

What motivates independent directors to join or leave boards? The interplay between director incentives, director decisions, and firm outcomes

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Abstract

Reputation, monetary, risk, and workload incentives affect independent directors' decisions to join new or leave existing board of directors' seats, impacting their directorship portfolios. Using a director's perspective and relative incentive proxies, we find that directors strategically relinquish less prestigious board seats to increase their reputation. Similarly, we hypothesize and find that accepting an additional board nomination is incentivized by a director's goal to achieve higher reputation growth. Lastly, by taking on a firm's perspective, we find a positive association between the board's aggregated portfolio reputation and risk propensity with firm performance and earnings management.

1 | INTRODUCTION

The introduction of the Sarbanes-Oxley Act (SOX) in 2002 reshaped the labor market for independent directors¹ substantially by mandating firms to more frequent board meetings and requiring a minimum level of independence for their board committees (Chen & Moers, 2018; Linck et al., 2009). These new corporate governance mandates increased demand for outside directors. For example, the CEO of Netflix (Reed Hastings) joined Microsoft as an outside director in 2007, and he also joined the boards of Dreambox in 2010 and Facebook in 2011 (Hastings, 2023). One year later, in 2012, he relinquished his seat at Microsoft. Illustrated with this example, it is unclear how directors manage their directorship portfolios—by joining new and relinquishing existing board seats—and how firm outcomes are impacted by directorship portfolio characteristics.

Taking on a director's perspective, our empirical study first tries to shed light on the motivation behind a director's decision to relinquish a board seat (e.g., Reed Hastings leaving Microsoft). Prior research identifies four major incentives—reputation, compensation,

risk, and workload—influencing directors to join or leave a board (e.g., Boivie et al., 2012; Masulis & Mobbs, 2014; Ormazabal, 2018). However, literature on relative attributes of directorships (e.g., the reputation of a directorship in relation to the other board seats of the director) is scarce (Ormazabal, 2018). Thus, it remains to be determined whether and to what extent relative incentives influence the composition of outside directorship portfolios. Based on the reputation hypothesis by Fama and Jensen (1983), we posit that a director is more likely to relinquish a directorship that ranks relatively lower than her other directorships (H1).

Second, prior literature focuses on determinants leading to relinquish decisions (e.g., Boivie et al., 2012; Masulis & Mobbs, 2014; Ormazabal, 2018). We add to the literature by investigating whether accepting an additional board nomination is incentivized by a director's goal to grow her reputation (e.g., Reed Hastings accepting Dreambox as his second directorship). More specifically, we posit that gaining an additional seat increases directors' reputation growth compared to directors who only hold one outside directorship (H2). In the case of joining an additional board, we argue that reputation growth is

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caused by (1) nomination committees tending to select more successful directors (Booth & Deli, 1996; Brickley et al., 1999) and (2) directors being able to gain and share additional information and expertise of multiple directorships, which can subsequently be used to increase monitoring efficacy.

Lastly, we switch from the director to a firm's perspective. Since board decisions might contradict the shareholders' best interest (Jensen & Meckling, 1976), the characteristics of outside directors become increasingly important in explaining effective monitoring behavior (Ghannam et al., 2019). In this vein, our study examines how director portfolio compositions impact firm outcomes. For example, does the aggregated reputation of the directorship portfolios of Starbucks' outside directors impact its firm performance? We argue that directors with higher reputational capital are more incentivized to protect their earned reputation and monitor more effectively, leading to increases in firm performance (H3a).

Moreover, we investigate the relation between directors' risk propensity of their directorship portfolio and firms' earnings management (H3b). Even though outside directors monitoring activities should decrease litigation risks, prior research finds mixed evidence regarding the proportion of outside directors on boards and decreases in earnings management (e.g., Badolato et al., 2014; Klein, 2002; Wang et al., 2015). To shed light on these mixed findings, we propose that outside directors holding more risky directorships in their directorship portfolio are more inclined to accept earnings management and its related risks.

Our analyses use BoardEx data of 22,460 outside directors serving on boards of 11,347 firms between 1999 and 2019. For our H1 analyses examining the impact of relative reputation on directors' relinquishment decisions, we use a director-firm-year perspective with two-way fixed effects linear regressions. Our results reveal that directors, who hold multiple directorships, are more likely to relinquish a directorship if the respective firm has a relatively lower reputation than the rest of their portfolio and when it requires relatively more working hours.

To analyze whether joining an additional board leads to higher reputation growth than only occupying one board seat (H2), we apply a generalized difference-in-difference (DiD) design and several robustness checks. We find that joining additional outside directorships significantly increases the director's reputational growth compared with directors who only hold one seat.

Lastly, using the firm perspective with two-way fixed effects linear regressions, we find that a higher average portfolio reputation of independent board members is associated with a higher return on assets (RoA) (H3a). Furthermore, we observe that a higher average risk level in the portfolios of outside directors is positively associated with increases in earnings management (H3b). In additional analyses, we replace the absolute average incentive measures with a relative average measure reflecting the proportion of directors on a board for whom the directorship is relatively higher ranked than her other directorships (similar to Sila et al., 2017). The results reveal that both absolute and relative aggregated reputations lead to a higher firm performance. However, only the absolute risk propensity of all

outside directors influences earnings management. In contrast, it is not influenced by the proportion of outside directors for whom the respective firm exhibits more risk than the average of their directorship portfolio.

Our study contributes to the corporate governance literature and practice in several ways. First, we examine relative instead of absolute incentives since Ormazabal (2018) notes that investigations of relative director incentives are still marginal in the current empirical literature. Second, we add to the scarce literature on the impact of accepting additional board seats. Third, we expand the research of Sila et al. (2017) by examining the impact of the board of directors' absolute and relative reputation and risk propensity on key firm-specific characteristics like performance and earnings management. Lastly, our results have practical relevance for firms wanting to retain directors and for their nomination decisions and for directors contemplating accepting an additional nomination.

In conclusion, we expand the still marginal literature on the effect of (relative) outside director incentives on the composition of directorship portfolios and the consequences of the directorship portfolio attributes on firm outcomes. The remainder of the paper is structured as follows. Section 2 describes the derivation of our hypotheses. Section 3 presents our data sample. Sections 4 to 7 present the results, and concluding remarks are provided in Section 7.

2 | THE INTERPLAY BETWEEN DIRECTOR INCENTIVES, DIRECTOR DECISIONS, AND FIRM OUTCOMES

2.1 | Director incentives and relinquish decisions

Acquiring additional outside directorships increases labor market opportunities since holding multiple board seats generally signals a director's competence (Peyer & Perry, 2005). However, the number of directorships is restricted by directors' time and effort limitations. Thus, outside directors are regularly confronted with how to allocate their time and effort efficiently among their existing directorships to fulfill their monitoring duties (Ferris et al., 2003; Hossain & Oon, 2022). Ghannam et al. (2019) argue that outside directors evaluate potential new and existing directorships based on a portfolio of incentives. Prior research identifies four major incentives—reputation, compensation, risk, and workload—influencing directors' decision to join or leave a board (e.g., Boivie et al., 2012; Masulis & Mobbs, 2014; Ormazabal, 2018).

In their reputation hypothesis, Fama and Jensen (1983) state that serving on the board of larger firms constitutes a signal of a director's competence and leads to higher visibility in the labor market, increasing the director's reputation. By maximizing their reputation, directors can expand their career opportunities as inside and outside directors (Shivdasani, 1993). Using the reputation hypothesis, we argue that relative reputational concerns constitute the dominant incentive for outside directors confronted with the decision to retain or depart from an existing directorship. In other words, we posit that

if a director relinquishes an existing seat, the directorship is likelier to exhibit a lower reputation than the rest of the directorships.

?>In this vein, Cowen and Marcel (2011) find that directors often relinquish their seats in distressed firms, for example, after lawsuits or restatements occur (which can damage a director's reputation). Moreover, Masulis and Mobbs (2014) find that directors are more likely to resign from poorly performing firms with a relatively low reputation. Concerning the interplay of reputation and workload incentives, they also show that directors exhibit a lower absence rate at board meetings when the firm has a relatively high reputation in a director's portfolio.

Lastly, we argue that reputational concerns also (implicitly) affect the other three incentives. First, even though outside director compensation represents an arguably small fraction of directors' total wealth (Adams & Ferreira, 2008), directors can expand their career opportunities by serving on boards of prestigious firms. By showcasing their abilities, directors can positively influence their future monetary compensation (Mobbs, 2013). Second, directors may depart from riskier firms to protect their reputational capital as adverse circumstances (e.g., financial fraud or poor firm performance) might cast doubt regarding the director's monitoring performance (Boivie et al., 2012; Ormazabal, 2018). Third, directors potentially want to limit the workload of their directorships since overly busy directors are assessed as less capable regarding monitoring and risk oversight (Fich & Shivdasani, 2006), decreasing a director's reputation. In conclusion, based on the reputation hypothesis by Fama and Jensen (1983), we argue that relative reputational concerns constitute the dominant incentive for outside directors to relinquish an existing seat. We state H1 as follows:

H1. Outside directors are more likely to relinquish a directorship that possesses a relatively lower reputation compared to the average reputational value of the directorship portfolio.

2.2 | Director portfolio adjustments and reputation growth

Nearly half of outside directors within S&P 1500 firms only serve on one board of directors (Masulis & Mobbs, 2014). On the contrary, the other half of outside directors change the composition of their directorship portfolio by joining new boards and leaving existing boards. Director exits are either voluntary or forced (Boivie et al., 2012). In contrast to exits, where the underlying reasons behind the exit are usually private (Bar-Hava et al., 2020), directors' decisions to join boards are voluntary and observable. Gaining an additional outside directorship is based on the director's voluntary decision to accept a nomination from the nominating committee. In H1, we hypothesize that directors strategically relinquish board seats to increase their reputation. Similarly, we argue that accepting an additional board nomination is incentivized by a director's goal to grow her reputation.

We posit that gaining an additional board seat increases directors' reputation growth for two reasons. First, an outside director needs to be considered and elected by a firm's nomination committee to get the possibility of gaining an additional seat (Callahan et al., 2003; Duchin et al., 2010). By already being an outside director on another board, directors signal prior monitoring experience that nominating committees can potentially observe. Therefore, we argue that more successful outside directors are more likely to get the opportunity to join an additional board in the first place (Brickley et al., 1999). In this vein, Booth and Deli (1996) find that firms with directors holding multiple board appointments generally perform better.

Second, we argue that serving on multiple boards leads to information synergies and increases in the industry- and firm-specific expertise of the respective outside director (Masulis, 2020), potentially increasing the effectiveness of the outside director's monitoring abilities. Moreover, sharing this information and expertise could lead to a positive spillover for other board members. Both factors would positively affect a firm's growth potential, resulting in higher reputation growth for its directors. Corroborating this reasoning, Shiah-Hou and Cheng (2012) find that firms with more experienced outside directors generally have a higher market performance. Moreover, Kor and Sundaramurthy (2009) find that increased industry and firm-specific experience of outside directors increases firms' sales growth. In this vein, we posit that directors with only one outside directorship miss out on the opportunity to gain and share additional information and expertise from serving on additional boards, leading to lower monitoring performance.

Nevertheless, serving on multiple boards could also have disadvantages for outside directors. By accepting additional directorships, directors limit their attention to each directorship (Bar-Hava et al., 2020). Consequently, directors with multiple directorships might put effort into retaining them instead of closely monitoring the firm's executives (Mace, 1986). Corroborating this finding, Balsmeier et al. (2015) show that monitoring tends to decrease with the number of directors who hold multiple directorships. On the contrary, Masulis and Mobbs (2014) posit that outside directors have strong incentives to be viewed as careful monitors by the external labor market, irrespective of their number of board seats. Overall, prior research finds mixed evidence on the relationship between director busyness and firm performance (e.g., Bar-Hava et al., 2020; Ferris et al., 2003; Fich & Shivdasani, 2006).

Finally, we assume that a potential negative impact of decreased monitoring efficacy due to increased workload is outweighed by nomination boards selecting more successful directors and information and knowledge sharing synergies from holding multiple directorships. We state H2 as follows:

H2. Outside directors, who accept at least one additional outside directorship, achieve higher reputation growth than outside directors who only hold one directorship.

2.3 | Outside director incentives and firm outcomes

A public firm's board's primary role is to protect shareholder interests by monitoring and advising the management regarding corporate decision-making processes (Shiah-Hou & Cheng, 2012). However, as managers are motivated to maximize their personal utility, this potentially leads to management decisions that might contradict the shareholders' best interest (Jensen & Meckling, 1976). In this context, the characteristics of outside directors become increasingly important in explaining effective monitoring behavior (Ghannam et al., 2019).

Sila et al. (2017) link portfolio-based reputational incentives to firm-specific outcomes. They find that a firm's voluntary disclosure and stock price informativeness increase if its directors rank the firm reputationally higher than their other directorships. They argue that outside directors try to protect their reputation, which leads to heightened demand for reliable public information and greater distrust of private information provided by the management. Fredriksson et al. (2020) support this notion by finding that high-reputation directors enforce better audit quality in their directorships to protect their reputational capital.

Similarly, we argue that directors with higher reputational capital are more incentivized to protect their reputation and thus monitor more effectively, leading to increases in firm performance. Fich's (2005) findings support this notion by identifying a more positive share price reaction to announcements of high-reputation director appointments. Moreover, prior research notes that high-reputation directors are rewarded for effective monitoring by increased labor market opportunities and can therefore acquire additional directorships (Fama & Jensen, 1983; Fich & Shivdasani, 2007). In this regard, the higher reputational capital of outside directors can be understood as a signal for their monitoring ability and experience. Similarly, outside directors with higher reputational capital might also be more trusted advisors and possess a greater influence on the management of a firm. Both factors lead to increased firm performance monitored by high-reputation boards.

Another firm outcome influenced by directors' monitoring activities is accrual-based earnings management. Earnings management via abnormal accruals can be used to alter financial reports regarding earnings (Beneish, 2001). For example, income-increasing earnings management might be facilitated to obscure investors' perception of the firm's economic situation, and executives can initiate income-increasing earnings management to maximize their performance-based compensation (Healy & Wahlen, 1999). As a negative effect, engaging in earnings management significantly increases litigation risks (e.g., Ibrahim et al., 2011; Lo, 2008; Palmrose et al., 2004). Even though outside directors' monitoring activities should decrease litigation risks, prior research finds mixed evidence regarding the proportion of outside directors on boards and decreases in earnings management (e.g., Badolato et al., 2014; Klein, 2002; Wang et al., 2015).

To shed light on these mixed findings, we argue that outside directors' risk-taking propensity is related to firms' earnings

management. In this vein, Deng et al. (2018) show that risk-seeking executives are more likely to utilize earnings management. We assume that negative firm outcomes (e.g., increases in litigation risk) and positive firm outcomes (e.g., reporting higher earnings) affect all board members associated with the firm. Therefore, the propensity to engage in earnings management is not just influenced by top-management positions but by all board members, including outside directors. Fredriksson et al. (2020) posit that less risk-averse outside directors might be incentivized to tolerate more earnings management. We argue that the overall risk outside directors accept in their directorship portfolio is related to the level of earnings management a director is ready to tolerate. Consequently, we propose that outside directors holding more risky directorships in their directorship portfolio are more inclined to accept earnings management and its related risks.

In conclusion, we argue that firm performance is positively associated with higher levels of average reputation of its outside directors since it is a signal for their monitoring ability and experience (H3a). For H3b, we posit that firms' accrual-based earnings management increases with their outside directors' risk propensity since they are more inclined to accept the related risks of earnings management. We state the hypotheses as follows:

H3a. Higher overall reputation levels in the directorship portfolios of outside directors on a firm's board are positively associated with firm performance.

H3b. Higher overall levels of risk-bearing in the directorship portfolios of outside directors on a firm's board are positively associated with accrual-based earnings management.

3 | SAMPLE SELECTION AND DATA DESCRIPTION

Our sample contains 4707 outside directors serving on boards of 2882 firms between 1999 and 2019. Director data are obtained from the database BoardEx, which provides biographical and relationship data on public and private company boards starting in 1999. We restrict the sample to outside director observations by excluding inside (executive) and gray (exhibiting personal or economic ties to the firm and its management) directors, as their different reputational incentives hinder direct comparison (Hsu & Wu, 2014; Masulis & Mobbs, 2014). The outside directors exhibit a mean age and board tenure of 60.6 and 5.4 years, 12.7% of the directors are female, and on average, each director occupies two board seats (see Table 3 for additional descriptive statistics of the director-level data).

Firm-specific data are obtained from Thomson Reuters Refinitiv. The sample is restricted to public companies with relevant accounting data available. The firms have average total assets of \$5312 million and a mean of 16,811 total employees. On average, the firms have been incorporated for 24.2 years, and 1987 firms are headquartered

in the United States, and 895 are headquartered in the rest of the world (see Table 7 for additional descriptive statistics of the firm-level data).

For H1 (the impact of relative reputation on directors' relinquishment decisions), we use a director-firm-year perspective with 30,028 observations. Similar to Masulis and Mobbs (2014), we focus on the relative reputation of a given directorship in comparison with the other board seats in a directorship portfolio. Thus, since our relative reputation measure cannot be obtained for directors with only one directorship, our sample for H1 includes only directors who held at least two board seats during our observation period. To examine the impact of joining an additional board on directors' reputation growth (H2), we use a director-year perspective with 30,981 observations. The H2 sample covers directors with only one directorship and directors holding multiple directorships (after gaining an additional board seat). Lastly, we use a firm-year perspective with 8598 observations to analyze the impact of aggregated board incentives on firm outcomes (H3). The firm-year observations include all outside directors on a board (i.e., directors with only one directorship and directors with multiple directorships).

4 | TESTS OF H1—DIRECTOR-FIRM-LEVEL ANALYSES: DIRECTOR REPUTATIONAL CONCERNS AND RELINQUISH DECISIONS

4.1 | Identification strategy

To identify the effect of a director seat's relative reputation on the decision to relinquish a directorship, we apply the following two-way fixed effects regression models:

$$\text{Relinquished}_{i,t} = \alpha + \beta_1 \text{RelativeReputation}_{i,t} + \sum \beta_k \text{Controls}_{i,t} + \gamma_i + \delta_t + \varepsilon_{i,t} \quad (1)$$

where i indexes the director-firm unit and t indexes the year. Our dependent variable is *relinquished*, which is an indicator variable that equals one if the outside director leaves a firm's board in a given year, and zero if she has an active position in the firm's board (similar to Ormazabal, 2018; Masulis & Mobbs, 2014).² Following prior research (e.g., Bryan & Mason, 2020; Masulis & Mobbs, 2014; Ormazabal, 2018; Sila et al., 2017), we use market capitalization as our proxy to capture firm reputation (*ReputationDummy*).

The *ReputationDummy* is fundamentally based on Masulis and Mobbs (2014), with an adjustment to factor in all directorships of a director. Masulis and Mobbs (2014) classify a directorship as high (low) ranked if the firm is 10% larger (smaller) than the director's smallest (largest) directorship, based on market capitalization. However, this reputation measure omits potentially relevant information about directors holding more than two seats. Especially if a director holds more than two seats (which is the case for around 50% of observations in our sample of H1), then information on the other (not highest

or lowest ranked) directorships is ignored. For example, suppose a director has a portfolio with four board seats, of which the second and third firms (ranked in market cap) deviate significantly from the smallest and largest observation. In that case, the second and third directorships are ignored when calculating a high (low) ranked indicator variable.

Thus, we adjust the abovementioned measure to factor in all directorships of a director. Contrary to the high (low) ranked approach, we include all firms of a director's portfolio in our *ReputationDummy* measurement. The dummy variable equals one if the firm's market capitalization is larger than the average market capitalization of all other firms in the portfolio, and zero if it is smaller or equal. Thereby, we explicitly consider all firms of a directorship portfolio instead of just comparing a directorship with the most (least) reputable firm.

To reduce potential endogeneity concerns, we implement director-level fixed effects (γ_i) controlling for time-invariant director characteristics (similar to Ormazabal (2018)). Additionally, we apply industry-year-level fixed effects (δ_t) to control for industry shocks affecting the probability of a director's exit from an industry in a given year. Controls is a vector of director, director-firm, and firm controls. Standard errors are robust to heteroskedasticity and serial correlations within industry-year-level clusters.³

4.2 | Control variables

Similar to Yermack (2004), Masulis and Mobbs (2014), and Ormazabal (2018), we include several control variables in our regression models, which potentially influence director turnover. We capture director-specific turnover determinants, including director-portfolio, director, director-firm, and firm-specific controls⁴:

4.2.1 | Director-Portfolio-Controls

Ormazabal (2018) finds that (inside and outside) directors tend to relinquish their riskiest directorships in the years after the financial crisis. Therefore, we add firms' beta as a proxy for firm risk. Boivie et al. (2012) and Masulis and Mobbs (2014) find that increased director workload (approximated by board meetings) and director compensation (approximated by average board compensation) increase the likelihood of a director exit. Thus, we add workload and compensation to our portfolio incentive controls.

4.2.2 | Director-Controls

Similar to Masulis and Mobbs (2014) and Ormazabal (2018), we control for the director's age using the natural logarithm. Since many firms mandate retirement at the age of 70 (Bar-Hava et al., 2021), we additionally add a dummy variable capturing whether the director's age is larger than 69 years. Further, we control for appointments to other

firms' boards since they could impact their decision to leave existing board seats (Linck et al., 2008). We also control the number of directorships held since leaving a seat has a different impact depending on the total number of directorships held.⁵

4.2.3 | Director-Firm-Controls

We include the director's tenure in the firm since a higher tenure makes retirement more likely (Bar-Hava et al., 2021). Being an active member or committee chairman could reduce the likelihood of leaving a directorship (Yermack, 2004). Therefore, we include whether the director was active in the compensation, audit, finance, governance, or risk committee and whether she was a chairman in at least one of the committees.⁶

4.2.4 | Firm-Controls

Since the firm's absolute size is a potential proxy for the firm's reputation and thus might influence a director's decision to leave a board seat, we include the absolute market capitalization to control for any absolute reputation and size impact of the firm.⁷ Prior research shows that poor firm performance increases director turnover (Ormazabal, 2018; Yermack, 2004). Hence, we include RoA, total assets growth, and Tobin's q as further firm controls. Moreover, since director turnover decreases for firms with a smaller board of directors (Masulis & Mobbs, 2014), we include a firm's board size as a control variable.

4.3 | Descriptive statistics of the director-firm perspective

Table 1 shows the descriptive statistics for our model concerning director-firm-years, including 30,028 observations.

Our dummy variable *Relinquished* captures the loss of directorships and indicates that around 6.8% of all director-firm-year observations are related to a loss of a director position. This is in line with Ormazabal (2018), who finds that around 8% of observations include a loss event. The *ReputationDummy* indicates that in 51% of the observations, the firm possesses a larger market capitalization than the remaining directorship portfolio. Analogously, the means of compensation (*CompensationDummy*) and the number of board meetings (*WorkloadDummy*) amount to 0.36 and 0.37. Since the firm beta dummy has a lower standard deviation than the other incentives, the mean of the *RiskDummy* is 0.237. The age of the directors in our sample ranges from 32 to 95 years, and a director holds 2.8 directorships on average. The average tenure is 5.7 years, and the average firm size equals \$21.5 bn. On average, firms yield a yearly RoA of 4.2% and an assets growth rate of 10%.⁸

4.4 | Results of H1

For H1, we predict that directors are more likely to relinquish an existing board position if the respective board seat exhibits a lower reputation than the other firms in the director's portfolio. Thus, the impact of the *ReputationDummy* on *Relinquished* (β_1) should be negative and significant.

Results of Table 2 (Model 1) reveal a significant negative coefficient ($t = -2.60$, $p < 0.01$) for our independent variable *ReputationDummy*. This indicates that directors pursue a portfolio approach by considering the relative reputation of their directorships when making relinquish decisions. Thus, they are more likely to relinquish directorships that provide a lower share of their overall reputational capital than the other directorships.

Moreover, we find a strong positive association between the relative number of board meetings (*WorkloadDummy*) and the likelihood of relinquishing a directorship ($t = 3.10$, $p < 0.01$). As the director's time and effort are limited, outside directors serving on multiple boards might resign from their more workload-intensive director duties. Regarding the risk (*RiskDummy*) and compensation (*CompensationDummy*) incentives, both coefficients are insignificant ($p > 0.262$), indicating that reputation and workload incentives are most relevant when directors decide to relinquish a seat.

4.5 | Robustness checks of H1

Lastly, we provide two robustness checks to verify the results of H1. Our base model includes the relative director incentives as dummy variables. To factor in the relative difference more granularly for each incentive proxy, we substitute the four dummies with continuous variables. We therefore calculate the more granular measure *RelativeReputation*, where the market capitalization of a firm i in year t of director j is divided by the average market capitalization of the remaining firms in the director portfolio:

$$RelativeReputation = MarketCap_{i,t} / \frac{(Total\ Market\ Cap_{j,t} - Market\ Cap_{i,t})}{(Directorships_{j,t} - 1)} \quad (2)$$

The more granular measure *RelativeReputation* (Model 2) also displays a highly significant and negative coefficient ($t = -2.88$, $p < 0.01$), and the coefficient of *RelativeWorkload* still has a highly significant and positive coefficient ($t = 4.74$, $p < 0.01$).

Second, there might be a time lag between directors' relinquishment decisions and the actual relinquishment. It is likely that a director will not immediately relinquish her seat when announcing her exit from a board. Therefore, we lag the control variables by 1 year.⁹ The results remain unchanged when lagging the controls by 1 year, except that the significance level of the *WorkloadDummy* of Model 3 drops to the 5% level.

TABLE 1 Descriptive statistics: Director-firm-level analysis.

| Variable | Mean | Std. dev. | Min | Max |
|---------------------|--------|-----------|---------|--------|
| Relinquished | .068 | - | 0 | 1 |
| ReputationDummy | .509 | - | 0 | 1 |
| RiskDummy | .237 | - | 0 | 1 |
| CompensationDummy | .36 | - | 0 | 1 |
| WorkloadDummy | .373 | - | 0 | 1 |
| Directorships_Count | 2.79 | 1.002 | 2 | 14 |
| Tenure | 5.743 | 4.043 | 0 | 20 |
| Age | 62.086 | 6.731 | 32 | 95 |
| Retirement_Age | .126 | - | 0 | 1 |
| GainDummy | .251 | - | 0 | 1 |
| Committee_Member | .912 | - | 0 | 1 |
| Committee_Chairman | .553 | - | 0 | 1 |
| Board_Attendance | .817 | - | 0 | 1 |
| Market_Cap [\$ bn.] | 21.482 | 34.992 | 6.359 | 1653 |
| RoA | .042 | .13 | -1.194 | .346 |
| Debt_to_Capital | .439 | .516 | -43.041 | 16.694 |
| Closely_Held_Shares | .095 | .166 | 0 | .993 |
| Assets_Growth | .10 | .332 | -.522 | 4.515 |
| TobinsQ | 2.084 | 1.531 | .467 | 15.667 |

Note: The descriptive statistics are based on a sample of 30,028 observations for the period of 1999 to 2019. A detailed description of all used variables can be found in Table A1.

In conclusion, these findings demonstrate that relative workload and reputation incentives are highly relevant when directors contemplate about relinquishing an existing directorship.

5 | TESTS OF H2—DIRECTOR-LEVEL ANALYSES: DIRECTOR PORTFOLIO ADJUSTMENTS AND REPUTATION GROWTH

5.1 | Identification strategy

To identify the impact of adjustments to a director's portfolio composition (i.e., gaining at least one additional directorship), we use generalized DiD regressions with staggered treatments (similar to Bertrand & Mullainathan, 2003; Dube & Zhu, 2021; Guo et al., 2022). The DiD unit and time fixed effects replace the post and treatment-effect variables of a traditional DiD model (Baker et al., 2022; Goodman-Bacon, 2021). The DiD estimator equals a weighted average of all possible standard DiD estimates between a treated and a control group.

To gain an additional board seat, an outside director needs to be considered and elected by a firm's nomination committee (Duchin et al., 2010). Concerning the treatment, our sample covers (1) directors who never gain or lose any directorships (control group) and (2) directors who accept at least one additional board seat nomination (with

the period after the gain event termed *PostGain*). Directors, who make at least one adjustment to their portfolio, make their first additional gain decision at different times. Consequently, our treatment (directors being exposed to and accepting an additional board nomination) is staggered. The control group includes directors, who never make any adjustments to their portfolio (never-treated), and directors, who have not yet made any adjustments but are about to gain a directorship in the future (later-treated). We use the following generalized DiD model to test whether gaining at least one additional directorship impacts future reputation growth:

$$ReputationGrowth_{i,t} = \alpha + \beta_1 PostGain_{i,t} + \sum \beta_k Controls_{i,t} + \gamma_i + \delta_t + \varepsilon_{i,t} \quad (3)$$

where i indexes the director and t indexes the year. The dependent variable *ReputationGrowth* captures the relative change in the director's average portfolio reputation from the current to the prior year. The director's average portfolio reputation is calculated as the average of the total market capitalization of all the firms the outside director holds an active seat in a given year. *PostGain* is an indicator variable equal to 1 starting in the calendar year in which a director makes the first additional gain of a directorship. Compliant with the generalized DiD approach, γ_i represent director fixed effects and δ_t represent year fixed effects.

Controls are a vector of director-specific controls. We use controls established in the literature to explain variations in the market capitalization of firms (Akbas et al., 2017; Fauver et al., 2017; Kajüter et al., 2019). Since we use a director-year portfolio perspective, we calculate the yearly mean for all active firms in the director portfolio. Concerning portfolio-related control variables, we control for firms' market cap, performance (RoA, total assets growth, and Tobin's q), leverage (debt to capital ratio), ownership structure (proportion of closely held shares to total shares), and whether firms are navigating through any issues (approximated by earnings restatements). Furthermore, we control for the independence level of a firm's board and its board size (Coles et al., 2008). Lastly, we lag portfolio controls by 1 year since their impact on relative *ReputationGrowth* most likely does not materialize immediately.¹⁰ Next, we implement director controls. We include the director's age (applying the natural logarithm), whether the director is in the retirement age above 69 years, and the director's average tenure of all her board seats in a given year, since they influence director experience but could also reduce productivity (Fedaseyeu et al., 2018). Lastly, we control for the total amount of directorships held and a dummy whether she was active on any committee of all her portfolio firms.

5.2 | Descriptive statistics of the director-portfolio perspective

Table 3 displays the descriptive statistics for the director-portfolio perspective (H2). The mean for our dependent variable *ReputationGrowth* shows a yearly increase of 26% in directors' relative market

TABLE 2 Director incentives and relinquish decisions.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---------------------|-------------------------------|----------------------------------|--|---|
| | Dummy incentives Relinquished | Relative incentives Relinquished | Dummy incentives + time-lagged controls Relinquished | Relative incentives + time-lagged controls Relinquished |
| Reputation | -.011*** (-2.595) | -.001*** (-2.877) | -.015*** (-3.577) | -.001*** (-3.207) |
| Risk | .001 (.002) | -.004 (-1.311) | -.002 (-.445) | -.004 (-1.252) |
| Compensation | -.004 (-1.121) | -.001 (-.567) | -.006 (-1.595) | -.003 (-1.265) |
| Workload | .012*** (3.089) | .014*** (4.744) | .01** (2.479) | .012*** (3.814) |
| Tenure | .007*** (11.391) | .007*** (11.593) | .006*** (10.153) | .006*** (10.357) |
| Directorships_Count | .021*** (6.192) | .02*** (5.544) | .022*** (6.194) | .021*** (5.731) |
| Age_In | -1.757*** (-3.397) | -1.728*** (-3.327) | -2.493*** (-4.183) | -2.457*** (-4.104) |
| Retirement_Age | .038*** (4.49) | .038*** (4.467) | .034*** (3.673) | .034*** (3.658) |
| GainDummy | -.007 (-1.617) | -.007 (-1.595) | -.004 (-1) | -.004 (-.968) |
| Committee_Chairman | -.028*** (-6.229) | -.028*** (-6.13) | -.027*** (-5.448) | -.026*** (-5.353) |
| Committee_Member | -.094*** (-9.263) | -.094*** (-9.255) | -.091*** (-8.319) | -.091*** (-8.327) |
| Board_Attendance | -.015 (-.692) | -.016 (-.756) | .001 (.635) | .001 (.573) |
| Market_Cap_In | -.005* (-1.795) | -.007*** (-3.04) | -.002 (-.861) | -.006** (-2.204) |
| RoA | -.031 (-1.535) | -.028 (-1.376) | -.001** (-2.051) | -.001* (-1.883) |
| Debt_to_Capital | -.005 (-.99) | -.005 (-1.016) | .001 (1.474) | .001 (1.478) |
| Closely_Held_Shares | .017 (1.127) | .018 (1.151) | -.001 (-.81) | -.001 (-.821) |
| Assets_Growth | -.003 (-.501) | -.003 (-.52) | -.001 (-1.472) | -.001 (-1.351) |
| TobinsQ | -.002 (-1.151) | -.001 (-.994) | -.002 (-1.165) | -.002 (-1.055) |
| Director FE | Yes | Yes | Yes | Yes |
| Industry-year FE | Yes | Yes | Yes | Yes |
| Observations | 30,028 | 30,028 | 26,590 | 26,590 |
| Adj R ² | .132 | .132 | .137 | .137 |

Note: This table presents the effect of directorship reputation on the decision to relinquish a board seat. The dependent variable in all columns (*Relinquished*) is a dummy variable that is set to one if the outside director leaves the firm's board in a given year and zero if the existing board seat is kept. The main independent variable *Reputation* in column (1) is a dummy variable (*ReputationDummy*) that is set to one if the market capitalization of the relinquished firm is larger than the average market capitalization of the remaining firms in the director portfolio and zero otherwise. The main independent variable *Reputation* in Model 2 is a continuous variable (*RelativeReputation*) that measures the relative difference from the relinquished directorship's market capitalization to the average market capitalization of the remaining firms in the director portfolio. Model 3 (4) is equal to Model 1 (2) except that all

control variables are lagged by 1 year. The continuous independent variables and all financial variables are winsorized at the 1st and 99th percentile. We include director and industry-year fixed effects in all models. We cluster standard errors at the industry-year level. *t*-statistics are reported in parentheses below the coefficients.

*Statistical significance at 0.10 level (using two-tailed tests).

**Statistical significance at 0.05 level (using two-tailed tests).

***Statistical significance at 0.01 level (using two-tailed tests).

| Variable | Mean | Std. dev. | Min | Max |
|---------------------------|--------|-----------|----------|---------|
| ReputationGrowth | .263 | .988 | -.895 | 7.013 |
| PostGain | .604 | - | 0 | 1 |
| Directorships_Count | 2.02 | 1.145 | 1 | 24 |
| Tenure_avg | 5.438 | 3.513 | 0 | 20 |
| Age | 60.643 | 8.133 | 30 | 96 |
| Retirement_Age | .136 | - | 0 | 1 |
| Committee_Member | .93 | - | 0 | 1 |
| Committee_Chairman | .223 | - | 0 | 1 |
| Market_Cap_avg [\$ bn.] | 19.793 | 40.863 | .007 | 241.899 |
| RoA_avg | .041 | .111 | -.91 | .296 |
| Assets_Growth_avg | .125 | .334 | -.452 | 3.092 |
| TobinsQ_avg | 1.988 | 1.158 | .624 | 9.864 |
| Debt_to_Capital_avg | .389 | 3.126 | -488.989 | 57.411 |
| Closely_Held_Shares_avg | .138 | .163 | 0 | .998 |
| Independence_Level_avg | .776 | .154 | 0 | 1 |
| Board_Size_avg | 10.661 | 2.365 | 1 | 35 |
| Earnings_Restatements_avg | .036 | .036 | 0 | 1 |

TABLE 3 Descriptive statistics: Director-level analysis.

Note: The descriptive statistics are based on a sample of 30,981 observations for the period of 1999 to 2019. A detailed description of all used variables can be found in Table A1.

capitalizations over our sample period. Our treatment variable (*PostGain*) has a mean of 0.60. This indicates that we have slightly more observations of (treated) directors, who at least joined one additional board than directors, who have never or not yet joined an additional board (control group). On average, 93% of our directors serve on at least one committee of their directorships, and 22% also act as a committee chairman.

5.3 | Difference-in-difference estimates of H2

Table 4 shows the results of our generalized DiD models, including the impact of *PostGain* on *ReputationGrowth*. For H2, we predict that directors, who gain at least one additional outside directorship, can achieve higher reputation growth than directors who only hold one outside directorship. Thus, the impact of *PostGain* on *ReputationGrowth* (β_1) should be positive and significant.

The coefficient of *PostGain* (Model 1) is significantly different from zero ($t = 7.74$, $p < 0.01$), indicating that outside directors, who gain at least one additional directorship position, can achieve higher reputation growth than directors who have not (yet) gained an additional directorship. Consequently, the DiD estimate supports H2.

5.4 | Additional analyses and robustness checks of H2

Next, we test for treatment intensity by replacing our binary treatment variable with a continuous treatment variable (similar to Acemoglu et al., 2004; Dube & Zhu, 2021). Instead of setting the treatment to one in all director-years after a director got and accepted a nomination for the first time, we replace the value with the maximum number of nominations a director accepts over all her observation periods (e.g., if a director accepted four board nominations, we set the value to four instead of one). Results of Table 4 (Model 2) show that reputation growth increases with the number of nominations a director receives and accepts ($t = 7.02$, $p < 0.01$).

To reduce endogeneity concerns, we re-run our model with a randomly generated pseudo-event replacing our treatment variable (see Cornaggia et al. (2015) for a similar approach). In contrast to our *PostGain* treatment variable, the pseudo-treatment should display an insignificant effect on reputation growth. To generate the pseudo-event dummy, we first restrict our sample to not-yet and never-treated observations to remove any impact of the actual treated observations on the pseudo-treatment estimates. Removing treated observations reduces the sample from 30,981 to 11,902 observations. Next, we calculate the

TABLE 4 Director portfolio adjustments and reputation growth (1).

| | Model 1 | Model 2 | Model 3 |
|---------------------------|-------------------------------------|---|--------------------------------------|
| | Generalized DiD ReputationGrowth | Treatment intensity ReputationGrowth | Pseudo-treatment ReputationGrowth |
| PostGain | .305*** (7.741) | .09*** (7.021) | .009 (.39) |
| Age_In | 1.326 (.954) | 1.515 (1.092) | 4.687** (2.432) |
| Retirement_Age | .041 (1.44) | .042 (1.475) | .027 (.601) |
| Tenure_avg | -.019*** (-3.273) | -.02*** (-3.337) | -.032*** (-2.682) |
| Directorships_Count | .001 (.023) | -.002 (-.131) | -.158*** (-4.41) |
| Committee_Member | .193*** (2.749) | .202*** (2.888) | .158 (1.208) |
| Committee_Chairman | .033 (1.3) | .035 (1.376) | -.044 (-.759) |
| Market_Cap_In_avg | -.634*** (-31.813) | -.634*** (-31.809) | -.504*** (-13.436) |
| RoA_avg | -.275** (-2.401) | -.279** (-2.432) | -.615*** (-3.359) |
| Assets_Growth_avg | -.02 (-.981) | -.02 (-.977) | -.062** (-2.332) |
| TobinsQ_avg | .032*** (2.753) | .031*** (2.713) | -.004 (-.235) |
| Debt_to_Capital_avg | .003*** (3.859) | .003*** (3.831) | .015** (2.223) |
| Earnings_Restatements_avg | -.011 (-.457) | -.01 (-.426) | .004 (.105) |
| Closely_Held_Shares_avg | .001 (.008) | -.004 (-.047) | .196* (1.954) |
| Independence_Level_avg | .034 (.426) | .031 (.39) | .199** (2.049) |
| Board_Size_avg | .062*** (10.166) | .062*** (10.186) | .027*** (2.979) |
| Director FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Observations | 30,981 | 30,981 | 11,902 |
| Adj R ² | .29 | .289 | .32 |

Note: This table presents the effect of directors' portfolio adjustments (joining an additional board seat) on directors' reputation growth. The dependent variable measures the relative change from directors' average market capitalization of their directorships from the prior to the current year. The treatment variable *PostGain* is set to one as soon as a director gains one additional directorship and is set to zero for never and not yet treated director-years (Model 1). In Model 2, we test for treatment intensity by replacing our binary treatment variable with a continuous treatment variable (incrementing by one each time a director joins an additional board). In Model 3, we re-run Model 1 with a randomly generated pseudo-event replacing our treatment variable. The dependent variables and all financial variables are winsorized at the 1st and 99th percentile. Firm-level variables are lagged by 1 year. In all generalized difference-in-difference regressions, we include director and year fixed effects. We cluster standard errors at the director level. *t*-statistics are reported in parentheses below the coefficients.

*Statistical significance at 0.10 level (using two-tailed tests).

**Statistical significance at 0.05 level (using two-tailed tests).

***Statistical significance at 0.01 level (using two-tailed tests).

ratio of treated to not-yet and never-treated observations of the original sample, with 0.60 of the observations being treated. We use this ratio and randomly set director-year observations to one (e.g., if a joint event is randomly selected for a director in 2014, the director-years 2014 to 2019 are set to one). Thereby, we retain the original treated ratio (similar to Cornaggia et al., 2015). Next, we re-run Model 1 with the pseudo-event variable. Table 4 (Model 3) shows an insignificant effect of the pseudo-event on reputation growth ($t = 0.39$, $p = 0.698$), reducing potential endogeneity concerns of our DiD approach being caused by spurious trends.

Additionally, we apply propensity score matching to ensure our results are not driven by observable differences between treated and non-treated (control) observations. First, we apply a probit regression to estimate the probability of receiving an additional board seat nomination for the treatment and control groups using director-portfolio characteristics (*age_ln*, *tenure_avg*, *independence_level_avg*, *board_size_avg*, *market_cap_avg*). Results of Table 6 show that the means of the director-portfolio characteristics significantly differ between the treated and control firms before applying propensity score matching (all p -values < 0.01). Second, we match each treated observation with one control observation by applying one-to-one nearest neighbor matching without replacement. We use a caliper of 0.4% (equaling twice the standard deviation of the logit of the propensity score, see Dube and Zhu (2021)) to limit the range of potential propensity score matches, resulting in 11,409 matched director-year pairs.

Table 6 shows that the differences in means of the treated and propensity score matched control group become insignificant ($p > 0.1$), except for the lagged portfolio market cap variable ($p = 0.052$). Last, we apply the frequency weights (equaling one for each observation since we use one-to-one matching) of our matched observations to our generalized DiD model, limiting the model to only treated observations with a nearest neighbor match. This results in 22,819 observations (Table 5, Model 1). The coefficient of PostGain still significantly differs from zero ($t = 6.78$, $p < 0.01$), showing that the results are not driven by observable differences in characteristics between the treatment and control groups.

As an additional analysis, we analyze whether outside directors, who never relinquish one of their multiple board seats, achieve higher reputation growth than those who relinquish at least one of their multiple directorships during our 20-year observation period. Director exits could increase their average reputation by leaving poorly performing firms (Arthaud-Day et al., 2006; Cowen & Marcel, 2011) and by allowing them to allocate more time to their remaining monitoring duties (Bar-Hava et al., 2020). However, leaving a firm's board potentially leads to the loss of information and knowledge synergies. Furthermore, since not all exits are voluntary (Boivie et al., 2012), forcefully exiting a well-performing firm would lower a director's reputation. We replace the *PostGain* treatment variable with the dummy *GainVsRelinquish*, which equals zero for directors who relinquish at least one of their multiple directorships and one for directors who hold multiple seats and never relinquish one of their directorships. Results of Table 5 (Model 2) show that directors, who never relinquish one of their board seats, achieve higher reputation growth afterward

than directors who leave one of their multiple seats ($t = 2.04$, $p = 0.021$).¹¹ This result substantiates our theory that reputation growth could be mainly driven by information and expertise synergies gained from holding additional directorships, which are lost when leaving a board.

Lastly, two potential issues arise since our BoardEx observations (starting in 1999) potentially include directors who could have held multiple seats in and before 1999. First, some directors already held multiple seats in 1999 and are thus already treated. Since this could add bias to the treatment effect, we remove these directors as a robustness check. This sample adjustment ($n = 29,973$) yields a similar result of the treatment effect as before ($t = 7.64$, $p < 0.01$, untabulated). Second, our sample might include directors who only held one directorship in 1999 but have gained and relinquished an additional seat before 1999. As an even more conservative robustness check, we remove all directors already active in 1999. Even though the sample size decreases to 20,814, the significance level of the nomination treatment on reputation growth remains unchanged ($t = 5.19$, $p < 0.01$, untabulated).

6 | TESTS OF H3—FIRM-LEVEL ANALYSES: BOARD OF DIRECTORS INCENTIVES AND FIRM OUTCOMES

6.1 | Identification strategy

To examine the effect of the average reputation (risk propensity) of all outside directors in a given firm on performance (earnings management), we estimate two-way fixed effects regression models:

$$FirmDV_{i,t} = \alpha + \beta_1 BoardIncentive_avg_{i,t} + \sum \beta_k Controls_{i,t} + \gamma_i + \delta_t + \varepsilon_{i,t} \quad (4)$$

where i indexes the firm and t indexes the year. For H3a, we use RoA as the dependent variable and *BoardReputation_avg_ln* as our main independent variable, which captures the average portfolio reputation (market capitalization) of all outside directors serving a firm (i.e., the mean of all directors' average portfolio reputation). For H3b, we use earnings management as the dependent variable. We calculate earnings management based on the modified Jones Model (Dechow et al., 1995), where the firm-specific discretionary accruals are estimated from the total accruals. For H3b, our main independent variable is *BoardRisk_avg*, which captures the average portfolio risk (beta) of all outside directors (i.e., the mean of all directors' average portfolio risk propensity).

Again, we apply two-way fixed effects regression models, with firm-level fixed effects controlling for time-invariant firm characteristics (similar to Masulis & Zhang, 2019). We also include year-level fixed effects on the second level to control for time-specific factors that could potentially determine firm outcomes. Standard errors are robust to heteroskedasticity and serial correlations within industry-year-level clusters. Lastly, increased performance could lead to firms

TABLE 5 Director portfolio adjustments and reputation growth (2).

| | Model 4 | | Model 5 | |
|---------------------------|---------------------------|------------------|----------------------|------------------|
| | Propensity score matching | ReputationGrowth | Gain vs. relinquish | ReputationGrowth |
| PostGain | .308*** (6.78) | | .152** (2.043) | |
| Age_In | 2.846* (1.846) | | .021 (.097) | |
| Retirement_Age | .066* (1.737) | | -.01 (-.193) | |
| Tenure_avg | -.025*** (-3.632) | | -.011* (-1.713) | |
| Directorships_Count | -.005 (-.296) | | -.016 (-.61) | |
| Committee_Member | .218*** (2.749) | | .089 (1.415) | |
| Committee_Chairman | .027 (.796) | | .192** (2.266) | |
| Market_Cap_In_avg | -.667*** (-27.788) | | -.147*** (-5.022) | |
| RoA_avg | -.244* (-1.848) | | .128 (.581) | |
| Assets_Growth_avg | -.008 (-.329) | | .124 (.946) | |
| TobinsQ_avg | .036*** (2.637) | | .002 (.077) | |
| Debt_to_Capital_avg | .002*** (3.948) | | .001 (.152) | |
| Earnings_Restatements_avg | -.017 (-.522) | | .001 (.001) | |
| Closely_Held_Shares_avg | -.011 (-.111) | | .026 (.183) | |
| Independence_Level_avg | .021 (.256) | | -.252 (-1.551) | |
| Board_Size_avg | .062*** (8.568) | | .021 (1.43) | |
| Director FE | Yes | | No | |
| Year FE | Yes | | Yes | |
| Observations | 22,819 | | 1480 | |
| Adj R ² | .297 | | .131 | |

Note: This table presents the effect of directors' portfolio adjustments (joining an additional board seat) on directors' reputation growth. The dependent variable measures the relative change from directors' average market capitalization of their directorships from the prior to the current year. For Model 4, we extract frequency weights from propensity score matching and apply them to our generalized Difference-in-Difference model (Table 4, Model 1), limiting the model to only treated observations with a nearest neighbor match. In Model 5, the *PostGain* treatment variable is replaced with a dummy (*GainVsRelinquish*), which equals zero for directors who hold multiple seats and relinquish at least one directorship and one for directors, who hold multiple seats and never relinquish one of their directorships. The dependent variables and all financial variables are winsorized at the 1st and 99th percentile. Firm-level variables are lagged by 1 year. In all generalized difference-in-difference regressions, we include director and year fixed effects. We cluster standard errors at the director level. t-statistics are reported in parentheses below the coefficients.

*Statistical significance at 0.10 level (using two-tailed tests).

**Statistical significance at 0.05 level (using two-tailed tests).

***Statistical significance at 0.01 level (using two-tailed tests).

TABLE 6 Propensity score matching results.

| Variable (mean) | Before matching | | | After matching | | |
|------------------------|-------------------------|-----------------------------------|----------|-------------------------|---------------------------------|--------|
| | Treated (n = 18,155) | Unmatched control (n = 12,104) | t-test | Treated (n = 11,409) | Matched control (n = 11,409) | t-test |
| Age_ln | 4.11 | 4.07 | 27.84*** | 4.10 | 4.10 | -1.00 |
| Tenure_avg | 5.63 | 5.15 | 11.73*** | 5.57 | 5.71 | -0.41 |
| Independence_level_avg | 78.05 | 76.89 | 6.44*** | 77.13 | 77.24 | -0.56 |
| Board_size_avg | 10.71 | 10.58 | 4.80*** | 10.59 | 10.60 | -0.51 |
| Size_avg | 15.71 | 15.41 | 16.48*** | 15.51 | 15.53 | -1.95* |

Note: This table presents the coefficient means of the treated (*PostGain* equals one) and control groups. Matching is based on one-to-one nearest neighbor matching without replacement. A probit regression is used to estimate the probability of receiving an additional board seat nomination for the treatment and control groups based on director-portfolio characteristics.

*Statistical significance at 0.10 level (using two-tailed tests).

**Statistical significance at 0.05 level (using two-tailed tests).

***Statistical significance at 0.01 level (using two-tailed tests).

| Variable | Mean | Std. dev. | Min | Max |
|------------------------------|----------|-----------|---------|---------|
| RoA [%] | 3.479 | 15.494 | -193.54 | 289.2 |
| EarningsManagement | .129 | 1.023 | -24.197 | 15.27 |
| BoardReputation_avg [\$ bn.] | 20.71 | 51.884 | 0 | 896.727 |
| BoardRisk_avg | 1.251 | .719 | -2.824 | 21.505 |
| BoardNetworkSize_avg | 602.34 | 1188.268 | 0 | 17,528 |
| BoardAuditCom_ratio | .544 | .359 | 0 | 1 |
| BoardHighEducation_ratio | .581 | .354 | 0 | 1 |
| BoardFemale_ratio | .124 | .22 | 0 | 1 |
| BoardExec_ratio | .146 | .267 | 0 | 1 |
| BoardGovernance_avg | .244 | .263 | 0 | .968 |
| Board_Size_Independent | 2.938 | 1.833 | 1 | 14 |
| Age_avg | 58.486 | 7.695 | 28 | 91 |
| BoardDebt_avg | .326 | .264 | 0 | 1.451 |
| Total_Assets [\$ mio.] | 5312.889 | 16231.061 | 5.89 | 267,399 |
| Net_Income_Growth | .235 | .898 | -.847 | 6.553 |
| Change_Accruals | .002 | .024 | -.539 | .503 |
| Closely_Held_Shares | .184 | .201 | 0 | .994 |
| Amort_Intangibles | .013 | .024 | 0 | .566 |

TABLE 7 Descriptive statistics: Firm-level analysis.

Note: The descriptive statistics are based on a sample of 8598 observations for the period of 1999 to 2019. A detailed description of all used variables can be found in Table A1.

acquiring more reputable directors. To alleviate potential endogeneity problems arising from reverse causality, we follow prior research by including the lagged dependent variable as an additional independent variable in our regression models (e.g., Barnett & Salomon, 2012).

6.2 | Control variables

We use several board and firm-level control variables that potentially influence firm performance or earnings management (e.g., Buchwald & Hottenrott, 2019; García Lara et al., 2017;

Hoitash & Mkrtchyan, 2022; Jin et al., 2022). We use the share of outside directors on a board that serves on audit committees in any of their directorships as a proxy for audit and financial expertise. Outside directors with the necessary experience to be appointed to audit committees might be more effective in detecting and preventing accrual-based earnings management. Similarly, we control for the share of directors with higher education and the average network size to proxy for the ability and resources of the outside directors of a given firm. Additionally, we control for the average level of governance within the directorship portfolios. On the firm level, we control for the change in other accruals as those might be associated with the

TABLE 8 Board of director incentives and firm outcomes.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---------------------------|-------------------------------|---|-------------------------------|---|
| | Absolute board reputation RoA | Absolute board risk Earnings management | Relative board reputation RoA | Relative board risk Earnings management |
| BoardReputation_avg_In | .942*** (4.87) | | 1.702*** (3.518) | |
| BoardRisk_avg | | .053*** (2.799) | | -.005 (-.161) |
| BoardAuditCom_ratio | .047 (.081) | .057 (1.451) | .429 (.727) | .057 (1.437) |
| BoardHighEducation_ratio | .113 (.149) | -.055 (-1.079) | .096 (.125) | -.051 (-.997) |
| BoardFemale_ratio | 1.829 (1.499) | -.021 (-.313) | 2.084* (1.719) | -.031 (-.47) |
| BoardNetworkSize_avg | -.001* (-1.851) | -.001* (-1.707) | -.001* (-1.742) | -.001* (-1.667) |
| BoardExec_ratio | -2.273*** (-2.588) | .021 (.522) | -1.563* (-1.813) | .019 (.478) |
| BoardGovernance_avg | -1.572 (-1.596) | -.039 (-.623) | .87 (1.033) | -.044 (-.706) |
| BoardDebt_avg | -3.232*** (-3.341) | .046 (.842) | -2.934*** (-3.052) | .044 (.79) |
| Age_In_avg | -6.821*** (-3.623) | .323** (2.323) | -5.296*** (-2.903) | .314** (2.255) |
| Net_Income_Growth | 1.869*** (9.284) | -.029*** (-2.595) | 1.876*** (9.394) | -.028** (-2.576) |
| Change_Accruals | -7.488 (-.59) | -1.007* (-1.877) | -6.777 (-.534) | -1.018* (-1.882) |
| Board_Size_Independent | -.133 (-1.078) | -.004 (-.457) | -.009 (-.07) | -.003 (-.383) |
| Closely_Held_Shares | -3.973** (-2.544) | .034 (.439) | -4.028*** (-2.591) | .029 (.378) |
| Amort_Intangibles | -188.644*** (-10.292) | -1.139** (-2.211) | -188.988*** (-10.511) | -1.074** (-2.056) |
| Total_Assets_In | .049 (.115) | -.116*** (-4.028) | .28 (.642) | -.119*** (-4.106) |
| RoA_lagged | .161*** (5.385) | | .164*** (5.471) | |
| EarningsManagement_lagged | | -.073 (-1.588) | | -.072 (-1.561) |
| Firm FE | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Observations | 8598 | 8640 | 8598 | 8640 |
| Adj R ² | .461 | .401 | .459 | .401 |

Note: This table presents the effect of the board of directors' portfolio reputation and portfolio risk on firm outcomes. The dependent variable in Models 1 and 3 is the return on assets (RoA). The dependent variable in Models 2 and 4 is accrual-based earnings management based on the modified Jones Model (Dechow et al., 1995). The main independent variables of Model 1 (*BoardReputation_avg*) and 2 (*BoardRisk_avg*) capture the average portfolio reputation (risk) of all outside directors in a given firm, that is, the mean of all outside directors' average portfolio reputation (risk). In Models 3 and 4, the absolute average measurements are replaced with a relative average measure using the average of the *ReputationDummy* (*RiskDummy*) of all outside directors in a firm, with values of one (zero) indicating that all outside directors rank the respective firm higher (lower) than the average of all her other portfolio firms.

All financial variables are winsorized at the 1st and 99th percentile. We include firm and year fixed effects. We cluster standard errors at the industry-year level. *t*-statistics are reported in parentheses below the coefficients.

*Statistical significance at 0.10 level (using two-tailed tests).

**Statistical significance at 0.05 level (using two-tailed tests).

***Statistical significance at 0.01 level (using two-tailed tests).

magnitude of earnings management. We also control for the number of outside directors, as the independent board size might influence the monitoring effectiveness of its outside directors. Moreover, we control for the ratio of female directors as a higher ratio is generally related to lower earnings management. Lastly, we include several other firm-level controls (total assets, net income growth, independent board size, amortization of intangibles, and closely held shares). Table 7 shows the descriptive statistics of the firm-year data.

6.3 | Results of H3a and H3b

Table 8 (Model 1) shows a significant positive coefficient for *BoardReputation_avg_ln* ($t = 4.87, p < 0.01$), supporting H3a. Firms monitored by more reputable outside directors (based on the average reputation of their directorship portfolios) tend to exhibit higher firm performance measured by RoA. We argue that directors with higher reputational capital are more incentivized to protect their earned reputation. Hence, they are more inclined to monitor and advise their directorships more effectively.

Based on H3b, we expect the average risk propensity of a firm's outside directors to influence *EarningsManagement*. We find evidence supporting H3b, as the coefficient of our measure that captures the average directors' portfolio risk (*BoardRisk_avg*) is significant and positive ($t = 2.80, p < 0.01$). We argue that outside directors who generally tolerate more risk in their directorship portfolios are also more inclined to accept potentially income-increasing earnings management since they are willing to bear the increased litigation risk.

6.4 | Additional analyses of H3

Models 1 and 2 use the average of all directors' average portfolio reputation (risk) in a firm as the proxy for a board's absolute average reputation (risk propensity). However, this absolute measure does not consider the relative ranking of a director's specific board seat compared to the other seats of a director. Therefore, we replace the absolute average variables with relative average measures, which set each directorship of a director in relation to her other directorships (similar to Sila et al. (2017)). To calculate *ReputationDummy_avg*, we use the average of the *ReputationDummy* of all outside directors in a firm, which we already used in the analyses of H1. The variable is bound between zero and one, with a value of one (zero) indicating that all outside directors rank the respective firm higher (lower) than the average of all her other portfolio firms.¹² The relative average risk propensity *RiskDummy_avg* is calculated analogously based on the average value of the board's *RiskDummy* values.

The results of Model 3 show that when firms employ directors who rank the firm relatively higher in reputation than the average of their director portfolio, firm performance is increased ($t = 3.52, p < 0.01$). A potential explanation for this finding is that if the respective firm has a higher reputation than its directors' other board seats, its directors are incentivized to better monitor and protect the higher-ranked directorship. Thus, the absolute and relative reputations of a firm's outside directors positively influence firm performance.

On the contrary, even though the absolute risk propensity increases the likelihood of earnings management, the coefficient of the *RiskDummy_avg* in Model 4 is insignificant ($t = -0.16, p = 0.87$). Thus, earnings management is not influenced by the proportion of outside directors for whom the respective firm exhibits more risk than the average of their directorship portfolio. We argue that directors do not change their monitoring behavior of a directorship that has relatively larger risk than the average of his portfolio. Instead, only the absolute risk propensity level of all outside directors influences earnings management.

In conclusion, we find evidence supporting H3a and H3b as our results corroborate the notion that the portfolio reputation and (absolute) risk propensity of all outside directors serving on a firm's board influence firm performance and earnings management.

7 | DISCUSSION AND CONCLUSIONS

Due to the changes of the SOX in 2002 to the director labor market, researchers started to examine the effect of outside directors' incentives (reputation, compensation, risk, and workload) on director decisions and firm outcomes (e.g., Boivie et al., 2012; Masulis & Mobbs, 2014; Sila et al., 2017). Our research adds to prior literature by examining the interplay between director portfolio adjustments (e.g., relinquishing or joining a board), the underlying incentives, and their impact on firm performance and earnings management.

First, corroborating the reputation hypothesis (Fama & Jensen, 1983), we shed light on the motivation behind a director's decision to relinquish a board seat. Our results reveal that directors strategically relinquish board seats to increase their reputation since they tend to exit their lowest reputable (and most work-intense) directorships (H1). Our findings add to the scant literature covering relative attributes of directorships.

Second, since prior research mostly focuses on relinquish decisions (e.g., Boivie et al., 2012; Masulis & Mobbs, 2014), we examine the impact of accepting an additional directorship on directors' reputation growth. Our results show that accepting an additional board seat is advantageous for a director's reputation growth compared with only holding one board seat (H2). Additional analyses reveal that

leaving an additional board seat leads to lower reputation growth afterward, corroborating our theory that increased reputation growth is potentially driven by the information and knowledge-sharing synergies of occupying multiple board seats.

Lastly, by taking on a firm perspective, we add to the scant literature examining how outside directors' characteristics impact effective monitoring behavior. We argue that directors with higher reputational capital are more incentivized to protect their earned reputation and monitor more effectively. Our results reveal that both the absolute and relative aggregated reputations of the independent board members lead to a higher RoA (H3a). Furthermore, our results shed light on prior mixed findings concerning the relationship between the proportion of outside directors and firms' earnings management (e.g., Klein, 2002; Wang et al., 2015). Our findings show that outside directors holding more risky directorships in their directorship portfolio are more inclined to accept earnings management and its related risks (H3b).

Overall, our findings have several important implications for firms and directors. First, our results have practical relevance for firms wanting to retain directors by managing their workload and considering the director's relative portfolio reputation when offering a seat. Second, our findings also have practical implications for directors contemplating accepting an additional nomination. By accepting an additional nomination, directors can increase their reputation growth, which also could lead to better executive positions. Finally, we show that hiring reputable directors increases firm performance and that firms concerned about earnings management should assess the average risk that potential new outside directors are bearing in their directorship portfolios. Since listed firms publicly disclose their directors in their annual proxy statements (Def 14A filings), firms can gather information about directors' other seats (and their reputation and risk propensity) before nominating them.

Finally, our study does not come without limitations. Besides general endogeneity concerns, which cannot be completely eliminated, it is unclear whether relinquish decisions are forced or voluntary. Moreover, information is missing on director nominations, which were not accepted by a director. Both information are potentially important confounders. Nevertheless, there are also several conceivable avenues for further empirical studies. For example, future research could examine whether outside director incentives have any influence on the respective internal directorship of the director. For example, do increases in outsider reputation lead to career advancements or better performance of the internal directorship? Lastly, it could be of interest to examine whether firms with risk-seeking directorship portfolios of their board of directors lead to adverse circumstances (e.g., financial fraud).

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CONFLICT OF INTEREST STATEMENT

The authors have no relevant financial or non-financial interests to disclose.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon request.

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ENDNOTES

- ¹ Independent directors (also defined as outside directors) assume a primarily role as monitors and advisors of firms and are nominally independent from the executive management (Boyd, 1990). In the following, we use the word *directors* to refer to independent directors.
- ² BoardEx reports the exact join and end date of a directorship for most observations. Since our models use yearly observations, we round start and end dates based on the actual reported month. If the reported month lies between July and December, then we set the date to the 31st of December of the same year. If the reported month lies between January and June, then we set the date backwards to the 31st of December of the previous year. The other option of always setting the reported date to the 31st of December of the given year would lead to larger offsets for reported dates in the first half of the year. Consequently, shifting the reported date up to ± 6 months reduces the potential offset. In case of missing exact dates, we set the 31st of December as the date.
- ³ To address potential multicollinearity concerns, we test the variance inflation factors (VIFs) of the independent variables for all reported models. For the VIF tests, we omit the fixed effects since each increment inflates the VIFs. The VIFs of the reported results are smaller than 2.87. In addition to not exceeding the conventional thresholds of 5 or 10, multicollinearity generally is less of an issue in regression models with larger sample sizes (Goldberger, 1991).
- ⁴ For a detailed list and description see the variable definitions in Appendix A (Table A1).
- ⁵ Prior research identified several director characteristics influencing director appointments and relinquish decisions. For example, Schoonjans et al. (2023) show that a board's female ratio negatively predicts the likelihood of additional women appointments. However, since the gender variable is static within director-firm year observations, the binary gender variable is absorbed by the director fixed effects. Thus, our models should implicitly account for various director characteristics (like gender) by applying director fixed effects.
- ⁶ Prior research finds that the type of committee might impact the director's environment and their decisions. For example, Masulis and Mobbs (2014) find that audit and compensation committees are regarded as more time-consuming. Thus, we verify the results of H1 using the separate committee variables due to the potential different impacts of the respective committee on the decision to leave a seat. Using separate committee membership variables does not change the results of H1 (untabulated), except that for Table 2 (Model 4), the negative coefficient *CompensationDummy* becomes significant at the 10% level.
- ⁷ We use the natural logarithm for all variables that reflect an absolute monetary value (market capitalization and total assets) to reduce

potential skewness and to decrease the magnitude of their coefficients. Moreover, we winsorize financial variables at the 1st and 99th percentile (except for variables bound to the 0–1 range) to mitigate the impact of outliers.

- ⁸ Descriptive statistics of sub-samples used in additional analyses and robustness checks are provided in Appendix B (Tables B1 and B2).
- ⁹ Masulis and Mobbs (2014) and Ormazabal (2018) shift their dependent variable (a dummy variable indicating when a director left a firm in a given year) 1 year forward. Since we shift the reported start and end dates of a directorship by up to ± 6 months, most observations already include time-lagged control variables. For example, if a directorship starts on the 1st of April 2015, we set the start date to the 31st of December 2014. Consequently, we use control variables from 2014 for start dates ranging from January to June 2015. In case of starting dates ranging from July to December, we set the starting date to the 31st of December of that year and use control variables from that year. Nevertheless, additionally lagging controls by 1 year does not change our main results.
- ¹⁰ Using portfolio controls without lagging them by 1 year does not change the results (untabulated).
- ¹¹ Table 5 (Model 2) is subject to a reduced sample size. This is due to the relatively small number of directors, who hold multiple directorships while never relinquishing one of their seats during our 20-year observation period. However, a sample with around 1500 observations should still be sufficient to make causal inferences with adequate statistical power. Moreover, it should be noted that we omit director fixed effects in this model since the *GainVsRelinquish* variable is static within director observations and, thus, would be absorbed by the fixed effects.
- ¹² Since we focus on relative incentives in the analyses of H1, the analyses of H1 only include directors with multiple directorships. On the contrary, since the analyses of H3 are based on absolute incentives of all outside directors of a board, the sample also includes directors who only hold one board seat. To calculate the *ReputationDummy_avg*, we replace the missing values of the *ReputationDummy* of single seat directors with one, based on the argumentation that their only directorship is the highest ranked for them. Nevertheless, the results are unchanged when running the analyses without single seat directors (untabulated).

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APPENDIX A

TABLE A1 Variable definitions

| | |
|-----------------------------------|--|
| Director portfolio changes | |
| Relinquished | Indicator variable that equals one if the outside director leaves the firm's board of directors in a given year, and zero if she has an active position in the firm's board of directors |
| PostGain | Indicator variable that is set to one in the calendar year and all subsequent years, in which the director joins at least one additional board, and zero otherwise |
| GainVsRelinquish | Indicator variable that is set to one for directors who hold multiple directorships and never relinquished any of the existing directorships, and zero for directors who left at least one of their multiple directorships |
| Director incentives | |
| Reputation | Measured via the firm's market capitalization (common shares outstanding multiplied with the stock price) |
| Risk | Measured via the firm's beta, the stock price volatility in relation to the overall market |
| Compensation | Measured via the average compensation of the firm's board members in US dollars |
| Workload | Measured via the number of board meetings during the year |
| H1 | |
| ReputationDummy | Dummy variable that equals one if the firm's market capitalization is larger than the average market capitalization of the director's board of director portfolio, excluding the firm. Analogously for RiskDummy (beta), CompensationDummy, and WorkloadDummy |
| RelativeReputation | The firm's market capitalization in relation to the average total market capitalization of the director's board of director portfolio, excluding the firm. Analogously for RelativeRisk (beta), RelativeCompensation, and RelativeWorkload |
| H2 | |
| ReputationGrowth | The relative change of the director's portfolio average market capitalization from the previous to the current year |
| H3 | |
| BoardReputation_avg | Average market capitalization of the directorship portfolios of all outside directors that serve a given firm (i.e., the mean of all directors' average portfolio reputation). Analogously for BoardRisk_avg |
| ReputationDummy_avg | Average of the ReputationDummy (equaling 0 or 1) of all outside directors that serve a given firm. Analogously for RiskDummy_avg |
| Director controls | |
| GainDummy | Dummy variable that equals one if the director gained at least one board of director seat during the respective year |
| Age_In | Natural logarithm of the director's age in the respective year |
| Retirement_Age | Dummy variable that equals one if the director's age is larger than 69 years |
| Directorships_Count | Number of outside directorships a director holds in the respective year |
| Tenure | The director's tenure in the firm measured in years |
| Committee_Chairman | Dummy variable that equals one if the director was active as the chairman of the firm in a given year and zero otherwise |

TABLE A1 (Continued)

| | |
|------------------------------------|--|
| Committee_Member | Dummy variable that equals one if the director was an active member in any of the committees (nomination, compensation, audit, finance, governance, risk) of the firm in a given year and zero otherwise |
| Firm controls | |
| Market_Cap | The firm's common shares outstanding multiplied with the stock price |
| RoA | $(\text{Net Income} - \text{Bottom Line} + ((\text{Interest Expense on Debt} - \text{Interest Capitalized}) * (1 - \text{Tax Rate}))) / \text{Average of Last Year's and Current Year's Total Assets}$ |
| Assets_Growth | $(\text{Current Year's Total Assets} / \text{Last Year's Total Assets}) - 1$ |
| TobinsQ | $(\text{Total Assets} - \text{Book Equity} + \text{Market Value of Equity}) / \text{Total Assets}$ |
| Board_Attendance | The average attendance ratio in board meetings as reported by the company |
| Debt_to_Capital | $(\text{Long Term Debt} + \text{Short Term Debt} \& \text{ Current Portion of Long Term Debt}) / (\text{Total Capital} + \text{Short Term Debt} \& \text{ Current Portion of Long Term Debt})$ |
| Closely_Held_Shares | Ratio of shares held by insiders to total shares |
| Independence_Level | Ratio of independent board members as reported by the company |
| Board_Size | The total number of board members |
| Board_Size_Independent | The total number of independent board members |
| Net_Income_Growth | Yearly growth of a firm's net income |
| Change_Accruals | Yearly total change of other accruals as disclosed in cash flow statements, scaled by total assets |
| Amort_Intangibles | Total amount of amortization of intangible assets (e.g., patents) by year, scaled by total assets |
| Earnings_Restatements | Dummy variable that equals one if the company is in the process of a material earnings restatement in a given year |
| EarningsManagement | Estimation of earnings management by discretionary accruals. Computed via the modified Jones Model (Dechow et al., 1995) |
| Director-portfolio controls | |
| Committee_Member | Dummy variable that equals one if the director was active in at least one committee of one of her portfolio firms in a given year |
| Committee_Chairman | Dummy variable that equals one if the director was the chairman in at least one committee of one of her portfolio firms in a given year |
| Tenure_avg | The average of the director's tenure of all firms in her portfolio directorships in a given year. Analogously for the other director portfolio average measures |
| Board-level controls | |
| BoardAuditCom_ratio | Share of all outside directors of a given firm that serve on an audit committee in any of their other directorships |
| BoardHighEducation_ratio | Share of all outside directors of a given firm that possess a higher education (masters or above) |
| BoardFemale_ratio | Share of independent female directors that serve on a board |
| BoardExec_ratio | Share of all outside directors of a given firm that simultaneously serve as an inside (i.e., executive) director on another firm |
| BoardNetworkSize_avg | Average number of network size of all outside directors that serve on the board of a given firm |
| BoardGovernance_avg | Average governance score of the directorship portfolios of all outside directors that serve a given firm. The governance score is acquired from Refinitiv and measures the quality of the corporate governance of a firm from 0 to 1 |
| Age_avg | Average age of all outside directors that serve a given firm |

APPENDIX B

TABLE B1 Descriptive statistics with sub-samples: Director-firm-level analyses.

| Variable | Model 1 (n = 30,028) | | Model 3 (n = 26,590) | |
|---------------------|----------------------|-----------|----------------------|-----------|
| | Mean | Std. dev. | Mean | Std. dev. |
| Relinquished | .068 | - | .067 | - |
| ReputationDummy | .509 | - | .519 | - |
| RiskDummy | .237 | - | .237 | - |
| CompensationDummy | .36 | - | .365 | - |
| WorkloadDummy | .373 | - | .369 | - |
| Directorships_Count | 2.79 | 1.002 | 2.78 | .989 |
| Tenure | 5.743 | 4.043 | 5.902 | 4.079 |
| Age | 62.086 | 6.731 | 62.232 | 6.622 |
| Retirement_Age | .126 | - | .128 | - |
| GainDummy | .251 | - | .247 | - |
| Committee_Member | .912 | - | .914 | - |
| Committee_Chairman | .553 | - | .55 | - |
| Board_Attendance | .817 | - | .819 | - |
| Market_Cap [\$ bn.] | 21.482 | 34.992 | 22.6 | 35.7 |
| RoA | .042 | .13 | .046 | .12 |
| Debt_to_Capital | .439 | .516 | .443 | .516 |
| Closely_Held_Shares | .095 | .166 | .089 | .161 |
| Assets_Growth | .10 | .332 | .094 | .311 |
| TobinsQ | 2.084 | 1.531 | 2.06 | 1.485 |

Note: The descriptive statistics for the H1 models are for the period of 1999 to 2019. Model 2 (4) uses the same sub-sample as Model 1 (3). A detailed description of all used variables can be found in Table A1.

TABLE B2 Descriptive statistics with sub-samples: Director-level analyses.

| Variable | Model 3 (n = 11,902) | | Model 4 (n = 22,819) | | Model 5 (n = 1480) | |
|---------------------------|----------------------|-----------|----------------------|-----------|--------------------|-----------|
| | Mean | Std. dev. | Mean | Std. dev. | Mean | Std. dev. |
| ReputationGrowth | .263 | .988 | .275 | 1.009 | .205 | .825 |
| PostGain | .604 | - | .498 | - | .374 | - |
| Directorships_Count | 2.02 | 1.145 | 1.891 | 1.098 | 1.87 | .983 |
| Tenure_avg | 5.438 | 3.513 | 5.228 | 3.451 | 6.299 | 4.212 |
| Age | 60.643 | 8.133 | 59.709 | 7.801 | 62.476 | 8.319 |
| Retirement_Age | .136 | - | .107 | - | .204 | - |
| Committee_Member | .93 | - | .924 | - | .897 | - |
| Committee_Chairman | .223 | - | .176 | - | .188 | - |
| Market_Cap_avg [\$ bn.] | 17.03 | 39.26 | 17.09 | 37.65 | 17.83 | 37.7 |
| RoA_avg | .041 | .111 | .041 | .112 | .045 | .104 |
| Assets_Growth_avg | .125 | .334 | .127 | .33 | .112 | .31 |
| TobinsQ_avg | 1.988 | 1.158 | 1.995 | 1.18 | 1.981 | 1.121 |
| Debt_to_Capital_avg | .389 | 3.126 | .391 | .337 | .381 | .118 |
| Closely_Held_Shares_avg | .138 | .163 | .141 | .16 | .146 | .16 |
| Independence_Level_avg | .776 | .154 | .772 | .15 | .753 | .17 |
| Board_Size_avg | 10.661 | 2.365 | 10.607 | 2.408 | 10.882 | 2.418 |
| Earnings_Restatements_avg | .036 | .036 | .033 | .178 | .032 | .177 |

Note: The descriptive statistics for the H2 models are for the period of 1999 to 2019. A detailed description of all used variables can be found in Table A1.