*0.029*	*0.015*
Panel B: Outside director surprise departure (1)					
Outside dir surprise depart (Portfolio = 1S)	0.0018	0.9763***	0.7551***	0.2140***	-0.2750***
	0.002	*0.048*	*0.048*	*0.061*	*0.033*
Outside dir expected depart (Portfolio = 1E)	0.0034**	0.8738***	0.4605***	0.5245***	-0.1511***
	0.001	*0.036*	*0.036*	*0.047*	*0.025*
No dir depart (Portfolio = 2)	0.0043***	0.8945***	0.7090***	0.2806***	-0.2158***
	0.001	*0.035*	*0.035*	*0.045*	*0.024*
Portfolio 1S - Portfolio 2	-0.0025**	0.0818***	0.0461	-0.0666*	-0.0592***
	0.001	*0.029*	*0.029*	*0.037*	*0.020*
Portfolio 1E - Portfolio 2	-0.0009	-0.0214	-0.2487***	0.2440***	0.0646***
	0.001	*0.036*	*0.036*	*0.046*	*0.025*
Panel C: Outside director surprise departure (2)					
Outside dir surprise depart (Portfolio = 1S)	0.0015	0.9700***	0.8090***	0.1726**	-0.3260***
	0.002	*0.055*	*0.055*	*0.071*	*0.038*
Outside dir expected depart (Portfolio = 1E)	0.0030**	0.9380***	0.5523***	0.4264***	-0.1651***
	0.001	*0.035*	*0.035*	*0.045*	*0.024*
No dir depart (Portfolio = 2)	0.0043***	0.8945***	0.7090***	0.2806***	-0.2158***
	0.001	*0.035*	*0.035*	*0.045*	*0.024*
Portfolio 1S - Portfolio 2	-0.0027*	0.0756**	0.0983***	-0.1099**	-0.1094***
	0.001	*0.037*	*0.037*	*0.047*	*0.025*
Portfolio 1E - Portfolio 2	-0.0013	0.0044	-0.1584***	0.1439***	0.0515***
	0.001	*0.028*	*0.028*	*0.035*	*0.018*
Panel D: Outside director surprise departure (3)					
Outside dir surprise depart (Portfolio = 1S)	0.0015	0.9619***	0.7909***	0.2662***	-0.2817***
	0.002	*0.052*	*0.052*	*0.066*	*0.035*
Outside dir expected depart (Portfolio = 1E)	0.0036**	0.9386***	0.5990***	0.3255***	-0.2143***
	0.0016	*0.040*	*0.039*	*0.051*	*0.027*
No dir depart (Portfolio = 2)	0.0046***	0.8950***	0.7160***	0.2739***	-0.2155***
	0.001	*0.036*	*0.036*	*0.046*	*0.025*
Portfolio 1S - Portfolio 2	-0.0031**	0.0668*	0.0749**	-0.0077	-0.0662***
	0.001	*0.036*	*0.036*	*0.046*	*0.024*
Portfolio 1E - Portfolio 2	-0.0010	0.0436	-0.1169***	0.0516	0.0012*
	0.001	*0.027*	*0.027*	*0.035*	*0.018*

Table 5. Operating performance around director departures

The table reports firm operating performance around director departures. The analysis is based on 35,001 firm-years in the director departure dataset. Firm-years are excluded if there is at least one departure of a director who is a current or former employee of the firm, resulting in 27,009 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 ROA of a control firm. The control firm is the firm that is from the same two-digit SIC code and has 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. Surprise departure (1) is defined as all outside director departures of directors age 69 and below. Surprise departure (2) (surprise departure (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 1 (Table 2, Column 2) is higher than 75%, but the director nevertheless departs. *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.

Panel A: All outside director departures

	Mean	Median
	ROA	
Before (-3,-1)	0.0557***	0.1014***
After (+1,+3)	0.0480***	0.0876***
Change	-0.0077***	-0.0049***
	Performance, industry-adjusted ROA	
Before (-3,-1)	-0.0057***	0.0002
After (+1,+3)	-0.0082***	-0.0002*
Change	-0.0025	-0.0001

Panel B: Outside director surprise departures (1)

	Mean	Median
	ROA	
Before (-3,-1)	0.0411***	0.0983***
After (+1,+3)	0.0360***	0.0860***
Change	-0.0051**	-0.0050***
	Performance, industry-adjusted ROA	
Before (-3,-1)	-0.0075***	0.0000**
After (+1,+3)	-0.0112***	-0.0006**
Change	-0.0037	-0.0001

Panel C: Outside director surprise departures (2)

	Mean	Median
	ROA	
Before (-3,-1)	0.0179***	0.0786***
After (+1,+3)	0.0172***	0.0705***
Change	-0.0007	-0.0037***
	Performance, industry-adjusted ROA	
Before (-3,-1)	-0.0099***	0.00003**
After (+1,+3)	-0.0170***	-0.0014***
Change	-0.0071**	-0.0011**

Panel D: Outside director surprise departures (3)

	Mean	Median
	ROA	
Before (-3,-1)	0.0498***	0.0949***
After (+1,+3)	0.0422***	0.0811***
Change	-0.0077***	-0.0047***
	Performance, industry-adjusted ROA	
Before (-3,-1)	-0.0084***	0.0001*
After (+1,+3)	-0.0143***	-0.0010***
Change	-0.0061*	-0.0004

Table 6. 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 from 1997 onwards are from the list of restatements compiled by the U.S. Government Accountability Office (GAO). Prior to that, the data on restatements are hand-collected from a news article search in Factiva. The dependent variable is an indicator variable equal to one if there is a restatement announcement during the fiscal year, and zero otherwise. Outside dir depart indicator is equal to one if there is at least one outside director departure in the year prior to the fiscal year in which earnings are restated. Surprise outside director departure (1) is an indicator variable which equals one if there is at least one departure of an outside director age 69 and below. Surprise outside director departure (2) (surprise outside director departure (3)) is an indicator variable which equals one if there is at least one departure of an outside director whose 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. The accounting data is taken from the fiscal year end just prior to the restatement. 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*. Intercepts are not reported. Marginal effects and their corresponding standard errors are provided. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(3)
Outside dir depart	0.006***			
	0.002			
Outside dir surprise depart (1)		0.008***		
		0.002		
Outside dir surprise depart (2)			0.007***	
			0.002	
Outside dir surprise depart (3)				0.007***
				0.002
Board size	-0.000	-0.000	-0.000	-0.000
	0.000	*0.000*	*0.000*	*0.000*
Proportion of outside directors	-0.004	-0.004	-0.002	-0.005
	0.006	*0.006*	*0.006*	*0.006*
Log (Sales)	0.006***	0.006***	0.006***	0.006***
	0.001	*0.001*	*0.001*	*0.001*
Stock return	-0.000	-0.000	-0.000	-0.000
	0.001	*0.001*	*0.001*	*0.001*
Cash flow	-0.026***	-0.025***	-0.026***	-0.026***
	0.005	*0.005*	*0.005*	*0.006*
External financing	0.003	0.003	0.003	0.002
	0.005	*0.005*	*0.005*	*0.005*
Cash acquisitions	0.024**	0.023**	0.023**	0.027**
	0.011	*0.011*	*0.011*	*0.014*
Pseudo R-Sq	0.04	0.04	0.04	0.04
No of observations	26,685	26,685	26,685	23,584
Year fixed effects	Yes	Yes	Yes	Yes

Table 7. Outside director departures and subsequent federal class action securities fraud lawsuit filings

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 fiscal year, and zero otherwise. Outside dir depart indicator is equal to one if there is at least one outside director departure in the year prior to the fiscal year in which the lawsuit is filed. Surprise outside director departure (1) is an indicator variable which equals one if there is at least one departure of an outside director age 69 and below. Surprise outside director departure (2) (surprise outside director departure (3)) is an indicator variable which equals one if there is at least one departure of an outside director whose 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. The accounting data is taken from the fiscal year end just prior to the lawsuit event. 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*. Intercepts are not reported. Marginal effects and their corresponding standard errors are provided. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(3)
Outside dir depart	0.005***			
	0.002			
Outside dir surprise depart (1)		0.008***		
		0.002		
Outside dir surprise depart (2)			0.017***	
			0.003	
Outside dir surprise depart (3)				0.016***
				0.003
Board size	-0.002***	-0.002***	-0.002***	-0.002***
	0.000	*0.000*	*0.000*	*0.000*
Proportion of outside directors	0.007	0.006	0.004	0.004
	0.005	*0.005*	*0.005*	*0.006*
Log (Sales)	0.006***	0.006***	0.006***	0.006***
	0.001	*0.001*	*0.001*	*0.001*
Stock return	-0.004**	-0.004**	-0.003**	-0.004**
	0.002	*0.002*	*0.001*	*0.002*
ROA	-0.010*	-0.010*	-0.009*	-0.011**
	0.005	*0.005*	*0.005*	*0.006*
External financing	0.033***	0.032***	0.031***	0.033***
	0.003	*0.003*	*0.003*	*0.003*
Pseudo R-Sq	0.05	0.05	0.06	0.06
No of observations	27,148	27,148	27,148	24051
Year fixed effects	Yes	Yes	Yes	Yes

Table 8. Outside director departures and subsequent merger and acquisition profitability

The table examines the profitability of mergers and acquisitions (M&A) following outside director departures. The M&A deals are from SDC Platinum. In Panel A, the dependent variable is the cumulative abnormal announcement return to M&A activities 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 equal-weighted market returns and data from days -280 to -61. In Panel B, the dependent variable is the change in acquirer market capitalization from day -2 to day +1, in millions of 2008 dollars. Outside dir depart indicator is equal to one if there is at least one outside director departure in the 12 months prior to the deal announcement date. Surprise outside director departure (1) is an indicator variable which equals one if there is at least one departure of an outside director age 69 and below. Surprise outside director departure (2) (surprise outside director departure (3)) is an indicator variable which equals one if there is at least one departure of an outside director whose 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. The accounting data are from the fiscal year end just prior to the announcement. Deal characteristics are from SDC Platinum. Robust standard errors are reported in *italics*. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

Panel A: Cumulative abnormal announcement returns

	(1)	(2)	(3)	(3)
Outside dir depart	0.004			
	0.004			
Outside dir surprise depart (1)		0.006		
		0.004		
Outside dir surprise depart (2)			-0.004	
			0.004	
Outside dir surprise depart (3)				-0.004
				0.004
Board size	0.000	0.000	0.000	0.001*
	0.000	*0.000*	*0.000*	*0.000*
Proportion of outside directors	-0.018**	-0.018**	-0.016**	-0.019**
	0.008	*0.008*	*0.008*	*0.009*
Log(assets)	-0.005***	-0.005***	-0.005***	-0.005***
	0.001	*0.001*	*0.001*	*0.001*
Book leverage	-0.012	-0.013	-0.012	-0.006
	0.013	*0.013*	*0.013*	*0.014*
Tobin's *Q*	-0.003***	-0.003***	-0.003***	-0.003***
	0.001	*0.001*	*0.001*	*0.001*
Private target indicator	-0.002	-0.002	-0.002	-0.000
	0.007	*0.007*	*0.007*	*0.007*
Public target indicator	-0.034***	-0.034***	-0.034***	-0.031***
	0.007	*0.007*	*0.007*	*0.007*
Same industry indicator	-0.006	-0.006	-0.006	-0.007
	0.004	*0.004*	*0.004*	*0.005*
Tender offer indicator	0.013**	0.013**	0.013**	0.013**
	0.006	*0.006*	*0.006*	*0.007*
Hostile deal indicator	-0.003	-0.003	-0.002	-0.006
	0.021	*0.021*	*0.021*	*0.026*
Competed deal indicator	-0.038**	-0.038**	-0.039**	-0.046**
	0.017	*0.017*	*0.017*	*0.019*
100% Cash payment indicator	0.013***	0.013***	0.012***	0.011**
	0.005	*0.005*	*0.005*	*0.005*
100% Stock payment indicator	-0.009**	-0.009**	-0.009*	-0.010**
	0.005	*0.005*	*0.005*	*0.005*
Cash flow / assets	-0.026	-0.026	-0.027	-0.027
	0.020	*0.020*	*0.020*	*0.020*
Transaction value / Acq market value	0.014	0.014	0.014	0.013
	0.009	*0.009*	*0.009*	*0.010*
No of observations	2,967	2,967	2,967	2,624
Adj R-Sq	0.10	0.10	0.10	0.09
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes

Panel B: Change in acquirer market capitalization

	(1)	(2)	(3)	(3)
Outside dir depart	-43.428			
	61.359			
Outside dir surprise depart (1)		-70.283		
		68.755		
Outside dir surprise depart (2)			-169.007*	
			91.852	
Outside dir surprise depart (3)				-236.808**
				109.371
Board size	-16.055	-16.093	-15.915	-17.048
	10.606	*10.753*	*10.505*	*11.353*
Proportion of outside directors	-37.757	-33.319	-27.150	-5.412
	117.986	*112.020*	*117.791*	*128.597*
Log(assets)	-128.093***	-128.833***	-131.631***	-139.459***
	29.579	*29.773*	*30.051*	*31.786*
Book leverage	204.459	207.115	212.218	165.155
	180.117	*180.569*	*179.014*	*198.259*
Tobin's *Q*	-83.192**	-83.031**	-82.967**	-90.603**
	38.143	*38.003*	*37.876*	*44.191*
Private target indicator	-102.158*	-101.180*	-98.802*	-106.016*
	57.506	*57.572*	*57.354*	*62.752*
Public target indicator	-194.477***	-194.285***	-192.817***	-161.440**
	66.752	*66.877*	*66.701*	*71.331*
Same industry indicator	72.699	72.590	70.185	60.291
	78.196	*77.859*	*77.482*	*82.445*
Tender offer indicator	155.782	157.411	155.496	134.616
	116.786	*116.943*	*116.713*	*104.954*
Hostile deal indicator	-1,332.953	-1,339.618	-1,330.648	61.559
	1,310.795	*1,307.042*	*1,307.563*	*561.141*
Competed deal indicator	-355.297	-363.168	-376.401	-385.064
	366.055	*366.596*	*366.766*	*309.456*
100% Cash payment indicator	27.621	26.429	28.036	37.289
	49.861	*49.695*	*50.123*	*53.488*
100% Stock payment indicator	-33.551	-33.677	-29.529	-14.605
	71.612	*71.741*	*70.763*	*76.726*
Cash flow / assets	-58.591	-60.009	-63.237	-67.259
	133.848	*132.922*	*135.037*	*152.772*
Transaction value / Acq market value	-85.471***	-85.625**	-84.400**	-102.221**
	32.973	*33.232*	*33.204*	*39.277*
No of observations	2,967	2,967	2,967	2,624
Adj R-Sq	0.05	0.05	0.05	0.06
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes

Table 9. 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 analysis is based on 35,001 firm-years in the director departure dataset. 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 depart indicator is equal to one if there is at least one outside director departure. Surprise outside director departure (1) is an indicator variable which equals one if there is at least one departure of an outside director age 69 and below. Surprise outside director departure (2) (surprise outside director departure (3)) is an indicator variable which equals one if there is at least one departure of an outside director whose 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. 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.* Intercepts are not reported. Marginal effects and their corresponding standard errors are provided. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(3)
Outside dir depart	0.003			
	0.004			
Outside dir surprise depart (1)		0.010**		
		0.004		
Outside dir surprise depart (2)			0.014***	
			0.005	
Outside dir surprise depart (3)				0.013***
				0.005
Board size	-0.004***	-0.004***	-0.004***	-0.004***
	0.001	*0.001*	*0.001*	*0.001*
Proportion of outside directors	0.020**	0.018*	0.017*	0.016
	0.010	*0.010*	*0.010*	*0.010*
Log (market capitalization)	0.006***	0.006***	0.006***	0.006***
	0.001	*0.001*	*0.001*	*0.001*
Average monthly return	0.319***	0.320***	0.321***	0.322***
	0.040	*0.040*	*0.040*	*0.042*
Average stock return standard deviation	-1.058***	-1.087***	-1.100***	-1.083***
	0.125	*0.125*	*0.125*	*0.133*
Average turnover (NYSE, AMEX)	-0.030	-0.030	-0.029	-0.039
	0.040	*0.040*	*0.040*	*0.044*
Average turnover (Nasdaq)	0.014	0.013	0.012	0.008
	0.016	*0.016*	*0.016*	*0.017*
Pseudo R-Sq	0.07	0.07	0.07	0.07
No of observations	34,607	34,607	34,607	30,223
Year fixed effects	Yes	Yes	Yes	Yes

Table 10. Outside director departures and subsequent delistings

The table shows results from logistic regressions of delistings following outside director departures. The analysis is based on 35,001 firm-years in the director departure dataset. The dependent variable is equal to one if in any of the 12 months following the proxy date or director departure date the firm delists from a stock exchange and the delisting code in the Center for Research in Securities Prices (CRSP) database is between 400 and 500 (liquidations) or between 500 and 600 (dropped). Outside dir depart indicator is equal to one if there is at least one outside director departure. Surprise outside director departure (1) is an indicator variable which equals one if there is at least one departure of an outside director age 69 and below. Surprise outside director departure (2) (surprise outside director departure (3)) is an indicator variable which equals one if there is at least one departure of an outside director whose 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. The control variables are measured as of the fiscal year ending just prior to the proxy date or departure date. Total firm value is equal to the market value of equity at the end of the fiscal year plus the amount of total liabilities. Excess stock return is the logarithm of 1 plus the stock return minus the logarithm of one plus the return on the S&P 500. Relative size is equal to the firm's market capitalization divided by the total S&P 500 market value. MB is the ratio of firm's market capitalization to common book equity. Intercepts are not reported. Standard errors clustered at the firm level are reported in *italics.* Marginal effects and their corresponding standard errors are provided. Marginal effects for board size and MB are multiplied by a factor of 10. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(3)
Outside dir depart	0.003***			
	0.001			
Outside dir surprise depart (1)		0.004***		
		0.001		
Outside dir surprise depart (2)			0.005***	
			0.001	
Outside dir surprise depart (3)				0.003***
				0.001
Board size (x10)	-0.004**	-0.004**	-0.004**	-0.003*
	0.002	*0.002*	*0.002*	*0.002*
Proportion of outside directors	-0.005**	-0.005**	-0.005**	-0.004**
	0.002	*0.002*	*0.002*	*0.002*
Net income / total firm value	-0.006***	-0.006***	-0.005***	-0.005***
	0.001	*0.001*	*0.001*	*0.001*
Total liabilities/ total firm value	0.013***	0.013***	0.013***	0.012***
	0.002	*0.002*	*0.002*	*0.002*
Excess stock return	-0.003***	-0.003***	-0.003***	-0.003***
	0.001	*0.001*	*0.001*	*0.001*
Stock return volatility	0.133***	0.131***	0.128***	0.127***
	0.021	*0.021*	*0.021*	*0.022*
Log(relative size)	-0.002***	-0.002***	-0.002***	-0.002***
	0.000	*0.000*	*0.000*	*0.000*
Cash/ total firm value	-0.011***	-0.011***	-0.011***	-0.011***
	0.003	*0.003*	*0.003*	*0.003*
MB(x10)	0.005***	0.005***	0.004***	0.005***
	0.001	*0.001*	*0.001*	*0.001*
Log(stock price)	-0.005***	-0.005***	-0.005***	-0.004***
	0.001	*0.001*	*0.001*	*0.001*
Pseudo R-Sq	0.25	0.25	0.25	0.25
No of observations	33,604	33,604	33,604	29,572
Year fixed effects	Yes	Yes	Yes	Yes