

DOES THE APPOINTMENT OF INDEPENDENT DIRECTORS DRIVE MULTIPLE EFFECTS?

Yung-Chuan Lee, Asia University

Ming-Chang Wang, National Chung Cheng University

ABSTRACT

We analyze the announcement price behavior of independent director appointments stemming from monitoring, signaling, advising effects and moderating effects of controlling shareholders. Based upon appointments samples made by firms listed on the Taiwan Stock Exchange, we find that the cumulative abnormal returns (CARs) of the announcement of voluntary independent director appointments are significantly higher than those of the announcement of mandatory appointments. This empirical result indicates that the market may well recognize that voluntary appointments of independent directors could represent a signaling vehicle. Our findings also show that the monitoring and advising effects of independent directors has failed under the presence of controlling shareholders.

JEL: G14; G38

KEYWORDS: Independent Directors; Monitoring Effect; Signaling Effect; Advising Effect; Controlling Shareholders

INTRODUCTION

As a result of the recent wave of management scandals across the international stock markets, lawmakers have been aggressively enacting codes aimed at improving overall standards of corporate governance. The appointment of independent directors with the role of monitoring and assisting corporate entrepreneurs is often used as a device for increasing the management functions of a company board; and indeed, the incorporation of surveillance mechanisms involving such independent directors is arguably the most effective defensive system to have been put into place within the various guidelines.

Traditionally, the performance enhancements arising from the independence of independent directors is generally referred to as the monitoring effect. Nevertheless, prior studies have been offered the contradictory findings on whether independent directors actually provide a monitoring function for firms, which might ultimately result in increased firm performance. (Coughlan and Schmidt, 1985; Pearce and Zahra, 1989; Weisbach, 1998; Yermack, 1996; Klein, 1998; Bhagat and Black, 2002) From an alternative perspective, based upon the response by the market to the appointment of independent directors, many of the prior studies have reported an association with both positive abnormal returns for firm stocks and the readiness by such independent directors to take important decisions which will ultimately lead to an increase in shareholder wealth. (Rosenstein and Wyatt, 1990; Byrd and Hickman, 1992; Hossain Prevoist and Rao, 2001) However, based on a sample of appointment announcements made by UK firms, Lin, Pope and Young (2003) demonstrated that the market reaction was rather insignificant. The study therefore again highlights the issue of contradictory conclusions within the literature on the effects of such appointments on internal performance and on external market reaction.

Interestingly, within the prior literature, there appears to be some evidence of an insignificant, or perhaps significantly lower. Hence, we suggest that positive announcement effect from the appointment of independent directors stemming from a combination of multiple values. We argue that these multiple functions of independent director appointments apparently contrary positions actually concentrate on different corporate policies, such that their conclusions may not be as contradictory as they may initially appear. Nevertheless, no studies have yet set out to examine the multiple effects of appointment of

independent directors. This paper tries to decompose the announcement behaviors of independent director appointment into multiple effects to understand the contradictory conclusions within the existing body of literature. Controlling the pure ‘monitoring value’ for firms arising from the appointment of independent directors, this study tries to analyze the other announcement values of independent director appointments, including signaling, advising effects and moderating effects of controlling shareholders. For the second effect as the ‘signaling value’, in a situation where firms try to manage the recognition of the market for their integrity, there is a need to determine how the honesty of an entrepreneur translates into market value, and indeed, the appointment of independent directors would seem to be a good way of signaling this to the market; this is therefore referred to as the signaling effect. Certo (2003) and Deutsch and Ross (2003) have examined the signaling impact of the appointment of independent directors. Signaling value may potentially explain the announcement effect of independent directors.

For the third effect as the ‘advising value’, the performance enhancements could arise from the appointment of independent directors through their independence and consultancy function. Myers, Shivdasani and Smith (1977) suggest that the contributions of independent directors to firm value not only stem from the reduction in agency problems but also the provision of professional consultancy services. Coles, Daniel, and Naveen (2008) and Linck, Netter, and Yang (2008) suggest that complex firms have greater advising requirements from independent directors. Mostly importantly, the advising value of independent directors could depend on their financial expertise and reputation degree. Davidson, Xie and Xu (2004) and Güner, Malmendier and Tate (2008) both document significantly positive stock price reactions when directors with financial expertise are appointed as new members of audit committees. The reputation of independent directors can facilitate access to resources in the external environment through the provision of existing connections to critical institutions or individuals, such as governments, industrial organizations and customers. Even, Deutsch and Ross (2003) show that in the face of a market failure in which stakeholders refuse to align themselves with new firms, high-quality newly-listed firms may be able to credibly signal their type by appointing ‘reputable’ independent directors to their boards.

For the fourth effect as the ‘moderating effects of controlling shareholders’, whilst controlling shareholders dominate corporate decisions within firms with ownership concentration, the appointment of independent directors is likely to be manipulated by such controlling shareholders; thus, these independent directors will be unable to effectively carry out their main proposed functions. Shleifer and Vishny (1997) and La Porta, Lopez-de-Silanes and Shleifer (1999) argue that in many exchange markets, considerable numbers of listed companies are characterized by ownership concentration and are unable to separate such ownership from management and control. Hence, we set out in this study to analyze the announcement price behavior of independent director appointments stemming from monitoring, signaling and advising effects as well as moderating effects of controlling shareholders.

Firms in Taiwan are expected to follow the two-stage enactment process outlined in the Taiwan Stock Exchange Corporation (TSEC) 2002 Listing Rules, and Article 11 of the *Revised Code on Corporate Governance* in the Taiwan Securities and Exchange Act. The regulatory environment in Taiwan enables us to distinguish between voluntary appointments of independent directors (intended to signal a permanent increase in stock value and provide management value) and mandatory appointments (which are merely a reaction to a change in the law and therefore have only management value). We design an innovative empirical methodology which involves the extraction of the signaling effect from the differential analysis of abnormal returns between our voluntary and mandatory samples. According to our results, we provide four empirical evidences for multiple effects: (1) the appointment of independent directors is incapable of bringing monitoring value to firms; (2) a positive announcement impact of voluntary appointment of independent directors on the firm represents a signaling value; (3) the moderating effect of controlling shareholders on the monitoring value does not exist, but the strengthening effect on the signaling value does exist; (4) there is no incremental value to firm performance for appointing independent directors with higher levels of expertise or reputation.

The remainder of this paper is organized as follows. Section 2 presents a review of the literature arguments on the independent directors. A description of our study sample is provided in Section 3, along with a discussion on the regression models and the definitions of the variables. Our empirical results are presented and discussed in Section 4, followed in Section 5 by the conclusions drawn from this study.

LITERATURE REVIEW

In this section, we sequentially discuss the multiple effects of independent director appointments things including monitoring, signaling, advising effects and moderating effect of controlling shareholders. The independence of independent directors is generally referred to as the monitoring effect to bring a significant enhancement of performance. In contrast to the predictions of agency theory, Critics of the independent director mechanism suggest that such independent directors lack sufficient time, and indeed the requisite talent, whilst they are also quite reluctant to challenge the decisions of management, thereby creating an inefficient board. (Coughlan and Schmidt, 1985; Pearce and Zahra, 1989; Weisbach, 1998; Yermack, 1996; Klein, 1998; Bhagat and Black, 2002)

Although changes in corporate financial policy may reveal some information to outsiders about the true value of the firm, insiders may well use such revelations to deliberately manage the market perception of the value of the firm in order to maximize their profits. Hence, another major component within the theoretical explanations for financial policy is the signaling effect. The signaling model was initially proposed by Akerlof (1970) to explain information asymmetry; thereafter, based on adaptations of the Spence (1973) signaling model, many studies have subsequently discussed signaling models for various financial policies, including investment, dividend, board structure, capital structure, and so on. (Leland and Pyle, 1977; Bhattacharya, 1979; Talmor, 1981; Noe, 1988; Yoon and Starks, 1995; Garrett and Priestley, 2000; Certo, 2003; Johnson, Lin and Song, 2006). Therefore, the voluntary appointment decision of independent director might be a signaling vehicle. Several studies suggest that the positive effects of the independent director mechanism on firm performance arise from the effective surveillance and expert consultancy services that are provided for the firms' managerial operations. (Rosenstein and Wyatt, 1990; Borokhovich, Parrino and Trapani, 1996; Cotter, Shivdasan and Zenner, 1997; Weisbach, 1988; Warner, Watts and Wruck, 1988; Lee, Rosenstein and Wyatt, 1999; Prevost, Rao and Hossian, 2002).

Thus, the contributions of independent directors to firm value would appear the provision of professional consultancy services from their expertise and reputation. Aggrawal and Chadha (2003) find that where directors on audit committees have a CPA, CFA or similar qualification, this translates into fewer earnings restatements. DeFond, Hann and Hu (2005) also note that the stock market reacts positively to the appointment of a director with accounting knowledge to an audit committee. Besides, Pfeffer (1972) finds that independent directors can facilitate better access to important resources for the firm. Fich and Shivdasani (2007) reveal a contagious effect, in that there is a strong likelihood of external directors losing other board appointments when there is high severity of fraud allegations, particularly when the external director sits on the audit committee of the interlocked firm.

Numerous studies within the extant literature point to the widespread phenomenon throughout the international stock markets of firms characterized by concentrated ownership and ultimate controlling shareholders. (Shleifer and Vishny, 1986; Faccio and Lang, 2002; Anderson and Reeb, 2003) Indeed, Claessens, Djankov and Lang (2000) revealed that ultimate controlling shareholders were present in two-thirds of all the companies examined. Whilst controlling shareholders dominate corporate decisions within firms with ownership concentration, the appointment of independent directors is likely to be manipulated by such controlling shareholders; thus, these independent directors will be unable to effectively carry out their main proposed functions.

DATA AND METHODOLOGY

The Institutional Setting of Independent Directors in Taiwan

Nowadays, all firms listed on the TSE must abide by the two-stage enactment regulations, the purpose of which is to provide a buffer period for traditional management to become accustomed to and accept corporate governance reform innovations. In the first stage, listed firms are classified as ‘new firms’ listed after February 2002 or ‘old firms’ listed prior to February 2002. The listing rules became effective in February 2002 and encompassed both the TSE and the computerized OTC market in Taiwan, required public firms applying for initial listing on the exchanges to have at least two independent directors.

The mandatory code on the appointment of independent directors, which was imposed on all of the new firms, requires these firms to appoint two or more independent directors. The code defines such ‘independent directors’ as those who have never held more than 1 per cent of the outstanding shares (including the shares of their family) in the one-year period prior to their appointment, and who have never been ranked amongst the ten largest individual shareholders. In contrast, the voluntary code on the appointment of independent directors, which was to be imposed on all of the old firms, provides them with discretion with regard to whether or not they will appoint independent directors. The purpose of such voluntary appointment is to encourage these traditional firms to gradually set up effective corporate governance structures. Proponents of this ‘board-as-monitor’ view claim that such a requirement can enhance board effectiveness by making it increasingly difficult for a controlling family to manipulate the board. The second stage, from 2007 onwards, consolidated the mandatory code on the appointment of independent directors by the old firms, requiring any of these firm that are financial holding companies, banking institutions, insurance companies or securities firms with net capital in excess of NT\$10 billion, and other non-financial companies with net capital in excess of NT\$ 50 billion, to appoint two or more independent directors (or one-fifth of the board). However, this incomplete independent director monitoring mechanism in many of the old firms is clearly detrimental to the corporate governance reforms within the securities market in Taiwan. Fortunately, however, the co-existing regulations on the mandatory and voluntary appointment of independent directors provide us with a unique opportunity to gain further insights into the determinants of independent directors.

Sample Selection

Our sample comprises of the appointment of independent directors by firms listed on the TSE during the seven-year period from 2002 to 2008. The data on the appointment of such directors are obtained from the *Taiwan Stock Market Observation Stations* and the *Taiwan Economic Journal* (TEJ) databank. From 2007 onwards, firms were required to reveal exclusive information in the annual reports presented at their shareholder meetings on corporate governance issues relating to the board of directors.

For each independent director appointment, we collect a personal profile of corporate governance by scrutinizing the annual reports filed for each company during the sample period. These classifications yield a total sample of 534 observations. Table 1 shows the distribution of independent director appointments for the years 2002 to 2008, with Table 2 also providing the distribution of appointments, by industry. We find that 350 (65.5 per cent) of these involved the mandatory appointment of independent directors, and 187 (34.5 per cent) involved the discretionary appointment of independent directors.

Table 1: Distribution of Independent Director Appointments by Sample Years

	2002	2003	2004	2005	2006	2007	2008
Total No. of Appointments	32	68	83	100	86	77	88
Percentage of Total	6.0	12.7	15.5	18.7	16.1	14.4	16.5

This table shows the distribution of Director Appointments by year.

Table 2: Distribution of Independent Director Appointments by Sample Industries

	Total No. of Appointments	Percentage of Total
Food	2	0.4
Plastics	9	1.7
Textiles	15	2.8
Electrical Machinery	28	5.2
Chemical and Biotechnology	24	4.5
Automobiles	1	0.3
Electronics	367	68.7
Building Material and Construction	20	3.7
Shipping and Transportation	4	0.7
Tourism	4	0.7
Financial and Insurance	30	5.6
Securities	3	0.5
Oil, Gas and Electricity	3	0.5
Others	16	3.0

This table shows distribution of Director Appointments by Industry.

Event Study Models

Event study methodology is applied to our examination of the price effects of the appointment of independent directors; however, such event study methodology can be meaningless if the events are not ‘clean’, in the sense that they are not contaminated by other important information or otherwise anticipated by the market. The selection and appointment of independent directors is often undertaken in conjunction with shareholder meetings where the decisions of other significant policies will be determined. However, if we were to use the date of a shareholder meeting as the event day, the ‘abnormal returns’ (ARs) and ‘cumulative abnormal returns’ (CARs) would not be meaningful, since they would most likely be influenced by information on issues other than the appointment of directors. In order to minimize such contamination by other information, we determine the ‘event day’ as the first disclosure of the announcement date of mandatory and voluntary independent director appointments in the press prior to the date of the shareholder meeting; this information is obtained by referring to the *Infotimes* database.

Furthermore, where any of the event day appointments coincide with other significant information announcements in the presses referring to the associated firm, these appointments are deleted from the sample. Given that the announcements of mandatory appointments will naturally be undertaken by newly-listed firms, they will lack historical stock price data for the estimation period prior to the announcement day. For this reason, we follow Mikkelson and Partch (1986) to set the estimation period far behind the event day, from day 50 to day 200. Besides, in the first stage, which began in 2002, all new firms applying for initial listing were required to set up independent directors in accordance with the extant listing rules. Since these new firms were required to appoint their initial independent directors prior to their listing date, we cannot obtain abnormal returns for these appointment samples.

Hence, our mandatory sample includes non-initial appointments by new firms, the announcement dates of which come well after the listing date of the initial public offerings (IPO). Although a number of studies have documented the phenomenon of short-run under-pricing of the common stock of IPOs, the non-initial mandatory appointments of new firms analyzed in the present conveniently avoids any contamination from this IPO under-pricing phenomenon. Prior studies provide evidence in support of the anomaly of the short-run under-pricing of IPOs. (Ritter, 1984, 1987; Tinic, 1988) As a test for the robustness of our results, we apply five econometric models, comprising of the ‘mean-adjusted return model’, the ‘market-adjusted return model’, the ‘OLS-adjusted risk model’, the ‘Scholes-Williams OLS-adjusted risk

model' and the 'GARCH-adjusted risk model', to examine the abnormal returns from the announcement of independent director appointments.

Regression Model

In order to distinguish between the monitoring and signaling effects of independent director appointments, we set up a multiple regression model which considers the cumulative abnormal returns (CARs) for event windows (0,5) and (0,10) as the dependent explanatory variables. We examine the relationship between the CARs and our hypothesis variables, including a 'management' variable and a 'signaling' variable, whilst controlling for the moderating effect of controlling shareholders and other performance variables. The following regression equation was estimated to identify the multiple effects of announcement price behavior of independent director appointments:

$$CAR_i = \alpha + \beta(\text{Management Variables})_i + \lambda(\text{Control Variables})_i + \varepsilon_i \quad (1)$$

where CAR_i is the cumulative abnormal returns (CARs) for event windows (0,5) and (0,10) for the appointment of independent director in i firm; management variables represent the management effect including the monitoring effect, the signaling effect, the moderating effect of controlling shareholders and the advising effect; control variables include firm performance, leverage, firm size and firm age on listing. The management and control variables are described as below:

Management Variables for the Multiple Effects

The monitoring effect: The agency problem refers to conflicts of interest between controlling shareholders and minor shareholders. Independent director appointments are considered to be a means of strengthening corporate governance, insofar as the discipline of outside directors over the incumbent management contributes to a reduction in agency problems; thus, Lin et al. (2003) used the percentage of shares held by directors prior to the announcement as a proxy for the severity of any agency problem. It is also argued that greater overlap between ownership and control within a firm reduces the conflicts of interest between managers and external shareholders. Morck, Shleifer, Vishny (1988), Weisbach (1988) and McConnell and Servaes (1990) provide evidence in support of this argument. Nevertheless, Yeh, Lee, Woidtke (2001) point to the widespread phenomenon of controlling shareholders in the Taiwan stock market. Bebchuk, Kraakman, Triantis (2000) and Claessen et al. (2000) argue that pyramidal ownership and cross-shareholdings structures are more important mechanisms used by controlling shareholders to separate the voting (control) rights of managers from their cash flow (ownership) rights.

The holdings of control rights in excess of cash flow rights by the controlling shareholders represents the 'deviation between ownership and control'. With a higher deviation between ownership and control, there is a greater likelihood of such controlling shareholders being motivated to strengthen their control rights to facilitate the expropriation of private benefits from minor shareholders. (Johnson, La Porta, Lopez-De-Silanes, Shleifer, 2000; Claessens et al., 2002; Mitton, 2002; Haw, Hu, Hwang, Wu, 2004) Hence, we use the 'deviation between ownership and control' (*Diverge*) as a proxy variable for the agency problem. If the abnormal returns from announcements of independent director appointments are found to have a significantly positive relationship with the *Diverge* variable, then independent director appointments are deemed to have monitoring value. The extant literature provides significant evidence on the impact of board composition on firm performance. (Dechow, Sloan and Beasley, 1996; Klein, 2002; Callahan, Millar and Schulman, 2003; Xie, Davidson and DaDalt, 2003) It is increasingly difficult for management to manipulate earnings when the board has higher independence, so this is likely to convince market investors of the quality of the firm's financial reports. As such, a higher percentage of independent directors on the board implies an effective surveillance mechanism (Yermack, 1996; Mikkelsen, Partch and Shah, 1997), and since the value of

the firm is dependent upon the quality of the monitoring and decision-making by the board of directors, the number of board seats occupied by independent directors is an important determinant of board performance.

Hence, the market reaction to announcements of independent director appointments will have a significantly positive correlation with the number of board seats occupied by independent directors, such that their appointment has monitoring value. We use the percentage of independent director seats on the board (*Ind_R*) as a proxy variable for monitoring value. *The signaling effect*: Certo (2003) and Deutsch and Ross (2003) suggest that the appointment of independent directors has a signaling value. The regulatory environment in Taiwan offers a unique opportunity to gain further insights into the signaling hypothesis of independent director appointments, since it allows us to distinguish between voluntary appointments of independent directors (intended to signal a permanent increase in stock price plus management value) and mandatory appointments (which are made merely in reaction to a change in the law and therefore have only management effect). *D_Voluntary* is a dummy variable which takes the value of 1 if the independent director appointments are voluntary, and 0 if they are mandatory.

The moderating effect of controlling shareholders: Since concentrated ownership is prevalent in listed firms in Taiwan, controlling shareholders can dominate the decision-making in all operational activities; thus, the control rights of controlling shareholders increases the incentive to expropriate private benefit, somewhat limiting the monitoring and signaling functions of independent directors. In an attempt to gain an understanding of the impact of the presence of controlling shareholders on the announcement of independent director appointments, we use *Control Shares* and *Control Seats* on the board as proxies for these controlling shareholders. The *Control Shares* variable was measured by La Porta et al. (1999) as the direct shareholdings ratio (the holdings of controlling shareholders in the form of individuals, other companies and in trust) and the indirect shareholdings ratio (the total holdings of each control chain in a sequence of firms leading to the target firm). *Control Seats* is measured in the present study as the ratio of the number seats held by controlling shareholding to the total number of seats on the board.

The expertise value: Carcello, Hermanson, Neal and Riley (2002) use the number of concurrent directorships to represent the level of expertise of independent directors, and find that those holding multiple directorships are likely to: (i) protect their reputation capital in order to avoid legal liability; and (ii) promote shareholder interests by seeking out higher quality audit services. Ferris, Jagannathan and Pritchard (2003) find that the initial appointment to a board of a busy independent director is good news for shareholders, since it implies that the enhanced experience of such directors is beneficial; nevertheless, Larcker, Richardson and Tuna (2007) could find no evidence of any clear relationship between multiple directors and firm performance. Conversely, however, Core, Holthausen, Larcker (1999) and Fich and Shivdasani (2006) suggest that firms with busy boards are associated with weaker corporate governance, and that when it comes to removing a CEO for poor performance, they are essentially powerless. There is, therefore, a cost involved in holding numerous board seats.

We find conflicting evidence within the literature, since busy board members are sometimes found to be better monitors, whilst at other times they are found to be too distracted to be effective. Chan, Faff, Mather and Ramsay (2007) also point out similar conflicting evidence. It is also possible that busy directors serving on multiple boards have less time to adequately monitor management (Shivdasani and Yermack, 1999; Core et al. 1999). Hence, they suggest the possible existence of a non-linear relationship between the number of directorships held and the ability of such directors to effectively monitor management. How busy independent directors are seems to be an important determinant of the effectiveness of externally-dominated boards with regard to corporate governance; however, if we follow the methodology of Carcello et al. (2002), using the number of directorships to represent the quality of independent directors, we could end up with biased results.

Aggrawal and Chadha (2003) found that where directors on audit committees had a CPA, CFA or similar qualification, this would translate into fewer earnings restatements. DeFond et al. (2005), Davidson et al. (2004) and Güner et al. (2008) suggest that the financial and accounting experiences of independent directors can make valuable contributions to board decision-making aimed at enhancing corporate performance. Hence, the *Expertise* measure used in this study provides a proxy for the number of independent directors, amongst all independent director appointments, with a professional specialty in finance, accounting or law. We sum up the number of independent directors with such expertise to represent the overall ability of the independent director appointments for the sample firm.

The reputation value: The reputation of independent directors not only facilitates access to resources in the external environment – through the provision of existing connections to critical institutions or individuals, such as governments, industrial organizations and customers – but it can also play a signaling role by providing an image of expertise and integrity. (Pfeffer, 1972; Certo, 2003; Fich and Shivdasani, 2007) It therefore seems quite clear that the reputation of independent directors must have some significant influence on corporate decisions and firm performance.

The *Reputation:* variable in the present study takes the total reputation score for each independent director appointment, with one point being allocated to independent directors if they have specific relationship positions such as executives in government, professors, senior managerial experience or concurrent director positions with other firms; all of these factors combine to provide a cumulative score. The score on the reputation of independent directors is then summed up to represent the overall reputation level of each independent director appointment for the sample firm.

Control Variables

Firm performance: The performance of the firm is linked to the restructuring of the composition of the board. Where firm performance is poor, a reshuffle is likely, with some internal board directors potentially being dismissed for innovative operational or monitoring purposes, so there is the strong possibility that the board will implant new external directors in order to reform their operations. Although Bhagat and Black (2002) found that firms with poor performance were likely to appoint independent directors, they could find no evidence of any improvement in the performance of these firms as a result of such appointments. *Tobin_Q* is applied as our firm performance variable in the present study.

Leverage: Watts and Zimmerman (1986) show that firms with a higher debt-to-asset ratio have greater incentives to engage in earnings management; hence, when highly leveraged firms appoint independent directors, managers will avoid manipulating their financial reporting, thereby creating a positive market reaction to the announcement of such appointments.

Firm size: Yermack (1996) found that board size had a positive association with the size of the firm, whilst Denis and Sarin (1999) subsequently noted that as a result of their demand for a variety of professional capabilities necessary for the expansion of their business, large firms engaging in multiple investment projects and complicated operational activities were equipped with sizable boards and numerous external directors. Crutchley, Garner and Marshall (2002) also suggest that large firms need more external directors for the purpose of surveillance, whilst Datta, Datta and Patel (2000) suggest that individual investors need the surveillance of independent directors to reduce the information asymmetry relating to IPO firms.

Firm age on listing: Deutsch and Ross (2003) demonstrate that in the face of market failure, with stakeholders refusing to align themselves with new firms, high-quality new ventures may send out a strong signal of credibility by appointing reputable directors to their boards. Boone, Field, Karpoff and Rheja (2007) find that firm age on listing has a positive correlation with the independence of the board,

whilst Coles et al. (2008) argue that growth firms developing new product lines will tend to recruit independent directors to provide greater board independence during their increase in firm size.

EMPIRICAL RESULTS

Descriptive Statistics

The summary statistics of the related variables for the entire sample, covering the years from 2002 to 2008, are reported in Table 3. The mean of the deviation between ownership and control (*Diverge*) is found to be 6.5 per cent, with control being found to be below ownership in only 43 (8 per cent) of the total sample. This result is consistent with the findings of Yeh et al. (2001) which pointed to the widespread phenomenon of controlling shareholders in the Taiwan stock market.

Table 3: Descriptive Statistics of the Dependent and Determinant Variables

	Mean	S.D.	Min.	Median	Max.	Skewness	Kurtosis
CAR(0,5)	0.069	6.422	-21.970	-0.368	44.048	1.132	7.270
CAR(0,10)	0.173	8.230	-21.010	-0.301	64.398	1.461	8.608
Diverge	0.065	0.111	0.000	0.016	0.859	2.733	9.702
Ind_R	0.280	0.102	0.067	0.286	1.000	1.053	5.234
D_Vol	0.344	0.475	0.000	0.000	1.000	0.657	1.574
ConShares	0.870	0.337	0.000	1.000	1.000	-2.202	2.861
ConSeats	0.663	0.473	0.000	1.000	1.000	-0.694	1.525
Expertise	0.555	0.689	0.000	0.000	4.000	1.073	0.964
Reputation	1.828	1.045	0.000	2.000	6.000	0.467	0.909
Tobin's Q	1.497	0.818	0.414	1.250	6.365	2.336	7.292
Age	4.135	5.976	0.000	3.000	46.000	3.485	18.004
Leverage	0.404	0.192	0.021	0.391	0.986	0.667	0.515
Size	15.765	1.637	12.736	15.353	22.028	1.470	2.175

The expected returns of the windows, $CAR(t_1, t_2)$, are the cumulative abnormal returns from day t_1 to day t_2 ; *Diverge* is the separation between ownership and control (the difference between the voting rights (%) and cash flow rights (%) in the hands of the largest shareholder) representing the level of the agency problem for the expropriation of wealth; *Ind_R* is the percentage of independent director seats on the board; *D_Vol* is a dummy variable which takes the value of 1 if the sample appointment of an independent director is voluntary, and zero if it is mandatory; *ConSeats* are measured as the ratio of the number of board seats held by controlling shareholding to the total number of board seats; *ConShares* includes both the direct shareholdings ratio (the shareholding of controlling shareholders in the form of individuals, other companies, and in trust) and the indirect shareholdings ratio (the total shareholding of each control chain in a sequence of firms leading to the target firm) as measured by La Porta et al. (1999); the *Expertise* measure is a proxy for the number of independent directors amongst all independent director appointments with a professional specialty in finance, accounting or law. We sum up the number of independent directors with expertise to represent the overall ability of the independent director appointments for the sample firm; *Reputation* is a proxy for the total score from independent directors with relationships with government, as professors, experience as senior managers or concurrently serving as directors in other firms; *Tobin's Q* is the ratio of the market value and the book value of assets; *Age* is the age of the firm at the time of its listing on the TSE; *Leverage* is the debt-to-asset ratio; and *Size* is the log of the total assets of the firm.

The mean of independent director seats on the board is found to be 28 per cent. The proportion of the total sample of firms appointing only one independent director was 19.32 per cent, with 64.7 per cent appointing two. The maximum number of board seats occupied by independent director was found to be five. As compared to other markets, such as those of the USA and Europe, the number of board seats occupied by independent directors in Taiwan is clearly insufficient. We find that 34.4 per cent of the independent director appointments in our sample were voluntary appointments. Within those firms with the discretion to voluntarily appoint independent directors, the appointments comprised of 16 per cent independent directors and 84 per cent 'other' directors, thereby clearly indicating that listed firms in Taiwan are generally unwilling to appoint independent directors. In order to assess the moderating effects of controlling shareholders on the appointment of independent directors, we analyze the announcement effects in the present study by applying two variables, namely *Control Shares* and *Control Seats*. The mean of *Control Shares* is found to be 87 per cent whilst that of *Control Seats* is found to be 66.3 per cent. These findings indicate that the controlling shareholders comprehensively dominate corporate operations.

Such domination by controlling shareholders in Taiwan is clearly an issue worthy of further exploration in order to determine whether independent directors are actually able to monitor management.

Announcement Effects of Independent Director Appointments

The abnormal returns (cumulative abnormal returns) around the event period for the full sample, based upon the five event study models, are reported in Table 4 (Table 5). Our empirical results on the abnormal returns reveal that there are significantly negative market reactions to announcements of the appointment of independent directors on the 5th and 6th day before the event day, whereas the reactions are significantly positive on the 9th day after the event day. The CAR(-1,0; -10,0) windows before the event day, the CAR(0,1), CAR(0,5), CAR(0,10) windows after the event day and the CAR (-1,1; -5,5; -10,10) windows around the event day are also insignificant. These results are consistent with the results of Rosenstein and Wyatt (1990) and Hossain et al. (2001).

Table 4: Abnormal Returns from the Announcement of Independent Director Appointments

Event	Date	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)	
		AR	t-stat	AR	t-stat	AR	t-stat	AR	t-stat	AR	t-stat
	-10	0.237	2.020 **	0.212	2.059 **	0.223	2.228 **	0.215	2.139 **	0.250	2.444 **
	-9	0.158	1.342	0.048	0.498	0.033	0.324	0.032	0.316	0.060	0.583
	-8	-0.267	-2.270 **	0.056	0.580	0.050	0.495	0.034	0.340	0.076	0.739
	-7	0.000	-0.004	-0.049	-0.542	-0.064	-0.636	-0.085	-0.843	-0.044	-0.424
	-6	0.090	0.767	-0.178	-1.801 *	-0.199	-1.985 **	-0.200	-1.984 **	-0.166	-1.595
	-5	-0.471	-4.009 ***	-0.242	-2.331 **	-0.218	-2.176 **	-0.226	-2.241 **	-0.192	-1.845 *
	-4	-0.202	-1.719 *	-0.014	-0.133	-0.024	-0.244	-0.074	-0.739	-0.013	-0.127
	-3	-0.217	-1.852 *	-0.017	-0.155	0.026	0.260	0.029	0.284	-0.002	-0.018
	-2	-0.163	-1.386	-0.058	-0.549	-0.018	-0.181	-0.045	-0.443	-0.001	-0.009
	-1	-0.120	-1.025	0.171	1.571	0.149	1.491	0.133	1.324	0.166	1.593
	0	0.044	0.376	-0.106	-0.992	-0.065	-0.645	-0.052	-0.512	-0.057	-0.550
	1	0.036	0.303	-0.085	-0.746	-0.074	-0.740	-0.102	-1.010	-0.030	-0.290
	2	0.112	0.956	-0.201	-1.579	-0.154	-1.535	-0.158	-1.572	-0.120	-1.149
	3	0.122	1.035	-0.007	-0.062	0.023	0.226	0.006	0.061	0.038	0.361
	4	-0.138	-1.172	-0.010	-0.097	-0.013	-0.133	-0.030	-0.300	0.024	0.228
	5	0.176	1.495	0.158	1.508	0.180	1.803 **	0.171	1.702 *	0.215	2.054 **
	6	-0.166	-1.412	-0.199	-1.941 *	-0.154	-1.537	-0.135	-1.341	-0.109	-1.043
	7	-0.198	-1.685 *	-0.132	-1.241	-0.093	-0.931	-0.109	-1.079	-0.091	-0.868
	8	0.132	1.123	-0.082	-0.814	-0.042	-0.419	-0.026	-0.263	-0.034	-0.321
	9	0.213	1.815 *	0.314	3.174 ***	0.356	3.562 ***	0.369	3.667 ***	0.365	3.492 ***
	10	-0.171	-1.457	-0.035	-0.343	-0.010	-0.098	-0.028	-0.276	-0.028	-0.265

We use the market model to calculate the abnormal returns (AR) based upon event study methodology. Our analysis uses five models, comprising of 'mean adjusted returns' (Model 1), 'market-adjusted returns' (Model 2), the 'OLS-adjusted risk model' (Model 3), the 'Scholes-Williams OLS-adjusted risk model' (Model 4), and the 'GARCH adjusted risk model' (Model 5). The event window under examination comprises of the 10-day periods before and after the announcement day. *** indicates statistical significance at the 1% level; ** indicates statistical significance at the 5% level; and * indicates statistical significance at the 10% level.

Table 5: Cumulative Abnormal Returns of Announcement of Independent Director Appointments

Windows	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)	
	CAR	t-stat	CAR	t-stat	CAR	t-stat	CAR	t-stat	CAR	t-stat
(-1,0)	-0.076	-0.018	0.065	0.017	0.085	0.023	0.082	0.022	0.109	0.029
(-10,0)	-0.911	-0.080	-0.178	-0.021	-0.107	-0.012	-0.238	-0.026	0.078	0.009
(0,1)	0.080	0.019	-0.191	-0.051	-0.139	-0.037	-0.153	-0.040	-0.088	-0.023
(0,5)	-0.250	-0.031	0.351	0.057	-0.103	-0.009	-0.164	-0.017	0.068	0.003
(0,10)	0.162	0.017	-0.384	-0.050	-0.045	-0.005	-0.093	-0.011	0.173	0.021
(-1,1)	-0.041	-0.007	-0.021	-0.004	0.011	0.002	-0.020	-0.004	0.079	0.017
(-5,5)	-0.822	-0.070	-0.411	-0.047	-0.188	-0.020	-0.347	-0.036	0.027	0.003
(-10,10)	-0.793	-0.047	-0.456	-0.040	-0.087	-0.007	-0.279	-0.021	0.308	0.024

We use the market model to calculate the abnormal returns (AR) based upon event study methodology. Our analysis uses five models, comprising of 'mean adjusted returns' (Model 1), 'market-adjusted returns' (Model 2), the 'OLS-adjusted risk model' (Model 3), the 'Scholes-Williams OLS-adjusted risk model' (Model 4), and the 'GARCH adjusted risk model' (Model 5). The expected returns of the windows, CAR(t₁, t₂), are the cumulative abnormal returns from day t₁ to day t₂. *** indicates statistical significance at the 1% level; ** indicates statistical significance at the 5% level; and * indicates statistical significance at the 10% level.

We examine voluntary and mandatory appointments of independent directors, presenting the AR results in Table 6 and CAR results in Table 7. We find for the mandatory samples both types of returns remain insignificant. Hence, the corporate governance regulations giving rise to mandatory appointments have been unsuccessful in terms of bringing monitoring value to the market, implying the regulations have been ineffective. The AR(2 day) and AR(3 day) for the voluntary appointment samples are significantly positive in all the models, which clearly indicates a positive reaction by the market to the announcements of voluntary appointments. A comparison between the results of the abnormal returns between voluntary and mandatory appointments for our five event study models consistently show the AR(-8) of voluntary appointments is significantly lower than that of mandatory appointments but the AR(2) and AR(3) are both significantly higher. Table 6 shows in each of the models, the CAR (0,5; 0,10; -5,5; -10,10) windows of voluntary appointments are significantly higher than for mandatory appointments.

Table 6: Abnormal Returns from Announcements of Voluntary and Mandatory Independent Director Appointments

Event date	Model (1)				Model (2)				Model (3)						
	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat			
-10	0.350	0.170	0.180	0.756	0.325	0.145	0.181	0.814	0.341	0.153	0.188	0.841			
-9	0.282	0.084	0.199	0.806	0.206	-0.046	0.252	1.228	0.185	-0.058	0.243	1.178			
-8	-0.517	-0.118	-0.399	-1.678	*	-0.195	0.206	-0.401	-2.037	**	-0.198	0.197	-0.395	-2.041	**
-7	0.003	-0.002	0.005	0.021	-0.079	-0.032	-0.047	-0.245	-0.080	-0.054	-0.026	-0.135			
-6	0.040	0.120	-0.080	-0.333	-0.235	-0.145	-0.090	-0.434	-0.236	-0.176	-0.060	-0.284			
-5	-0.380	-0.525	0.145	0.528	-0.221	-0.255	0.034	0.155	-0.152	-0.257	0.105	0.469			
-4	-0.146	-0.235	0.089	0.324	-0.041	0.003	-0.044	-0.208	0.032	-0.058	0.090	0.418			
-3	0.033	-0.366	0.400	1.605	0.067	-0.067	0.133	0.593	0.141	-0.042	0.183	0.792			
-2	-0.063	-0.222	0.159	0.605	-0.011	-0.087	0.075	0.331	0.119	-0.099	0.218	0.941			
-1	0.168	-0.292	0.460	1.634	0.333	0.073	0.260	1.218	0.346	0.032	0.314	1.486			
0	0.118	0.000	0.118	0.506	-0.091	-0.115	0.025	0.115	0.009	-0.108	0.117	0.537			
1	0.138	-0.025	0.163	0.610	0.091	-0.190	0.281	1.170	0.137	-0.199	0.336	1.427			
2	0.337	-0.021	0.359	1.525	0.128	-0.398	0.526	2.474	**	0.198	-0.363	0.561	2.639	***	
3	0.452	-0.075	0.527	2.165	**	0.299	-0.190	0.489	2.212	**	0.374	-0.186	0.560	2.593	***
4	0.075	-0.264	0.339	1.372	0.075	-0.061	0.136	0.623	0.063	-0.059	0.122	0.552			
5	0.380	0.054	0.326	1.375	0.188	0.140	0.049	0.227	0.231	0.150	0.081	0.382			
6	0.047	-0.292	0.339	1.328	-0.036	-0.297	0.260	1.213	-0.009	-0.240	0.231	1.080			
7	-0.025	-0.301	0.275	1.135	-0.106	-0.148	0.042	0.191	-0.036	-0.127	0.091	0.421			
8	-0.075	0.255	-0.330	-1.377	-0.133	-0.052	-0.080	-0.379	-0.091	-0.013	-0.078	-0.369			
9	0.126	0.265	-0.139	-0.620	0.190	0.389	-0.199	-0.984	0.272	0.407	-0.135	-0.681			
10	0.095	-0.329	0.425	1.735	*	-0.112	0.012	-0.125	-0.633	0.009	-0.021	0.030	0.153		

Event date	Model (4)				Model (5)					
	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat		
-10	0.342	0.140	0.203	0.892	0.334	0.199	0.135	0.600		
-9	0.189	-0.061	0.250	1.186	0.234	-0.044	0.278	1.348		
-8	-0.220	0.185	-0.405	-2.061	**	-0.169	0.223	-0.392	-2.001	**
-7	-0.103	-0.074	-0.029	-0.155	-0.051	-0.040	-0.011	-0.059		
-6	-0.250	-0.170	-0.081	-0.384	-0.233	-0.125	-0.108	-0.505		
-5	-0.150	-0.271	0.121	0.534	-0.114	-0.239	0.125	0.547		
-4	0.016	-0.128	0.143	0.657	0.028	-0.038	0.066	0.309		
-3	0.174	-0.058	0.232	0.980	0.095	-0.060	0.155	0.668		
-2	0.094	-0.127	0.221	0.919	0.122	-0.074	0.196	0.846		
-1	0.337	0.012	0.325	1.504	0.367	0.047	0.321	1.474		
0	0.023	-0.096	0.119	0.542	0.024	-0.106	0.13	0.581		
1	0.105	-0.225	0.330	1.381	0.210	-0.174	0.384	1.603		
2	0.198	-0.370	0.568	2.672	***	0.223	-0.324	2.545	**	
3	0.376	-0.214	0.590	2.677	***	0.407	-0.182	2.660	***	
4	0.040	-0.072	0.111	0.501	0.115	-0.031	0.146	0.652		
5	0.216	0.145	0.072	0.336	0.210	0.217	-0.007	-0.032		
6	0.006	-0.219	0.225	1.034	0.056	-0.208	0.264	1.218		
7	-0.021	-0.161	0.140	0.648	-0.021	-0.133	0.112	0.505		
8	-0.067	-0.002	-0.065	-0.301	-0.071	-0.011	-0.060	-0.279		
9	0.288	0.418	-0.130	-0.658	0.285	0.413	-0.128	0.259		
10	-0.018	-0.034	0.016	0.083	0.026	-0.060	0.086	0.335		

We use the market model to calculate the abnormal returns (AR) based upon event study methodology. Our analysis uses five models, comprising of 'mean adjusted returns' (Model 1), 'market-adjusted returns' (Model 2), the 'OLS-adjusted risk model' (Model 3), the 'Scholes-Williams OLS-adjusted risk model' (Model 4), and the 'GARCH adjusted risk model' (Model 5). The mandatory code on the appointment of independent directors, which was imposed on all new firms, requires the firms to appoint two or more independent directors, whereas in contrast, the voluntary code, which was imposed on all old firms, provides them with discretion with regard to whether or not they will appoint independent directors. The event window under examination comprises of the 10-day periods before and after the announcement day. 'Diff.' refers to the difference in the abnormal returns between announcements of voluntary appointments (VA) and mandatory appointments (MA) of independent directors. *** indicates statistical significance at the 1% level; ** indicates statistical significance at the 5% level; and * indicates statistical significance at the 10% level.

Table 7: Cumulative Abnormal Returns from Announcements of Voluntary and Mandatory Appointments of Independent Directors

Windows	Model (1)				Model (2)				Model (3)			
	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat
(-1,0)	0.286	-0.292	0.578	1.574	0.242	-0.042	0.285	0.902	0.355	-0.076	0.431	1.358
(-10,0)	-0.111	-1.387	1.275	1.226	0.059	-0.320	0.378	0.488	0.507	-0.472	0.978	1.133
(0,1)	0.256	-0.025	0.282	0.751	0.000	-0.306	0.306	0.906	0.145	-0.307	0.453	1.333
(0,5)	1.501	-0.331	1.831	2.804 ***	0.690	-0.814	1.505	2.658 ***	1.012	-0.765	1.776	2.944 ***
(0,10)	1.669	-0.734	2.402	2.784 ***	0.493	-0.910	1.403	2.014 **	1.157	-0.758	1.915	2.559 **
(-1,1)	0.424	-0.317	0.741	1.545	0.333	-0.233	0.566	1.389	0.491	-0.275	0.767	1.866 *
(-5,5)	1.113	-1.971	3.084	2.879 ***	0.816	-1.147	1.963	2.398 **	1.497	-1.189	2.686	2.993 ***
(-10,10)	1.439	-2.120	3.559	2.333 **	0.642	-1.114	1.756	1.685 *	1.655	0.113	2.776	2.264 **

Windows	Model (4)				Model (5)			
	VA	MA	Diff.	t-stat	VA	MA	Diff.	t-stat
(-1,0)	0.360	-0.084	0.444	1.384	0.391	-0.059	0.450	1.382
(-10,0)	0.451	-0.647	1.098	1.250	0.638	-0.256	0.895	1.053
(0,1)	0.128	-0.320	0.449	1.301	0.234	-0.279	0.513	1.481
(0,5)	0.958	-0.831	1.789	2.995 ***	0.986	-3.229	4.215	2.804 ***
(0,10)	1.146	-0.829	1.975	2.631 ***	1.464	-0.597	2.061	2.687 ***
(-1,1)	0.465	-0.308	0.773	1.856 *	0.601	-0.233	0.834	1.983 **
(-5,5)	1.429	-1.402	2.830	3.110 ***	1.688	-0.962	2.650	2.926 ***
(-10,10)	1.574	0.107	2.953	2.398 **	2.079	0.148	2.826	2.340 **

We use the market model to calculate the abnormal returns (AR) based upon event study methodology. Our analysis uses five models, comprising of 'mean adjusted returns' (Model 1), 'market-adjusted returns' (Model 2), the 'OLS-adjusted risk model' (Model 3), the 'Scholes-Williams OLS-adjusted risk model' (Model 4), and the 'GARCH adjusted risk model' (Model 5). The expected returns of the windows, $CAR(t_1, t_2)$, are the cumulative abnormal returns from day t_1 to day t_2 . The mandatory code relating to the appointment of independent directors, which was imposed on all new firms, requires these firms to appoint two or more independent directors. In contrast, the voluntary code on the appointment of independent directors, which was to be available to all old firms, provides these firms with discretion with regard to whether or not they appoint independent directors. 'Diff.' refers to the difference in the abnormal returns between announcements of voluntary appointments (VA) and mandatory appointments (MA) of independent directors. *** indicates statistical significance at the 1% level; ** indicates statistical significance at the 5% level; and * indicates statistical significance at the 10% level.

Regression Results

Table 8 reports the OLS regressions on the cumulative abnormal returns from the announcement of independent director appointments, comprising of $CAR(0, 5; 0, 10)$ for all five models. The moderating effects of controlling shareholders on such announcements are shown in Panel A for the variable, *Control Shares*, and in Panel B for the variable, *Control Seats*. The deviation between ownership and control (*Diverge*) is found to be insignificant for the $CAR(0, 5; 0, 10)$ from the announcement of independent director appointments in almost all of the models, with the one exception being the 'mean-adjusted return model' $CAR(0,10)$. The extant literature suggests that controlling shareholders are more likely to expropriate private benefits in firms with a higher deviation between ownership and control. (Johnson et al., 2000; Claessens et al., 2002; Mitton, 2002; Haw et al., 2004; Yeh, 2005) Thus, if independent directors are able to efficiently execute their function of board monitoring, the monitoring value of appointing independent directors, in terms of the reaction by the market, will be higher in those firms with a higher deviation between ownership and control.

According to our results, the market appears to reveal that the appointment of independent directors is incapable of bringing monitoring value to firms in Taiwan. The magnified monitoring function of the board, through the appointment of more independent directors, makes it more difficult for managers to manipulate firms. Clearly, the number of board seats occupied by independent directors may have a positive impact on firm performance if they can provide a substantial monitoring function; however, the coefficient on the proportion of board seats occupied by independent directors (*Ind_R*) is consistently found to be insignificant; hence, we can essentially rule out the recognition by the market of any monitoring value of independent directors. In short, these findings demonstrate that the market has little confidence in the monitoring role of independent directors. All of the models in Table 8 reveal that the CARs from the announcements of independent director appointments have a significantly positive association with the

Table 8: Monitoring and Signaling Effect of Independent Director Appointments Determining the Moderating Effect of Controlling Shareholders

Dependent Variables	Model (1)				Model (2)				Model (3)			
	CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Panel A: Control Shares												
Constant	-2.84	-0.677	-2.30	-0.414	0.77	0.215	1.42	0.318	0.93	0.155	2.72	0.366
Diverge	0.40	0.124	-8.02	-1.847	0.47	0.167	-1.73	-0.496	3.25	0.434	3.48	0.378
Ind_R	-1.58	-0.419	-4.90	-0.985	-0.68	-0.206	-3.29	-0.805	0.31	0.069	-3.94	-0.701
D_Vol	2.47**	3.209	2.60*	2.562	2.24**	3.343	1.94*	2.344	2.16	1.691	2.63	1.675
Diverge×ConShares	-0.41	-0.563	-0.16	-0.164	-0.31	-0.492	-0.14	-0.190	-0.29	-0.313	-0.61	-0.530
Ind_R×ConShares	1.50	0.809	0.86	0.351	2.69	1.379	2.34	1.189	2.18	1.041	3.47	1.111
D_Vol×ConShares	0.12	0.015	1.63	0.154	6.43	1.945	7.19	0.859	5.95*	2.167	2.95	0.188
Expertise	0.32	0.676	0.72	1.157	0.05	0.143	0.38	0.750	-0.81	-1.144	-0.77	-0.874
Reputation	0.36	1.021	0.47	1.003	0.21	0.697	0.31	0.830	0.09	0.171	0.34	0.508
Tobin's Q	1.19*	2.448	1.74**	3.065	1.28	1.756	1.53**	3.324	1.16*	2.415	1.92	1.910
Age	-0.05	-0.795	-0.07	-0.842	-0.03	-0.673	-0.00	-0.111	0.02	0.323	0.04	0.477
Leverage	3.40	1.706	7.34**	2.789	3.35	1.947	5.69**	2.686	7.65*	2.499	6.66	1.768
Size	-0.03	-0.139	-0.29	-0.784	-0.30	-1.257	-0.49	-1.649	-0.65	-1.662	-0.72	-1.495
R ²	0.035		0.053		0.040		0.046		0.125		0.090	
F-value	1.384		2.118**		1.565*		1.809**		1.729*		1.204	
Dependent Variables	Model (4)				Model (5)							
	CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)					
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat				
Panel A: Control Shares (Contd.)												
Constant	2.48	0.509	2.39	0.505	2.48	0.645	4.80	0.987				
Diverge	-1.26	-0.334	-1.57	-0.422	-0.84	-0.277	-3.16	-0.823				
Ind_R	-3.66	-0.842	-3.04	-0.698	-0.64	-0.185	-3.71	-0.842				
D_Vol	2.32**	2.679	2.19*	2.509	2.13**	3.012	2.12*	2.364				
Diverge×ConShares	-0.05	-0.070	-0.06	-0.082	-0.53	-0.793	-0.20	-0.234				
Ind_R×ConShares	2.67	1.279	2.47	1.185	1.11	1.207	3.08	1.413				
D_Vol×ConShares	1.10	0.122	0.45	0.050	2.19*	2.026	0.33	0.035				
Expertise	0.36	0.679	0.40	0.762	0.12	0.292	0.65	1.190				
Reputation	0.18	0.454	0.22	0.569	0.00	0.014	0.08	0.202				
Tobin's Q	1.77	1.989	1.75	1.956	1.06*	2.165	0.86	1.722				
Age	-0.01	-0.153	-0.01	-0.213	-0.04	-0.774	-0.00	-0.118				
Leverage	6.26**	2.787	6.49**	2.887	3.67*	1.997	6.30**	2.706				
Size	-0.51	-1.596	-0.53	-1.680	-0.38	-1.484	-0.67*	-2.038				
R ²	0.035		0.038		0.044		0.042					
F-value	1.390		1.496		1.674*		1.600					
Dependent Variables	Model (1)				Model (2)				Model (3)			
	CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Panel B: Control Seats												
Constant	-2.84	-0.677	-2.30	-0.414	0.77	0.215	1.42	0.318	0.93	0.155	2.72	0.366
Diverge	0.40	0.124	-8.02	-1.847	0.47	0.167	-1.73	-0.496	3.25	0.434	3.48	0.378
Ind_R	-1.58	-0.419	-4.90	-0.985	-0.68	-0.206	-3.29	-0.805	0.31	0.069	-3.94	-0.701
D_Vol	2.47**	3.209	2.60*	2.562	2.24**	3.343	1.94*	2.344	2.16	1.691	2.63	1.675
Diverge×ConSeats	-0.12	-0.015	1.63	0.154	-6.43	-0.945	-7.19	-0.859	5.95	0.467	-2.95	-0.188
Ind_R×ConSeats	-0.41	-0.563	-0.16	-0.164	-0.31	-0.492	-0.14	-0.190	-0.29	-0.313	-0.61	-0.530
D_Vol×ConSeats	1.50	0.809	0.86	0.351	2.69	1.679	2.34	1.189	5.18*	2.041	3.47	1.111
Expertise	0.32	0.676	0.72	1.157	0.05	0.143	0.38	0.750	-0.81	-1.144	-0.77	-0.874
Reputation	0.36	1.021	0.47	1.003	0.21	0.697	0.31	0.830	0.09	0.171	0.34	0.508
Tobin's Q	0.19	0.448	1.74**	3.065	0.28	0.756	1.53**	3.324	1.16	1.415	1.92	1.910
Age	-0.05	-0.795	-0.07	-0.842	-0.03	-0.673	-0.00	-0.111	0.02	0.323	0.04	0.477
Leverage	3.40	1.706	7.34**	2.789	3.35	1.947	5.69**	2.686	7.65*	2.499	6.66	1.768
Size	-0.03	-0.139	-0.29	-0.784	-0.30	-1.257	-0.49	-1.649	-0.65	-1.662	-0.72	-1.495
R ²	0.035		0.053		0.040		0.046		0.125		0.090	
F-value	1.384		2.118**		1.565*		1.809**		1.729*		1.204	

Dependent Variables	Model (1)				Model (2)			
	CAR(0,5)		CAR(0,10)		CAR(0,5)		CAR(0,10)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Panel B: Control Seats (Contd.)								
Constant	2.48 ⁰	0.509	2.39	0.505	2.48	0.645	4.80 ⁰	0.987
Diverge	-1.26	-0.334	-1.57 ¹	-0.422	-0.84	-0.277	-3.16 ¹	-0.823
Ind_R	-3.66	-0.842	-3.04	-0.698	-0.64	-0.185	-3.71 ¹	-0.842
D_Vol	2.32 ^{**}	2.679	2.19 [*]	2.509	2.13 ^{**}	3.012	2.12 [*]	2.364
Diverge×ConSeats	-1.10	-0.122	0.45 ¹	0.050	0.19	0.026	-0.33 ¹	-0.035
Ind_R×ConSeats	-0.05	-0.070	-0.06	-0.082	-0.53	-0.793	-0.20	-0.234
D_Vol×ConSeats	2.67	1.279	2.47 ¹	1.185	3.11	1.807	3.08	1.413
Expertise	0.36	0.679	0.40 ¹	0.762	0.12	0.292	0.65 ¹	1.190
Reputation	0.18	0.454	0.22	0.569	0.00	0.014	0.08	0.202
Tobin's Q	0.77	1.589	0.75	1.556	-0.06	-0.165	0.86	1.722
Age	-0.01	-0.153	-0.01 ¹	-0.213	-0.04	-0.774	-0.00 ¹	-0.118
Leverage	6.26 ^{**}	2.787	6.49 ^{**}	2.887	3.67 [*]	1.997	6.30 ^{**}	2.706
Size	-0.51 ¹	-1.596	-0.53 ¹	-1.680	-0.38	-1.484	-0.67 [*]	-2.038
R ²	0.035		0.038		0.044		0.042	
F-value	1.390		1.496		1.674 [*]		1.600	

This table reports the OLS regressions of the cumulative abnormal returns (CAR) from the announcement of independent director appointments based upon the dependent variables of Control Shares (Panel A) and Control Seats (Panel B). The expected returns of the windows, CAR(t_1, t_2), are the cumulative abnormal returns from day t_1 to day t_2 ; Diverge is the deviation between ownership and control (the difference between the voting rights (%) and cash flow rights (%) in the hands of the largest shareholder) representing the level of the agency problem for the expropriation of wealth. Ind_R is the percentage of independent director seats on the board. D_Vol is a dummy variable which takes the value of 1 if the appointment of independent directors was voluntary, and zero if the appointment was mandatory. Con Seats are measured as the ratio of the number of board seats held by controlling shareholders to the total number of board seats; ConShares includes both the direct shareholdings ratio (the shareholding of controlling shareholders in the form of individuals, other companies, and in trust) and the indirect shareholdings ratio (the total shareholding of each control chain in a sequence of firms leading to the target firm) as measured by La Porta et al. (1999); the Expertise measure is a proxy for the number of independent directors amongst all independent director appointments with a professional specialty in finance, accounting or law. We sum up the number of independent directors with expertise to represent the overall ability of the independent director appointments for the sample firm; Reputation is a proxy for the total score from independent directors with relationships with government, as professors, experience as senior managers or concurrently serving as directors in other firms; Tobin's Q is the ratio of the market value and the book value of assets; Age is the age of the firm at the time of its listing on the TSE; Leverage is the debt-to-asset ratio; and Size is the log of the total assets of the firm. *** indicates statistical significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

voluntary appointment of independent directors, clearly indicating that when firms have the discretion to appoint independent directors, and decide to go ahead with such appointments, this has a positive impact on the firm. Thus, if such firms are exposed to high information asymmetry with regard to their integrity, thereby resulting in undervaluation, they could efficiently signal their integrity to the market by voluntarily appointing independent directors. In an attempt to provide a better understanding of the impact of the presence of controlling shareholders on the announcement of independent director appointments, we show the moderating impact of controlling shareholders on the announcement effect in Table 8, with Panel A showing the results for Control Shares and Panel B showing those for Control Seats. We also undertake separate analyses of the moderating effect of controlling shareholders on monitoring value and signaling value by introducing the interaction terms into each of the regressions.

The results of the five models for both Control Shares in Panel A and Control Seats in Panel B indicate that the interactions between these two control variables and either Diverge or Ind_R are insignificant; these results imply that firms which have higher levels of control, and which appoint independent directors, will be unable to increase their performance through monitoring value, a situation which may be attributable to controlling shareholders with a strong grip on the control of the firm taking steps to ensure that external forces are prohibited from interfering in the internal affairs of the firm. In other words, as a result of the significant dominance of controlling shareholders, the expected moderating effect of controlling shareholders on independent director appointments does not exist in Taiwan.

Hence, the suggestion is that appointments of independent directors by firms in Taiwan, in an effort to increase the monitoring function of the board, have been in vain. However, the significantly positive coefficients on the interaction between D_Voluntary and Control Shares in the CAR(0,5) regression in three of the models, the 'market-adjusted return model', the 'OLS-adjusted risk model' and the 'GARCH-adjusted risk model' indicate that with the greater power of controlling shareholders, investors are

easily convinced by the voluntary appointment of independent directors that the private benefit expropriated by controlling shareholders is overestimated by the market, essentially because the voluntarily appointment of independent directors by firms sends out a strong signal to the market that they are prepared to forego a reduction in private benefits attributable to the effective monitoring by independent directors in return for an increase in stock value from the reduction in the information asymmetry with regard to the integrity of the firm, thereby maximizing their wealth. Hence, the results support the voluntary appointment of independent directors as an efficient signaling vehicle to the market.

For advising effects, the expertise and reputation functions of independent directors are found to be insignificantly positive in all five models; thus, it seems that even when firms are prepared to appoint independent directors with higher levels of expertise or reputation, there is no incremental value to firm performance, implying that the advising function of independent directors cannot be efficiently brought into full play under such considerable control by controlling shareholders. As regards corporate characteristics, *Tobin's Q* is found to have a significantly positive association with the appointment of independent directors, a result which is largely consistent with managers in firms with a higher *Tobin's Q* being more inclined to appoint independent directors than those in firms with a lower *Tobin's Q*, since they would clearly wish to signal their profitability to the market.

As regards the debt-to-asset ratio, in Models (1) to (5) in Panels A and B of Table 8, the *Leverage* variable is consistently found to have a significantly positive correlation with the appointment of independent directors. Given that firms with high debt-to-asset ratios are faced with higher financial risk, any independent directors they appoint could efficiently monitor their financial statements to reduce their default risk. Hence, our findings show that the market recognizes that independent director appointments could add strong monitoring value to firms with high default risk. Furthermore, given that investors are largely unfamiliar with newly-listed and small-sized firms, such firms are routinely associated with high information asymmetry. There is, therefore, a greater likelihood of those firms appointing independent directors in order to reduce such asymmetry. However, our results show that the coefficients on the two associated variables are insignificant.

CONCLUSIONS

The effective regulation of corporate governance in Taiwan clearly lags far behind that of other countries, such as the US and the UK, where firms are generally seen as having well-established board governance structures and mechanisms. For listed firms in Taiwan, characterized by powerful controlling shareholders and concentrated ownership, there are considerable opportunities to amass private benefits, essentially as a result of the absence of appropriate regulations on the protection of the rights of investors. Rosenstein and Wyatt (1990) examined the excess returns from announcements of external directors in US firms, whilst Lin et al. (2003) carried out a similar examination on UK firms; however, there has been no comprehensive investigation of the influence which controlling shareholders may have on the reaction by the market to the voluntary and mandatory appointment of independent directors under a scenario of very limited protection for the rights of investors, where ultimate controlling shareholders are prevalent, and where there are limited numbers of seats on the board occupied by independent directors. Our results show that the market reaction to announcements of independent director appointments is insignificant. Interestingly, our findings show that the CARs of voluntary appointments of independent directors are significantly higher than those of mandatory appointments. There exist a signal effect of independent directors appointments. Five econometric models, namely the 'mean-adjusted return model', the 'market-adjusted return model', the 'OLS-adjusted risk model', the 'Scholes- Williams OLS-adjusted risk model' and the 'GARCH-adjusted risk model', are used to examine the factors influencing the announcement effects, with our findings showing that after the announcement day, the CARs of voluntary appointments of independent directors are significantly higher than those for mandatory appointments, but that the deviation between ownership and control and the number of board seats occupied by independent directors are both insignificant.

According to our findings and those of the prior studies (Rosenstein and Wyatt, 1990; Lin et al., 2003; Huang et al., 2008), in those markets with well-designed corporate governance and sound protection for

the rights of investors, the appointment of independent directors is usually found to have low monitoring value, resulting in an insignificant announcement effect (Lin et al., 2003) or perhaps an announcement effect of reduced significance (Rosenstein and Wyatt, 1990). Besides, our findings also show that the advising effect of independent directors has failed under the presence of controlling shareholders. Namely, when firms are handled by controlling shareholders, the independent directors with higher levels of expertise or reputation could not further provide some advising value to firms.

In contrast, as a result of the under-developed corporate governance mechanisms and lower levels of protection for the rights of investors, independent director appointments in the Taiwan market should provide high monitoring value; however, the severe ownership problem and the prevalence of controlling shareholders dominating independent director appointments leads to expectations by the market of the failure of the monitoring function of independent directors. The only exception is voluntary appointments, as they appear to provide a signaling vehicle. We therefore conclude that the independent directors mechanism in Taiwan should be overhauled, with a far-reaching mandatory requirement for the appointment of independent directors by all firms, the enforcement of a system for the assessment of the efficiency of independent directors, and the introduction of a ‘carrot and stick’ system for independent director appointments, which will ultimately prompt independent directors to execute their function to the best of their ability, and not allow themselves to be manipulated by controlling shareholders.

This study examines the price behavior of announcement of independent director appointments by event study method. Since many boards often simultaneously announce appointment of independent director and other important issues in the meeting day, the announcement effect for the appointment event of independent director could be contaminated with other issues. Hence, the limitation of this paper is unable to decompose the price behavior of board meeting day into the announcement effects of independent director appointment and the effects of other issues. For future study, the researchers could further capture the pure effect of independent director appointment by applying an innovative methodology.

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BIOGRAPHY

Yung-Chuan Lee, is Associate Professor of International Business Department at Asia University. His researches appear in journals such as *Journal of International Financial Management and Accounting*, *Emerging Markets Finance and Trade*, *Applied Economics*. He can be reached at Asia University, 500 Lioufeng Road, Wufeng Dist., Taichung City 41354, Taiwan, ROC. Tel: 886-4-23323456-1937; e-mail: leeyc@asiau.edu.tw.

Ming-Chang Wang, corresponding author, is Assistant Professor of Business Administration Department at the National Chung Cheng University. His research appears in journals such as *European Financial Management*. He can be reached at National Chung Cheng University, 168 University Road, Min-Hsiung, Chia-Yi 621, Taiwan, ROC. Tel: 886-5-2720411-34312; Fax: 886-5-2720564; e-mail: mcwang@ccu.edu.tw.