

What Influences the Supervisory Efficiency of Dissenting Independent Directors?

—Empirical Evidence from Board Voting Behavior—

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Abstract

This study explores factors that influence the supervisory efficiency of dissenting independent directors based on board voting data of listed companies in China from 2004 to 2019. The empirical analysis reveals that reappointment of dissenting independent directors helps a company significantly improve its governance, performance, and market value. Such effects are intensified if the director has a financial background. Additionally, with a more in-depth understanding of a company, the more recent an independent director's objection is, the greater is the improvement of corporate governance. Similarly, dissenting independent directors can better enhance corporate performance in their second term compared to the first. Further analysis reveals that the frequency of objections has a positive influence on corporate performance and governance. These results indicate that reappointment of dissenting independent directors motivates such directors to assume a supervisory role, the efficiency of which is affected by the director's personal characteristics, term, and so on. Our findings shed light on the mechanism by which supervisory efficiency of independent directors is affected, thereby contributing to a deeper understanding of the effectiveness of the independent directors' system.

Keywords : Dissenting independent director, board voting, corporate governance, reappointment of independent director, independent director's term

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1 Introduction

In accordance with the doctrine of separation of ownership and management rights in modern companies, establishing a sound independent director system for supervisory function is critical to alleviating agency problems between shareholders and managers (Fama and Jensen, 1983). To improve corporate governance, China established the independent director system in 2001. However, the appointment of independent directors is controlled by the management; therefore, the risk of “reverse elimination” is quite high (Chen et al., 2015). At the same time, board culture is characterized by widespread “nepotism” (Zheng et al., 2016a), which compromises the impartiality of independent directors. Therefore, it is rare for independent directors in Chinese listed companies to raise objections against board meeting proposals, making it difficult to achieve an effective supervisory function (Wang, 2007). These cast doubt on the effectiveness of the independent director system.

Previous studies have mainly analyzed the effectiveness of the independent director system by exploring the relationship between the relevant indicators of directors' independence and corporate performance, such as the proportion of independent directors (Hao and Zhou, 2010; Wang et al., 2006), their reputation (Wang et al., 2006), and the existence of off-site independent directors (Cao and Lin, 2017; Luo et al., 2018). On the one hand, it is difficult to trace how the characteristics of independent directors affect the company's corresponding consequences, and inevitably, endogenous problems (such as missing variables) are encountered. On the other hand, most listed companies have established independent director systems according to relevant regulations, which largely conceal the intricate internal characteristics of the board. Therefore, traditional independent director indicators cannot effectively uncover the independent director system's mechanism; this makes an in-depth investigation of the decision-making process necessary. Since December 2004, Chinese listed companies have been required to disclose independent directors' opinions in board meetings. This allows direct observation of their decision-making behaviors to understand their supervisory functions. Based on this, scholars have conducted extensive research on the dissenting behaviors of independent directors and found that in most cases, independent directors do not publicly question management's proposal (Ye et al., 2011). In addition, motivation (Du et al., 2017; Tang et al., 2010; Ye et al., 2011), the consequences for companies (Ye et al., 2011) and individuals (Chen et al., 2015) are

important and influential. Although we are aware of the “causes” and “effects” of dissent by independent directors, we still do not understand the underlying mechanism (and moderating effect) of this process, which is important in establishing effective supervision.

Considering the findings of previous studies on the behavior of dissenting independent directors and the need to clarify the underlying mechanism, we used data on the opinions of independent directors from 2004 to 2019 to empirically examine the impact of these directors' reelection on company performance. We further made a comprehensive review of the directors' financial background, length of tenure, timing of raising objections, and frequency of objections to understand whether these factors affect the supervisory role of dissenting independent directors. We found that the reelection of dissenting independent directors can help improve the company's governance, operating performance, and market value. These findings suggest that abandoning “reverse elimination” and encouraging a culture of questioning can help independent directors better perform their supervisory roles. Furthermore, we found that the reelection of dissenting independent directors with a financial background can significantly enhance the effect of reducing corporate violations and improving performance. We also found that the supervision effect of the reelection of dissenting independent director is influenced by the length and sequence of the director's tenure. Longer working time deepens a director's understanding of the company and helps them accumulate more experience. Moreover, the more recent the objections are, the greater are their contribution to improving the corporate governance. Finally, we found that the frequency of objections raised by independent directors is positively correlated with the improvement of corporate performance and governance. This confirms that the supervisory role of independent directors helps reduce agency costs and improve corporate governance and performance.

This study's contributions are threefold. First, it affirms the role of dissenting independent directors and particularly fills the gap in the literature regarding the consequences of their reelection, while also expanding research on directors' personal characteristics, especially the influence of their unique professional background. Second, this study makes an in-depth investigation of the decision-making process of dissenting independent directors, and comprehensively examines the factors that affect their supervisory role, such as their tenure and frequency of objections. Third, the phenomenon of “reverse elimination” of independent directors in A-share listed companies is widespread, but our findings reveal that retaining dissenting independent directors can generate positive supervision effects and prompt companies to build a

board that encourages a questioning culture, thus creating a conducive environment for independent directors to perform their supervisory functions.

The rest of this paper is organized as follows. Section 2 provides the policy background, while Section 3 reviews previous studies and proposes this study's hypotheses. Section 4 describes the variables, while Section 5 reports the results of the empirical analysis. Section 6 provides a summary of the study.

2 Policy background

To improve the governance structure of listed companies in China, the China Securities Regulatory Commission issued the "Guiding Opinions on the Establishment of Independent Director Systems in Listed Companies" (hereinafter referred to as the "guiding opinions") in 2001, requiring listed companies to hire external independent directors (including at least one accounting expert) and mandating independent directors to propose opinions on major issues.

In A-share listed companies, the motivation of independent directors in performing supervisory functions is mainly to avoid legal risks and maintain their reputation (Tang et al., 2006). First, to ensure the effectiveness of the independent director system, China has clearly stipulated the responsibilities of directors and the consequences of their malfeasance.¹⁾ However, most listed companies have purchased liability insurance for independent directors, making the penalties for not fully performing supervisory duties less severe, which weakens the legal binding force to some extent. Second, maintaining reputation in the external director service market is an important motivation for independent directors to perform their duties (Fama and Jensen, 1983). If the company has legal or operations-related problems due to insufficient performance of duties, the implicated independent directors would bear both financial fine and the loss of

1) The "Company Law" stipulates that independent directors shall be responsible for the resolutions of the board. If the company suffers serious losses due to the board's non-compliance, the directors who participated in the resolution shall be liable for compensation to the company. However, if it is proven that they have expressed dissenting opinions during the voting process, the independent directors may be exempted from this liability. The "Guiding Opinions" assigns independent directors the obligation of maintaining integrity and practicing diligence for the benefit of the listed company and all its shareholders, and requires them to perform their duties independently to safeguard the overall interests of the company.

reputation, which would have huge negative impacts on their career, such as a significant decrease in the number of director positions held (Xin et al., 2013).

To strengthen the performance of independent directors and ensure transparency in the decision-making process of the board, the Shanghai Stock Exchange and Shenzhen Stock Exchange mandated that listed companies should disclose board resolution announcements in the “Stock Listing Rules,” as revised in 2004 (effective on December 10, 2004). In particular, independent opinions issued by independent directors not only include the voting results and reasons, but also indicate their type such as consent, reservation, objection, and inability to propose opinions. Based on the said information, we can directly obtain behavioral evidence of independent directors in the process of performing their duties, and carry out various studies accordingly. At the same time, to avoid the long-term appointment of independent directors leading to a decrease in the independence and quality of decision-making, the “Guidelines for the Performance of Independent Directors of Listed Companies,” issued in 2014 also clearly stipulated the term of independent directors: the span of each term of independent directors is the same as that of other directors of the listed company. At the end of the term, they can be reelected, but the term cannot exceed six years in total. However, based on the lack of independent directors in China, some scholars have proposed that an appropriate extension of the term of independent directors can significantly improve the effectiveness of the independent director system (Chen and Xiang, 2017).

The effectiveness of the independent director system depends on how diligently and objectively these directors express independent opinions. However, in the corporate governance of listed companies in China, independent directors rarely raise objections (Ye et al., 2011), and the phenomenon of “signature tools” is quite serious. One reason is that under the widespread board culture of “nepotism” the behaviors of independent directors are highly dependent on the chair of the board (Zheng et al., 2016a). Another is that independent directors who actively raise questions during board meetings usually undergo “reverse elimination” (Chen et al., 2015). Under such circumstances, it is of great importance for independent directors to maintain their “expert reputation” (Fama and Jensen, 1983); however, it also becomes crucial to establish a reputation of not always causing trouble to the CEO (Jensen, 1993). On the one hand, this approach helps independent directors perform their duties to avoid legal risks²⁾ and limelight when it is necessary for them to obtain more opportunities for reelection. On the other

2) That is, independent directors raise objections to the board meeting proposals that they think are problematic.

hand, such an approach causes the negative opinion expressed by independent directors to show different characteristics depending on the director's term in which the opinion was proposed (Guo et al., 2019).

Previous studies have been conducted regarding the factors that affect the dissenting behavior of independent directors and the corresponding consequences, revealing that such objections help improve corporate governance (Jiang et al., 2016) and significantly increase the company's market value (Ye et al., 2011) and stock return (Liu et al., 2014). This indicates that independent directors have achieved satisfactory supervision results by voicing out their objections, but the internal mechanism of, and the factors that influence their objections need further clarification, which is the main purpose of this study.

3 Research review and hypothesis

Since the establishment of the independent director system—which is an indispensable policy in today's corporate governance—its effectiveness has been a prevalent concern among academics. Many scholars have examined the effectiveness of the independent director system from the perspective of the independent directors' characteristics—the proportion of independent directors, their personal characteristics, and board culture—and discussed their effects and consequences, but no consensus has been reached. An important reason is that the mechanism by which the proportion of independent directors and the directors' personal characteristics influence the manner of company management is unclear and can be easily affected by various other potential factors. In addition, the measurement of board culture is relatively indirect, and reliability of the conclusions made is largely restricted by the bias of the model setting and the endogenous problem. As such, Pettigrew (1992) called on scholars to conduct in-depth research on the decision-making behaviors of independent directors, so as to avoid logical jumps in model interpretation and strengthen the validity of the conclusions. Undoubtedly, it is a good idea to study independent directors' dissent based on the voting data.

Previous research on independent directors' dissent behaviors have found that because the dissent itself may cause pressure from management, the board, and even public media attention, independent directors generally vote only after fully studying the related issues. Therefore, the dissent of independent directors can be regarded as them

actively performing their duties to protect the interests of small and medium shareholders. It is an act of executing supervisory functions (Chen et al., 2015) and a manifestation of high independence (Ye et al., 2011), which, to some extent, contributes to alleviating the agency problem (Tang et al., 2013). Previous studies have found that in most cases in China, independent directors do not publicly question the behavior of the management (Ye et al., 2011), which is in line with the description by Mace (1971) that the voting rights of independent directors are mostly “rubber stamps.” However, when the company faces a crisis (Ye et al., 2011) or a serious principal–agent problem (Tang et al., 2013), independent directors are more likely to propose objections, which is consistent with the theoretical conclusions derived from the three-member board voting model constructed by Warther (1998).

Considering this situation, scholars have tried to explore the motivation of dissenting independent directors in depth for factors such as personal reputation and financial background (Ye et al., 2011), avoidance of the risk of job loss (Tang et al., 2010), corporate property rights (Zhu et al., 2015), questioned issues (Zheng et al., 2016b), differences in salary among independent directors (Li et al., 2019), and board culture (Du et al., 2017). Taken together, they have attributed the principal motivation of dissenting independent directors to risk avoidance and maintenance of personal income and reputation, with the board culture also playing a role. Other scholars have focused on the consequences of the dissenting behavior of independent directors and generally concluded that the objections of independent directors have a positive effect on corporate governance. For example, their questioning behavior can help improve corporate governance and transparency (Jiang et al., 2016), increasing the value of companies with dissenting independent directors (Ye et al., 2011), and raising the stock return significantly in the next two years, with lower earnings management (Liu et al., 2014).

Although dissenting independent directors have positive effects on corporate governance, they face serious risks of “reverse elimination” in listed companies (Chen et al., 2015). The probability of reelection for independent directors who say “no” is significantly smaller (Tang et al., 2010; Zheng et al., 2016a), which leads to a shorter term for dedicated independent directors, and the independence level and reputation of their successors are usually lower (Chen et al., 2015). Does this have a negative impact on the supervisory effect of independent directors in the later period? Or can the reelection of dedicated independent directors further enhance the supervision effect?

From the perspective of independent directors, the reelection of dissenting independent directors often means that the company looks highly upon independent

directors with high reputation and dedication. Moreover, after dissenting independent directors entering their second term without reelection pressure, their independence is further enhanced. In addition, after reelection, they can continue to follow up on the issues they dissented against, thereby forcing management to improve continuously. However, the independence of newly arrived independent directors may be lower and it will take them additional time to rediscover problems. Meanwhile, the reelection of dissenting independent directors shows that the board accepts criticisms and encourages a questioning culture, thus creating more relaxing space for independent directors to express their opinions. Moreover, their reelection also indicates that the board recognizes their opinions and is willing to accept them. In addition, the reelection of dissenting independent directors also conveys a message to the market that the board is committed to improving corporate governance, thereby winning the trust of investors and increasing the company's market value.

Based on the above analysis, we believe that the reelection of independent directors has positive effects. Therefore, we propose:

Hypothesis 1: Under the same conditions, reelection of dissenting independent directors helps improve the corporate governance, performance, and market value of a company.

According to current rules and regulations, at least one of the independent directors must be an accounting expert, Which highlights the important role of independent directors with financial background in corporate governance. Independent directors with financial background can interpret the company's financial status and quickly and accurately find problems, make accurate predictions, and provide reasonable suggestions, as they have professional knowledge and experience. Related research also shows that independent directors with financial background can effectively improve the company's earnings quality (Hu and Tang, 2008; Wang, 2007). The market also tends to have higher opinions of independent directors with financial background (Defond et al., 2005). From this viewpoint, the supervisory abilities of independent directors with financial background have been widely recognized. Moreover, dissenting independent directors have a deeper understanding of the company and stronger supervision capabilities; thus, their reelection may be more beneficial to the company. Therefore, based on Hypothesis 1, we further propose:

Hypothesis 2: The reelection of dissenting independent directors with financial background is conducive to the improvement of corporate governance and performance.

The independent directors' term is also an important factor that influences their

supervisory behavior. Previous studies have found that the term affects the level of impartiality of independent directors. As the term is extended, the “intimate” relationship established between independent directors and the board or management leads to an increase in the tolerance of non-standard behaviors. This process greatly weakens the directors’ independence, is detrimental to their supervisory functions, and may harm the interests of investors (Anderson et al., 2004; Berger et al., 2013; Chen and Xiang, 2017; Vafeas, 2003). Conversely, some studies have found that during the second term, independent directors perform their supervisory duties more actively, as they are free from reelection pressure. The statistics of the “information game” theoretical model established by Guo et al. (2019) revealed that the number of objections proposed by independent directors continuously decreased during the first term but increased during the second term. The independence of dissenting independent directors is more likely to be enhanced further in their second term because of the absence of reelection pressure. Moreover, having developed deeper understanding of the company and familiarity with the management during their first term, reelected directors are more capable of finding new problems, communicate more timely, and continue to track the problems they identified during their first term. As a result, we can reasonably expect that the reelection of dissenting independent director can further enhance their supervisory efficiency in the subsequent term. Therefore, we propose that:

Hypothesis 3: Reelected dissenting independent directors can more significantly improve the company’s governance, performance, and market value in their second term than in their first.

The independent directors’ term also affects their competence. At the early stage, independent directors often have difficulty in obtaining information necessary to provide effective supervision due to their unfamiliarity with other executives. As their tenure is extended, both the independent directors’ understanding of the company and professional competence continue to increase. However, as their tenure increases, independent directors may also be affected by “intimate” relationships, which may partly offset the enhancement of supervision ability brought about by the increase of knowledge. Empirical studies have shown that the tenure is positively correlated with corporate governance, but its effectiveness increases in a diminishing manner (Chen and Xiang, 2017; Kim et al., 2014)—the so-called “learning effect”. Thus, independent directors develop their supervisory skills with the extension of their tenure. Therefore, we can reasonably conclude that as the independent directors deepen their understanding of the company and accumulate experience, the more recent the proposed objections are, the better the supervision effect. Thus, we propose that:

Hypothesis 4: The more recent the proposed objections are, the greater the improvement in corporate governance, performance, and market value.

If more recent proposed objections enhance the supervision effect, we need to further explore whether the increase in the number and the frequency of objections also result in a better supervision effect on the company. Although the frequent dissent of independent directors may be caused by other negative factors, such as poor communication between the independent directors and management, many issues have to be resolved at formal meetings, more so than in advanced informal discussions. However, considering the widespread phenomenon of “reverse elimination” in China, frequent objections by independent directors highlight their strong willingness to perform their duty, which helps in exposing the company’s potential problems, and in turn forces the board and management to correct them. In the long run, this will undoubtedly improve the quality of supervision and contribute to the long-term, healthy development of the company. Based on this analysis, we propose:

Hypothesis 5: The higher the frequency of the independent directors’ dissent, the better the effects on corporate governance, performance, and market value.

4 Descriptive Statistics

4.1 Sample selection

Since Chinese listed companies have only been required to disclose the independent opinions issued by independent directors publicly from December 2004, we collected data of A-share listed companies for the period 2004–2019. A total of 35,601 company-year observations were obtained after deleting samples from the financial industry and those with missing variables. After excluding the “agree” opinions proposed by independent directors, we obtained 1,039 dissenting opinions by independent directors, constructed databases at the individual and proposal levels, and found 773 dissenting independent directors. Approximately 60% of them were not reelected after raising objections, which, to a certain extent, is in line with the conclusion that listed companies “reversely eliminate” independent directors (Chen et al., 2015).

4.2 Model and variable description

To test Hypothesis 1, we construct the following model:

$$\begin{aligned} Impact_{i,t} = & \beta_0 + \beta_1 Stay_{i,t} + \beta_2 Soe_{i,t} + \beta_3 Size_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Percentageofid_{i,t} + \\ & \beta_6 Boardsize_{i,t} + \beta_7 Dual_{i,t} + \beta_8 Largestholder_{i,t} + \beta_9 Exeshare_{i,t} + Year_t + \\ & Ind_i + \varepsilon_{i,t} \end{aligned}$$

$$Impact_{i,t} = \beta_0 + \beta_1 Reelaction_{i,t} + \sum \beta_j Control Variable_{i,t} + Year_t + Ind_i + \varepsilon_{i,t}$$

To test the Hypothesis 2, we construct the following model:

$$Impact_{i,t} = \beta_0 + \beta_1 Fin_{i,t} + \sum \beta_j Control Variable_{i,t} + Year_t + Ind_i + \varepsilon_{i,t}$$

To test the Hypothesis 3, we construct the following model:

$$Impact_{i,t} = \beta_0 + \beta_1 Tenure_{i,t} + \sum \beta_j Control Variable_{i,t} + Year_t + Ind_i + \varepsilon_{i,t}$$

To test the Hypothesis 4, we construct the following model:

$$Impact_{i,t} = \beta_0 + \beta_1 Order_{i,t} + \sum \beta_j Control Variable_{i,t} + Year_t + Ind_i + \varepsilon_{i,t}$$

To test the Hypothesis 5, we construct the following model:

$$Impact_{i,t} = \beta_0 + \beta_1 Frequency_{i,t} + \sum \beta_j Control Variable_{i,t} + Year_t + Ind_i + \varepsilon_{i,t}$$

$Year_t$ and Ind_i control annual and industry information respectively.

The main variables in this study are the characteristics of independent directors and the basic financial status of listed companies. Among them, the impact on the company (Impact) consists of the following: corporate governance, performance, and market value. Referring to previous corporate governance research (Jian and Wong, 2010; Zheng, 2009), we used the company's abnormal related party purchase and sales (Absrpt) and its change ($Absrpt_{it}$), and whether the company has violations (Violation), as well as its lagging performance ($Violation_{t+n}$), to reflect the effect of corporate governance. To avoid endogeneity and take the possible lag in the supervision effect of

independent directors into account, we used the total return on assets (ROA) and its growth³⁾ ($ROA_{\Delta t}$) to represent company performance. Referring to previous relevant research (Ye et al., 2011) and considering that the wide industry distribution of sample companies may lead to industry-specific differences in indicators such as performance, we excluded the influence of industry factors on the company's value; thus, we used adjusted Tobin's Q value (Adjto binq) and its growth ($Adjto binq_{\Delta t}$) to reflect the company's market value changes. The explanatory variables are whether there is a dissenting independent director (Vote), whether the dissenting independent director is reelected (Stay), the company's retention of a dissenting independent director (Reelection), whether the independent director has a financial background (Fin, which is further divided into financial industry background "Fin_Practice" and financial academic background "Fin_Academic"), second-term objection⁴⁾ (Tenure), independent director objection issued order (Order), and the frequency of objection (Frequency). Based on previous research on corporate governance structure (Jian and Wong, 2010; Tang et al., 2013), we included company size (Size), leverage ratio (Lev), executive ownership (Exeshare), state-owned enterprise (Soe), board size (Boardsize), the proportion of independent directors (Percentageofid), the combination of chairman and general manager (Dual), and the proportion of the largest shareholder (Largestholder) as control variables. To reduce the possible impact of outliers, we winsorized the continuous variables at the 1% and 99% levels. The definitions of all variable are shown in Table 1.

Table 1: Variable definitions

Variable names	Definitions
Absrpt	The ratio of abnormal related party purchase and sales to total assets. We used the total assets, asset-liability ratio and market-to-book ratio for regression to estimate coefficients by year and industry, and then calculated its absolute estimate value (We use $Absrpt_{\Delta t}$ to represent the change value after t years).
Violation	Dummy variable, if there is a violation then it will be recorded as 1, otherwise it will be 0 (We use $Violation_{t+n}$ to denote the violation of the company in n years).
ROA	Return on total assets (We use $ROA_{\Delta t}$ to represent the change value after t years).
Adjto binq	(Market value of shareholders' equity + book value of liabilities) / book value of assets – the median value of the industry (We use $Adjto binq_{\Delta t}$ to represent the change value after t years).
Vote	Dummy variable, if the company objected by independent directors, then it will be recorded as 1, otherwise it will be 0.

- 3) In order to describe more clearly, we consider multiplying the return of assets by 100 and changing it to a percentage.
- 4) A small number of abnormal samples that independent directors proposed opinions after the term have been eliminated.

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Stay	Dummy variable, if dissenting independent director was reelected in the year of reelection, then it will be recorded as 1, otherwise it will be 0.
Reelection	Dummy variable, if there was dissenting independent directors reelected in the year of reelection, then it will be recorded as 1, otherwise it will be 0.
Fin	Dummy variable, if the dissenting independent director has a financial background, then it will be recorded as 1, otherwise it will be 0.
Fin_Academic	Dummy variable, if the dissenting independent director has an academic financial background, then it will be recorded as 1, otherwise it will be 0.
Fin_Practice	Dummy variable, if the dissenting independent director has a practical financial background, then it will be recorded as 1, otherwise it will be 0.
Order	The order of the objection proposed by an independent director in the same company
Tenure	Dummy variable, if the objection was an objection issued during the second term, then it will be recorded as 1, otherwise it will be 0.
Frequency	The total number of objections raised by independent directors.
Size	Natural logarithm of total assets.
Lev	Total debt / total assets.
Exeshare	Dummy variable, if the executive holds shares, it will be recorded as 1, otherwise it will be 0.
Soe	Dummy variable, if the company is a stated-owned company, then it will be recorded as 1, otherwise it will be 0.
Boardsize	Natural logarithm of the number of board members.
Percentageofid	The proportion of independent directors on the board.
Dual	Dummy variable, if the chairman of the board and general manager are the same person, then it will be recorded as 1, otherwise it will be 0.
Largestholder	Shareholding ratio of the shareholder with the most shares.
Industry	According to the industry classification of the Wind database, all listed companies are divided into 29 industries.
Year	The year of the reporting period.

4.3 Descriptive Statistics

The different types of voting opinions by independent directors are “agree,” “objection,” “abstention,” “reserved opinions,” “unable to express opinions,” “propose objections,” and “others.” Under the influence of the Chinese sentiment “harmony is precious,” independent directors tend to express their negative attitudes in a more euphemistic way instead of directly casting “no” votes. We refer to the treatment of Ye et al. (2011) and exclude “agree” opinions and regard all other types of voting as objections, to measure whether independent directors perform their duties dutifully.

Table 2 shows the descriptive statistics on the voting opinions of independent directors.⁵⁾ At the company level, the left column of Table 2 represents statistics on whether there are dissenting independent directors year by year. The number of listed companies included in the statistics has gradually increased to 3.3 times that in 2004.

5) Since only a few objections occurred during the second term of the independent directors, the time trend of the reelection data of dissenting independent directors lags behind the objection behavior data.

The proportion of companies with dissenting independent directors dropped sharply after 2008, and rebounded slightly after 2017. With respect to the regulatory environment, both Shanghai and Shenzhen Stock Exchange have issued the “Guidelines for Internal Control of Listed Companies” in 2006 to supervise independent directors on multiple key issues such as related transactions, cash flow, external guarantees, and internal control. On the one hand, these specific guidance clauses may further enhance the company’s regulatory compliance. On the other hand, the company may also report to the independent directors for advance consultation, thereby reducing the possibility of disagreements during formal meetings. At the level of independent directors, the right column of Table 2 provides statistics on the reelection status of dissenting independent directors year by year. We compared the reelection status of independent directors who objected before and after 2008. The average reelection ratio before (after) 2008 was 42.56% (37.80%). The slight difference does not sufficiently indicate that the independent directors did not express objections because of the increase in the rate of “reverse elimination” of independent directors after 2008. Therefore, we are more inclined to believe that the decrease in the proportion of dissenting independent directors is due to the improvement of corporate governance and the possibility of pre-consultation.

Table 2: Descriptive statistics of independent directors’ votes

Year	Company			Independent director		
	Without dissenting independent directors	With dissenting independent directors	Vote%	Leave	Reelected	Stay%
2004	1144	31	2.64%	13	1	7.14%
2005	1120	68	5.72%	43	25	36.76%
2006	1165	90	7.17%	86	69	44.52%
2007	1226	108	8.10%	109	91	45.50%
2008	1394	6	0.43%	40	36	47.37%
2009	1521	9	0.59%	35	33	48.53%
2010	1843	13	0.70%	11	14	56.00%
2011	2132	6	0.28%	6	5	45.45%
2012	2282	14	0.61%	11	12	52.17%
2013	2296	7	0.30%	1	7	87.50%
2014	2403	20	0.83%	13	7	35.00%
2015	2635	7	0.26%	22	9	29.03%
2016	2748	2	0.07%	6	0	0.00%
2017	3635	27	0.74%	22	2	8.33%
2018	3691	79	2.10%	19	0	0.00%
2019	3782	88	2.27%	23	2	8.00%

At the same time, we also counted the frequency of objections, the results of which are shown in Table 3. About 90.26% of the companies were questioned by independent

directors around three times in one year, and the highest number of objections received within a year is 14.

Table 3: The frequency of objections proposed by independent directors

Frequency	1	2	3	4	5	6	7	8	9	10	14
FREQ.	330	82	107	37	6	7	1	2	1	1	1
PERCENT	57.39%	14.26%	18.61%	6.43%	1.04%	1.22%	0.17%	0.35%	0.17%	0.17%	0.17%

Table 4 shows the descriptive statistics of the effects of corporate governance and the main control variables. The average ROA of listed companies that year was 4.0% ; the median was 4.0% ; and the growth rate of return on total assets after one to three years was around -0.7%. Overall, this shows a slightly declining but still stable profitability for listed companies. The company's violation and abnormal, related purchases and sales were generally controlled at a low level. Tobin's Q value adjusted by industry was slightly positive, and the company's average valuation level had increased slightly. In terms of control variables, the sample of state-owned enterprises accounted for nearly 41%, independent directors occupied an average of 37% of the seats, and about 24% of the companies had the same person serving as chairman and general manager.

Table 4: Descriptive statistics of operating performance, governance and control variables

Variables	Mean	Median	SD	Min	Max	N
ROA	0.04	0.04	0.07	-0.37	0.27	35591
ROA _{Δ1}	-0.45	-0.21	6.81	-49.94	63.81	31687
ROA _{Δ2}	-0.69	-0.35	7.68	-63.45	63.81	27897
ROA _{Δ3}	-0.70	-0.46	8.00	-60.24	46.39	24215
Violation	0.12	0.00	0.32	0.00	1.00	35592
Absrpt	0.02	0.00	0.06	0.00	0.45	35601
Adjto binq	0.21	0.01	1.12	-7.75	7.97	34666
Soe	0.41	0.00	0.49	0.00	1.00	35592
Size	21.93	21.75	1.37	18.92	27.21	35592
Lev	13.97	0.61	23.11	0.05	94.67	35592
Percentage of ind	0.37	0.33	0.06	0.00	0.57	35592
Boardsize	2.15	2.20	0.22	0.00	2.71	35592
Dual	0.24	0.00	0.43	0.00	1.00	35592
Largestholder	11.07	0.46	17.84	0.09	76.31	35592
Exeshare	0.66	1.00	0.47	0.00	1.00	35592

5 Empirical analysis

5.1 Analysis of the effect of supervision on whether the independent director is reelected

First, we used individual-level data of independent directors to examine the impact of the reelection of independent directors. The results of model (1) in Table 5 show that the level of abnormal related party purchase and sales (Absrpt) of the company was significantly reduced in cases where the independent directors had once objected to the company board's proposal. Models (2) to (5) further report the logit regression results on the company's violations. Considering the additional three-year term upon a dissenting independent director's reelection, in addition to whether the company had violation during the specific period (Violation), a lagging observation was also made (lags of 1 to 3 years were used for models (3) to (5), respectively) to explore the long-term impact. We found that reelection of dissenting independent directors can significantly reduce the company's violation, and the impact covers the second term. As a whole, the regression results show that the reelection of dissenting independent directors helps improve corporate governance. Furthermore, models (6) and (7) of Table 5 show that with the reelection of independent directors, the company's current year's performance (ROA) increased by 1.9% and the adjusted Tobin's Q value (Adjto binq) by 20.2%, both of which have strong economic significance. The test results above strongly support Hypothesis 1.

Reelections of dissenting independent directors may be attributed to the high level of governance in companies that value the supervisory role of independent directors, allowing dissident independent directors to be reelected. To avoid endogenous problems, we first compared the governance environment and company performance between companies with and without independent directors being reelected, as shown in Table 6. The results reveal that for companies whose independent directors were not reelected, the company's performance was lower and more violations occurred in only a few years; but in most years, there is basically no significant difference between them. Therefore, self-selection problems of independent directors can be eliminated to some extent. Furthermore, since companies whose independent directors have resigned tend to have an unsound governance system (Tang et al., 2006), we deleted samples of independent directors who resigned during their first term, and the regression results

Table 5: Influence of reelections of dissenting independent directors on company governance and performance (1)

	(1) Absrpt	(2) Violation	(3) Violation _{t+1}	(4) Violation _{t+2}	(5) Violation _{t+3}	(6) ROA	(7) Adjtoibnq
Stay	-0.013** (-2.61)	-0.954*** (-3.37)	-0.725** (-2.44)	-0.323 (-1.10)	-0.940** (-2.44)	0.019** (3.25)	0.202*** (2.69)
Soe	-0.002 (-0.39)	-0.286 (-0.99)	0.107 (0.35)	0.127 (0.37)	0.185 (0.43)	-0.020** (-3.01)	-0.103 (-1.22)
Size	-0.000 (-0.16)	-0.490*** (-3.80)	-0.524*** (-3.77)	-0.406*** (-2.81)	-0.208 (-1.33)	0.007*** (2.85)	-0.422*** (-12.26)
Lev	-0.001*** (-2.67)	0.047*** (3.38)	0.071*** (2.80)	0.004 (0.16)	0.154 (0.24)	-0.002*** (-6.38)	0.015*** (3.01)
Percentageofid	0.111* (1.83)	5.596* (1.89)	2.211 (0.69)	-2.999 (-0.81)	10.950*** (2.73)	0.026 (0.37)	4.069*** (4.48)
Boardsize	0.002 (0.18)	-0.710 (-0.99)	0.311 (0.39)	0.182 (0.21)	-0.522 (-0.52)	0.079*** (4.85)	0.391* (1.85)
Dual	-0.021*** (-3.17)	-0.443 (-1.24)	-0.595 (-1.47)	0.202 (0.55)	0.914* (1.86)	-0.014* (-1.80)	-0.016 (-0.15)
Largestholder	-0.001* (-1.77)	0.033 (1.25)	-0.006 (-0.13)	0.031 (0.66)	2.253* (1.65)	0.001 (0.79)	-0.037*** (-3.68)
Exeshare	-0.010** (-2.07)	0.087 (0.35)	0.008 (0.03)	0.159 (0.55)	-0.460 (-1.19)	0.004 (0.76)	-0.023 (-0.30)
Constant	0.053 (0.89)	15.450*** (4.73)	8.162*** (2.41)	10.850*** (2.88)	2.571 (0.64)	-0.377*** (-5.41)	7.095*** (7.83)
N	773	746	680	678	602	773	760
Adjusted R ²	0.090	0.304	0.269	0.224	0.319	0.300	0.308
Pseudo R ²		Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ***, ** and * mean significance at the 1%, 5% and 10% levels respectively.

still support Hypothesis 1.

Table 6: T test of corporate governance and performance differences between independent directors reelected and non-reelected companies⁶⁾

Year	N	Reelection	ROA	Adjto binq	Violation	Absrpt
2004	8	12.50%	-0.100	-0.103	0.714	0.060
2005	42	45.24%	-0.095***	0.035	0.286**	0.008
2006	66	54.55%	-0.035*	0.205	0.156	0.019
2007	70	65.71%	-0.002	0.112	0.165**	0.001
2008	38	71.05%	-0.005	-0.156	0.054	0.047
2009	34	67.65%	-0.022	-0.576	-0.043	0.014
2010	14	64.29%	-0.106	-1.871**	0.200	0.030
2011	8	37.50%	0.107	0.108	0.000	0.007
2012	15	53.33%	-0.017	-1.244*	-0.232	0.002
2013	7	85.71%	0.030	-0.598	-0.333	0.002
2014	17	41.18%	-0.000	0.222	-0.186	0.000
2015	22	27.27%	-0.011	-0.904	0.167	0.001
2016	6	0.00%				
2017	18	44.44%	0.029	0.301	0.475**	-0.006
2018	32	0.00%				
2019	17	0.00%				

To isolate differences in corporate governance and performance, we used company-level data to further verify the consequences of reelecting dissenting independent directors. Models (1) to (7) of Table 7 report the regression results, which show that the reelection of dissenting independent directors can significantly reduce the occurrence of company violations and improve company performance and market valuation. This conclusion is consistent with Table 5; thus, Hypothesis 1 is confirmed again.

5.2 Analysis of the supervision effect of dissenting independent director with financial background

We now explore the value of dissenting independent directors with financial backgrounds. Model (1) in Table 11 shows that compared with other reelected independent directors, dissenting independent directors with financial background can significantly reduce the occurrence of violations.

Further, we divided the sample into independent directors with academic financial

6) Since no re-elected independent director sample was collected in 2016, 2018, and 2019, no comparison can be made.

Table 7: Influence of reelections of dissenting independent directors on company governance and performance (2)

	(1) Absrpt	(2) Violation	(3) Violation _{t-1}	(4) Violation _{t-2}	(5) Violation _{t-3}	(6) ROA	(7) Adjtoibinq
Reelection	-0.009 (-1.10)	-1.236*** (-3.18)	-0.924** (-2.48)	-0.772* (-1.83)	-1.104*** (-2.10)	0.020** (2.16)	0.262** (2.33)
Soe	-0.011 (-1.23)	-0.380 (-1.04)	-0.116 (-0.31)	0.341 (0.69)	0.160 (0.28)	-0.009 (-0.87)	-0.039 (-0.33)
Size	-0.002 (-0.70)	-0.387** (-2.47)	-0.410** (-2.41)	-0.267 (-1.32)	-0.057 (-0.29)	0.012*** (3.03)	-0.463*** (-9.82)
Lev	-0.000 (-1.03)	0.036* (1.86)	0.013 (0.68)	0.609 (1.30)	0.365 (0.40)	-0.002*** (-4.16)	0.015** (2.38)
Percentageofid	0.088 (1.01)	4.691 (1.30)	-2.355 (-0.61)	-6.060 (-1.25)	6.129 (1.18)	-0.085 (-0.86)	3.165*** (2.66)
Boardsize	0.011 (0.50)	-0.484 (-0.52)	-0.163 (-0.17)	-0.286 (-0.25)	-0.308 (-0.23)	0.069*** (2.85)	0.314 (1.09)
Dual	-0.017* (-1.68)	-0.630 (-1.36)	-0.356 (-0.80)	0.197 (0.37)	0.646 (0.97)	-0.006 (-0.51)	0.146 (1.01)
Largestholder	-0.001** (-2.31)	-0.051* (-1.65)	-0.025 (-0.83)	-1.676* (-1.66)	2.178 (1.20)	0.001 (1.62)	-0.006 (-0.69)
Exeshare	-0.007 (-0.91)	0.048 (0.14)	0.059 (0.16)	0.191 (0.45)	-0.382 (-0.77)	0.004 (0.42)	-0.117 (-1.11)
Constant	0.062 (0.66)	12.735*** (2.99)	7.768* (1.82)	17.529* (1.78)	-0.138 (-0.03)	-0.392*** (-3.67)	8.673*** (6.72)
N	414	394	358	334	293	414	409
Adjusted R ²	0.032					0.220	0.272
Pseudo R ²		0.310	0.194	0.279	0.249		
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ***, ** and * mean significance at the 1%, 5% and 10% levels respectively.

background and those with practical financial background. The explanatory variables of models (1), (2), and (3) are whether there was a violation, the change in ROA in three years, and the change in Tobin's Q value in the following year. Using the difference in data helps reveal the direct enhancement more clearly, and alleviates endogenous problem. First, independent directors with a financial academic background are more familiar with the relevant rules and regulations and are good at analyzing the company's financial status. Moreover, they have no direct interest relationship with listed companies; thus, they have stronger discipline and independence. For example, previous studies have found that scholarly independent directors can enhance the efficiency of financial governance by improving financial supervision (Su and Feng, 2018). The test results of model (2) also confirmed that these directors can further promote the company's performance growth in the long-term (ROA increased by 3.18% in three years). Second, independent directors with practical experience have more exposure to various types of affairs; thus, they have a clearer understanding of corporate governance practices and financial conditions. For example, Wang et al. (2016) found that independent directors with work experience in accounting can more effectively inspect the hollowing-out behavior of major shareholders than others. However, the results of model (3) show that dissenting independent directors with a financial background cannot significantly improve the market's evaluation of the company in the short term. So far, Hypothesis 2 has been partially confirmed.

Table 8: The impact of the reelection of independent director with a financial background on the market value of the company

	(1) Violation	(2) ROA_{Δ3}	(3) AdjtoBinq_{Δ1}
Fin	-1.792* (-1.96)		
Fin_Academic		3.179** (2.03)	
Fin_Practice			0.153 (1.52)
Soe	3.236** (2.36)	2.267* (1.77)	0.103 (0.95)
Size	-0.446 (-1.02)	0.069 (0.14)	-0.134*** (-2.99)
Lev	1.526 (0.78)	3.326 (1.60)	0.829*** (3.53)
Percentageofid	19.621* (1.94)	-29.174** (-2.23)	-2.737** (-2.42)

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Boardsize	1.027 (0.39)	2.324 (0.74)	0.017 (0.06)
Dual	2.313 ^{**} (2.09)	-0.740 (-0.42)	0.080 (0.52)
Largestholder	0.053 (0.01)	0.820 (0.22)	0.378 (1.20)
Exeshare	-2.464 ^{**} (-2.26)	-0.401 (-0.35)	-0.067 (-0.68)
Constant	-0.284 (-0.03)	6.104 (0.40)	1.999 (1.54)
N	169	309	295
Adjusted R ²		0.190	0.319
Pseudo R ²	0.448		
Year & Industry	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ^{***}, ^{**} and ^{*} mean significance at the 1%, 5% and 10% levels respectively.

5.3 Analysis of the supervision effects of dissenting independent directors based on tenure

We now look into the “reverse elimination” of independent directors in China. Independent directors show differences in the level of their independence during the two terms they serve as directors, which may be an important factor in the effectiveness of corporate governance. According to the results in Table 9, though the independent directors’ dissent during their second term is associated with a decrease in the company’s performance by about 2.8% in the following year, the market value increased significantly, partially confirming Hypothesis 3.

Table 9: The term of dissenting independent directors and effects of their supervision

	(1) Absrpt	(2) Violation	(3) ROA	(4) Adjto binq
Tenure	0.002 (0.13)	-1.102 (-1.43)	-0.028 [*] (-1.82)	0.344 ^{**} (2.11)
Soe	-0.011 [*] (-1.84)	-0.907 ^{***} (-3.82)	-0.003 (-0.48)	-0.124 [*] (-1.72)
Size	-0.012 ^{***} (-4.74)	-0.437 ^{***} (-3.73)	0.018 ^{***} (6.01)	-0.421 ^{***} (-13.46)
Lev	-0.000 (-0.58)	0.046 ^{***} (3.53)	-0.003 ^{***} (-9.53)	0.004 (1.10)
Percentage of fid	-0.051 (-0.86)	-3.063 (-1.37)	-0.020 (-0.29)	2.820 ^{***} (3.89)
Boardsize	-0.069 ^{***} (-4.90)	-0.621 (-1.17)	0.038 ^{**} (2.35)	0.019 (0.11)
Dual	-0.003 (-0.44)	-0.127 (-0.45)	-0.018 ^{**} (-2.22)	-0.003 (-0.03)

Largestholder	− 0.001 (− 1.14)	− 0.052** (− 2.35)	0.002*** (3.01)	− 0.002 (− 0.42)
Exeshare	− 0.020*** (− 3.81)	0.151 (0.69)	0.017*** (2.74)	− 0.084 (− 1.30)
Constant	0.525*** (7.78)	13.393*** (4.97)	− 0.482*** (− 6.23)	7.693*** (9.33)
N	971	900	968	967
Adjusted R ²	0.204		0.372	0.313
Pseudo R ²		0.306		
Year & Industry	Yes	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ***, ** and * mean significance at the 1%, 5% and 10% levels respectively.

5.4 Analysis of the supervision effect of different orders of objections

According to the results in Table 10, the more recent the proposed objections by independent directors (Order) are, the more helpful they are in reducing the company's abnormal, related party purchases and sales level, and in improving company performance. Considering that independent directors who have proposed a large number of objections are more likely to be reelected, our model controls for the tenure factor (Tenure) to eliminate the influence of the term (as described in Hypothesis 3) and the conclusion is the same. This shows that with the deepening of the understanding of the company and the accumulation of experience, the actual supervision effect of independent directors increases marginally, and the gain effect is mainly caused by the increase in competence. This result affirms the conclusion that it takes time for independent directors to perform their duties (Chen and Xiang, 2017), that is, an appropriate extension of the term of office may help the independent director system to better realize its effectiveness. However, we did not find an increase in company's performance and market value. In this aspect, tenure factors still dominate. So far, Hypothesis 4 has been partially confirmed.

5.5 Analysis of the effect of the frequency of objections on supervision

Next, we examine the impact of the frequency of objections proposed by independent directors on company performance. Table 11 reports the regression results, which show that the total number of objections (Frequency) to the company board's proposals is significantly positively correlated with the growth of the company's performance and helps reduce the magnitude of abnormal related party purchases and sales by the

Table 10: The order of dissents and their supervision effect

	(1) Absrpt	(2) Absrpt ₁₁	(3) Absrpt ₁₁	(4) ROA ₁₁	(5) ROA ₁₁	(6) Adjtoibnq	(7) Adjtoibnq
Order	0.002 (0.59)	-0.008* (-1.86)	-0.011** (-2.43)	-0.053 (-0.11)	0.854* (1.73)	0.065 (1.56)	0.033 (0.72)
Tenure			-0.002 (-0.12)		1.778 (1.07)		0.332** (2.02)
Soe	-0.008 (-1.32)	0.007 (1.03)	0.011 (1.53)	-1.587** (-2.12)	-2.137*** (-2.86)	-0.127* (-1.84)	-0.119* (-1.65)
Size	-0.012*** (-4.81)	0.014*** (4.73)	0.013*** (4.29)	-1.654*** (-5.02)	-1.239*** (-3.80)	-0.426*** (-14.11)	-0.420*** (-13.41)
Lev	-0.000 (-0.69)	0.002*** (3.58)	0.002*** (3.51)	0.046 (0.81)	0.037 (0.68)	0.003 (0.84)	0.004 (1.00)
Percentageofid	-0.037 (-0.63)	0.052 (0.77)	0.106 (1.54)	-1.093 (-0.15)	-3.064 (-0.41)	3.136*** (4.51)	2.806*** (3.87)
Boardsize	-0.065*** (-4.68)	0.088*** (5.30)	0.099*** (5.88)	-6.764*** (-3.71)	-8.810*** (-4.89)	-0.024 (-0.15)	0.015 (0.09)
Dual	-0.007 (-0.97)	-0.013 (-1.57)	-0.011 (-1.32)	-1.547* (-1.68)	-0.852 (-0.92)	0.000 (0.00)	-0.005 (-0.06)
Largestholder	-0.001 (-1.16)	-0.001 (-0.90)	-0.000 (-0.79)	0.042 (0.61)	0.040 (0.61)	-0.002 (-0.39)	-0.002 (-0.42)
Exeshare	-0.017*** (-3.25)	0.015** (2.41)	0.019*** (3.09)	-0.415 (-0.61)	-0.746 (-1.10)	-0.066 (-1.06)	-0.077 (-1.19)
Constant	0.503*** (7.50)	-0.534*** (-6.86)	-0.557*** (-7.16)	51.222*** (5.90)	47.155*** (5.55)	7.724*** (9.59)	7.653*** (9.26)
N	1036	958	895	979	915	1032	967
Adjusted R ²	0.200	0.209	0.219	0.179	0.186	0.334	0.313
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ***, ** and * mean significance at the 1%, 5% and 10% levels respectively.

Table 11: The frequency of objections proposed by independent directors and the company's performance

	(1) ROA _{it}	(2) ROA _{it}	(3) ROA _{it}	(4) AbsRPT _{it}	(5) AbsRPT _{it}	(6) AbsRPT _{it}
Frequency	0.564*** (4.56)	0.690*** (4.92)	0.396*** (2.75)	-0.003 (-2.82)	-0.004*** (-3.27)	-0.003 (-2.60)
Soe	0.663*** (7.26)	1.085*** (10.08)	0.934*** (7.92)	0.002*** (2.07)	0.004*** (4.60)	0.007*** (6.86)
Size	-0.422*** (-11.99)	-0.498*** (-11.86)	-0.900*** (-18.46)	-0.000 (-0.23)	0.000 (0.00)	0.001 (1.53)
Lev	0.049*** (12.23)	0.037*** (5.82)	7.726*** (32.94)	0.000*** (2.15)	0.000* (1.72)	-0.009*** (-4.03)
Percentageofid	0.268 (0.37)	-1.084 (-1.21)	-0.492 (-0.46)	0.001 (0.09)	0.004 (0.48)	0.002 (0.16)
Boardsize	-0.128 (-0.65)	-0.451* (-1.84)	-0.435 (-1.47)	0.002 (1.13)	0.004* (1.83)	0.007*** (2.71)
Dual	-0.287*** (-3.01)	-0.481*** (-4.18)	-0.411*** (-3.20)	0.001 (1.02)	0.001 (0.86)	0.001 (0.57)
LargestholderE_W	0.010* (1.88)	0.022*** (2.59)	0.539 (1.53)	0.000 (0.50)	0.000 (0.32)	0.002 (0.53)
Exeshare	-0.230*** (-2.72)	-0.443*** (-4.49)	-0.115 (-1.07)	-0.002** (-2.24)	-0.001 (-1.64)	-0.002* (-1.72)
Constant	6.758*** (7.36)	10.232*** (9.37)	15.926*** (12.98)	-0.005 (-0.70)	-0.021** (-2.25)	-0.045*** (-4.01)
N	31687	27897	24215	31564	27779	24115
Adjusted R ²	0.032	0.047	0.082	0.017	0.036	0.058
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes

Notice: (1) The t statistic is showed in brackets;

(2) ***, ** and * mean significance at the 1%, 5% and 10% levels respectively.

company. This indicates that independent directors can effectively perform their supervisory duties and improve the company's performance. This result is consistent with Tang et al. (2013). We also consider that independent directors may have personal preferences when expressing their opinions; for example, some people are accustomed to speaking in the board frequently, while others are not. Therefore, we counted the total number of objections raised by each independent director of each company, and then defined that those whose total number of objections is larger than four are dissenting independent directors accustomed to expressing dissent frequently. Based on this, 101 objections (9.72% of the total) are raised by independent directors who are accustomed to expressing dissent frequently. After we added this to the model as a new control variable, the conclusion remains the same.

We further explain the relationship between the order and frequency models of independent directors' objections. First, the latter takes the company's perspective and ignores the differences in the quality of independent directors' performance, while the aforementioned model represents the continuous tracking of one independent director (most of them are reelected independent directors); thus, the supervision effect itself is relatively high. Therefore, repeated objections should be reflected in the positive effect, while the opposite is true for high frequency of objections. Second, the latter's explanatory variable is the frequency of independent directors' objections, which reduces the time span to one year. If a large number of independent directors propose objections within a short period, this indicates the possibility of larger risks in the company. Third, when the company has more potential risks, independent directors often jointly propose objections to avoid risks. This leads to a higher frequency of dissent in the short term, and the consequent decline in performance is therefore not surprising.

5.6 Robustness test

To alleviate further the influence of endogenous issues in Hypothesis 1 such as the selection bias of whether the independent director is reelected, we conducted a propensity score matching test and the results still support Hypothesis 1. In addition, we also made double-clustering adjustments in the regression at the company and year levels, and each hypothesis is still supported.

6 Conclusion

Dissenting against the company board's proposal is an important way by which an independent director performs his supervisory role. Understanding the mechanism and consequences of this process is critical to motivating independent directors to perform their duties and improve the effectiveness of the independent director system. This study used the mandatory disclosure data of independent directors' opinions in China to reveal the importance of dissenting independent directors, and examined the effectiveness of the supervision of independent directors' dissenting behavior from multiple aspects such as the director's financial background, the term of service, the recency of objections, and the frequency of dissenting opinions. The empirical results reveal that the reelection of dissenting independent directors helps improve the company's governance, performance, and market value. Such effects are intensified when the director has a financial background. As time passes, the supervisory ability of independent directors is gradually strengthened, and the more recent the proposed objections are, the greater the improvement of the company's governance and performance. Independent directors who express dissent during their second term (versus the first term) can more significantly increase the company's market value. The frequency of objections by independent directors is positively correlated with the company's accounting performance and governance.

The above-mentioned research conclusions offer important insights as follows. (1) Although the dissent of independent directors seems to be "troublesome" for the board, it is actually a powerful and effective supervisory tool. Reelection of dissenting independent directors is beneficial to the improvement of corporate governance and performance and contributes to the long-term healthy development of the company. In contradiction to the widespread phenomenon of "reverse elimination," we call on listed companies to examine objectively the positive effects of dissent by independent directors, and to avoid the board culture of "nepotism" and the phenomenon of "reverse elimination." Companies should accept different opinions expressed by independent directors and provide a good performance environment for them to perform their supervisory functions diligently and honestly to ensure the effectiveness of the independent director system. (2) The important role of independent directors who have financial background in corporate governance has been widely recognized, and we confirm it again from the perspective of reelection. However, the difference in the value

of dissenting independent directors revealed during the reelection triggers our in-depth thinking about the process of reelection. If the board selects independent directors based on their performance, this may significantly improve the overall decision-making level of the board. This requires the board to implement a more objective and complete member selection mechanism during the reelection stage. (3) The China Securities Regulatory Commission currently stipulates that the term of independent directors shall not exceed six years, mainly because shortening the term helps avoid the decline of their independence and quality of decision-making. Our research conclusions point out the benefits of appropriately extending the term of office, because the high-quality supervisory ability of independent directors continues to improve. What cannot be ignored is that with the current uneven quality of independent directors, the issue of whether the term should be extended requires a deeper analysis of the pros and cons and policy coordination.

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