

# Should independent directors have term limits? The role of experience in corporate governance\*

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## Abstract

Using a sample of S&P 1500 firms from 1998-2013, we examine the role of independent directors with extended tenures in board-level governance, monitoring decisions, and advising outcomes. We document a higher level of commitment among these directors as they are more likely to attend board meetings and also become members of board committees. Firms with a higher proportion of directors with extended tenures have lower CEO pay, higher CEO turnover-performance sensitivity, and a smaller likelihood of intentionally misreporting earnings. These firms also restrict the expansion of resources under the CEO's control as they are less likely to make acquisitions, while the acquisitions that are made are of higher quality. Efforts to impose term limits may, therefore, be misguided.

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# 1 Introduction

Shareholder advisory firms and regulators increasingly view lengthy experience as a negative attribute for independent directors.<sup>1</sup> Independent directors with extended tenures, subsequently referred to as just experienced directors, are seen as ineffective in fulfilling the roles of monitoring management and setting firm strategy. The Financial Reporting Council in the United Kingdom does not consider a director who has been on the board for longer than nine years to be an independent director.<sup>2</sup> The implication is that directors become entrenched and aligned with managers after an extended period and are, therefore, unable to monitor them adequately. In the U.S., The National Association of Corporate Directors (NACD), an advisory organization that publishes best practice procedures in boardrooms, recommends tenure limits of 10 to 15 years when evaluation procedures are not in place (NACD, 2005). Director term limits have also been seen as a way to bring fresh thinking and ideas onto the board and avoid stagnation in strategic decision making (Young, 2011). A survey by Heidrick & Struggles (2007), that polled 2,000 of the largest US firms, found that 22% of the 660 respondents had imposed term restrictions on directors, more than doubling from 9% in 2001, when the survey was previously conducted.

Despite concerns that experienced directors exacerbate the manager-shareholder agency problem (Jensen and Meckling, 1976), nearly 60% of the Standard & Poor's 1500 (S&P 1500) firms in our sample over the period 1998-2013 have an independent director who has been on the board for longer than 15 years. According to a recent analysis by GMI Ratings for the Wall Street Journal, among Russell 3000 companies, nearly 34% of the total independent directors have had a tenure of 10 years or longer.<sup>3</sup> There are at least three reasons why

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<sup>1</sup>The governance advocate, Council of Institutional Investors, urges shareholders and boards to look at the independence of long-tenured directors more skeptically. "The 40-Year Club: America's Longest-Serving Directors", Wall Street Journal, July 16 2013, <http://online.wsj.com/news/articles/SB10001424127887323664204578607924055967366>.

<sup>2</sup>UK Corporate Governance Code (June 2010). Publicly listed companies on the London Stock Exchange are required to state how they have complied with this code.

<sup>3</sup>The 40-Year Club: America's Longest-Serving Directors, Wall Street Journal, July 16 2013, <http://online.wsj.com/news/articles/SB10001424127887323664204578607924055967366>.

having experienced directors on the board may actually be optimal for firms. First, given their long tenure, most experienced directors have worked with multiple CEOs, which should help them better assess the ability of the current CEO. Only 10% of directors with tenure longer than 15 years in our sample were hired during the current CEO's term. Second, over the course of their term, experienced directors will have built up a significant financial stake in the company, which aligns their interests with shareholders. A 1% change in underlying stock increases wealth by \$13,318 for the median director with a tenure greater than 15 years, but only \$4,382 for those with a shorter tenure. Third, just as a long successful tenure is seen as increasing the CEO's bargaining power (Hermalin and Weisbach, 1998), a longer tenure should also buttress the position of the director, helping him/her to balance the CEO's influence when it comes time to making decisions in the boardroom.

In this paper, we examine whether tenure limits are an optimal solution to the potential agency problems caused by experienced directors using an unbalanced panel data set of S&P 1500 firms over the period 1998-2013. To isolate the contribution of experienced directors, we define an experienced director as one with more than 15 years of experience. We then use the proportion of these experienced directors on the board as the key explanatory variable in regressions where firm outcomes including CEO compensation, CEO turnover-performance sensitivity, earnings restatements, acquisition decisions, and acquisition performance are the dependent variables.

Using an aggregate measure of board tenure, like the median or average, masks the distribution of tenure among directors. The choice of using a fixed number to define an experienced director is crucial to the analysis, because it is hard to glean any insight on the heterogeneous effects of experienced directors without a concrete definition of "experienced". The decision to use 15 years as the threshold is supported by our director-level piecewise linear regression analysis, though we obtain quantitatively similar results when we use 12 years as the threshold. Also, as mentioned previously, the tenure limit recommended by NACD (2005) is 10 to 15 years. Therefore we choose the upper bound of this range to

examine whether independent directors with tenures beyond this range are really problematic as the recommendation implies.

The efficacy of different forms of board structure has been studied extensively in the financial literature. However, despite widespread recommendations and even legislation on term limits, there is limited empirical evidence on how director tenure impacts board decision-making. One exception is a study by Vafeas (2003), which uses one year of data from 1994 and splits directors according to relative tenure within the firm. Another set of related studies (Coles, Daniel, and Naveen, 2014; Core, Holthausen, and Larcker, 1999; Landier, Sauvagnat, Sraer, and Thesmar, 2012) considers whether directors who were hired after the current CEO began her term are co-opted by these CEOs. A longer tenure could be a proxy for the fact that the director was hired before the current CEO. However, the results in this paper are not driven solely by the hiring effect. This is shown by controlling for the proportion of directors hired after the current CEO was appointed and also by re-running the analysis in a subsample of firms where the CEO tenure is greater than that of the senior-most independent director.

The analysis consists of five main parts. First, we use director-level data to examine whether experienced directors' commitments to their roles change as tenure increases. We find that, far from shirking responsibility, these directors are significantly less likely to miss board meetings. Even though participation in a monitoring committee requires extra effort in terms of time and responsibility, experienced directors are significantly more likely to be members of the major board monitoring committees. This membership could be attributed to experienced directors having deeper knowledge of the firm and its operations relative to newer directors, but it nevertheless signals a continued commitment to their role.

Second, we examine the determinants of a higher proportion of experienced directors on the board. Our results suggest that across firms in the same industry, smaller, older, more stable and successful firms with older and longer tenured CEOs are more likely to have experienced directors. However, when examining within-firm variation using firm fixed

effects, many of these relationships change. For example, a larger proportion of experienced directors is now positively related with firm size, which is intuitive, since firms have tended to increase in size over the sample period.

Third, we examine the role of experienced directors in three different firm monitoring outcomes using panel regressions on firm-level data. Concerns regarding endogeneity and selection bias do not easily allow for causal inference from such regressions. To alleviate some of these concerns, we use firm and director fixed effects along with an extensive set of control variables in our analysis. When examining total CEO pay, our results show that an increase of one experienced director on the compensation committee decreases the average pay of the CEO by about 3.2%. CEO turnover is also shown to be more sensitive to stock performance when there is a higher proportion of experienced directors. We also find that the presence of one additional experienced director on the audit committee can reduce the probability of intentional misreporting by approximately 25% relative to firms where there are no experienced directors on the audit committee.

Fourth, we determine if the presence of experienced directors affects strategic decisions in the firm. We find that firms with a higher proportion of experienced directors make fewer acquisitions, thereby limiting the empire building aspirations of the CEO (Roll, 1986). An examination of whether the quality of acquisitions made is higher, using announcement day abnormal stock returns as a proxy for quality, also shows that a higher proportion of experienced directors on the board is related to increased abnormal returns.

Lastly, we conduct several robustness checks to see if our results are driven by certain alternative explanations. The concerns we consider include self-selection concerns that directors are only willing to stay at better firms, and that firms are only willing to retain better directors over time. We also consider the possibility that a director's tenure is merely a proxy for his/her general experience and does not have to be accumulated by staying at the same firm for an extensive period. Overall our results suggest that none of these concerns can fully explain our findings.

This paper falls into the category of research which examines the impact of heterogeneity among directors on board decision-making. Initial studies on board structure focused on the number of independent directors on the board. Studies show that CEO dismissal is more sensitive to performance in firms with a higher number of independent directors (e.g., Weisbach, 1988; Kaplan and Minton, 2012), but independent boards have not been able to curtail excessive CEO pay. Guthrie and Sokolowsky (2012) show that the requirement to have all independent directors on the compensation committee actually increased CEO pay after the passage of the Sarbanes-Oxley Act (SOX). Given the lack of clear evidence on the benefits of independent directors, research has focused on their heterogeneity. Studies have examined the effect of directors who are foreign (Masulis, Wang, and Xie, 2012), bankers (Guner, Malmendier, and Tate, 2008), female (Adams and Ferreira, 2009), venture capitalists (Baker and Gompers, 2003), CEOs in other firms (Fahlenbrach, Low, and Stulz, 2010) and politically connected (Goldman, Rocholl, and So, 2009). Following these studies on director heterogeneity, this paper uses extended tenure as a distinguishing attribute among independent directors.

This paper makes four contributions. First, we directly address the question of implementing director term limits, which have been suggested as a way to infuse fresh blood onto a board and avoid complacency. Our results show that such a policy would be short-sighted as experienced directors make a positive contribution to strategic and monitoring decisions. Second, we contribute to the growing literature on the effect of heterogeneity among independent directors on CEO pay and turnover within firms. While previous studies have tried to measure the actual independence (relative to the officially declared independence) of board directors, their specific expertise and their networking benefits, there has been little research on tenure as a distinguishing attribute. Third, we contribute to the literature on how board structure affects the firm's acquisition strategy. Undertaking acquisitions expands the resources available to the CEO and, thus, potentially exacerbates agency problems. Boards with experienced directors may act as a countervailing force to the CEO and help mitigate

such agency problems. In addition, we also find that firms with experienced directors make higher quality acquisitions. Fourth, we contribute to the literature which considers the trade-off between monitoring and advising. Previous theoretical and empirical research has shown that directors may not be able to accomplish both roles simultaneously because excessive monitoring can lead to a reduction in information shared by firm management. However, our results show that experienced directors, whose incentives are aligned with shareholders and who have a high level of firm expertise, may be an exception to this proposition.

## 2 Data analysis

### 2.1 Data description

For detailed information on director attributes, we use the RiskMetrics (formerly IRCC) database, which provides data from 1996 to 2013. Only data after calendar year 1999 are included because there is incomplete information on committee membership and leadership before that year. The year variable is adjusted to denote the fiscal year rather the year of the Annual Meeting. This allows for the matching between the RiskMetrics data and the accounting data from Compustat. The final sample includes data for fiscal years 1998 to 2013. CRSP is used for stock returns and Execucomp for information on CEO pay and attributes like age and tenure. We use data from Execucomp (the CEOANN flag) to identify CEOs. In the final sample, firms are only included when they have data listed in each of the RiskMetrics, Compustat, CRSP and Execucomp databases. There are a total of 19,020 firm-year observations, 159,580 director-year observations and 139,963 independent director-year observations after dropping observations without complete matching data in all the databases. An independent director is one who is marked as independent by RiskMetrics.

We make a few adjustments to the data to correct errors in the databases. Director tenure is set to missing if it is greater than 90 or less than 0. In addition, if a director's age is less than 21, it is set to be missing. Approximately 10% of observations do not include

CEO age. Another 10% do not include CEO tenure in Execucomp. We manually set the CEO age and tenure values for these observations if publicly available. We also set director ownership to missing if the shares in the company are dual class. The year the stock of a firm is listed is used as the firm age.

## 2.2 Data summary

Table 1 contains a summary of the independent director data. Each observation is representative of one director-firm-year and hence each director could be represented multiple times for different firms and years. The sample is divided into four groups to better understand how characteristics of directors evolve as tenure increases. The first group has tenure less than or equal to five years (L5), the second group has tenure between six and 15 years (B6-15), the third group (L15) includes all observations in the first two groups, and the fourth group (G15) has tenure greater than 15 years. In addition, we also maintain a sub-sample of the G15 directors who are not former employees. Since we argue that directors with longer tenure tend to be better at monitoring and advising, one concern is that within the long tenure directors there is a high proportion of former employees who have better understanding of the firm. In this case our results are not capturing the effect of having a longer tenure. To eliminate this concern, in all subsequent tests we do not consider experienced directors who used to be employees of the firm. Lastly, in Column G we report the differences in means for each variable between directors with tenures lower than or equal to 15 years and directors with tenures greater than 15 years who are not former employees in the firm.

While some attributes in Table 1 show the expected correlation, like the positive correlation between age and tenure, other attributes offer more interesting insight. Approximately 63% of directors in the L5 group were hired during the term of the current CEO, which decreases to 27% for directors in the B6-15 group and to only 10% for directors in the G15 group. This statistic weakens the claim that directors with extended tenures are entrenched with the current CEO of the firm. On the contrary, experienced directors have worked with



multiple CEOs, giving them the opportunity to improve their monitoring skills. In addition, the evidence in Column G suggests that compared with directors with short tenures, experienced directors are less likely to be female and tend to have fewer directorships. The differences for all characteristics are significant at the 1% level.

To further investigate any differences between directors among different tenure groups, we also report the three most frequently observed primary titles for each group. This information is available in RiskMetrics for years 1998-2001 and 2007-2013. The data suggests that for all independent directors including the experienced directors, the most common title is always “Retired”. One difference between short-tenured and long-tenured directors is that while “Executive” and “CEO” are the second and third most common titles for directors with short tenures, they are much less common for directors with long tenures. In fact, the second most frequently observed title for long-tenured directors is “Financial Service”. Given this difference, we include control variables for these characteristics in all subsequent director level analyses.

There is also a sizable difference between equity ownership and consequently monetary incentives amongst directors as tenure progresses. Director ownership includes both stocks and options, which can be exercised within sixty days of the annual meeting. Ownership increases from 0.063% in the L5 group to 0.088% in the G15 group. Although the stakes are small in percentage terms, the dollar amounts are high. We calculate dollar sensitivity to a 1% change in the underlying stock price by multiplying the total number of shares and options by 1% of the fiscal year-end price. Directors in the group G15 have a sensitivity of \$13,318 to a 1% change in the stock price, while directors with less experience have approximately a third of the dollar sensitivity at \$4,382. These differences are, once again, significant at the 1% level. A change of approximately 20% in the stock price can lead to a change in wealth of \$315,460 for the median experienced director which is a sizable effect.

In terms of board governance, poor attendance, an indicator variable, which is set to one if the directors does not attend 75% of board meetings, decreases from 1.68% in the L5 group

to 1.12% in the G15 group. Membership in the compensation committee increases from 36% in the L5 group to approximately 47% in the G15 group. While a similar increase is seen in the nomination committee, there is actually a small decrease in likelihood of membership for G15 directors on the audit committee relative to L5 directors. This is probably due to the influence of Sarbanes-Oxley which mandated the presence of at least one director with financial expertise in the audit committee. This regulation led firms to bring new directors with financial expertise onto the board to meet this requirement.

Panel A in Table 2 shows firm-level data from Compustat, RiskMetrics, and CRSP used in the sample. The size of the firms on average is large at approximately \$15.87 billion. Size and other firm-level characteristics are comparable to other studies like Coles, Daniel, and Naveen (2008), Faleye, Hoitash, and Hoitash (2011) and Masulis and Mobbs (2011), which use the same database for their analysis. Panel B in Table 2 shows the composition of boards and committees according to the proportion of directors with specified tenures. On average, the proportion of independent directors with terms of 15, 12, and nine years to the total number of independent directors is 0.14, 0.23 and 0.35 respectively.

## **3 Results**

### **3.1 Board level governance**

#### **3.1.1 Committee membership**

Board committees are delegated with important monitoring tasks such as setting CEO compensation, choosing and reviewing auditors, and nominating new directors. Participation in these committees means attending special meetings and spending more time on board duties. Faleye, Hoitash, and Hoitash (2011) show that participation by a majority of independent directors in two or more committees improves the quality of the board's monitoring. Given the extra commitment required for committee membership, we construe participation in a

committee as a signal of engagement with the firm.

Table 3 contains the results for OLS regressions where the dependent variable is an indicator variable which takes the value of one if the director is a member of any of the three major board committees (i.e., audit, compensation, and nomination). Among all the independent directors, we construct five indicator variables indicating whether the director's tenure is lower than or equal to five years, between six and ten years, between 11 and 15 years, between 16 and 20 years, or greater than 20 years. In Columns 1-5 of Table 3 we regress the dependent variable on these five indicator variables separately. In Column 6 we pool these variables together, treating directors whose tenures are between six and ten years as the omitted group. Lastly, in Column 7 we use tenure directly as our key independent variable. All regressions include firm and year fixed effects.

The results show that tenure has a distinct impact on committee memberships. Directors with tenures less than or equal to five years are significantly less likely to become committee members, while directors whose tenures are between 11 and 20 years are more likely to become committee members. The discrepancy between directors with short and long tenures is a sensible result, given that new directors tend to be less knowledgeable of firms' operations. Further, once we pool the indicator variables together, the active committee involvement effect disappears for directors with tenure between 11 and 15 years and only remains significant for directors with tenure between 16 and 20 years. Interestingly, the coefficient for  $T > 20$  appears significantly negative, suggesting that once a director's tenure exceeds 20 years, his/her involvement in committees starts to diminish.<sup>4</sup> Nevertheless, as Column 7 shows, when we regress the dependent variable on director tenure directly, we observe a significantly positive relation, which indicates that experienced directors overall play an active role in the corporate governance of the firm through committee memberships.

Among the control variables, the results suggest that older directors and female directors are more likely to be committee members. Even though busy directors tend to have time

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<sup>4</sup>In untabulated results, we find that the effect of tenure remains significantly positive until it reaches 27 years.

constraints, they are also more likely to be committee members. To allow for the possibility that directors' involvement in board committees is also affected by the importance of the firm relative to their other directorships, we control for whether the director is an executive at another firm, and whether the firm is the largest (measured by total assets) in the director's directorship portfolio.<sup>5</sup> The results suggest that directors are more likely to be a committee member at firms that are largest among all their board seats.

As mentioned previously we also control for whether the primary title for the director is "Retired" or "Financial Service". Because this information is only available in RiskMetrics for a subset of years, we make an adjustment to these two variables to avoid losing observations. For each director in the database, once his/her primary title contains "Retired" ("Financial Service") in a given year, we assume this director is retired (has experience in financial service) in all subsequent years where the information is missing. The results suggest that whether a director is retired does not affect his/her committee memberships, while having experience in financial service significantly increases the likelihood that the director is a committee member. In untabulated results, we find that this positive relation mainly exists in the audit committee and compensation committee, but not in the nomination committee.

### **3.1.2 Attendance**

Attendance at board meetings is integral to the monitoring and advising duties of a director. Firms are required to report to the SEC whether directors attended less than 75% of meetings. In cases where the director has not attended 75% of meetings, an indicator variable called "Poor Attendance" is set to one. In the sample of all independent directors, the mean of poor attendance is only 1.4% showing that missing meetings is relatively rare. In this section, we examine whether attendance at board meetings changes for directors with different tenures.

We include control variables for individual director attributes similar to the previous

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<sup>5</sup>This indicator variable is also equal to one if the director has only one directorship.

section on committee membership. Adams and Ferreira (2008) show directors are more likely to attend meetings when meeting fees are higher. Therefore, information on meeting fees and number of meetings from Execucomp are included as control variables. There is no data on these two variables from the year 2007 onwards, so analysis is restricted to the years 1998-2006, leaving a total of 65,938 director-year observations.<sup>6</sup>

Table 4 includes the results for OLS regressions where the dependent variable is “poor attendance”. Consistent with the evidence in Table 3 which suggests that new directors are less likely to be committee members, the evidence here indicates that these directors are also more likely to miss board meetings. Also, even though Table 3 suggests that directors whose tenures are between 16 and 20 years have more committee memberships and thus higher workload, Table 4 suggests that they are less likely to miss board meetings. The coefficient for these directors in Column 4 is -0.6%. Given the mean of Poor attendance is 1.4%, G15 directors are 42.9% less likely to miss more than 75% of board meetings. Overall the results show that director commitment to attending board meetings does not wane as their tenure increases.

The control variables in this table in general have less predictive power than those in Table 3. Nevertheless, the results suggest that directors are more likely to miss board meetings when they are busy or when they are executives at other firms. They are also more likely to miss board meetings when there are more directors on board or when the proportion of independent directors is higher. Lastly, consistent with the findings in Adams and Ferreira (2008), the results suggest that the attendance tends to increase with meeting fees.

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<sup>6</sup>As a robustness check, we perform our analysis using data for all years, without the meeting fees and number of meetings variables, and the results are quantitatively similar.

## 3.2 Determinants of experienced directors

### 3.2.1 Firm-level analysis

This sub-section analyzes the factors that drive the proportion of experienced directors to be higher in certain firms. The evidence in Table 3 and 4 suggests that directors with tenure greater than 15 years exhibit a significant improvement in terms of participating in committee activities and attending board meetings. Therefore hereafter we consider these directors as the experienced directors.

Panel A of Table 5 shows the results for regressions where the dependent variables are the proportion of experienced independent directors. We examine the determinants of proportion of experienced directors on the compensation committee and the audit committee in addition to the proportion of experienced directors on the entire board as they are also used as key explanatory variables in future analyses. Columns 1-3 use the Tobit procedure and include industry and year fixed effects where differences across firms, but within the same industry, are being examined. Columns 4-6 use OLS and examine within-firm variation using firm and year fixed effects.

Overall, the results suggest that the proportion of experienced directors increases with CEO age. Similarly, the coefficient for CEO tenure is positively significant in regressions with industry fixed effects, indicating that relative to other firms, directors and CEO with longer tenures tend to co-exist. However, the coefficient for CEO tenure is not significant in regressions with firm fixed effects, indicating that a higher proportion of experienced directors is not correlated with an increase in the tenure of the CEO within the firm. This is an intuitive result given that almost 90% of experienced directors no longer work with the CEO who was present when they were hired.

In terms of firm characteristics, the coefficient for firm size is negatively significant at the 1% level in regressions with industry fixed effects, showing that relatively smaller firms are much more likely to have experienced directors. However, when firm fixed effects are

used, the coefficient for firm size is positively significant showing that the proportion of experienced directors is increasing as a firm grows larger. Publicly listed firms (in the Compustat database) have grown in size over time and the positive relation between firm size and the proportion of experienced directors is reflective of this fact. As expected, firm age is highly positively significant at the 1% level in regressions using both industry and firm fixed effects.

In terms of ROA, the positive coefficient on five-year average ROA and negative coefficient on standard deviation of ROA (calculated using annual ROA over five years) in regressions with industry fixed effects show the desire of experienced directors to be at relatively more stable and profitable firms. However, in Column 4 the coefficients of both ROA and its standard deviation show the opposite sign when firm fixed effects are used. This negative relation between firm performance and the proportion of experienced directors can, to some extent, be explained by the findings in Fahlenbrach, Low, and Stulz (2013) that outside directors have the incentives to resign from firms which they anticipate to perform poorly. Their findings imply that boards should experience a reduction in size during periods of poor performance, because some directors may choose to leave the firm, while few directors are willing to join the firm. In this case, if experienced directors, due to their long service, do not abandon the firm like some other directors do, then this might explain the relative increase in the proportion of experienced directors when the ROA is low.

Overall the results show that firms which are smaller and older, and which have more stable and a higher level of accounting profitability are more likely to have experienced directors on the board. However, when firm fixed effects are taken into account it is not clear if experienced directors have a direct role in improving or reducing profitability.

### **3.2.2 Director-level analysis**

We next analyze characteristics that make a director more likely to become an experienced director. Following recent studies such as Oyer (2008), Do, Nguyen, and Rau (2014), and

Fahlenbrach, Low, and Stulz (2013), we employ Cox Proportional Hazards regressions to model the tenure of each independent director as a function of his/her personal attributes and certain firm level and macroeconomic characteristics. In our sample, each directorship is traced until either the director leaves the firm (the event) or the firm leaves the sample. One advantage of using Cox models is that they allow for a possibility that the event (i.e., director turnover) might never occur during the observed period.

The results are reported in Panel B of Table 5. We report hazard ratios rather than the raw coefficients as it is easier to infer the economic significance of explanatory variables. In Column 1, we include only directors' personal attributes. In Column 2, we add firm and board characteristics. Because Do, Nguyen, and Rau (2014) show that macroeconomic factors can also influence a director's career, in Column 3 we bring in the value-weighted stock returns over the past three years at the industry level as well as the industry return volatility. Given the potential influence on the director labor market brought by SOX (Chen and Moers, 2014), in Column 4 we replace year-fixed effects with an indicator variable that separates the pre-SOX and post-SOX period.

Because our events are when directors leave the firm, variables whose hazard ratios are greater than one are factors that negatively correlate with a director's probability of becoming experienced. Overall our results suggest that directors above 65, female directors, busy directors, directors who are executives at other firms, and retired directors are less likely to stay long. On the other hand, if the director only has one directorship, or if the directorship of interest is the largest among all his/her directorships, the director is less likely to leave.

Among the firm and board characteristics, the results suggest that directors are less likely to become experienced at larger, younger, and more complex firms, and firms in which the CEO has more power (captured by the CEO-Chairman duality), or the proportion of independent directors is higher. Further, there is some evidence that directors are less likely to become experienced in volatile industries. Lastly, the coefficient for the indicator variable Post-SOX is significantly negative, implying that directors are less likely to depart after



SOX.

### **3.3 Board monitoring**

#### **3.3.1 CEO compensation**

CEO compensation has shown a sharp increase since the 1970s (Frydman and Saks, 2010). There are two competing theories to explain this rise in executive pay. The first explanation is that executive pay is an optimal contracting solution to the agency problems faced by the firm. As the size and complexity of firms have increased, so has CEO compensation (Gabaix and Landier, 2008; Tervio, 2008). The second explanation is that high CEO pay is a form of rent extraction by powerful CEOs and they are able to exert “managerial power” and influence on the board’s decisions (Bebchuk and Fried, 2003). In this section, we study whether the concern that experienced directors amplify agency problems is justified by examining the relation between the proportion of experienced directors on the board and total CEO pay.

Data on CEO compensation are from Execucomp and are for the fiscal years 1998-2013. Total pay includes salary, bonus, equity and long-term incentive pay. There are a total of 19,020 firm-year observations with matching CRSP, Compustat, RiskMetrics and Execucomp data. Observations for the year 1998 are excluded, since compensation for the CEO is determined by the board from the previous year, and board structure data is only available from 1998. Execucomp changed its reporting of CEO option valuation in 2006 which does not allow for consistent within-firm and across-firm comparison of total compensation. To allow for an accurate comparison, we calculate CEO option compensation using a consistent methodology as described in detail in Appendix A. Compensation is also adjusted for inflation using the CPI deflator for the year 2003. The mean total annual compensation for the entire sample is \$4.62 million, while the median is \$2.37 million (in 2003 dollars). There is a large difference in mean and median, showing, as is widely known, that the distribution of compensation is skewed. Hence, log transformed compensation is used as the dependent

variable. Since remuneration decisions are made by the compensation committee, the ratio of experienced directors on the compensation committee to the total number of directors on the compensation committee is used as the key explanatory variable. The variable PROP-CC-G15 is used to denote the proportion of independent directors with tenures greater than 15 years on the compensation committee.

Table 6 shows the results of regressions where log transformed compensation is the dependent variable. In Column 1, when firm and year fixed effects are used, the coefficient for PROP-CC-G15 is -0.095 and is significant at the 5% level. The average size of the compensation committee is three members and the addition of one experienced director will raise the proportion of experienced directors by 33%. The result in Column 1 means that a change from no experienced director on the compensation committee to one such director will reduce CEO compensation by 3.2% or \$147,712 which is an economically significant effect, especially given that we are examining within-firm variation. To distinguish the effect of experienced directors from those who are not hired during the term of the CEO, Column 2 includes the sub-sample of firm-year observations where CEO tenure is greater than or equal to that of all the independent directors. In this subsample all the directors will have potential to have been influenced by the CEO. The result remains significant in this sub-sample.

In Column 3, the regression does not treat independent directors hired by the current CEO as experienced. Doing so should produce stronger results as directors hired before the current CEO are unlikely to be co-opted by the current CEO. Consistent with this conjecture, the coefficient for PROP-G15-CC in Column 3 is both economically and statistically more significant than that in Column 1. In Column 4, the regression uses industry and year fixed effects and also control for the proportion of directors hired during the term of the CEO on the compensation committee. The coefficient for experienced directors is also significant at the 5% level.

These regressions have not controlled for the possibility of selection bias which may arise when firms retain “better” directors. If this was indeed the case, results showing that ex-

perienced directors help mitigate agency conflict would not be surprising. To address this concern of selection bias, Column 5 uses director fixed effects which allow the examination of within-director variation as tenure changes. One complication that arises when using director fixed effects is a change in the methodology of setting director identification numbers by RiskMetrics in the year 2003. To address this issue, we match directors within firm using name (first, middle and last) and director age to ensure that a consistent ID is used through the tenure of a director.<sup>7</sup> The key explanatory variable in this regression is an interaction variable between G15 and being a compensation committee member. This variable is significant at the 10% level with a coefficient of -0.036 showing that the presence of an experienced director on the compensation committee is correlated with lower pay for the CEO.

### 3.3.2 CEO turnover

Boards are tasked with monitoring the leadership of a firm and initiating changes in case of poor performance (Adams, Hermalin, and Weisbach, 2010). The literature shows that board characteristics play an important role in the decision to dismiss a CEO. The factors linked to a higher probability of CEO dismissal include: higher equity-based compensation and higher stock ownership for directors (Ertugrul and Krishnan, 2010), splitting CEO and chairman duties (Goyal and Park, 2002), a majority of independent directors serving on at least two of the three monitoring committees (Faleye, Hoitash, and Hoitash, 2011), smaller boards (Yermack, 1996), higher independence of the board (Weisbach, 1988) and the presence of female directors on the board (Adams and Ferreira, 2009). In this section, we examine whether boards with a higher proportion of experienced directors increase CEO turnover sensitivity to performance.

The dependent variable in this section is an indicator for CEO dismissals which takes the value of one when the CEO is in his/her last year and 0 otherwise. The indicator variable also has the value 0 where the reason for CEO leaving has been marked as “Deceased” or

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<sup>7</sup>See Coles, Daniel, and Naveen (2014) for an detailed description of the problem.

“Retired” by Execucomp. The turnover sample ends in the year 2013. There are 1,939 dismissals in the sample of 17,536 firm-year observations, yielding an unconditional probability of 11.06%. The intentions of the board and the CEO are not always clear, making the process of identifying CEO dismissal extremely error-prone. Thus, similar to Jenter and Lewellen (2010) and Adams and Ferreira (2009), all CEO dismissals are included in the sample. To identify the effect of experienced directors on CEO departures in case of poor performance, we include the interaction term between stock returns and the proportion of experienced directors as an independent variable. Stock returns are calculated as previous year firm stock returns minus the previous year return on the value weighted CRSP market index. Other than this additional interaction term, control variables are the same as in the previous section on compensation.

Results for the regressions on CEO turnover are in Table 7. In Column 1, with firm and year fixed effects, the interaction term between stock returns and PROP-G15 is negatively significant at the 5% level. This negative coefficient for the interaction term indicates that there is a higher likelihood of CEO turnover when the firm performs poorly and there are experienced directors on the board. There is also a positive coefficient for the interaction term between stock returns and % CEO-Hire, showing that these directors who were hired after the CEO are less likely to dismiss a CEO even when the firms perform poorly. In contrast to experienced directors, directors hired after the CEO exacerbate concerns about agency problems on the board. The two effects are distinct since the interaction terms using both sets of variables are significant.

In order to further examine whether experience is just another way of looking at directors who were not hired before the CEO, we examine the subset of observations where the CEO has a longer tenure than any of the independent directors in Column 2. Within-firm variation in CEO turnover and a corresponding change in the proportion of experienced directors is not possible given the sample size, hence we use industry and year fixed effects in Column 2. The coefficient of the interaction between PROP-G15 and stock return is similar in magnitude

to the coefficient in Column 1, but the significance drops to the 10% level. In Column 3, we do not consider directors as experienced if they are hired by the current CEO. Once again the results are stronger in this column. In Column 4, the regression includes all observations with industry and year fixed effects. The coefficient for the interaction variable is again significant at the 5% level. Lastly, in Column 5 we examine the within-director variation by using director fixed effects. The interaction term  $G15*CC$  in this column is significant at the 1% level. Overall, the results provide little evidence of the ability of the CEO to entrench himself in the face of poor performance if there are experienced directors on the board.

### **3.3.3 Earnings restatement**

Although earnings manipulation can lead to large losses in reputation for firm management, financial incentives sometimes outweigh these concerns as managers seek to maximize performance-linked payouts or retain their jobs by manipulating accounting figures in financial statements. The audit committee is responsible for appointing and evaluating auditors and providing oversight on the integrity and compliance of company financial statements to reduce the likelihood of such earnings manipulation which can result in large shareholder losses. Previous research has shown that board independence and the presence of a financial expert can reduce (Agrawal and Chadha, 2005; Klein, 2002); and the presence of foreign directors on the audit committee can increase (Masulis, Wang, and Xie, 2012) the probability of financial misreporting. In a similar vein, we examine the propensity of firms to misreport earnings when experienced directors are on the audit committee.

Data on accounting restatements are from the U.S. Government Accountability Office (GAO) database, which released reports in 2003 and 2007 containing a list of financial statements which were incorrect on their release date. The reason for the inaccuracy could stem from either an error (unintentional reporting) or irregularities (intentional misreporting) and it is important to distinguish between the two effects (Hennes, Leone, and Miller, 2008). In addition, these reports released by the GAO list the date when the correction was made

to the financial statements but do not list the reporting period when the original infraction occurred. To address these two concerns in the data, we use modified versions of these reports obtained from Masulis, Wang, and Xie (2012) for the report released in 2007 (restatements from 2003 to 2006) and Burns and Kedia (2006) for the report released in 2003 (restatements from 1997 to 2002).<sup>8</sup> These modified reports include the misreported years and quarters and also use the Hennes, Leone, and Miller (2008) methodology to classify restatements as errors or irregularities.

We use the proportion of experienced directors on the audit committee (PROP-AC-G15) as the key independent variable. Table 8 contains the results for logistic regressions which use industry and year fixed effects. There is limited within-firm variation of earnings restatements, hence we do not use firm fixed effects in the analysis. The control variables are similar to those used in previous sections. The dependent variable in Column 1 is an indicator variable which takes the value of one when a firm makes an earnings restatement and 0 otherwise. The coefficient for PROP-AC-G15 is not significant in this regression. In Column 2, the dependent variable is an indicator variable which takes the value of one when the earnings restatement is classified an irregularity and the restatement is more likely to be due to a lapse in board monitoring. In contrast to the results on all earning restatements, the result in Column 2 shows that the coefficient for PROP-AC-G15 is -1.36 and is negatively significant at the 5% level. The marginal effect is -0.011 which means that adding one directors with tenure greater than 15 years on the audit committee, where none existed, will decrease the probability of an irregular earnings restatement by about -0.36% ( $0.33 \times -0.11$ ). This is an economically significant effect as the unconditional probability of an irregular earnings restatement is just 1.5%. Thus the presence of an experienced director can reduce the occurrence by about 25%.

Columns 3 and 4 repeat the analysis from Columns 1 and 2 but use the subset of firms where the tenure of the CEO is greater than that of the independent directors. These regres-

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<sup>8</sup>We thank Natasha Burns, Simi Kedia, Ron Masulis, Cong Wang and Fei Xie for providing us with the modified earnings data.

sions continue to show that the presence of experienced directors on the audit committee is less likely to be associated with intentional misreporting even in cases where the CEO and the experienced directors have had a chance to build a strong relationship over long tenures. Lastly, in Columns 5 and 6 we do not consider a director as experienced if he/she is hired by the current CEO. Our key independent variable PROP-AC-G15 remains significantly negative in the *Irregularities* sample.

Overall the results provide strong support for the hypothesis that the presence of experienced directors on the board alleviates agency problems since these firms have lower propensity to misreport earnings intentionally.

### **3.4 Board advising**

Besides monitoring management, directors serve as advisors, playing a key role in important strategic decisions like making and choosing acquisitions (Adams, Hermalin, and Weisbach, 2010). Experienced directors develop expertise in the industry and firm on whose board they serve through their long tenures, which exposes them to the company's strategy, finances and competitive environment. Recent research has explored the conflict between the advising and monitoring of management which arises because independent directors are dependent on the CEO (Adams and Ferreira, 2007) or inside directors (Harris and Raviv, 2008) for firm-specific information. The first best solution to the trade-off between monitoring and advising in Adams and Ferreira (2007) is the sharing of information by managers so that the boards can both monitor management effectively and give quality advice. An alternative may be the presence of experienced directors who have built firm-specific knowledge and may not be totally reliant on management for information. Their reduced dependence on management as a source of information would allow these directors to fulfill their roles as both monitors and advisors.

In this section two aspects of this advisory role are examined. First is the decision to pursue acquisitions. Roll (1986) posits that takeovers are a sign of management hubris. We

test the hypothesis that directors with long tenures may build relationships with the CEO and facilitate this hubris to retain their positions and ensure re-election (Bebchuk and Fried, 2003). Second, we examine the hypothesis that experienced directors can provide advisory benefits to the firm by testing whether the presence of experienced directors on the board is associated with higher quality acquisitions.

### **3.4.1 Decision to pursue acquisition**

The SDC database is used to obtain data on deals and the criteria in Masulis, Wang, and Xie (2007) is followed to identify acquisitions. Transactions, where the acquisition is completed and the acquirer controls less than 50% of the target's shares prior to the announcement and owns 100% of the target's shares after the transaction are included. Deals must be larger than \$1 million and at least 1% of the acquirer's market value of equity, as measured on the eleventh trading day prior to the announcement date. In addition to these conditions, deals where the acquirer is making multiple deals on the same day are excluded (Faleye, Hoitash, and Hoitash, 2011). After including only those observations which have information on director attributes in RiskMetrics, stock data from CRSP and accounting data from Compustat, the sample contains 3,599 acquisitions.

In addition to the control variables from the previous sections, firm-level accounting variables like free cash flow and leverage, which have been used in the merger and acquisitions literature, are included. The dependent variable is an indicator variable which is set to one when a firm decides to pursue one or more acquisitions within the fiscal year. In Table 9, Column 1 uses firm and year fixed effects. The coefficient for PROP-G15 is negatively significant at the 10% level with a coefficient of -0.05. Using an average board size of nine, an increase in one experienced directors will lead to a 0.56% decrease in the probability of a merger. In Column 4, industry and year fixed effects are used and the coefficient for PROP-G15 remains negative and significant at the 10% level. The importance of tenure can again be seen in Column 5, where director and year fixed effects are used. The coefficient



for the PROP-G15 variable is significant at the 10% level showing again that the likelihood of acquisitions are lower even when examining within-director variation. Overall the results show that director term limits would rid the board of a counterbalance to the CEO in the board room.

### 3.4.2 Acquirer returns

This section examines whether experienced directors help firms make more profitable acquisitions, using a commonly employed event-study methodology that utilizes cumulative abnormal returns (CAR). Acquisitions are chosen under the same methodology as in the previous section. Firm-level accounting data and board structure data from the year before the acquisition is used. CAR for bidding firms is calculated as in Masulis, Wang, and Xie (2007). First, the market model is estimated using daily stock returns data from CRSP for the 200-day period from event day -210 to event day -11. Next, the cumulative abnormal returns are calculated over five days, two days before and two days after the announcement day. In this sample, the median CAR is 0.257% and the mean CAR is 0.208%.

In addition to the control variables from the previous sections, variables deemed important in previous studies on mergers and acquisitions are also included such as deal size (Moeller, Schlingemann, and Stulz, 2004), percentage of payments made in cash (Travlos, 1987), different industry (Morck, Shleifer, and Vishny, 1990), private company (Chang, 1998), and takeover defenses (Masulis, Wang, and Xie, 2007). RiskMetrics data on two other corporate governance mechanisms related to management entrenchment and the market for corporate control are also used. The first variable (staggered board) denotes whether a firm elects only a fraction of its directors to the board during annual elections. The second variable (GIM as in Gompers, Ishii, and Metrick (2003)) counts the incidence of 24 governance rules as a proxy for shareholder rights. The GIM index is only updated every other year so we assume the value does not change unless it is updated in the database.

Table 10 shows the results for OLS regressions where the dependent variable is the five-

day CAR, multiplied by 100. Since this is an event study with small or no within-firm variation, we only use industry and year fixed effects for all regressions. The coefficient for PROP-G15 in Column 1 is significant at the 1% level with a magnitude of 1.84. In Column 2, GIM index is used as a control variable and in Column 3, the Staggered Board variable is used as a control variable. The coefficient for PROP-G15 continues to remain significant at the 1% level in these regressions with a magnitude similar to that of Column 1. Further, in Columns 4-6 we again repeat the regressions but do not treat directors hired by the current CEO as experienced. The results in these three columns remain significant, but the level of significance appears to be slightly lower than that in Columns 1-3. Overall the evidence presented here suggests that experienced directors can provide significant advisory benefits to firms as their presence on the board can lead to significantly better quality acquisitions as measured by announcement day returns.

## **4 Robustness tests and additional results**

So far our results suggest that experienced directors facilitate effective board monitoring and advising. The use of firm fixed effects and director fixed effects helps to eliminate some unobservable factors. Nevertheless, some self-selection issues remain. Specifically, the presence of an experienced director is the joint outcome of both the director deciding to stay in the firm and the firm deciding to retain the director. Both the director's and the firm's decisions are made endogenously. We discuss and address these issues in this section.

### **4.1 Directors selecting firms**

We first consider the possibility that directors are only willing to stay in better firms. Being associated with better performing firms helps directors to build better reputation and is less time-consuming. The results in the firm-level determinants section (Panel A of Table 5) confirm that firms with and without experienced directors tend to differ in a number

of dimensions. To minimize the impact of these differences, in this sub-section we use the regressions in Panel A of Table 5 as a propensity score model and match firms that have at least one experienced director to their comparable firms which do not have experienced directors.

The propensity score model estimates a likelihood of having an experienced director based on certain observable characteristics for each firm. This estimated likelihood can then be used to match firms that are as similar as possible apart from the presence of an experienced director. Our model includes all explanatory variables in Table 5 Panel A. We estimate a Probit model where the dependent variable is an indicator variable which equals one if the firm has at least one experienced independent director and zero otherwise. After obtaining the propensity score for each firm, we match our treatment firms to control firms that (1) are from the same Fame-French 48-industry group, and (2) have propensity scores no greater than or less than the treatment firm's score by 5%. Some of our firm level outcomes (e.g., CEO compensation and financial restatements) concern only a specific board committee rather than the entire board. In this case, the treatment firms refer to those that have at least one experienced director in the committee of interest, while the control firms are firms that have no experienced independent directors at the board.

Table 11 reports the results. Our firm level analysis contains five different dimensions including CEO compensation, CEO turnover, financial irregularities, acquisition decisions, and acquisition CARs. Correspondingly, each of the five columns in Table 11 represents one dimension. The key explanatory variable, PROP-G15, refers to the ratio of experienced independent directors to all independent directors for the CEO turnover, acquisition decisions and acquisition CARs tests. Because CEO compensation (financial irregularities) concerns only the compensation (audit) committee, PROP-G15 in this test refers to the ratio of experienced independent directors on the compensation (audit) committee only. To save space, some control variables that are specific to certain dimensions only (e.g., stock return in CEO turnover, and M&A characteristics in acquisition CARs) are included in the regressions

but not reported in the table.

The matching on average reduces the sample size by 25%. Nevertheless, the variable PROP-G15 is still significantly negative (positive) in the financial irregularities (acquisition CARs) test. For the CEO turnover test, the interaction term of PROP-G15 and stock return remains significantly negative. Therefore even though the results in this table are relatively less strong, they still indicate that our findings cannot be solely explained by experienced directors choosing better firms to stay longer.

## 4.2 Firms selecting directors

The second concern we consider is the possibility that firms only retain better directors on their boards over time. If this was the case, then a higher proportion of experienced directors might be equivalent to a higher proportion of high quality directors, which makes it unsurprising that these directors facilitate more effective monitoring and advising. To deal with this issue, we make further use of the director fixed effects. Specifically, we first focus on experienced directors who have multiple directorships in the same year and compare their performance (both at director level and at firm level) across these directorships. If our results are capturing the effect of director quality, rather than the effect of director tenure, then cross-sectionally, a director should exhibit no differences between boards on which he/she has been a director for over ten years and boards on which he/she has been a director for three years.

To test whether this is true, we restrict our sample to directors who (1) have more than one directorship in a given year; and (2) have a tenure of more than 12 years in at least one directorship and a tenure of less than five years in at least one directorship.<sup>9</sup> The results are in Panel A of Table 12. In Columns 1 and 2, we examine these directors' committee memberships and meeting attendance. In doing so we re-run the regressions in Table 3 and Table 4, but include director $\times$ year fixed effects. Because of this we drop variables that

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<sup>9</sup>The decision to reduce the threshold from 15 years to 12 years in this case is to obtain sufficient observations.

have no variation within the same director in a given year (e.g., age and gender). Our key independent variable is director tenure. The coefficient for director tenure is positive and significant at 10% level in the Committee Membership test and is insignificant in the Poor Attendance test, suggesting that these directors are more likely to be committee members at firms where they are relatively more experienced.

We next examine whether the monitoring and advising are more effective in firms where these experienced directors have stayed for longer compared to firms that they have joined recently. The sample size drops significantly because we only include firm-year observations where at least one independent director has more than one directorship and is experienced in some directorships and inexperienced in some others. Due to these restrictions we exclude Acquisition CARs from our analysis. We also replace the logit regression in Financial Irregularity with OLS regression. In addition, for the CEO Compensation and Financial Irregularity tests, we have very few observations if we require the director to be on the compensation/audit committee in all the directorships that he/she has. Therefore in this section we do not implement such a restriction. As the results show, even within the much smaller samples, firms in which these directors are experienced make CEO turnover more sensitive to performance, and are less likely to restate earnings due to irregularities, than firms in which these directors are relatively less experienced.

To further investigate whether the positive impact experienced directors bring to the firm is really driven by the experience they accumulate over time, in Panel B of Table 12 we repeat the above tests but replace director $\times$ year fixed effects with director $\times$ firm fixed effects. To this end we restrict our sample to firms that have experienced directors and we require that the data for these firms are available for at least one year both when the tenure of the experienced director is below five years and when the tenure of the experienced director is over 12 years. Similar to the tests in Panel A, we first examine directors' committee memberships and meeting attendance. We drop control variables that have no variation within each director-firm combination (e.g., gender), and variables that have extremely high

correlation with tenure (e.g., director age, firm age). For the Meeting Attendance test, we also have to drop Director Meeting Fee and Number of Meetings. These two variables from Execucomp are only available till 2006 and by construction we have very few observations in this section if our sample period ends in 2006. As Columns 1 and 2 in Panel B show, as a director's tenure increases he/she is significantly more likely to be a committee member and significantly less likely to miss board meetings.

At firm level, our methods are similar to those in Panel A with two exceptions. The first is that regressions in Panel B include director $\times$ firm fixed effects rather than director $\times$ year fixed effects. The second is that we exclude Firm Age from control variables. Overall, results in Panel B suggest that as a director's tenure at a firm increases, the firm's CEO turnover-performance sensitivity increases, the probability to restate earnings due to irregularities decreases, and the propensity to attempt M&A transactions decreases. These results indicate that directors do exhibit a significant improvement in the effectiveness of their monitoring and advising roles as their tenures increase over time.

### **4.3 General experience vs. firm-specific experience**

The third issue we consider is whether the experience that makes directors more effective at monitoring and advising can be any directorship experience. Our argument is that experienced directors become better due to their long service at the firm. But if directors are able to apply the experience they accumulate across boards, then they do not have to accumulate experience by always staying at the same firm, and firms can easily replace long-tenured directors with directors who have served on many boards in the past. In this subsection we examine how our results change when we replace our variables related to director tenure with some variables that directly measure directors' general experience.

To measure general experience, we use the number of S&P 1500 directorship-year observations the director has had over the past five years. Because directors with tenure longer than 15 years account for 14% of our independent directors sample, we choose the threshold

of nine directorship-years as it also gives us approximately 14% experienced directors in the sample. That is, a director who has had five directorships each year for two years and a director who has had two directorships each year for five years are both considered as experienced directors in this section. Thereafter we calculate the proportion of these directors on boards and on audit/compensation committees and use these values as our key independent variables. As the results in Table 13 suggest, having a large proportion of these directors does not facilitate more effective monitoring or advising. The only positive impact of these directors is that they tend to make less acquisition attempts. But at the same time a larger proportion of these directors on the compensation committee appears to increase CEO compensation. Overall the results in this section are largely different from those in previous sections, suggesting that general directorship experience is not a substitute for firm-specific experience.

## 5 Conclusion

Advocates for improving corporate governance and regulators recommend term limits for independent directors. The premise is that new directors will infuse innovative ideas and energy into the boardroom and also be less likely to align with the CEO when the time comes to set compensation and consider leadership changes. A contrasting hypothesis in support of experienced directors stems from the fact that these directors have significant equity stakes in firms, have experience dealing with multiple CEOs and have had an opportunity to learn about the business and the industry. In this paper, we study whether calls for term limits are justified by examining how the presence of experienced directors on boards affects firm policies.

We use data from S&P 1500 companies over 16 years to examine monitoring and advising outcomes using the proportion of directors with a tenure greater than 15 years (an experienced director) as the key explanatory variable. We show that CEOs in firms with a larger

number of experienced directors are likely to have lower compensation and are more likely to leave when the firm performs poorly. These firms are also less likely to make earnings restatements. Firms with a higher proportion of experienced directors are also less likely to make acquisitions and those that are made are more likely to be profitable. The results on both monitoring and advising outcomes suggest that experienced directors provide a balance of power in the boardroom.

This paper also provides evidence on the trade-off between the advising and monitoring roles of board members. Previous research shows that excessive monitoring of the CEO leads to the possibility that managers withhold information from the board, compromising advising quality. However, experienced directors may have developed firm-level expertise over their tenure and not be totally dependent on management for insight into firm operations. The results show that the presence of these directors on boards leads to both better strategic advice and better monitoring decision-making. Overall, the results show that experienced directors make a valuable contribution to corporate governance within firms.



## Appendix A

The Financial Accounting Standards Board (FASB) issued FAS 123 in Oct 1995 which encouraged firms to report their equity based compensation using a fair-value based method of accounting. The intention was to provide a more realistic valuation of the payment to executives compared to previous methods (APB 25) whereby stock option grants were often recognized without any compensation cost. FASB introduced FAS 123R at the end of 2004 which made the optional implementation of fair-value based accounting mandatory for all public firms. Subsequently, Execucomp changed its methodology for equity based compensation from the fiscal year 2006 onwards to incorporate FAS 123.<sup>10</sup>

Prior to the fiscal year 2006, Execucomp calculated stock option grants using its own standardized Black-Scholes methodology. After the fiscal year 2006, Execucomp reported the value of the option grants as calculated by individual firms. Since firms may use their own internal models to value stock option grants, annual option compensation cannot be compared across firms after 2006. There will also be a difference in option valuation within firms before and after the fiscal year 2006. We follow Kini and Williams (2012) and Coles, Daniel, and Naveen (2014) and use the pre-2006 Execucomp methodology to calculate option awards for all years and all firms to ensure that compensation is comparable.

The pre-2006 Execucomp methodology used the following inputs:

- A grant date of July 1 is used for all options in a given fiscal year. To account for the fact that executives often exercise their options early, the time to maturity of the option was set to 70% of the actual time to maturity. This number was then rounded to the nearest whole number.
- The seven year risk free rate of a U.S. Treasury bond.
- The 60 month stock volatility is used. If there are fewer than 12 months available, then the volatility of the S&P 1500 is used, otherwise if there are fewer than 60 months

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<sup>10</sup>Please refer to <http://www.fasb.org/summary/stsum123r.shtml> for details on FAS 123R and <http://www.fasb.org/summary/stsum123.shtml> for details on FAS 123.

available, then those number of months are used. The data is winsorized at the 5 percentile and the 95 percentile.

- The average dividend yield over the previous three years is used. The data is winsorized at the 5 percentile and the 95 percentile.
- The company specified strike price and market price of the option were used.

In order to ensure that the correctly replicated Execucomp methodology we calculate the option valuation of all firms in all years before 2006 and get a correlation of 0.9973. We then calculate total compensation using the formula below:

$$\text{Total Compensation} = \text{SALARY} + \text{BONUS} + \text{OTHANN} + \text{ALLOTHTOT} + \text{RSTK-GRNT} + \text{option\_awards\_calculated\_value} + \text{LTIP}$$

The only change in our calculation from the Execucomp calculated total compensation TDC1 is the calculation of the option awards. We find the correlation between total compensation measures is 0.996.

After the year 2006, we again calculate option values and leave all the other inputs the same. Prior to the year 2006, all inputs were available in the Execucomp table *Stock Option Grants - 1992 Format*. After 2006, the number of options granted and exercise price are used from the Execucomp table *Plan Based Awards*, while the exercise price is inferred from the Execucomp table *Outstanding Equity Awards* using exercise price and number of options in the grant.

$$\text{Total Compensation} = \text{SALARY} + \text{BONUS} + \text{NONEQ\_INCENT} + \text{OTHCOMP} + \text{STOCK\_AWARDS\_FV} + \text{option\_awards\_calculated\_value} + \text{DEFER\_RPT\_AS\_COMP\_TOT}$$

The correlation between our calculation of total compensation and TDC1 from Execucomp is unsurprisingly a bit lower at 96.6%.

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**Table 1: Director Attributes by Tenure**

The sample consists of 139,963 independent director-level observations. Observations are included if they have director data from RiskMetrics, accounting data from Compustat, stock return data from CRSP, and CEO attributes from Execucomp. Poor Attendance is an indicator variable which is set to one when the directors does not attend at least 75% of board meetings. Former Employee is an indicator variable which is set to one when the director is a former employee. Hired by CEO is an indicator variable which is set to one if director tenure is less than or equal to CEO tenure. Number Boards is the number of boards of other firms the director sits on. The committee membership and leadership flags are all indicator variables with 1 indicating membership or leadership of the committee. % Ownership is the total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. The significance test in Column (G) is based on the non-parametric Mann-Whitney-Wilcoxon test for the differences between column (D) and column (F). \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels respectively.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	All	T <= 5	5 < T <= 15	T <= 15	T > 15	T > 15	(F) - (D)
<b>Attributes</b>							
Count	139,963	54,260	65,889	120,149	19,814	18,398	
Age	61.801	58.328	62.842	60.804	67.839	67.834	7.030***
Tenure	7.723	2.160	8.491	5.632	20.402	20.380	14.748***
Female	14.012%	16.152%	13.829%	14.878%	8.762%	8.816%	-6.062%***
CEO	11.769%	15.557%	10.493%	12.813%	5.348%	5.391%	-7.422%***
Poor Attendance	1.441%	1.675%	1.345%	1.494%	1.120%	1.124%	-0.370%***
Former Employee	0.259%	0.116%	0.235%	0.181%	0.732%	0.000%	-0.181%***
Number Boards	0.956	0.960	1.007	0.986	0.774	0.778	-0.208***
Hired by CEO	38.487%	62.551%	27.176%	43.151%	10.205%	10.229%	-32.922%***
<b>Three Most Frequent Primary Titles</b>							
	Retired	Retired	Retired	Retired	Retired	Retired	
	Fin'l Svce	Executive	Fin'l Svce	Executive	Fin'l Svce	Fin'l Svce	
	Executive	CEO	Other	Fin'l Svce	Other	Other	
<b>Committee Membership</b>							
Compensation Committee	41.331%	36.133%	44.027%	40.462%	46.598%	46.647%	6.185%***
Audit Committee	42.387%	42.908%	42.663%	42.774%	40.042%	39.911%	-2.863%***
Nomination Committee	36.741%	30.982%	39.753%	35.792%	42.495%	42.422%	6.630%***
Comp+Audit +Nomination	1.201	1.100	1.264	1.190	1.264	1.263	0.073***
<b>Committee Leadership</b>							
Compensation Committee	10.039%	5.352%	12.694%	9.378%	14.046%	14.083%	4.705%***
Audit committee	10.202%	7.311%	12.079%	9.926%	11.875%	11.861%	1.935%***
<b>Equity Ownership</b>							
%Ownership -mean	0.205%	0.199%	0.197%	0.198%	0.249%	0.250%	0.052%***
%Ownership -median	0.074%	0.063%	0.079%	0.072%	0.088%	0.088%	0.016%***
Dollar Sensitivity -mean	68,660	34,286	53,821	44,999	210,525	209,903	164,904***
Dollar Sensitivity -median	5,109	1,977	7,799	4,382	13,318	13,233	8,851***

Table 2: Firm-Level Summary

The sample consists of 19,020 firm-level observations for the period 1998-2013. Independent Directors is the number of independent directors divided by the total number of directors. A busy director serves on three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. A director is hired after CEO if he/she is appointed during the term of the current CEO. All accounting data is based on year end values unless explicitly noted. Assets are also stated in inflation adjusted dollars. The inflation adjustment is made using the CPI index and the year 2003 as the base year. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. Pays Dividend is an indicator variable set to one for firms which pay a dividend. Leverage is sum of short term debt and long term debt divided by assets. Free cash flow is (net cash flow from operation activities + dividend paid)/Assets. Stock return is one year firm stock return minus the CRSP value weighted index. Return on assets is EBITDA divided by previous year end assets. Earned Equity is retained equity divided by book equity. Asset growth is percentage growth in assets. CEO total compensation is the sum of salary, bonus, equity and long-term incentive pay. The GIM index is a variable averaging the incidence of 24 governance rules to proxy for shareholder rights. Staggered board is an indicator variable set to one if election for all board members is not in the same year. CAR is the cumulative abnormal return which is calculated over a five or three day period using the residuals of the market model. The parameters of the market model are estimated using data from event day -210 to event day -11.

<b>Panel A: Firm Summary Statistics</b>				
	<b>Mean</b>	<b>Median</b>	<b>Std Dev</b>	
<b>Board</b>				
Number of Directors	9.570	9.000	2.890	
Independent Directors	0.739	0.778	0.157	
Busy Board	0.286	0.000	0.452	
Hired after CEO	0.384	0.333	0.362	
Hired after CEO on Comp Committee	0.331	0.250	0.370	
Firms with at least 1 Independent Director with tenure $\geq$ 15 yrs	0.592	1.000	0.491	
Firms with at least 1 Independent Director with tenure $\geq$ 12 yrs	0.740	1.000	0.439	
Firms with at least 1 Independent Director with tenure $\geq$ 9 yrs	0.860	1.000	0.347	
<b>Firm Characteristics</b>				
Assets Inflation Adjusted (millions)	15,873	2,024	84,215	
Log (Assets Inflation Adjusted)	7.778	7.613	1.700	
Shareholders Equity (millions)	3,292	774	10,568	
Market Equity (millions)	8,784	1,786	27,274	
Tobin's q	1.881	1.438	1.425	
Leverage	0.224	0.208	0.185	
R&D Expenses	0.025	0.000	0.054	
Pays Dividend	0.614	1.000	0.487	
Free Cash Flow	0.099	0.090	0.075	
Market to Book	1.315	0.894	1.507	
Cash Holdings/Assets	0.188	0.075	0.968	
Earned Equity	0.928	0.613	15.977	
Asset growth	0.146	0.067	0.646	
Firm Age	25.418	22.000	15.030	
<b>Firm Performance</b>				
ROA	0.132	0.127	0.103	
ROA-5 yr Avg	0.137	0.132	0.089	
ROA-5 yr Std Deviation	0.036	0.025	0.041	
Stock Return	0.119	0.079	0.476	
<b>CEO</b>				
CEO Tenure	7.824	5.000	7.822	
CEO Age	56.229	56.000	7.235	
CEO Total Compensation (thousands)	4,794	2,534	10,151	
CEO Total Compensation Inflation Adjusted (thousands)	4,616	2,368	10,668	
Log (CEO Total Compensation Inflation Adjusted)	7.802	7.771	1.196	
CEO Ownership	0.032	0.031	0.030	
CEO Dollar Sensitivity (hundred thousands)	1,362	240	12,272	
<b>M&amp;A</b>				
GIM	9.298	9.000	2.726	
Staggered Board	0.553	1.000	0.497	
<b>Panel B: Firm Summary by Tenure</b>				
	<b>PROP-G15</b>	<b>PROP-G12</b>	<b>PROP-G9</b>	<b>PROP-L5</b>
All Independent Directors	0.142	0.225	0.352	0.388
Compensation Committee	0.171	0.262	0.395	0.336
Audit Committee	0.141	0.221	0.342	0.388
Nominating Committee	0.175	0.273	0.410	0.322



Table 3: Committee Membership

This table includes OLS regressions showing the relation between participation in a committee and CEO, director and firm characteristics. The dependent variable is an indicator which takes the value of one if the director is a member of the audit committee, compensation committee, or nomination committee. Observations are included if the firm has a compensation committee, an audit committee, or a nomination committee. The key independent variables T1-5, T6-10, T11-15, T16-20 and T>20 are indicator variables that are equal to one if the director's tenure falls into the indicated range. Age\_L65 is an indicator variable which takes the value of one when director age is less than 65. Executive is an indicator variable which takes the value of one if the director is an executive at another firm. Largest is an indicator variable which takes the value of one if the directorship is the largest in terms of total assets among this director's entire directorship portfolio, or if this is the only directorship for the director. Retired is an indicator variable which takes the value of one if the primary title of the director has ever contained "Retired" in the past or in the current year. Financial Service is an indicator variable which takes the value of one if the primary title of the director has ever contained "Financial Service" in the past or in the current year. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	Committee Member						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
T1-5	-0.048*** (0.000)					-0.055*** (0.000)	
T6-10		0.041 (0.693)					
T11-15			0.012*** (0.000)			0.016 (0.199)	
T16-20				0.034*** (0.000)		0.023*** (0.000)	
T>20					-0.030*** (0.000)	-0.051*** (0.000)	
Tenure							0.002*** (0.000)
Age_L65	-0.034*** (0.000)	-0.047*** (0.000)	-0.047*** (0.000)	-0.046*** (0.000)	-0.051*** (0.000)	-0.038*** (0.000)	-0.035*** (0.000)
Female Director	0.036*** (0.000)	0.034*** (0.000)	0.035*** (0.000)	0.035*** (0.000)	0.034*** (0.000)	0.035*** (0.000)	0.036*** (0.000)
Busy Director	0.023*** (0.000)	0.023*** (0.000)	0.024*** (0.000)	0.024*** (0.000)	0.023*** (0.000)	0.023*** (0.000)	0.024*** (0.000)
Executive	0.004 (0.408)	-0.000 (0.985)	-0.001 (0.788)	-0.001 (0.835)	-0.002 (0.613)	0.003 (0.506)	0.002 (0.644)
Largest	0.018*** (0.000)	0.016*** (0.000)	0.017*** (0.000)	0.017*** (0.000)	0.016*** (0.000)	0.017*** (0.000)	0.019*** (0.000)
Retired	-0.002 (0.463)	-0.003 (0.374)	-0.002 (0.456)	-0.002 (0.520)	-0.002 (0.451)	-0.002 (0.467)	-0.002 (0.493)
Financial Service	0.014*** (0.001)	0.018*** (0.000)	0.018*** (0.000)	0.017*** (0.000)	0.019*** (0.000)	0.015*** (0.000)	0.015*** (0.000)
Board Size	-0.175*** (0.000)	-0.178*** (0.000)	-0.181*** (0.000)	-0.182*** (0.000)	-0.182*** (0.000)	-0.174*** (0.000)	-0.179*** (0.000)
%Independent	-0.272*** (0.000)	-0.277*** (0.000)	-0.279*** (0.000)	-0.280*** (0.000)	-0.279*** (0.000)	-0.270*** (0.000)	-0.279*** (0.000)
CEO-Chairman	-0.037*** (0.000)	-0.034*** (0.000)	-0.035*** (0.000)	-0.034*** (0.000)	-0.034*** (0.000)	-0.035*** (0.000)	-0.037*** (0.000)
CEO Age	0.064* (0.075)	0.063* (0.082)	0.063* (0.085)	0.064* (0.076)	0.062* (0.089)	0.063* (0.080)	0.065* (0.070)
CEO Tenure	-0.015 (0.670)	-0.014 (0.692)	-0.014 (0.703)	-0.015 (0.671)	-0.013 (0.719)	-0.014 (0.692)	-0.016 (0.643)
CEO Ownership	-0.133*** (0.000)	-0.134*** (0.000)	-0.130*** (0.000)	-0.132*** (0.000)	-0.132*** (0.000)	-0.135*** (0.000)	-0.129*** (0.000)
Firm Size	0.013*** (0.000)	0.014*** (0.000)	0.014*** (0.000)	0.013*** (0.000)	0.014*** (0.000)	0.013*** (0.000)	0.013*** (0.000)
Firm Age	0.005*** (0.000)	0.005*** (0.000)	0.005*** (0.000)	0.005*** (0.000)	0.005*** (0.000)	0.005*** (0.000)	0.006*** (0.000)
Tobin's q	0.000 (0.865)	0.000 (0.841)	0.000 (0.951)	0.000 (0.970)	0.000 (0.960)	0.000 (0.871)	0.000 (0.925)
R&D	0.071 (0.191)	0.074 (0.171)	0.068 (0.212)	0.065 (0.229)	0.069 (0.203)	0.074 (0.175)	0.064 (0.238)
Observations	126,207	126,207	126,207	126,207	126,207	126,207	126,207
Adjusted R <sup>2</sup>	0.112	0.111	0.109	0.109	0.109	0.113	0.111
Fixed Effects	Firm, Year						

Table 4: Attendance Problems

This table shows the relationship between attendance problems and director, firm and CEO characteristics. The dependent variable is an indicator which takes the value of one if the director has not attended 75% of board meetings. The key independent variables T1-5, T6-10, T11-15, T16-20 and T>20 are indicator variables that are equal to one if a director's tenure falls into the indicated range. Age.L65 is an indicator variable which takes the value of one when director age is less than 65. Executive is an indicator variable which takes the value of one if the director is an executive at another firm. Largest is an indicator variable which takes the value of one if the directorship is the largest in terms of total assets among this director's entire directorship portfolio, or if this is the only directorship for the director. Retired is an indicator variable which takes the value of one if the primary title of the director has ever contained "Retired" in the past or in the current year. Financial Service is an indicator variable which takes the value of one if the primary title of the director has ever contained "Financial Service" in the past or in the current year. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. All coefficients in this table are multiplied by 10 to make the economic effects readable. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	Poor Attendance						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
T1-5	0.061*** (0.000)					0.057*** (0.000)	
T6-10		-0.028** (0.026)					
T11-15			-0.021 (0.236)			-0.003 (0.885)	
T16-20				-0.054*** (0.009)		-0.036* (0.091)	
T>20					-0.015 (0.589)	-0.003 (0.923)	
Tenure							-0.002* (0.073)
Age.L65	0.008 (0.580)	0.024* (0.090)	0.023 (0.115)	0.021 (0.144)	0.023 (0.107)	0.007 (0.655)	0.015 (0.317)
Female Director	-0.024 (0.187)	-0.021 (0.243)	-0.022 (0.222)	-0.023 (0.211)	-0.022 (0.224)	-0.025 (0.177)	-0.024 (0.194)
Busy Director	0.075*** (0.003)	0.075*** (0.003)	0.075*** (0.003)	0.075*** (0.003)	0.075*** (0.003)	0.075*** (0.003)	0.075*** (0.003)
Executive	0.060** (0.020)	0.066** (0.010)	0.067*** (0.010)	0.067** (0.010)	0.067*** (0.009)	0.060** (0.021)	0.065** (0.013)
Largest	-0.018 (0.313)	-0.020 (0.259)	-0.019 (0.280)	-0.019 (0.298)	-0.019 (0.290)	-0.018 (0.329)	-0.017 (0.330)
Retired	0.004 (0.954)	0.006 (0.929)	0.005 (0.938)	0.005 (0.942)	0.006 (0.935)	0.004 (0.958)	0.004 (0.949)
Financial Service	-0.047 (0.440)	-0.053 (0.386)	-0.053 (0.392)	-0.052 (0.400)	-0.053 (0.390)	-0.047 (0.447)	-0.050 (0.414)
Board Size	0.149*** (0.004)	0.155*** (0.003)	0.158*** (0.002)	0.158*** (0.002)	0.159*** (0.002)	0.149*** (0.004)	0.156*** (0.002)
%Independent	0.301** (0.010)	0.304*** (0.009)	0.307*** (0.008)	0.309*** (0.008)	0.310*** (0.008)	0.302*** (0.010)	0.310*** (0.008)
CEO-Chairman	0.074*** (0.007)	0.070** (0.011)	0.070** (0.011)	0.070** (0.011)	0.070** (0.011)	0.074*** (0.007)	0.072*** (0.009)
CEO Age	-0.930 (0.599)	-0.896 (0.613)	-0.871 (0.622)	-0.883 (0.618)	-0.866 (0.624)	-0.935 (0.597)	-0.876 (0.621)
CEO Tenure	3.042 (0.101)	2.903 (0.117)	2.849 (0.124)	2.850 (0.124)	2.826 (0.127)	3.039 (0.101)	2.860 (0.123)
CEO Ownership	-0.089 (0.600)	-0.080 (0.635)	-0.084 (0.619)	-0.076 (0.654)	-0.082 (0.629)	-0.086 (0.614)	-0.084 (0.621)
Firm Size	-0.048* (0.052)	-0.048* (0.052)	-0.048* (0.055)	-0.048* (0.056)	-0.048* (0.055)	-0.048* (0.053)	-0.047* (0.057)
Firm Age	-0.033*** (0.000)	-0.034*** (0.000)	-0.035*** (0.000)	-0.035*** (0.000)	-0.035*** (0.000)	-0.033*** (0.000)	-0.034*** (0.000)
Tobin's q	-0.003 (0.364)	-0.003 (0.368)	-0.003 (0.387)	-0.003 (0.389)	-0.003 (0.385)	-0.003 (0.369)	-0.003 (0.387)
R&D	-0.262 (0.325)	-0.260 (0.327)	-0.259 (0.330)	-0.256 (0.336)	-0.257 (0.333)	-0.260 (0.328)	-0.255 (0.337)
Director Meeting Fee	-0.026** (0.015)	-0.027** (0.014)	-0.027** (0.014)	-0.027** (0.013)	-0.027** (0.014)	-0.027** (0.015)	-0.027** (0.014)
Number of meetings	2.642 (0.262)	2.682 (0.255)	2.671 (0.257)	2.678 (0.255)	2.667 (0.257)	2.645 (0.261)	2.656 (0.259)
Observations	65,938	65,938	65,938	65,938	65,938	65,938	65,938
Adjusted R <sup>2</sup>	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Fixed Effects							

Table 5: Determinants Analysis

This table shows the relation between becoming/having an experienced directors and director, firm, and board characteristics. The analysis in Panel A is at firm level. PROP-G15 is the number of independent directors with more than 15 years of tenure on the board divided by the total number of independent directors. PROP-CC-G15 is the proportion of directors on the compensation committee with a tenure greater 15 years divided by the total number of committee members. PROP-AC-G15 is the proportion of directors on the audit committee with a tenure greater than 15 years divided by the total number of committee members. The first three columns use the Tobit procedure while the next three use OLS. Panel B shows the director level Cox Proportional Hazards analysis modelling the time as a director until departure as a function of various characteristics. Age\_L65 is an indicator variable which takes the value of one when director age is less than 65. Executive is an indicator variable which takes the value of one if the director is an executive at another firm. Largest is an indicator variable which takes the value of one if the directorship is the largest in terms of total assets among this director's entire directorship portfolio, or if this is the only directorship for the director. Retired is an indicator variable which takes the value of one of the primary title of the director has ever contained "Retired" in the past or in the current year. Financial Service is an indicator variable which takes the value of one if the primary title of the director has ever contained "Financial Service" in the past or in the current year. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. ROA is EBITDA divided by previous year end assets. Standard deviation of ROA is calculated over five years. Industry Volatility and Industry Return are computed over the past three years. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

Panel A: Firm Level Proportion of Experienced Directors						
	PROP-G15	PROP-CC-G15	PROP-AC-G15	PROP-G15	PROP-CC-G15	PROP-AC-G15
	(1)	(2)	(3)	(4)	(5)	(6)
Board Size	0.069*** (0.000)	0.088*** (0.000)	0.033 (0.107)	-0.021** (0.026)	0.014 (0.248)	0.011 (0.382)
%Independent	-0.129*** (0.000)	-0.174*** (0.000)	-0.171*** (0.000)	-0.053*** (0.000)	0.006 (0.750)	0.022 (0.183)
CEO-Chairman	-0.002 (0.748)	0.014 (0.119)	0.003 (0.760)	0.002 (0.604)	-0.000 (0.960)	0.005 (0.261)
CEO Age	0.072*** (0.006)	0.038 (0.463)	0.155*** (0.006)	0.047*** (0.009)	0.004 (0.895)	0.072*** (0.000)
CEO Tenure	0.070*** (0.000)	0.116*** (0.007)	0.129*** (0.000)	-0.034 (0.174)	-0.047 (0.162)	-0.016 (0.544)
CEO Ownership	0.019 (0.714)	-0.047 (0.413)	0.081 (0.152)	0.030 (0.362)	-0.042 (0.320)	0.094** (0.014)
Firm Size	-0.022*** (0.000)	-0.034*** (0.000)	-0.029*** (0.000)	0.012*** (0.003)	0.007 (0.214)	0.015*** (0.003)
Firm Age	0.004*** (0.000)	0.006*** (0.000)	0.005*** (0.000)	0.003*** (0.000)	0.002** (0.011)	0.001 (0.347)
Tobin's q	0.006** (0.024)	0.006 (0.152)	-0.006 (0.141)	-0.000 (0.913)	0.001 (0.655)	-0.003 (0.104)
R&D	0.072 (0.318)	0.133 (0.302)	0.182 (0.115)	0.030 (0.628)	0.067 (0.380)	0.022 (0.761)
Std Deviation (ROA)	-0.348*** (0.000)	-0.606*** (0.000)	-0.336*** (0.008)	0.107** (0.025)	0.065 (0.303)	0.085 (0.163)
Five Year Avg ROA	0.063* (0.079)	0.015 (0.815)	0.148** (0.014)	-0.062** (0.035)	-0.051 (0.196)	-0.034 (0.382)
Observations	16,495	16,291	16,423	16,557	16,353	16,484
Pseudo R <sup>2</sup>	0.093	0.043	0.037			
Adjusted R <sup>2</sup>				0.578	0.488	0.475
Fixed Effects	Industry, Year	Industry, Year	Industry, Year	Firm, Year	Firm, Year	Firm, Year

**Panel B: Director Level Cox Proportional Hazards Analysis**

	<b>Event: Director Turnover</b>			
	(1)	(2)	(3)	(4)
Age.L65	0.921*** (0.008)	0.945* (0.066)	0.948* (0.086)	0.952 (0.110)
Female Director	1.227*** (0.000)	1.171*** (0.001)	1.210*** (0.000)	1.151*** (0.003)
Busy Director	1.105** (0.023)	0.995 (0.913)	0.994 (0.896)	1.011 (0.804)
Executive	1.332*** (0.000)	1.262*** (0.000)	1.255*** (0.000)	1.225*** (0.001)
Largest	0.923* (0.050)	0.916** (0.034)	0.893*** (0.006)	0.876*** (0.001)
Retired	1.381*** (0.000)	1.303*** (0.000)	1.311*** (0.000)	1.183*** (0.006)
Financial Service	0.992 (0.914)	0.960 (0.566)	0.973 (0.704)	0.654*** (0.000)
CEO-Chairman		1.619*** (0.000)	1.686*** (0.000)	1.707*** (0.000)
CEO Age		4.133** (0.049)	2.817 (0.256)	2.878 (0.145)
CEO Tenure		0.984*** (0.000)	0.982*** (0.000)	0.981*** (0.000)
CEO Ownership		0.612 (0.261)	0.576 (0.197)	0.683 (0.365)
Board Size		1.196* (0.069)	1.051 (0.587)	1.048 (0.610)
%Independent		3.260*** (0.000)	3.090*** (0.000)	2.869*** (0.000)
Firm Size		1.153*** (0.000)	1.112*** (0.000)	1.111*** (0.000)
Firm Age		0.986*** (0.000)	0.990*** (0.000)	0.990*** (0.000)
Tobin's q		0.970* (0.085)	0.987 (0.411)	0.982 (0.267)
R&D		4.378*** (0.001)	3.877*** (0.000)	3.975*** (0.000)
Industry Volatility			1.008** (0.038)	0.997 (0.331)
Industry Return			0.985 (0.425)	1.070 (0.160)
Post-Sox				0.676*** (0.000)
$\chi^2$	700.971	1041.352	839.454	663.821
Observations	120,334	120,334	120,596	120,596
Fixed Effects	Industry, Year	Industry, Year	Year	

Table 6: CEO Compensation

This table includes OLS regressions showing the relationship between log of CEO compensation and director and firm characteristics. Column 2 includes observations where the CEO tenure is greater or equal to that of all independent directors. Column 3 does not treat independent directors as experienced if they are hired by the current CEO. The dependent variable for all regressions is the log of CEO total compensation which is the sum of salary, bonus, equity and long-term incentive pay. PROP-G15-CC is the number of directors with tenure greater than 15 years divided by total number of directors on compensation committee. Stock Return is firm stock return for the previous year minus the CRSP value weighted market index. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more other firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. Mean Dir Age is mean age of all independent directors. % CEO-Hire is the number of directors hired after the CEO on the compensation committee divided by the total number of independent directors. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. ROA is EBITDA divided by previous year end assets. Standard deviation of ROA is calculated over five years. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm where industry and firm fixed effects are used and clustered by director when director fixed effects are used. The p-values are in parentheses.

	Log (CEO Compensation)						
	(1)	(2)	(3)	(4)	(5)		
PROP-G15-CC	-0.095** (0.020)	-0.770* (0.072)	-0.174** (0.014)	-0.100** (0.020)	G15 *CC	-0.036* (0.085)	
Board Size	0.055 (0.442)	0.028 (0.892)	0.018 (0.823)	0.169 (0.121)	Board Size	0.088*** (0.008)	
%Independent	0.226** (0.028)	0.009 (0.985)	0.241** (0.024)	0.493*** (0.000)	%Independent	0.153** (0.032)	
Busy Board	0.029 (0.598)	-0.065 (0.724)	0.041 (0.456)	0.048 (0.343)	Busy Director	0.015 (0.328)	
Mean Dir Age	0.003 (0.507)	0.014 (0.357)	-0.002 (0.618)	0.004 (0.312)	Director Age	-0.012** (0.021)	
% CEO-Hire	0.004 (0.586)		0.007 (0.410)	0.004 (0.781)	CEO-Hire	-0.018 (0.172)	
					G15	0.005 (0.777)	
					CC	-0.012 (0.276)	
CEO-Chairman	0.068*** (0.006)	0.043 (0.640)	0.067** (0.013)	0.180*** (0.000)	CEO-Chairman	0.020 (0.194)	
CEO Age	0.064 (0.734)	-0.237 (0.164)	-0.086 (0.603)	-0.478 (0.486)	CEO Age	0.780* (0.084)	
CEO Tenure	-0.536 (0.329)	0.278 (0.151)	0.149 (0.493)	-0.380 (0.181)	CEO Tenure	-0.504*** (0.000)	
CEO Ownership	-0.714* (0.078)	-0.990** (0.029)	-0.781* (0.068)	-1.586** (0.011)	CEO Ownership	-0.450*** (0.004)	
One year Stock Return	0.153*** (0.000)	0.113 (0.119)	0.149*** (0.000)	0.188*** (0.000)	One year Stock Return	0.145*** (0.000)	
Volatility	0.054 (0.136)	-0.063 (0.672)	0.043 (0.262)	0.017 (0.615)	Volatility	0.120*** (0.000)	
Firm Size	0.227*** (0.000)	0.298** (0.013)	0.240*** (0.000)	0.372*** (0.000)	Firm Size	0.316*** (0.000)	
Firm Age	-0.036*** (0.000)	-0.048*** (0.002)	-0.033*** (0.000)	0.002 (0.168)	Firm Age	-0.000 (0.758)	
R&D	0.378 (0.424)	-0.168 (0.889)	0.664 (0.192)	1.653*** (0.000)	R&D	1.474*** (0.000)	
Observations	16,622	2,581	16,622	16,560		94,012	
Adjusted R-squared	0.673	0.536	0.609	0.369		0.593	
Fixed Effects	Firm, year	Firm, year	Firm, year	Industry, year		Director, year	

Table 7: CEO Turnover

This table includes regressions showing the relationship between CEO turnover and firm, CEO and board characteristics. Column 2 includes observations where the CEO tenure is greater or equal to that of all independent directors. Column 3 does not treat independent directors as experienced if they are hired by the current CEO. The dependent variable is an indicator which takes the value of one if the CEO is in his last year, except in case of death and retirement. PROP-G15 is the number of directors with tenure greater than 15 years divided by total number of independent directors. Stock Return is firm stock return for the previous year minus the CRSP value weighted market index for the previous year. % CEO-Hire is the number of independent directors hired after the CEO divided by total number of directors. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm where industry and firm fixed effects are used and clustered by director when director fixed effects are used. The p-values are in parentheses.

	CEO Turnover					
	(1)	(2)	(3)	(4)	(5)	
PROP-G15*Ret	-0.079** (0.022)	-0.066* (0.086)	-0.108*** (0.006)	-0.079** (0.012)	G15*Ret	-0.021*** (0.006)
% CEO-Hire*Ret	0.030* (0.098)		0.022 (0.232)	0.028 (0.107)	CEO-Hire*Ret	0.012** (0.027)
Board Size	-0.031 (0.304)	0.082** (0.012)	-0.031 (0.298)	0.026* (0.062)	Board Size	0.041*** (0.000)
%Independent	-0.101*** (0.007)	0.108** (0.047)	-0.104*** (0.006)	0.024 (0.254)	%Independent	-0.174*** (0.000)
Busy Board	0.067*** (0.004)	0.051 (0.384)	0.068*** (0.004)	0.050*** (0.007)	Busy Director	-0.001 (0.847)
Mean Dir Age	0.003** (0.040)	-0.001 (0.494)	0.004** (0.010)	-0.001 (0.352)	Director Age	-0.003 (0.165)
% CEO-Hire	0.339*** (0.000)		0.339*** (0.000)	0.146*** (0.000)	CEO-Hire	0.191*** (0.000)
PROP-G15	0.107*** (0.000)	0.066* (0.096)	0.073** (0.012)	0.016 (0.300)	G15	0.024*** (0.000)
CEO-Chairman	-0.233*** (0.000)	-0.315*** (0.000)	-0.232*** (0.000)	-0.141*** (0.000)	CEO-Chairman	-0.063*** (0.000)
CEO Age	0.077 (0.355)	0.060 (0.240)	0.080 (0.342)	0.091 (0.119)	CEO Age	0.254*** (0.000)
CEO Tenure	0.118*** (0.000)	-0.033 (0.145)	0.126*** (0.000)	0.022 (0.207)	CEO Tenure	-0.123** (0.031)
CEO Ownership	0.129 (0.213)	-0.086 (0.313)	0.137 (0.189)	-0.114** (0.011)	CEO Ownership	-0.056 (0.164)
Stock Return	-0.021* (0.056)	0.027* (0.077)	-0.016 (0.160)	-0.023** (0.013)	Stock Return	-0.025*** (0.000)
Firm Size	0.028*** (0.009)	0.004 (0.635)	0.028*** (0.009)	0.006** (0.012)	Firm Size	0.000 (0.965)
R&D	0.197 (0.271)	-0.103 (0.557)	0.190 (0.294)	0.010 (0.889)	R&D	0.175*** (0.005)
Tobin's q	-0.003 (0.428)	0.002 (0.718)	-0.004 (0.375)	-0.006** (0.014)	Tobin's q	-0.001 (0.482)
Firm Age	0.004*** (0.005)	0.001 (0.110)	0.004*** (0.006)	0.001*** (0.000)	Firm Age	0.001*** (0.000)
Observations	14,539	2,266	14,539	14,487		81,755
Adjusted R <sup>2</sup>	0.104	0.190	0.103	0.066		0.043
Fixed Effects	Firm, year	Industry, year	Firm, year	Industry, year		Director, year

Table 8: Financial Restatements

This table includes logit regressions showing the relationship between likelihood of a firm making an earnings restatement and director and firm characteristics over the period 1998-2006. The dependent variable Rest is an indicator which takes the value of one if firm makes an earnings restatement. The dependent variable Irrg is an indicator which takes the value of one if firm intentionally misreports its earnings. Columns 3 and 4 only use observations where CEO tenure is greater than that of all independent directors. Columns 5 and 6 do not treat independent directors as experienced if they are hired by the current CEO. PROP-AC-G15 is the number of directors with tenure greater than 15 years on the audit committee, divided by total number of directors on audit committee. % CEO-Hire is the number of directors hired after the CEO on the audit committee divided by the total number of independent directors. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	Rest.	Irrg.	Rest.	Irrg.	Rest.	Irrg.
	(1)	(2)	(3)	(4)	(5)	(6)
PROP-AC-G15	-0.199 (0.542)	-1.356** (0.030)	-0.229 (0.719)	-3.260** (0.044)	-0.298 (0.381)	-1.339* (0.098)
Board Size	0.016 (0.952)	-0.196 (0.646)	-0.003 (0.992)	0.361 (0.660)	0.230 (0.419)	-0.083 (0.895)
%Independent	-0.090 (0.803)	-0.969* (0.078)	0.463 (0.478)	0.165 (0.881)	0.128 (0.753)	-0.656 (0.392)
Busy Board	-0.006 (0.984)	0.168 (0.624)	0.425 (0.401)	1.059 (0.126)	0.005 (0.985)	0.124 (0.792)
Mean Dir Age	0.001 (0.920)	-0.016 (0.497)	0.018 (0.379)	0.021 (0.682)	0.017 (0.231)	-0.004 (0.898)
% CEO-Hire	0.063 (0.741)	0.052 (0.865)			0.133 (0.533)	-0.049 (0.912)
CEO-Chairman	0.039 (0.749)	0.111 (0.562)	0.261 (0.322)	0.571 (0.263)	-0.012 (0.929)	0.130 (0.678)
CEO Age	-16.180* (0.073)	-35.464** (0.024)	-18.619 (0.313)	-59.525 (0.250)	-14.073 (0.156)	-34.681 (0.133)
CEO Tenure	6.073 (0.575)	29.501 (0.116)	9.168 (0.516)	47.235 (0.116)	3.618 (0.739)	40.417* (0.066)
CEO Ownership	0.522 (0.589)	-5.148** (0.036)	-0.295 (0.826)	-8.964* (0.082)	0.464 (0.672)	-11.955** (0.034)
Firm Size	0.123** (0.014)	0.296*** (0.000)	0.194* (0.057)	0.169 (0.453)	0.128** (0.021)	0.329*** (0.003)
Firm Age	0.001 (0.897)	-0.000 (0.992)	-0.006 (0.582)	0.032* (0.073)	-0.001 (0.798)	-0.003 (0.776)
Tobin's q	-0.014 (0.787)	0.003 (0.960)	-0.017 (0.889)	-0.193 (0.549)	-0.169** (0.033)	-0.283 (0.174)
R&D	-0.491 (0.674)	-1.393 (0.308)	0.936 (0.582)	1.272 (0.603)	-0.008 (0.996)	0.869 (0.643)
Observations	10,344	9,157	1,915	1,251	10,344	9,157
Pseudo R <sup>2</sup>	0.053	0.098	0.113	0.161	0.059	0.114
Fixed Effects	Industry, year					

Table 9: Acquisition Decision

This table showing the relationship between the likelihood of a firm making an acquisition and director and firm characteristics. Column 2 includes observations where the CEO tenure is greater or equal to that of all independent directors. Column 3 does not treat independent directors as experienced if they are hired by the current CEO. The dependent variable is an indicator which takes the value of one if the firm makes an acquisition that year. PROP-G15 is the number of directors with tenure greater than 15 years divided by total number of independent directors. % CEO-Hire is the number of independent directors hired after the CEO divided by total number of directors. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm where industry and firm fixed effects are used and clustered by director when director fixed effects are used. The p-values are in parentheses.

	Acquisition					
	(1)	(2)	(3)	(4)	(5)	
PROP-G15	-0.046*	-0.163*	-0.057**	-0.039*	G15	-0.008*
	(0.090)	(0.061)	(0.041)	(0.066)		(0.094)
Board Size	0.032	0.058	0.034	0.022	Board Size	0.066***
	(0.246)	(0.511)	(0.217)	(0.252)		(0.000)
%Independent	-0.057	-0.099	-0.057	0.004	%Independent	-0.063***
	(0.154)	(0.376)	(0.152)	(0.916)		(0.004)
Busy Board	0.006	0.102*	-0.002	0.018	Busy Director	-0.010*
	(0.840)	(0.073)	(0.944)	(0.416)		(0.080)
Mean Dir Age	0.001	0.004	0.001	0.001	Director Age	0.001
	(0.414)	(0.390)	(0.435)	(0.551)		(0.804)
% CEO-Hire	0.003		-0.002	0.026**	CEO-Hire	-0.003
	(0.846)		(0.902)	(0.037)		(0.385)
CEO-Chairman	-0.008	0.040	-0.007	0.002	CEO-Chairman	0.005
	(0.437)	(0.175)	(0.464)	(0.794)		(0.361)
CEO Age	-0.012	-0.045	-0.013	-0.060***	CEO Age	-0.063***
	(0.748)	(0.374)	(0.729)	(0.002)		(0.002)
CEO Tenure	-0.002	0.010	-0.011	-0.004	CEO Tenure	0.065***
	(0.906)	(0.793)	(0.549)	(0.874)		(0.001)
CEO Ownership	0.010	-0.194	0.010	-0.182***	CEO Ownership	0.021
	(0.929)	(0.213)	(0.930)	(0.009)		(0.591)
Firm Size	-0.056***	-0.074	-0.055***	0.005	Firm Size	-0.001
	(0.000)	(0.150)	(0.000)	(0.102)		(0.697)
Firm Age	-0.009***	-0.008	-0.010***	-0.001**	Firm Age	-0.001***
	(0.000)	(0.173)	(0.000)	(0.020)		(0.000)
R&D	-0.199	-1.025*	-0.203	0.032	R&D	0.212***
	(0.389)	(0.091)	(0.359)	(0.787)		(0.000)
Tobin's q	0.001	0.001	-0.000	-0.010***	Tobin's q	0.001
	(0.868)	(0.933)	(0.953)	(0.003)		(0.192)
Free Cash Flow	0.255***	0.166	0.253***	0.079	Free Cash Flow	0.160***
	(0.000)	(0.408)	(0.000)	(0.178)		(0.000)
Leverage	-0.203***	-0.427***	-0.211***	-0.041	Leverage	-0.164***
	(0.000)	(0.002)	(0.000)	(0.102)		(0.000)
Cash	-0.007	0.073	-0.006	-0.006***	Cash	-0.002
	(0.253)	(0.301)	(0.348)	(0.008)		(0.209)
Observations	15,478	2,419	15,478	15,421		104,168
Adjusted R <sup>2</sup>	0.172	0.185	0.216	0.048		0.156
Fixed effects	Firm, year	Firm, year	Firm, year	Industry, year		Director, year



Table 10: Cumulative Abnormal Returns

This table includes regressions showing the relationship between cumulative abnormal returns and director and firm characteristics. The dependent variable is the cumulative abnormal stock return for the acquiring firm two days before and two days after the acquisition has been announced. Columns 4-6 do not treat independent directors as experienced if they are hired by the current CEO. PROP-G15 is the number of directors with tenure greater than 15 years divided by total number of independent directors. GIM is the Gompers, Ishii, and Metrick (2003) index of 24 anti-takeover shareholder provisions. % CEO-Hire is the number of independent directors hired after the CEO divided by total number of directors. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is  $(\text{Assets-Book Equity} + \text{Market Equity}) / \text{Assets}$ . R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	CAR (-2,2)					
	(1)	(2)	(3)	(4)	(5)	(6)
PROP-G15	1.841*** (0.003)	2.143*** (0.003)	1.815*** (0.004)	1.748*** (0.007)	1.871** (0.012)	1.648** (0.010)
Board Size	-0.381 (0.509)	0.209 (0.755)	-0.585 (0.319)	-0.402 (0.485)	0.195 (0.771)	-0.605 (0.302)
%Independent	-0.617 (0.480)	-0.679 (0.491)	-0.533 (0.548)	-0.668 (0.443)	-0.754 (0.444)	-0.590 (0.505)
Busy Board	-0.636 (0.360)	-0.094 (0.897)	-0.624 (0.369)	-0.643 (0.355)	-0.106 (0.884)	-0.635 (0.362)
Mean Dir Age	0.006 (0.836)	-0.021 (0.562)	0.004 (0.898)	0.010 (0.728)	-0.017 (0.641)	0.008 (0.777)
% CEO-Hire	0.148 (0.697)	0.113 (0.801)	0.263 (0.501)	0.221 (0.567)	0.183 (0.690)	0.330 (0.406)
CEO-Chairman	0.236 (0.352)	0.200 (0.519)	0.112 (0.663)	0.246 (0.331)	0.206 (0.508)	0.122 (0.636)
CEO Age	-0.274 (0.494)	-0.786 (0.371)	-0.287 (0.475)	-0.276 (0.490)	-0.798 (0.364)	-0.287 (0.474)
CEO Tenure	-0.431 (0.297)	-0.018 (0.971)	-0.516 (0.240)	-0.380 (0.293)	-0.006 (0.990)	-0.475 (0.220)
CEO Ownership	2.137 (0.200)	3.282 (0.175)	2.103 (0.209)	2.197 (0.192)	3.341 (0.172)	2.166 (0.200)
Firm Size	-0.180* (0.074)	-0.257** (0.030)	-0.161 (0.116)	-0.182* (0.070)	-0.262** (0.027)	-0.164 (0.108)
Firm Age	10.009 (0.245)	16.310 (0.135)	13.083 (0.132)	10.375 (0.229)	17.438 (0.109)	13.649 (0.117)
R&D	-5.094* (0.084)	-6.880* (0.084)	-5.128* (0.084)	-5.054* (0.087)	-6.903* (0.084)	-5.088* (0.087)
Tobin's q	-0.077** (0.011)	-0.096 (0.403)	-0.074** (0.016)	-0.078*** (0.009)	-0.096 (0.406)	-0.075** (0.014)
Free Cash Flow	0.894 (0.668)	-0.612 (0.826)	0.957 (0.646)	0.909 (0.662)	-0.613 (0.826)	0.970 (0.642)
Leverage	0.185 (0.825)	0.081 (0.939)	0.245 (0.774)	0.173 (0.837)	0.073 (0.944)	0.236 (0.782)
Relative Size	-0.616 (0.180)	-0.515 (0.229)	-0.650 (0.164)	-0.622 (0.176)	-0.523 (0.223)	-0.656 (0.161)
Diff Industries	-0.410* (0.079)	-0.223 (0.448)	-0.387* (0.099)	-0.406* (0.082)	-0.228 (0.439)	-0.383 (0.102)
Private	2.021*** (0.000)	1.917*** (0.000)	1.989*** (0.000)	2.013*** (0.000)	1.909*** (0.000)	1.982*** (0.000)
% Cash	0.009*** (0.001)	0.009*** (0.004)	0.009*** (0.000)	0.009*** (0.001)	0.009*** (0.004)	0.009*** (0.000)
GINDEX		-0.036 (0.461)			-0.038 (0.445)	
Staggered Board			0.205 (0.385)			0.201 (0.395)
Observations	3,599	2,464	3,510	3,599	2,464	3,510
Adjusted R <sup>2</sup>	0.044	0.050	0.043	0.044	0.049	0.043
Fixed Effects	Industry, Year					

Table 11: Propensity Score Matched Sample

This table reports results of repeating some of the previous regressions based on the propensity score matched sample. The propensity score model includes all explanatory variables in Panel A of Table 5. Firms are matched within the same Fama-French 48 industry group and are only kept if the control firm's score does not deviate from the treatment firm's score by 5%. The regressions in Columns 1-5 are from Column 4 in Table 6, Column 4 in Table 7, Column 2 in Table 8, Column 4 in Table 9, and Column 1 in Table 10 respectively. PROP-G15 is the ratio of experienced independent directors of the board for Columns 2, 4, and 5, of the compensation committee for Column 1, and of the audit committee for Column 3. For brevity, control variables that are specific to certain regressions (e.g., stock return for *Turnover*, and M&A characteristics for *CAR*) are not reported. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. Mean Dir Age is mean age of all independent directors. % Hired By CEO is the ratio of CEO-hire independent directors of the board for Columns 2, 4, and 5, of the compensation committee for Column 1, and of the audit committee for Column 3. The CEO-Chairman flag is set to one if the CEO is also the Chairman of the board. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	Compensation (1)	Turnover (2)	Irregularity (3)	Acquisition (4)	CAR (5)
PROP-G15	-0.019 (0.827)	0.014 (0.430)	-0.019* (0.071)	-0.000 (0.991)	1.550* (0.080)
PROP-G15*Stock Return		-0.076** (0.043)			
Board Size	0.238** (0.044)	0.011 (0.483)	-0.002 (0.864)	0.068*** (0.002)	-1.203 (0.149)
%Independent	0.537*** (0.000)	0.011 (0.660)	-0.016 (0.233)	0.022 (0.526)	-0.184 (0.866)
Busy Board	0.014 (0.844)	0.043* (0.051)	-0.005 (0.619)	0.020 (0.405)	-0.250 (0.721)
Mean Dir Age	0.008* (0.082)	-0.000 (0.772)	0.000 (0.826)	0.001 (0.413)	0.034 (0.395)
% Hired By CEO	0.069 (0.314)	0.138*** (0.000)	0.003 (0.638)	0.035*** (0.006)	1.088 (0.132)
CEO-Chairman	0.192*** (0.000)	-0.137*** (0.000)	0.003 (0.523)	0.004 (0.666)	0.209 (0.494)
CEO Age	-2.054 (0.344)	0.130 (0.353)	-0.591 (0.147)	-0.055 (0.209)	0.213 (0.702)
CEO Tenure	-2.023* (0.071)	0.359** (0.036)	0.198 (0.494)	0.034 (0.839)	-14.176 (0.653)
CEO Ownership	-1.602** (0.017)	-0.148*** (0.004)	-0.067*** (0.000)	-0.133* (0.055)	3.020 (0.227)
Firm Size	0.355*** (0.000)	0.007** (0.012)	0.004* (0.073)	0.006* (0.062)	-0.090 (0.438)
Firm Age	0.003** (0.021)	0.001*** (0.001)	0.000 (0.714)	-0.001** (0.012)	8.329 (0.441)
R&D	1.250*** (0.006)	0.041 (0.616)	-0.001 (0.981)	0.038 (0.718)	-4.621 (0.110)
Tobin's q	0.082*** (0.000)	-0.008*** (0.003)	-0.002 (0.169)	-0.008** (0.019)	0.090 (0.308)
Observations	12,601	10,860	6,427	12,546	2,183
Adjusted/Pseudo R <sup>2</sup>	0.363	0.063	0.011	0.044	0.053
Fixed Effects	Industry, Year				

Table 12: Director-Fixed Effects

This table reports results of repeating some of the previous regressions with director-fixed effects. Panel A implements director $\times$ year fixed effects and contains firms in which at least one independent director has more than one directorship in a given year and has a tenure of more than 12 years in at least one directorship and a tenure of less than five years in at least one directorship. Panel B implements director $\times$ firm fixed effects and contains firms which have experienced directors and whose data are available for at least one year when the tenure of the experienced director is below five years and when the tenure of the experienced director is over 12 years. The coefficients in Column 2 of both panels are multiplied by 10. Control variables in Columns 1-6 are initially from Column 1 in Table 3, Column 1 in Table 4, Column 4 in Table 6, Column 4 in Table 7, Column 2 in Table 8, and Column 4 in Table 9 respectively. Thereafter Panel A drops Age L65, Female Director, and Busy Director; while Panel B drops Age\_L65, Female Director, Firm Age, Director Meeting Fee, and Number of Meetings. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

<b>Panel A: Director and year fixed effects</b>						
	<b>Committee Member</b>	<b>Poor Attendance</b>	<b>CEO Compensation</b>	<b>CEO Turnover</b>	<b>Financial Irregularity</b>	<b>Acquisition Decisions</b>
	(1)	(2)	(3)	(4)	(5)	(6)
Tenure	0.072*	0.051	-0.022	0.005	-0.001**	0.009
	(0.074)	(0.516)	(0.267)	(0.738)	(0.047)	(0.876)
Tenure*Stock Return				-0.165***		
				(0.001)		
Observations	2,809	2,465	2,432	2,155	2,251	2,469
Adjusted R <sup>2</sup>	0.037	0.169	0.502	0.143	0.108	0.049
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Director & Year					
<b>Panel B: Director and firm fixed effects</b>						
	<b>Committee Member</b>	<b>Poor Attendance</b>	<b>CEO Compensation</b>	<b>CEO Turnover</b>	<b>Financial Irregularity</b>	<b>Acquisition Decisions</b>
	(1)	(2)	(3)	(4)	(5)	(6)
Tenure	0.008**	-0.011***	0.023	0.000	-0.020*	-0.006**
	(0.013)	(0.000)	(0.629)	(0.908)	(0.078)	(0.010)
Tenure*Stock Return				-0.031**		
				(0.017)		
Observations	13,335	15,196	11,898	10,295	7,039	11,790
Adjusted R <sup>2</sup>	0.066	0.270	0.265	0.057	0.005	0.018
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Director & Firm					

Table 13: General Directorship Experience

This table examines the effect of general directorship experience on firm outcomes. A director is considered experienced if he/she has had a total of more than nine directorship-years of service over the past five years. PROP\_EXP is the proportion of such directors over all the independent directors on the board for Columns 2, 4, and 5, and on the compensation (audit) committee for Column 1 (3). The regressions in Columns 1-5 are from Column 4 in Table 6, Column 4 in Table 7, Column 2 in Table 8, Column 4 in Table 9, and Column 1 in Table 10 respectively. For brevity, control variables that are specific to certain regressions (e.g., stock return for Turnover, and M&A characteristics for CAR) are not reported. Board Size is the log of total number of directors. %Independent is the number of independent directors divided by total number of directors. A busy director serves on the board of three or more firms. Busy Board is an indicator set to one if half or more of the independent directors are busy directors. Mean Dir Age is mean age of all independent directors. % Hired By CEO is the ratio of CEO-hire independent directors of the board for Columns 2, 4, and 5, of the compensation committee for Column 1, and of the audit committee for Column 3. The CEO-Chairman flag is set to one if the CEO is also the Chairman of the board. CEO Ownership is total number of shares and options that can be exercised within 60 days of fiscal year end divided by shares outstanding. Firm size is the log of total assets. Firm Age is the number of years the firm has been listed. Tobin's q is (Assets-Book Equity+Market Equity)/Assets. R&D is research and development expenses divided by assets. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Standard errors are robust and clustered by firm. The p-values are in parentheses.

	CEO Compensation (1)	CEO Turnover (2)	Financial Irregularity (3)	Acquisition Decisions (4)	CAR (5)
PROP_EXP	0.149** (0.035)	0.017 (0.407)	-0.510 (0.466)	-0.047* (0.068)	0.566 (0.451)
PROP_EXP*Stock Return		-0.047 (0.289)			
Board Size	0.180* (0.084)	0.026* (0.056)	-0.267 (0.684)	0.040** (0.028)	-0.481 (0.404)
%Independent	0.471*** (0.000)	0.016 (0.465)	-0.849 (0.321)	-0.000 (0.995)	-0.515 (0.547)
Busy Board	-0.043 (0.504)	0.047** (0.014)	0.337 (0.494)	0.025 (0.245)	-1.086 (0.135)
Mean Dir Age	0.001 (0.751)	-0.000 (0.505)	0.004 (0.881)	0.000 (0.623)	0.033 (0.264)
% CEO-Hire	-0.021 (0.595)	0.146*** (0.000)	0.053 (0.907)	0.024** (0.036)	0.246 (0.525)
CEO-Chairman	0.182*** (0.000)	-0.139*** (0.000)	0.229 (0.490)	0.006 (0.401)	0.161 (0.514)
CEO Age	0.276 (0.576)	0.090 (0.116)	-46.951** (0.038)	-0.061*** (0.002)	-0.207 (0.603)
CEO Tenure	-1.062** (0.039)	0.022 (0.217)	41.430* (0.088)	-0.002 (0.948)	-0.655* (0.079)
CEO Ownership	-0.812** (0.015)	-0.114** (0.012)	-11.388** (0.049)	-0.156** (0.018)	2.241 (0.183)
Firm Size	0.406*** (0.000)	0.005** (0.034)	0.374*** (0.004)	0.007** (0.021)	-0.190* (0.072)
Firm Age	-0.000 (0.792)	0.001*** (0.000)	-0.003 (0.776)	-0.001* (0.053)	12.639 (0.128)
R&D	1.414*** (0.001)	0.013 (0.864)	0.498 (0.790)	0.021 (0.835)	-6.197** (0.037)
Tobin's q	0.093*** (0.000)	-0.006** (0.015)	-0.368 (0.160)	-0.007** (0.015)	-0.069** (0.028)
Observations	13,620	14,105	8,134	13,429	3,454
Adjusted/Pseudo R <sup>2</sup>	0.418	0.064	0.121	0.044	0.044
Fixed Effects	Industry, Year				