Multiple Roles of Outside Directors: When are 'Friendly' Directors Beneficial to Firms?

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Abstract

Using detailed information on outside directors' business, professional and social ties, we find that independent outside directors improve Tobin's Q particularly when monitoring becomes more effective (due to low information transaction costs or high potential agency costs). Connected, "friendly" outside directors improve firm value when a firm needs an advisor as it faces M&A threats, distress or financial volatility. Also, connected outside directors improve firm value more when a firm operates in regulatory environments where a boundary spanning role becomes more important. Our results are robust controlling for endogeneity issues. Our paper suggests that the value of independence or connectedness of outside directors depends on their roles as a monitor, advisor, or boundary spanner given the corporate environments and characteristics.

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I. Introduction

A friend in need is a friend indeed.

Quintus Ennius [Poet, 239-170 B.C.]

Despite the common belief that independent outside directors improve firm value, empirical studies show conflicting results. Some studies show that firms with independent outside directors free from business connections have higher firm value (Choi, Park, and Yoo, 2007; Dahya, Dimitrov, and McConnell, 2008; Yeh and Woidtke, 2005). Independent outside directors can improve firm value when corporate information is transparent (Duchin, Matsusaka, and Ozbas, 2010), when the firm needs corrective actions to deal with its own value-decreasing bids (Paul, 2007), or when the firm tries to extract higher tender-offer prices from bidding firms (Cotter, Shivdasani, and Zenner, 1997). In addition, 'connected' or 'friendly' directors who have social ties with top managers are more likely to lower firm performance as they often pay excessive compensation to their CEOs regardless of performance (Hwang and Kim, 2009).

On the other hand, other studies have shown that firms with more independent outside directors show lower firm performance (Agrawal and Knoeber, 1996; Bhagat and Black, 2002; Yermack, 1996, all studies in the US). Scholars have criticized these above studies for failing to address endogeneity problems, such as reverse causality, as appointment of outside directors is endogenous to corporate environments and characteristics (Bhagat and Black, 2002; Erickson, Park, Reising,

and Shin, 2005). However, an event study that does not suffer causality problems also shows negative stock returns of small firms when they announced independent outside directors as part of governance requirements in 2002 (Chhaochharia and Grinstein, 2007).

In this paper, we propose a new perspective to explain the different benefits of independent vs. "friendly" outside directors and thereby account for different studies' conflicting effects of independent outside directors on firm value. We define friendly outside directors as those who have current or past business connections with the firm or social ties with the chief executive officer (CEO) or controlling shareholder. We argue that outside directors can play multiple roles—monitor, advisor and boundary spanner, and we hypothesize that the relative importance of these roles hinges upon firm characteristics and the specific environment at a particular time. As academics have argued, independent outside directors can monitor firm management more effectively than friendly outside directors. However, friendly outside directors can cooperate more effectively with management, have better relationships with the CEO or controlling shareholders, or more extensive networks within the industry, any of which can yield greater access to information, greater influence within the firm or greater bargaining power with the outside institutions.[1]

The need for and effectiveness of outside directors as monitors depend on the information environments and agency costs. Information environments encompass

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[1] A recent survey on 340 firms listed on the Korea Stock Exchange indicates that firms consider how directors interact with insiders and outside institutions in selecting board members (Korea Economics, September 28th, 2011).

information acquiring costs and degree of information asymmetry (Raheja, 2005; Adams and Ferreira, 2007; Harris and Raviv, 2008; Duchin, Matsusaka, and Ozbas, 2010). When independent outside directors lack sufficient firm-specific information (e.g., due to the poor information environments), they cannot monitor effectively. Meanwhile, the benefit of monitoring also depends on the severity of agency problems. When a firm faces potentially severe agency problems stemming from large free cash flows (Jensen, 1986) or low ownership concentration of insiders (Jensen and Meckling, 1983), independent outside directors who keep insiders at arm's length are more likely to monitor effectively and reduce value-destroying activities.

For vulnerable firms exposed to large financial volatility, distress, or outside takeover threats, however, managers already face severe external pressure to perform. Under these circumstances, external threats can substitute for internal monitoring (Jensen and Ruback, 1983) to influence corporate decisions and behaviors, thereby reducing the benefit of outside directors' detached monitoring, and raising the value of directors who can serve as advisors or boundary spanners (to obtain external resources).

As the resource-dependence theory argues, firms can use outside directors as a means to facilitate the acquisition of external resources such as government licenses, permits, and contracts (Zald, 1969; Pfeffer, 1972; Goldman, Rocholl, and So, 2009). Since such external-boundary spanners often work in private or secretly, friendly and connected outside directors are more likely to play such roles than independent ones.

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We empirically examine the effects of friendly versus independent corporate boards on firm value, and how these effects differ across various corporate environments to test the relative importance of each role under different conditions. Specifically, we examine whether friendly or independent directors are more valuable across four aspects of corporate environments including: 1) information environments, 2) agency costs, 3) vulnerable corporate control, and 4) a business environment requiring boundary spanners between a firm and outside institutions.

We focus on listed, non-financial firms in Korea from 1999 to 2006. In 1999, the South Korean government required that firms appoint outside directors.[2] During 1999-2006, Korean firms faced various corporate environments, including a fast growing emerging market, corporate restructuring, and governance reform following the Asian economic crisis in 1997. As an emerging market, the Korean economy also had more information asymmetry problems compared to developed countries (Francis, Hasan, Lothian, and Sun, 2010). As the Korean government strongly influences the regulatory environment, politically connected managers or directors might lobby key government officials, who can impact firm performance (Siegel, 2007). Taken together, these volatile economic circumstances and valuable social/political connections in the Korean economy provide a unique opportunity to examine whether the importance of friendly or independent directors differ across

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[2] Starting from 1999, publicly-listed firms in Korea were legally required to appoint at least one outside director. For publicly-listed firms with over two trillion won in assets, outside directors had to constitute more than 50% of its board members beginning in January 2001. (See Black and Kim (2012))

corporate environments.

Firm value is measured by Tobin's Q. Though it may suffer from problems associated with stock market valuations, Tobin's Q still reflects an investors' valuation of the firm and is affected less from earnings management problems associated with operating profitability. As non-financial firms in Korea rarely offer profit-sharing through stock options or stock grants, our Tobin's Q, based on firm value after deducting management compensation, is closely related to shareholders' payoff (Joh and Jung, 2012).

Using information in more fine-grained detail than in previous studies, our findings are as follows. In firms with greater information transparency, independent outside directors increase firm value, consistent with Duchin, Matsusaka, and Ozbas (2010). In addition, independent outside directors are more valuable in firms with greater agency problems (e.g., high free cash flows; low ownership concentration of inside managers or large shareholders). On the other hand, friendly outside directors improve corporate value in firms that are stand-alone, in distress, faced with sizable volatility or exposed to merger and acquisition (M&A) threats. These results suggest that the advisory role of friendly outside directors becomes more important in firms with financial vulnerabilities. Moreover, friendly outside directors have a larger impact on firms with greater lobbying expenses or that operate exclusively in domestic markets; these results suggest that friendly directors play a boundary spanner role in firms that are subject to government regulation.

In short, using detailed information on outside directors, our study suggests

that boards with more independent directors increase firm value when their firms need a strong monitor. In contrast, boards with friendly directors can add firm value when firms need advisors or boundary spanners. Our paper contributes to the existing literature by showing the potential multiple roles (monitor, advisor, boundary spanner) of independent and friendly directors and specifying their impact on firm value in various corporate environments. Some firms might benefit from outside directors who can be close counselors and trusted boundary spanners in certain corporate environments.

The rest of the paper is organized as follows: In Section 2, we present a literature review, and develop our hypotheses. We describe our data and the sample in Section 3. In Section 4, we test our hypotheses regarding the valuation effect of board independence/friendliness. We provide concluding remarks in Section 5.

II. Previous Literature and Hypotheses

A. Roles of Outside Directors

A board of directors performs multiple roles in modern corporations: monitor, advisor and boundary spanner (Johnson et al., 1996). As a fiduciary representing and protecting (minority) shareholders' interests, boards monitor managers who may pursue their own interests (Jensen and Meckling, 1976). As an advisor, a board of directors can also offer counsel to top managers to help them make better decisions. As boundary spanner, board members can link firms with external resources or build

organizational legitimacy (Pfeffer, 1972; Forbes and Milliken, 1999).

Monitor Role

Board independence is crucial to effective monitoring of management (Daily and Dalton, 1994; Choi, Park, and Yoo, 2007). Hwang and Kim (2009) show that board members who are socially connected to the CEOs award a significantly higher level of compensation to their CEOs regardless of CEO performance, suggesting that friendly boards do not objectively and robustly monitor firm managers.

When potential agency problems are severe due to large free cash flows that allow managers to pursue private benefits (Jensen, 1986), board monitoring can prevent managers from engaging in value destroying activities. In addition, when ownership by the largest shareholder or insiders is small, the management tends to pursue their own interest at the outside shareholders' expense (Jensen and Meckling, 1976). In such firms, monitoring by an independent director can improve firm value.

However, board independence itself does not guarantee effective monitoring or greater firm value. According to Chhaochharia and Grinstein (2007), large firms benefit from independent monitoring, but small firms do not. As independent outside directors are less informed of firm goals and activities than insiders (Raheja, 2005; Adams and Ferreira, 2007), they cannot monitor effectively when they lack sufficient information. When firms face high information asymmetry due to its large financial volatility, risky investment, or financial distress (Hoshi, Kashyap and Scharfstein, 1990), outside directors have difficulty acquiring and processing information on firm management, which, in turn, increases their monitoring costs. When outside directors have to incur high monitoring costs, they often provide less monitoring. This link

between high information asymmetry and poor monitoring by independent outside directors could explain why the number of independent outside directors decreases with a rise in the cost of firm information acquisition and processing (Linck, Netter, and Yang, 2008). Therefore, greater information asymmetry reduces the value of board independence.

Advisor role

In addition to monitoring firm managers, directors can serve as advisors. Directors who have organization-specific knowledge about their firm, understand their firm's key corporate strategic issues, and have better relationships with their firm's top managers (Johnson, Daily, and Elistrand, 1996; Coles, Daniel, and Naveen, 2008; Judge and Dobbins, 1995) are more likely to provide relevant advice and improve firm performance. With better access to relevant information than independent directors, friendly outside directors can act earlier to initiate important strategic or organization changes, for example when helping their firm negotiate for external financing or takeover deals (Fama and Jensen, 1983; Lorsch and MacIver, 1989; Palmer, Jennings, and Zhou, 1993; Rosenstein et al., 1993; Bange and Mazzeo, 2004). Furthermore, friendly directors connected to insiders can provide better advice that complements the insiders' firm-specific knowledge, yielding a stronger impact on firm value in such environments.

When firms face strong external monitoring, outside directors' advisory role or boundary spanner role outweighs their monitoring role. As internal and external monitoring can be substitutable (Jensen and Ruback, 1983), outside directors' monitoring often add little value with strong external monitoring (e.g., external

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control threats, distress, or high volatility). Instead, firms in these circumstances benefit more from appointing friendly directors to serve as advisors or boundary spanners rather than independent directors to serve as monitors.

Boundary Spanner Role

Lastly, directors can serve as boundary spanners and help link their firm to the external environment. As the resource-dependence theory argues, boundary spanners can help acquire external resources, build their firm's organizational legitimacy, or transfer firm information to capital markets (Pfeffer, 1972; Forbes and Milliken, 1999; Cohen, Frazzini and Malloy, 2010). For example, outside directors can facilitate the acquisition of government licenses, permits, and contracts (Zald, 1969; Pfeffer, 1972; Goldman, Rocholl, and So, 2009). As such role is often carried out in secrecy, connected and trusted friendly outside directors often outperform independent directors as boundary spanners. Thus, a firm is more likely to seek friendly outside directors rather than independent directors to serve as boundary spanners.

Industry-specific characteristics and political and regulatory environments affect the importance of such boundary spanners. This boundary spanner role is especially useful if a firm operates exclusively in domestic markets or engages in lobbying activities. Domestic regulatory authorities have greater influence on firms that only operate in domestic markets, compared to multi-national firms. Furthermore, if a firm faces substantial government regulations or can obtain public sector procurements, it can benefit from outside director boundary spanners who can influence regulators to expand its business, to help obtain a license or permit, or to

aid public sector procurement.

B.   Hypotheses

Next, we specify hypotheses on how firm value is affected by interactions between board independence and different roles of outside directors (monitor, advisor, and boundary spanner). We expect that the importance of these roles to firm performance depends upon different corporate needs stemming from various firm characteristics and corporate environments.

First, we tackle the problem of endogeneity, as corporate environments might also influence board structure and board independence (Hermalin and Weisbach, 1998). For example, transferring firm-specific information to outsiders is difficult and costly in firms with high information asymmetry. Thus, firms with high information asymmetry might therefore invite fewer independent directors and solicit less monitoring from their directors (Linck, Netter, and Yang, 2008). With low information asymmetry costs, however, board independence may increase. To address these endogeneity problems, we use two-stage least squares (2SLS), which controls the effect of endogenous variables including informational environments in the first stage.

Second, we test whether the value of outside directors' independence depends on different corporate information environments, which affect their monitoring efficacy. Information environments are assessed by degrees of information asymmetry, transparency in management, and information transaction costs to the firm. We expect that board independence increases the positive effects of monitoring in firms with more transparency in management and with lower information transaction costs.

Third, we examine whether firms facing greater agency problems benefit more from independent outside directors who monitor firm management better. A high tendency of agency problems is measured through large free cash flows, or low ownership by controlling shareholders or inside management.

Fourth, we investigate whether friendly, connected outside directors can perform a better advisory role than independent directors. When firms face uncertainty (high volatility) or strong external monitoring, friendly outside directors can provide more suitable advice and add more to firm value, as they have better access to relevant information than independent directors.

Finally, we examine whether friendly, connected outside directors can perform a better boundary spanner role than independent directors. Boundary spanner role is expected to be more useful for a firm that operates exclusively in domestic markets or engages in lobbying activities.

III.   Sample Selection and Data

A.   Data Sources

Our data came from several sources. We hand-collected information on board composition and board characteristics of non-financial firms listed on the Korea Stock Exchange (KSE) between 1999 and 2006. Note that in 1999, the Korean government required that all publicly traded firms appoint at least one outside director. We include information on age, educational credentials (such as high school, college, and major), previous careers, and family ties to controlling shareholder, using the TS2000 database provided by Korea Listed Companies Association,

KISINFO provided by Korea Information Service, Inc., and the Who's Who databases of four daily newspapers.[3] We obtain annual financial data and monthly stock returns from the FnDataguide. In addition, we collect data on the relevant firms' fair disclosures from the electronic disclosure system (www.dart.fss.or.kr) to analyze the characteristics of firms with friendly directors. We also use disclosures on major changes in investment or business activities between 1995 and 2011.

Our final set of data includes complete information on the top managers during 3,836 firm-years. These managers represent 578 unique firms from 1999 through 2006. In the final data set, there are 21,120 directors; 16,178 executive directors (including CEOs) and 4,942 outside (non-executive) directors. Most boards are appointed during the shareholders' annual meeting, which is usually held in the first quarter of each year; hence, boards are largely responsible for a firm's performance in the year in which they were appointed.

B.   Variables

B.1.   Board Independence

Previous studies have defined friendly boards as those that have business or family ties within a firm. By collecting additional data, we can sharpen this definition in greater detail (see Section III. A). First, as outlined in other studies, we define independent outside directors as those who have not engaged in business or professional activities associated with that firm and who are neither past nor current employees of the firm or its affiliated firms (Weisbach, 1988; Choi, Park and Yoo,

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[3] These newspapers are Chosunilbo, Dongailbo, JoongAngilbo, and Munhwailbo.

2007). Second, independent directors do not have personal ties with the CEO or controlling shareholder of a given firm (e.g. graduating from the same high school, or the same major at the same college/university), a criteria also used by Hwang and Kim (2009). Third, independent directors have not worked at the same firm or institute with the CEO or controlling shareholder of a given firm in the past. If an outside director does not meet any of these three criteria, then the director is classified as friendly. After classifying each director as friendly or independent, we construct proxy variables for board independence and friendliness using the number of independent and friendly outside directors divided by the total number of registered board members.

Figure 1 presents how board composition has changed from 1999 through 2006 using a sample of 3,836 firm-years. The left-side of the figure indicates that the ratio of outside directors (the sum of *Independent Outside Directors* and *Friendly Outside Directors*) was only about 12% in 1999. In 1999, the Korean government mandated that all listed firms must have at least one outside director. Starting in 2001, all financial institutions and large firms with assets greater than 2 billion dollars must have boards constituted by at least 50% of outside independent directors, and small firms are required to appoint at least one outside director. After these laws were enacted, the proportion of outside directors in Korean firms sharply increased to 37% in 2006.

For our whole sample period, on average 17.8% of all directors were independent outside directors and 9.1% were friendly outside directors (Table 1); hence about

one-third[4] of outside directors had business or social ties with their firm's CEO or controlling shareholder. Figure 1 shows that both friendly and independent directors increased over time and that the ratio of friendly directors over outside directors (the right-side) was nearly constant in recent years.

[insert Figure 1 around here]

B.2.   Firm Value

Following earlier studies on corporate governance and performance, as far back as to Morck, Shleifer, and Vishny (1988), we use Tobin's Q as a proxy for firm value. Tobin's Q is the ratio of a firm's market value to the replacement cost of that firm's assets. We observe that the mean value of Tobin's Q is 0.933 (Table 1). While the ratio may suffer when stock prices are over-valued or have high volatility, Tobin's Q still reflects market participants' valuations of what a given firm is worth. In addition, using Tobin's Q, we avoid problems associated with earnings management that can occur when profitability is used as a proxy for firm value.

B.3. Corporate Environments: Information, Corporate Governance, Volatility, Vulnerability to External Threats, and Government Regulation

Corporate information environments are assessed by several measurements and variables. One set of measures is based upon bid-ask spread in stock prices, which reflect information transaction costs as developed in the market microstructure

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[4] According to Hwang and Kim (2009), 41.6% of outside directors are friendly directors in US firms, a little bit higher than that of Korean firms over the period 1996-2005.

models of Glosten-Harris (1988) (hereafter GH), Hasbrouck (1991), and Foster and Viswanathan (1993) (hereafter HFV)[5]. A firm with high GH or HFV values has a high degree of information asymmetry risk.[6]

We also use *firm size, analyst report, credit rating, transparency index,* and volatility as proxy variables for information acquisition and processing costs. Information on large firms or firms whose performance is analyzed extensively is easy to acquire and to process (Hou, 2007). Also, firms with credit ratings are reviewed and monitored by capital markets, providing yet more available information. *Firm size* is measured through the log value of total assets. *Analyst report* is the total number of analyst reports about the firm in a given year. *Credit rating dummy* is 1 for companies with credit ratings for commercial papers (CPs) or corporate bonds (CBs), and 0 otherwise. *Transparency* is the natural logarithm of the sum of transparency-related scores on the Korea Corporate Governance Index (KCGI) between 2002 and 2006[7] (e.g., the number of meetings related to investor relations; disclosure on earnings forecast, boards, and financial statement). Financial volatility is measured through *Stock return volatility,* the annualized standard deviation of daily returns during the year, and *Sales volatility,* the standard deviation of sales from year

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[5] Market microstructure proxies of information asymmetry capture the idea that the presence of better-informed traders in a financial market may affect the market's process of price formation. According to market microstructure literature, market makers widen the bid-ask spread to compensate for their loss from trading with informed traders (Glosten and Milgrom (1985)). Using information on price, quote, and spread, Glosten and Harris (1988) empirically divide the bid-ask spread into permanent components related to information asymmetry cost and temporary components related with order processing cost, inventory cost, etc. Hasbrouck (1991) and Foster and Viswanathan (1993) consider the effects over time.

[6] We appreciate generosity of Chae, Jung, and Yang for providing us annual GH and HFV variables based on annual averages for the daily Trade and Quote (TAQ) variables between 1999 and 2006.

[7] As maximum scores vary each year, we normalize each firm's transparency scores by annual average of total score.

t-4 to t. According to our test, information transaction cost variables, GH or HFV, are closely related to traditional variables representing information asymmetry risks. We find that firms with a high GH or HFV measure are smaller in size, have fewer analyst reports, have a low or non-credit rating, and have low transparency. This information is not reported due to space limitations but is available upon request.

We examine the benefit of monitoring when firms are exposed to potential incentive problems and agency problems, such as firms with large free cash flows or firms with "low ownership" by the largest shareholder or by insiders (Jensen and Meckling, 1976; Jensen, 1986). *Free cash flows* refer to a firm's operating cash flow after subtracting capital expenditures. *Largest ownership* is the shareholding ratio of the largest shareholder who owns at least 5%. *Inside ownership* concentration is the percentage of the firm's outstanding shares held by insiders (CEO, executive managers, and inside auditors).

Next, we examine the advisory role of friendly boards when a firm faces high volatility. We use *Stock return volatility* and *Sales volatility* as proxies for volatility. In addition to volatility, firms' external threat makes the advisory role of friendly outside directors better. Firms are vulnerable to outside threats when they face M&A threats, financial distress, or when they are standalone firms without affiliated firms. *M&A threat* is a dummy for firms exposed to outside M&A threats. If a firm has even been a target for M&A over the previous or the following three years[8], we assume that the firm faces potential threats in the near future, and assign 1 to *M&A threat* and

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[8] It includes cases where M&A announcement was made but the deal failed to go through. M&A events are obtained from the Securities Data Company's (SDC) M&As database compiled by Thomson Financial.

0 otherwise. *Standalone dummy* is 1 if a firm does not belong to one of the 50 largest business groups according to the classification of Korea Fair Trade Commission. Compared to standalone firms, firms affiliated with business groups (*chaebols*) are better protected from outside threats as they are connected through interlocking ownership among affiliates. *Distressed* is a dummy that is 1 when a firm has experienced an equity loss in the given year or ordinary income losses in three consecutive years (Hoshi, Kashyap, and Scharfstein, 1990). When a firm is financially distressed, corporate control can be transferred from existing shareholders to creditors and incumbent managers can lose jobs.

We use corporate lobbying activities to measure the degree of boundary spanning by outside directors of a firm. As a proxy for corporate lobbying activities, this paper uses entertainment expenses. Unlike regulations in the US, Korean tax laws do not require entertainment expenses to be directly related or associated with business activities. While they cannot deduct expenses for their own employees as costs, Korean firms can deduct gifts, donations, and entertainments for outsiders up to certain percent of sales. *Entertainment expenses* normalized with the sales are higher in firms under distress, in small firms, and in firms that do business exclusively in the domestic market. Also, the expenses are high in industries sensitive to government regulations or public sector decisions such as construction, biotechnology, and pharmaceutical industries.

Table 1 presents descriptive statistics regarding key firm characteristics and board information. We construct the *Highly-networked CEO* as a proxy for the CEO's social networking potential. *Highly-networked CEO* equals one if the CEO has ever

held a political or government position, worked as a journalist, been a CEO at a bank, or has been a chairman or a vice chairman of some association. 11.4% of the total CEOs in our study fit this profile. *Domestic firm dummy* is 1 for firms when 100% of the revenue comes from domestic markets. Domestic firms constitute 40.3% in our sample. *Entertainment expenses/sales* is the entertainment expenses ratio normalized with the sales. This ratio is 0.3% of total sales volume.

[insert Table 1 around here]

IV.   Empirical Design and Results

We examine the effects of board independence and friendliness on firm value. After establishing the robustness of the results when controlling for endogeneity, we test whether the effects vary as corporate environments and situations change. Specifically, four types of corporate environmental variables are examined: information dispersion, agency costs, vulnerable or volatile corporate conditions, and corporate needs for boundary spanning.

A.   Effect of Board Independence/Friendliness

Our baseline empirical model assumes that performance is determined according to:

$$V_{ijt} = \alpha + \beta I_{ijt} + \gamma F_{ijt} + \delta C_{ijt} + \theta I_{ijt} C_{ijt} + \rho F_{ijt} C_{ijt} + r_i + s_j + p_t + e_{ijt} \quad (1)$$

where *i* indexes a firm, *j* indexes an industry, *t* indexes a year, V_{ijt} is a measure of

firm value, I_{ijt} or F_{ijt} indicates board independence or friendliness [9], C_{ijt} represents corporate environments, r_i is a firm-specific performance effect, s_j is an industry-specific effect, and p_t is a year-specific effect. First, we examine whether friendly outside directors influence firm value positively under the specific environments. In particular, we examine whether the marginal effect depends upon environment variables surrounding a firm, such as information cost (transparency), agency problem, vulnerability (to outside threats), and regulatory environments. As the marginal effect of board independence and friendliness on firm value is $\partial V/\partial I = \beta + \theta E(C)$ or $\partial V/\partial F = \gamma + \rho E(C)$, the hypotheses are $\partial^2 V/(\partial I \partial C) = \theta$ or $\partial^2 V/(\partial F \partial C) = \rho$, which lead to testing if θ=0 or ρ=0.

For each firm, board characteristics include its size and members' mean age. *Board size* is the natural logarithm of the total number of directors. *Board age* is the natural logarithm of the mean age of board members. To reduce omitted variables bias in determining firm value, we also include firm-specific financial variables known to affect Tobin's Q (Yermack, 1996; Faleye, 2007). *Firm size* is the natural logarithm of total assets; *CAPEX/Assets* is the ratio of capital expenditures to total assets; *Leverage* is the ratio of total debt to total assets; *Current Profitability* is earnings before interest and taxes (EBIT) to total assets at the beginning of the year. *Distress* is a dummy that equals 1 when a firm has experienced ordinary income losses in the past three years or has had an equity loss in the given year. *Sensitivity to market risk (beta)* is calculated by regressing the firm's monthly returns over the past

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[9] As board independence (friendliness) is measured by the ratio of independent (friendly) outside directors over the total directors in our sample, the sum of independent and friendly director ratios is not 1. The Pearson's correlation coefficient between independent outside boards and friendly outside boards is -0.045, suggesting that multicollinearity is likely not a severe problem.

year on the Korea Composite Stock Price Index (KOSPI) monthly returns.

In addition, non-financial information such as ownership concentration and types of business organization are included in the regression. To avoid a causality problem identified by Demsetz and Lehn (1985) and Cho (1998), our ownership variable is the lagged value of the percentage shareholding of the largest shareholder, *Lag (largest ownership)*. The *Standalone* dummy takes 1 for firms not belonging to one of the 50 largest chaebols, otherwise, it is equal to 0. Furthermore, the two-digit primary Standard Industrial Classification (SIC) code dummies are included to control for *Industry* fixed effects. Meanwhile, *Year* dummies account for economy-wide shocks. All regressions use the standard errors for heteroskedasticity and double-cluster the errors at the firm and time levels.

In Table 2, we compare the characteristics of firms with many friendly directors to those of firms with no friendly directors. We select the 63 companies ("firms with friendly directors") that have the highest ratio of friendly directors throughout the sample period and the 63 companies ("firms without friendly directors") that have never had a friendly director. There was no significant difference on firm size between two groups. On the other hand, firms with friendly directors have more often experienced major corporate control related events such as changes in largest shareholders, block trading, establishments of subsidiaries, affiliated firms, spin-offs, and mergers between 1995-2011. Additionally, they have a greater number of major changes in business activities such as overseas expansion, commodities development, and large business transactions than firms without friendly directors.

[insert Table 2 around here]

In our analyses, we address endogeneity problems associated with board composition as board structure can be determined by firm performance and firm characteristics (Hermalin and Weisbach, 1998). Linck, Netter, and Yang (2008) show that the ratio of independent outside directors over total directors depends on information acquisition and processing costs. To account for the endogeneity problems between board independence (or friendliness) and firm value, we estimate the system of equations by two-stage least squares (2SLS), using *Highly-networked CEO dummy*, *R&D spending*, S*tock return volatility* as instruments to identify an exogenous shift in the percentage of "independent/friendly" outside directors. If a CEO has ever been a politician, a government official, a journalist, a CEO at a bank, or a chairman at a business association, he/she has a large network and is more likely to bring acquaintances from his/her network into firm operations. This will increase the ratio of friendly outside directors associated with a given firm. If a firm has high R&D spending or high stock return volatility, the number of friendly outside directors may increase because these firms likely seek to appoint friendly directors with inside information (Linck, Netter and Yang, 2008). We use 2SLS with the following specifications for the tests of hypotheses on the valuation effect of independent outside boards and friendly outside boards.

$$I_{ijt}(\text{ or } F_{ijt}) = \alpha_0 + \alpha_1 \text{Tobin's } Q + \alpha_2 \text{Highly-networked CEO} + \alpha_3 \text{R\&D spending} +$$
$$\alpha_4 \text{Stock return volatility} + \alpha_5 \text{Board size} + \alpha_6 \text{Board's age} + \alpha_7 \text{Largest}$$

ownership+ α_8 *Standalone*+ α_9 *CAPEX/Assets*+ α_{10} *Leverage*+ α_{11} *Firm*

size+ α_{12} *Current profitability*+ α_{13} *Distress*+ α_{14} *Sensitivity to market risk*

+Industry dummy +Year dummy+ ε $\qquad$ (2)

Tobin's Q= β_0 + β_1 *Predicted* I_{ijt} + β_2 *Predicted* F_{ijt} + β_3 *Board size*+ β_4 *Board's*

age+ β_5 *Largest ownership*+ β_6 *Standalone*+ β_7 *CAPEX/Assets*+ β_8

Leverage+ β_9 *Firm size*+ β_{10} *Current profitability*+ β_{11} *Distress*+ β_{12}

Sensitivity to market risk + Industry dummy +Year dummy+ ε $\qquad$ (3)

In the above equations, I_{ijt} or F_{ijt} is a variable indicating board independence or board friendliness, respectively. In the first stage regressions, we estimate the board independence/friendliness as an endogenous variable regressing them on firm performance, instrumental variables, and other regressors using an OLS method. In the second-stage regressions, firm value is regressed on the predicted ratio of independent directors and on the predicted ratio of friendly directors from the first-stage regression along with other variables.

Table 3 reports the results. The first stage regression results in the first two columns show that the *Highly-networked CEO* is significantly positively correlated with board friendliness and negatively correlated with the board independence. This suggests that CEOs with extensive social networks have a tendency to hire people from their networks. In addition, we find that the firms with less R&D expenses or less volatility have more independent boards. On the other hand, firms have more friendly boards when they have older boards, have large assets, are chaebol-affiliated or are financially distressed. Using predicted values from the first stage regressions,

the second-stage regression result in the third column shows the impact of board independence/friendliness on firm value. It shows that the ratio of independent outside directors has positive effects on Tobin's Q, while the ratio of friendly outside directors negatively affects Tobin's Q. In summary, the positive (negative) association between board independence (friendliness) and Tobin's Q does not seem to be driven by the endogeneity of the board composition. We use *Independent/Friendly outsiders* in all the other regressions as fitted values from a first stage regression using 2SLS in Table 3.

[insert Table 3 around here]

B.   Boards as Monitors and Corporate Information Environments

This section reports how interactions between independence or connectedness of board, and information environments affect firm value when information environments are measured with two information transaction costs (GH, HFV), firm size, analyst reports, credit rating, and transparency index.

Table 4 summarizes the results. In columns (1) and (2), the interaction terms of information transaction costs with independent directors are negative and significant. The effect of independent board members on firm value is higher when information transaction costs decrease. The interaction terms of independent directors with firm size and analyst reports are all positive and significant in columns (3) and (4), respectively. Similarly, interaction terms with credit rating and with corporate transparency are positive and significant. These results show that the effect of

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independence on firm value is greater in firms that are larger, have more analyst reports, have higher credit ratings or have greater transparency. These results suggest that the monitoring role of independent outside directors is more effective in firms with low information asymmetry or with better transparency as these independent directors do not have to incur high costs for information acquisition or processing.

[insert Table 4 around here]C.   Boards as Monitors and Agency Problems

Next, we examine whether independent boards' monitoring depends on the degree of potential agency problems measured through high free cash flow and low ownership of largest shareholders and insiders. Table 5 shows that the interaction term of free cash flow with friendly boards has a negative and significant coefficient, while that with independent boards has a positive but insignificant one. Lack of independence lowers firm value when managers have slack to waste their corporate resources, suggesting the importance of independence in monitoring. The coefficient of interaction term of ownership concentration with friendliness is positive, while it is negative with independence. When insiders' or largest shareholders' interest is more closely aligned with that of minority shareholders, monitoring becomes less important and the value of independent boards also decreases. In short, firms with greater potential agency problems show larger effects of independent boards, implying that board monitoring becomes more important in firms with large agency problems.

[insert Table 5 around here]

D. Boards as Advisors and Volatility (Uncertainty)

In this section, we examine the effects of advisory role of friendly boards on firm value when firms face high volatility and high uncertainty. Outside directors need more detailed information from insiders to play an effective advisory role under the uncertain and risky situation. Corporate insiders' firm-specific information has more value in firms with more uncertainty (e.g., greater stock return or sales volatility). As connected friendly directors have better access to insiders' information, they can provide better advice than independent outside directors.

Table 6 presents how board friendliness interacts with the firms' financial volatility. The interaction term of independent boards with financial volatility shows a negative, insignificant coefficient, while that of friendly boards has a positive and significant coefficient. Consistent with our earlier findings, the results indicate that firms with high volatility typically have a lower valuation of board independence and a higher valuation of friendly outsiders.

[insert Table 6 around here]

E. Boards as Advisors and External Threats

Table 7 reports how the advisory role of independent/friendly outside directors differs for firms exposed to outside threats. Corporate vulnerability to outside threats is measured by *M&A threat, standalone, and distress*. The results show that the interaction terms of outside threats with independent boards have negative coefficients (all significant except for distress) while the interaction terms with

friendly boards all have positive, significant ones. All measures of vulnerability yield consistent results; friendly outside directors impose higher effects on firm value than independent directors, although the significance levels differ across measures. The results imply that a friendly outsider can be valuable for vulnerable firms.

[insert Table 7 around here]

F.   Boards as Boundary Spanners and Regulatory Environments

In this analysis, we examine the boundary spanner role of board members. In Table 8, Column (1) shows that friendly outside directors who have social ties with CEOs/controlling shareholders improve firm performance when a firm exclusively operates in domestic markets. Column (2) shows that friendly boards affect firm value positively when the firm has more entertainment expenses. Compared to firms that export goods abroad, firms only operating in domestic markets are more subject to domestic regulatory authorities' influence. These results suggest that for firms sensitive to regulations/government policy or engaging in extensive lobbying, friendly directors can serve as boundary spanners to increase firm value.

[insert Table 8 around here]

V.   Conclusion

While the recent corporate governance literature emphasizes the importance of outside directors' independence from their firm to serve as effective monitors,

outside directors can also play other roles such as advisor and boundary spanner. Therefore, the success of outside directors depends on which roles are warranted by different corporate environments and whether directors are independent or connected to insiders. While independent outside directors can serve as better monitors, friendly directors can be better advisors or boundary spanners. Furthermore, we argue that the effects of board independence or friendliness on firm performance vary according to different corporate needs stemming from various firm characteristics and corporate environments.

Using detailed information on business and professional relationships as well as information on social ties between outside directors and firm insiders, we examine how the effects of independent or friendly directors on firm value depend on the corporate environment. Overall, our evidence suggests that a higher ratio of independent directors on a board improve firm value. When firms face greater agency problems or incur low information transaction costs, monitoring by independent directors increases firm value. However, compared with strict and independent directors, friendly boards have a positive impact on firm value when firms face external corporate control risks, when firm-specific information becomes important, or when firms are subject to regulatory/lobbying conditions.

Our results argue that although board independence has been emphasized by the public and shareholder activists, some firms do not actually benefit much from independent directors' monitoring. The value of independence depends on firm characteristics and corporate environments such as corporate information environments, volatile financial conditions or corporate vulnerability to outside

threats. Furthermore, friendly directors can be of value if a firm needs a boundary spanner to facilitate the firm's access to outside resources or regulatory agencies. Some environments weaken the effect of board independence on firm value, indicating that the effects hinge on the different roles required of directors.

Our study sheds insight onto why, even in the same country under the same capital market governance systems, some firms are more likely to appoint independent directors while other firms often appoint friendly directors. Our results imply that the traditional practice of appointing a close counselor as a board member may persist because outside directors fulfill different roles and friendly directors can add firm value in some specific corporate environment at a particular time.

References

Adams, R., and D. Ferreira. "A Theory of Friendly Boards." *Journal of Finance,* 62 (2007), 217–250.

Agrawal, A., and C. R. Knoeber. "Firm Performance and Mechanisms to Control Agency Problems between Managers and Shareholders." *Journal of Financial and Quantitative Analysis,* 31 (1996), 377-397.

Bange, M. M., and M. A. Mazzeo. "Board Composition, Board Effectiveness and the Observed Form of Takeover Bids." *Review of Financial Studies*, 17 (2004), 1185-1215.

Bhagat, S., and B. Black. "The Non-Correlation between Board Independence and Long-term Firm Performance." *Journal of Corporation Law*, 27 (2002), 231-273.

Black, B., Kim, W., "The effect of board structure on firm value: A multiple identification strategies approach using Korean data." *Journal of Financial Economics*, 104 (2012), 203-226.

Chhaochharia, V., Grinstein, Y., "Corporate governance and firm value: The impact of the 2002 governance rules." *Journal of Finance*, 62 (2007), 1789-1825.

Cho, M., "Ownership structure, investment, and the corporate value: an empirical analysis." *Journal of Financial Economics,* 47 (1998), 103-121.

Choi, J.J., Park, S.W., Yoo, S.S., "The value of outside directors: Evidence from corporate governance reform in Korea." *Journal of Financial and Quantitative Analysis,* 42 (2007), 941-962.

Cohen, L, Frazzini, A., Malloy, C, "Sell-side school ties." *Journal of Finance*, 65 (2010), 1409-1437.

Coles, J., Daniel, N., Naveen, L., "Boards: Does one size fit all?" *Journal of Financial Economics,* 87 (2008), 329-356.

Cotter, J.F., Shivdasani, A., Zenner, M., "Do independent directors enhance target shareholder wealth during tender offers?" *Journal of Financial Economics,* 43 (1997),

195–218.

Dahya, J., Dimitrov, O, McConnell, J.J, "Dominant shareholders, corporate boards, and corporate value: A cross-country analysis." *Journal of Financial Economics*, 87 (2008), 73-100.

Daily, C.M., Dalton, D.R., "Bankruptcy and corporate governance: The impact of board composition and structure." *Academy of Management Journal,* 37 (1994), 1603-1617.

Demsetz, H., Lehn, K., "The structure of corporate ownership: Causes and Consequences." *Journal of Political Economy*, 93 (1985), 1155-1177.

Duchin, R., Matsusaka, J.G., Ozbas, O., "When are outside directors effective?" *Journal of Financial Economics,* 96 (2010), 195-214.

Erickson, J., Park, Y.W., Reising, J., Shin, H., "Board composition and firm value under concentrated ownership: the Canadian evidence." *Pacific-Basin Finance Journal,* 13 (2005), 387-410.

Fama, E.F., Jensen, M.C., "Separation of ownership and control." *Journal of Law and Economics,* 26 (1983), 301-325.

Faleye, O., "Classified boards, firm value, and managerial entrenchment." *Journal of Financial Economics*, 83 (2007), 501–529.

Forbes, D.P., Milliken, F.J., "Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups." *Academy of Management Review,* 24 (1999), 489-504.

Foster, F.D., Viswanathan, S., "Variation in trading volume, return volatility, and trading costs: Evidence on recent price formation models." *Journal of Finance,* 48 (1993), 187-211.

Francis, B.B., Hasan, I, Lothian, J.R., Sun, X., "The signaling hypothesis revisited: Evidence from foreign IPOs." *Journal of Financial and Quantitative Analysis,* 45 (2010), 81-106.

Gaver, J., Gaver, K., "Additional evidence on the association between the investment

opportunity set and corporate financing, dividend, and compensation policies." *Journal of Accounting and Economics,* 16 (1993), 125-160.

Glosten, L.R., Harris, L.E., "Estimating the components of the bid/ask spread." *Journal of Financial Economics,* 21 (1988), 123-142.

Glosten, L.R., Milgrom, P.R., "Bid, ask, and transaction prices in a specialist market with heterogeneously informed traders." *Journal of Financial Economics,* 14 (1985), 71-100.

Goldman, E., Rocholl, J., So. J., "Do politically connected boards affect firm value?" *Review of Financial Studies*, 22 (2009), 2231-2360.

Harris, M., Raviv, A., "A theory of board control and size." *Review of Financial Studies,* 21 (2008), 1797-1832.

Hasbrouck, J., "Measuring the information content of stock trades." *Journal of Finance*, 46 (1991), 179-207.

Hermalin, B., Weisbach, M., "Endogenously chosen boards of directors and their monitoring of the CEO." *American Economic Review,* 88 (1998), 96-118.

Hoshi, T., Kashyap, A., Scharfstein, D., "The role of banks in reducing the costs of financial distress in Japan." *Journal of Financial Economics*, 27 (1990), 67-88.

Hou, K., "Industry information diffusion and the lead-lag effect in stock returns." *Review of Financial Studies*, 20 (2007), 1113-1138.

Hwang, B., Kim, S., "It pays to have friends." *Journal of Financial Economics,* 93 (2009), 138-158.

Jensen, M., "Agency costs of free cash flow, corporate finance, and takeovers." *American Economic Review*, 76 (1986), 323-329.

Jensen, M., Meckling, W.H., "Theory of the firm: Managerial behavior, agency costs and ownership structure." *Journal of Financial Economics,* 3 (1976), 305-360.

Jensen, M., Ruback, R.S., "The market for corporate control." Journal of financial Economics, 83 (1983), 5-50.

Joh, S., Jung, J., "The effects of outside board on firm value in the emerging market from the perspective of information transaction costs." *Asia-Pacific Journal of Financial Studies*, 41 (2012), 175-193.

Johnson, J. L., Daily, C, Ellstrand, A. "Board of directors: A review and research agenda." *Journal of Management,* 22 (1996), 409-438.

Judge, W.Q., Dobbins, G.H., "Antecedents and effects of outside director's awareness of CEO decision style." *Journal of Management*, 21 (1995), 43-64.

Linck, J.S., Netter, J.M., Yang, T., "The determinants of board structure." *Journal of Financial Economics,* 87 (2008), 308-328.

Lorsch, J.W., MacIver, E., "Pawns or potentates: The reality of America's corporate boards." *Boston, MA: Harvard Business School Press*, (1989).

Morck, R., Shleifer, A., Vishny, R., "Management ownership and market valuation: An empirical analysis." *Journal of Financial Economics,* 20 (1988), 293-315.

Palmer, D., Jennings, D, Zhou, X., "Late adoption of the multidivisional form by large U.S. corporations: Institutional, political, and economic accounts." *Administrative Science Quarterly*, 38 (1993), 100-131.

Paul, D.L., "Board composition and corrective action: Evidence from corporate responses to bad acquisition bids." *Journal of Financial and Quantitative Analysis,* 42 (2007), 759-783.

Pfeffer, J., "Size and composition of corporate boards of director: The organization and its environment." *Administrative Science Quarterly*, 17 (1972), 218–229.

Raheja, C., "Determinants of board size and composition: A theory of corporate boards." *Journal of Financial and Quantitative Analysis*, 40 (2005), 283–306.

Rosenstein, J., Bruno, A.V., Bygrave, W.D., Taylor, N.T., "The CEO, venture capitalists, and the board." *Journal of Business Venturing,* 8 (1993), 99-113.

Siegel, J., "Contingent political capital and international alliances: Evidence from South Korea." *Administrative Science Quarterly,* 52 (2007), 621-666.

Weisbach, M., "Outside directors and CEO turnover." *Journal of Financial Economics* 20 (1988), 431-460.

Yeh, Y., Woidtke, T., "Commitment or entrenchment?: Controlling shareholders and board composition." *Journal of Banking and Finance*, 29 (2005), 1857-1885.

Yermack, D., "Higher market valuation of companies with a small board of directors." *Journal of Financial Economics*, 40 (1996), 185–211.

Zald, M.N., "The power and functions of boards of directors: A theoretical synthesis." *American Journal of Sociology*, 74 (1969), 97-111.
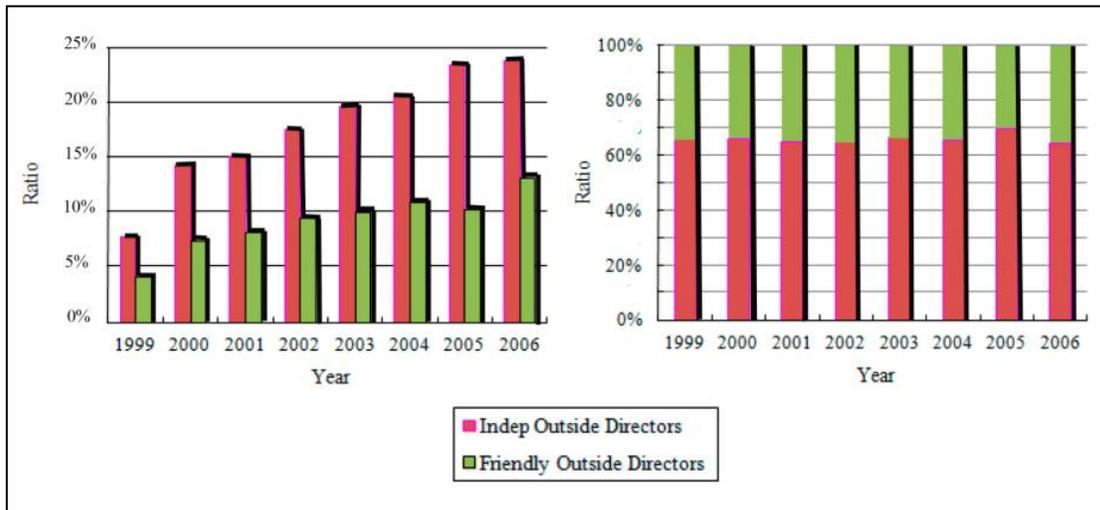
Fig. 1. Board structure trends: 1999-2006.

Figures show mean values of the ratio of independent outside directors to friendly outside directors from year-end 1999 through year-end 2006. The sample includes 578 unique firms covering 3,836 firm-years. The figure on the left reports the percent of independent outside directors and friendly outside directors over the total board size. The figure on the right displays the ratio of independent and friendly outside directors over the number of total outside directors

Table 1
Descriptive summary statistics for sample firms from 1999 to 2006

The sample firms are drawn from FnDataguide. Characteristics of the board of directors are taken from several sources. Data related to GH (HFV) are taken from the Trade and Quote (TAQ) database. *Tobin's Q* is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. *Outside directors* are the ratio of directors who are not employees of the company and have no operational responsibilities within the company to board size. *Independent outsiders* are the ratio of outside directors who have no business or personal ties to a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties to a firm to board size. *Highly-networked CEO dummy* equals to one if CEO has ever held a political or government position, worked as a journalist, has been CEO at a bank, or has been a chair man or a vice chairman at some association. *Board size* is the natural logarithm of total number of directors. *Board age* is the natural logarithm of the age of board members as of the end of year. *R&D spending* represents the R&D expenses over total assets. *GH* or *HFV* is information transaction costs estimated by the Glosten and Harris (1988) model or the Hasbrouck (1991)–Foster and Viswanathan (1993) model. *Largest ownership* is the shareholding ratio of the largest shareholder. *CAPEX/Assets* is the ratio of capital expenditures to total assets. *Leverage* is the ratio of total debt to total assets. *Firm size* is the natural logarithm of total assets/1,000,000. *Current profitability* is the ratio of earnings before interest and taxes (EBIT) to beginning total assets. *Distressed* is a dummy that takes 1 when a firm experienced ordinary income losses in 3 recent consecutive years, or an equity loss in the year. *Standalone dummy* is one when a firm is not affiliated with one of the 50 largest chaebols (based on annual asset size). *Sensitivity to market risk (beta)* is calculated by regressing the firm's monthly returns over the past year are regressed on the KOSPI monthly returns. *Stock return volatility* is measured as the annualized standard deviation of daily returns during the year. *Sales volatility* is measured as the standard deviation of Sales from years t-4 to t. *Analyst report* is the total number of analyst reports in the year. *Transparency* is the natural logarithm of the sum of transparency related items on the Korea Corporate Governance Index (KCGI) between 2002 and 2006. *Free cash flow* is calculated by taking operating cash flow and subtracting capital expenditures. *M&A threat dummy* is one for a firm that has even been announced as targeted for M&A over the previous or the following 3 years, and 0 for otherwise. *Domestic firm dummy* is a dummy variable that indicates firms operate in domestic markets only. *Entertainment expenses/sales* is the entertainment expenses ratio over total sales.

Variable	First quartile	Mean	Median	Third quartile	Standard deviation	Sample size
Tobin's Q	0.672	0.933	0.813	1.030	0.530	3,836
Independent outsiders	0.000	0.178	0.200	0.250	0.152	3,836
Friendly outsiders	0.000	0.091	0.042	0.112	0.114	3,836
Highly-networked CEO dummy	0.000	0.114	0.000	0.000	0.317	3,836
Board size	1.609	1.826	1.946	2.197	0.710	3,836
Board age	41.967	43.369	43.562	45.106	0.088	3,836
R&D spending	0.001	0.012	0.004	0.014	0.022	3,836
GH	0.001	0.032	0.003	0.012	0.324	3,836
HFV	0.001	0.034	0.003	0.013	0.351	3,836
Largest ownership	0.202	0.335	0.316	0.453	0.175	3,836
Standalone dummy	1.000	0.810	1.000	1.000	0.393	3,836
CAPEX/Assets	0.006	0.044	0.025	0.062	0.312	3,836
Leverage	0.351	0.515	0.494	0.641	0.257	3,836
Firm size	4.479	5.522	5.282	6.330	1.483	3,836
Current profitability	0.006	0.022	0.032	0.067	0.142	3,836
Distressed dummy	0.000	0.381	0.000	1.000	0.486	3,836
Sensitivity to market risk(beta)	0.476	0.728	0.723	0.998	0.376	3,836
Stock return volatility	0.377	0.561	0.498	0.692	0.259	3,836
Sales volatility	0.013	0.075	0.062	0.137	0.270	3,836
Analyst report	0.000	2.877	0.000	2.000	5.620	3,836
Transparency	2.773	2.956	2.996	3.219	0.405	2,150
Free cash flow	-0.021	0.034	0.034	0.094	0.183	3,836
M&A threat	0.000	0.069	0.000	0.000	0.253	3,836
Domestic firm dummy	0.000	0.403	0.000	1.000	0.491	3,836
Entertainment expenses/sales	0.001	0.003	0.002	0.003	0.005	3,836

Table 2

Univariate analysis of "Friendly/Independent" firms

We compare the 63 firms that have the highest ratio of friendly boards to the same number of firms that have never had a friendly board. We use the information on fair disclosures of our sample firms from 1995 to 2011. *Firm size* is the natural logarithm of total assets/1,000,000. *Main changes in investment* are based on fair disclosures such as company establishment, block trading, affiliates range, spin-off, merge, and seasoned offering. *Main business activities* are such as overseas expansion, commodities development, and agreement on a contract. ** and * denote statistical significance at the 5% and 10% levels, respectively.

	Friendly firms (A)	Independent firms (B)	Difference (t-stat.) (A-B)
Firm size	5.585	5.579	0.037
Main changes in investment	29.3	21.7	1.675*
Main business activities	32.7	20.7	1.971**
N	63	63	

Table 3

Two Stage Least Squares Results

 This table presents 2SLS results, using *Highly-networked CEO dummy*, R&D, and Volatility to instrument for Board independence/friendliness during 1999-2006. Each column reports estimates from a single regression, with standard errors (robust and clustered by firm and time) in parentheses. The first stage (column (1) and (2)) regresses board independence and board friendliness on *Highly-networked CEO dummy*, *R&D spending*, *Stock return volatility*, and other variables. *Highly-networked CEO* dummy equals to one if CEO has ever held a political or government position, worked as a journalist, been CEO at a bank, or has been a chair man or a vice chairman at some association. *R&D spending* represents the R&D expenses over total assets. *Stock return volatility* is measured as the annualized standard deviation of daily returns during the year. The second stage uses the fitted values of independent outside directors and friendly outside directors from the first stage as an explanatory variable. See Table 1 for exact definitions of the variables. *Industry dummies* and *year dummies* are employed to control for industry fixed effects and economy-wide shocks. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

	First stage		Second stage
	Board independence	Board friendliness	Tobin's Q
Variable	(1)	(2)	(3)
Independent outsiders			0.203***
			(0.054)
Friendly outsiders			-0.090
			(0.073)
Highly-networked CEO dummy	-0.019**	0.017***	
	(0.009)	(0.006)	
R&D spending	-0.161*	0.008	
	(0.097)	(0.098)	
Stock return volatility	-0.003*	0.001	
	(0.002)	(0.002)	
Board size	-0.023***	0.002	0.011
	(0.008)	(0.006)	(0.022)
Board age	-0.024	0.051***	-0.729***
	(0.027)	(0.019)	(0.071)
Largest ownership	-0.028*	0.001	-0.004
	(0.015)	(0.012)	(0.044)
Standalone dummy	0.031***	-0.019***	-0.048**
	(0.008)	(0.006)	(0.022)
CAPEX/Assets	0.002	0.011	-0.008
	(0.015)	(0.011)	(0.023)
Leverage	-0.004	-0.004	0.450***
	(0.015)	(0.011)	(0.038)
Firm size	0.037***	0.004**	0.005
	(0.003)	(0.002)	(0.008)
Current profitability	-0.046**	-0.030*	-0.052
	(0.023)	(0.016)	(0.058)
Distressed dummy	0.010	0.011**	-0.029*
	(0.007)	(0.005)	(0.017)
Sensitivity to market risk(beta)	-0.010	0.015**	0.086***
	(0.009)	(0.006)	(0.023)
Industry dummy	Yes	Yes	Yes
Year dummy	Yes	Yes	Yes
Number of firms	3,836	3,836	3,836
Adj. R^2	0.201	0.070	0.256

Table 4

The monitoring role of independent boards : an information transaction costs perspective

 The dependent variable is *Tobin's Q*, which is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. *Independent outsiders* are the ratio of outside directors who have no business and no personal ties within a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties to a firm to board size. *Independent/Friendly outsiders* are fitted values from a first-stage regression in Table 3. *GH* or *HFV* is information transaction costs estimated by either the Glosten and Harris (1988) model or by the Hasbrouck (1991)–Foster and Viswanathan (1993) model. *Firm size* is the natural logarithm of total assets/1,000,000. *Analyst report* is the total number of analyst reports within a given year. *Credit rating dummy* for companies with credit ratings for CPs or corporate bonds are given a "1", for companies without credit ratings for CPs or corporate bonds are given a "0". *Transparency* is the natural logarithm of the sum of transparency related items on Korea Corporate Governance Index (KCGI) between 2002 and 2006. See Table 1 for exact definitions of the variables. We correct the standard errors for heteroskedasticity and double-cluster the errors at the firm and time level. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Variable	Tobin's Q					
	(1)	(2)	(3)	(4)	(5)	(6)
Independent outsiders	0.286***	0.299***	-0.407***	0.047	0.080	-0.428
	(0.053)	(0.053)	(0.184)	(0.064)	(0.076)	(0.502)
Friendly outsiders	-0.120	-0.098	-0.023	-0.058	-0.135	-0.138
	(0.073)	(0.073)	(0.263)	(0.082)	(0.093)	(0.720)
Board size	0.020	0.021	0.022	0.008	0.018	0.037
	(0.022)	(0.022)	(0.022)	(0.021)	(0.022)	(0.037)
Board age	-0.768***	-0.774***	-0.736***	-0.611***	-0.727***	-1.259***
	(0.079)	(0.078)	(0.071)	(0.069)	(0.071)	(0.128)
Largest ownership	-0.011	-0.010	0.003	0.047	-0.009	0.057
	(0.045)	(0.045)	(0.044)	(0.043)	(0.044)	(0.061)
Standalone dummy	-0.053**	-0.052**	-0.050**	-0.008	-0.057**	-0.082***
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.031)
CAPEX/Assets	-0.008	-0.006	-0.008	-0.006	-0.007	-0.025
	(0.023)	(0.023)	(0.023)	(0.022)	(0.023)	(0.027)
Leverage	0.345***	0.346***	0.442***	0.473***	0.455***	0.259***
	(0.044)	(0.043)	(0.037)	(0.037)	(0.038)	(0.063)
Firm size	0.008	0.009	-0.018*	-0.068***	0.011	0.014
	(0.008)	(0.008)	(0.010)	(0.009)	(0.008)	(0.012)
Current profitability	-0.138**	-0.132**	-0.060	-0.057	-0.069	-0.398***
	(0.064)	(0.063)	(0.058)	(0.056)	(0.059)	(0.090)
Distressed dummy	-0.019	-0.018	-0.028	-0.024	-0.030*	-0.022
	(0.018)	(0.018)	(0.018)	(0.017)	(0.018)	(0.026)
Sensitivity to market risk(beta)	0.086***	0.084***	0.086***	0.064***	0.093***	0.115***
	(0.024)	(0.024)	(0.023)	(0.022)	(0.023)	(0.034)
GH	0.045					
	(0.030)					
HFV		0.047*				
		(0.027)				
Analyst report				0.026***		
				(0.003)		
Credit rating dummy					-0.105***	
					(0.027)	
Transparency						0.127**
						(0.050)
Independent outsiders * GH	-0.247*					
	(0.158)					
Friendly outsiders * GH	0.105					
	(0.441)					
Independent outsiders * HFV		-0.229*				
		(0.130)				
Friendly outsiders * HFV		0.230				
		(0.476)				
Independent outsider * Firm size			0.104***			
			(0.027)			
Friendly outsider * Firm size			-0.015			
			(0.043)			
Independent outsider * Analyst report				0.010*		
				(0.006)		
Friendly outsider * Analyst report				-0.002		
				(0.010)		
Independent outsider * Credit rating dummy					0.231**	
					(0.100)	
Friendly outsider * Credit rating dummy					0.092	
					(0.146)	
Independent outsider * Transparency						0.258*
						(0.157)
Friendly outsider * Transparency						-0.001
						(0.237)
Industry (Year) dummy	Yes	Yes	Yes	Yes	Yes	Yes
Number of firms	3,836	3,836	3,836	3,836	3,836	2,150
Adj. R²	0.248	0.248	0.259	0.299	0.259	0.290

Table 5

The monitoring role of independent boards : an agency theory perspective

   This table presents the results when the dependent variable Tobin's Q is regressed on board independence/friendliness and various firm characteristics from 1999-2006. Tobin's Q is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. *Independent outsiders* are the ratio of outside directors who have no business and no personal ties within a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties to a firm to board size. *Independent /Friendly outsiders* are fitted values from a first-stage regression in Table 3. *M&A threat* is a dummy variable. *Standalone dummy* is a dummy variable to indicate whether a firm does not belong to one of the 50 largest chaebols. *Distressed* is a dummy that takes the value of "1" when a firm experienced ordinary income losses within 3 recent years, or an equity loss in the given year. *Free cash flow* is calculated by taking operating cash flow and subtracting capital expenditures. *Inside ownership* concentration is the percentage of the firm's outstanding shares held by insiders (e.g., CEO, executive managers, and inside auditors). See Table 1 for exact definitions of the variables. *Industry dummies* and *year dummies* are employed to control for industry fixed effects and economy-wide shocks. Standard errors are shown in parentheses under parameter estimates. We correct the standard errors for heteroskedasticity and double-cluster the errors at the firm and time level. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

	Tobin's Q		
Variable	(1)	(2)	(3)
Independent outsiders	0.181***	0.304***	0.318***
	(0.056)	(0.101)	(0.065)
Friendly outsiders	-0.058	-0.115	-0.109
	(0.076)	(0.154)	(0.103)
Board size	0.011	0.012	0.021
	(0.022)	(0.022)	(0.022)
Board age	-0.701***	-0.729***	-0.707***
	(0.071)	(0.071)	(0.071)
Largest ownership	-0.001	0.058	0.014
	(0.044)	(0.070)	(0.045)
Insider ownership			0.021
			(0.092)
Standalone dummy	-0.050**	-0.047**	-0.046**
	(0.022)	(0.022)	(0.022)
CAPEX/Assets	-0.031	-0.008	-0.008
	(0.023)	(0.023)	(0.023)
Leverage	0.469***	0.453***	0.440***
	(0.038)	(0.038)	(0.038)
Firm size	0.006	0.004	-0.003
	(0.008)	(0.008)	(0.008)
Current profitability	-0.088	-0.051	-0.041
	(0.059)	(0.058)	(0.058)
Distressed dummy	-0.035**	-0.028	-0.035**
	(0.018)	(0.018)	(0.018)
Sensitivity to market risk(beta)	0.094***	0.087***	0.081***
	(0.023)	(0.023)	(0.023)
Free cash flow	-0.185***		
	(0.062)		
Independent outsider * Free cash flow	0.250		
	(0.219)		
Friendly outsider * Free cash flow	-0.671*		
	(0.399)		
Independent outsider * Largest ownership		-0.397*	
		(0.238)	
Friendly outsider * Largest ownership		0.068	
		(0.416)	
Independent outsider * Insider ownership			-1.274***
			(0.381)
Friendly outsider * Insider ownership			0.210
			(0.529)
Industry(Year) dummy	Yes	Yes	Yes
Number of firms	3,836	3,836	3,836
Adj. R^2	0.262	0.257	0.261

Table 6

The advisory role of friendly boards : the perspective of volatility (uncertainty)

This table presents the results when the dependent variable Tobin's Q is regressed on board independence/friendliness and various firm characteristics from 1999 to 2006. Tobin's Q is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. *Independent outsiders* are the ratio of outside directors who have no business and no personal ties within a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties within a firm to board size. *Independent /Friendly outsiders* are fitted values from a first-stage regression in Table 3. *Stock return volatility* is measured as the annualized standard deviation of daily returns during the year. *Sales volatility* is measured as the standard deviation of Sales from years t-4 to t. See Table 1 for exact definitions of the variables. *Industry dummies* and *year dummies* are employed to control for industry fixed effects and economy-wide shocks. Standard errors are in parentheses. We correct the standard errors for heteroskedasticity and double-cluster the errors at the firm and time level. Levels of significance are indicated by [***], [**], and [*] for 1%, 5%, and 10%, respectively.

	Tobin's Q	
Variable	(1)	(2)
Independent outsiders	0.274[***]	0.289[***]
	(0.117)	(0.056)
Friendly outsiders	-0.449[***]	-0.065
	(0.170)	(0.075)
Board size	0.032	0.012
	(0.021)	(0.022)
Board age	-0.625[***]	-0.703[***]
	(0.070)	(0.071)
Largest ownership	0.019	-0.019
	(0.044)	(0.044)
CAPEX/Assets	0.002	0.019
	(0.022)	(0.027)
Leverage	0.353[***]	0.453[***]
	(0.038)	(0.038)
Firm size	0.024	0.004
	(0.008)	(0.008)
Current profitability	-0.076	-0.068
	(0.058)	(0.059)
Distress dummy	-0.088[***]	-0.018
	(0.018)	(0.018)
Standalone dummy	-0.040[*]	-0.049[**]
	(0.022)	(0.023)
Sensitivity to market risk(beta)	-0.008	0.063[***]
	(0.024)	(0.023)
Stock return volatility	0.508[***]	
	(0.052)	
Sales volatility		0.003[***]
		(0.001)
Independent outsiders * Stock return volatility	-0.168	
	(0.188)	
Friendly outsiders * Stock return volatility	0.698[***]	
	(0.287)	
Independent outsiders * Sales volatility		-0.010[***]
		(0.002)
Friendly outsiders * Sales volatility		0.003[*]
		(0.002)
Industry dummy	Yes	Yes
Year dummy	Yes	Yes
Number of firms	3,836	3,836
Adj. R^2	0.289	0.270

Table 7

The advisory role of friendly boards : vulnerability to external threats

This table presents the results when the dependent variable Tobin's Q is regressed on board independence/friendliness and various firm characteristics from 1999-2006. Tobin's Q is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. *Independent outsiders* are the ratio of outside directors who have no business and no personal ties within a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties to a firm to board size. *Independent /Friendly outsiders* are fitted values from a first-stage regression in Table 3. *M&A threat* is one for a firm that has even been announced as targeted for M&A over the previous or following 3 years of our sample period, and "0" for otherwise. *Standalone dummy* is one when a firm is not affiliate with one of the 50 largest chaebols. *Distressed* dummy is 1 when a firm has experienced ordinary income losses in recent 3 years, or an equity loss within the year. *Free cash flow* is calculated by taking operating cash flow and subtracting capital expenditures. See Table 1 for exact definitions of the variables. *Industry dummies* and *year dummies* are employed to control for industry fixed effects and economy-wide shocks. Standard errors are shown in parentheses under parameter estimates. We correct the standard errors for heteroskedasticity and double-cluster the errors at the firm and time level. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Variable	Tobin's Q		
	(1)	(2)	(3)
Independent outsiders	0.232***	0.161**	0.223***
	(0.054)	(0.064)	(0.066)
Friendly outsiders	-0.133*	-0.057	-0.180**
	(0.075)	(0.086)	(0.093)
Board size	0.013	0.012	0.011
	(0.022)	(0.022)	(0.022)
Board age	-0.726***	-0.726***	-0.730***
	(0.071)	(0.071)	(0.071)
Largest ownership	-0.008	-0.002	-0.001
	(0.044)	(0.044)	(0.044)
Standalone dummy	-0.047**	-0.036	-0.047**
	(0.022)	(0.032)	(0.022)
CAPEX/Assets	-0.008	-0.008	-0.009
	(0.023)	(0.023)	(0.023)
Leverage	0.451***	0.448***	0.448***
	(0.038)	(0.038)	(0.038)
Firm size	0.004	0.005	0.005
	(0.008)	(0.008)	(0.008)
Current profitability	-0.052	-0.054	-0.054
	(0.058)	(0.059)	(0.059)
Distressed dummy	-0.029*	-0.028	-0.028
	(0.017)	(0.018)	(0.027)
Sensitivity to market risk(beta)	0.086***	0.086***	0.086***
	(0.023)	(0.023)	(0.023)
M&A threat	0.017		
	(0.050)		
Independent outsider * M&A threat	-0.297*		
	(0.180)		
Friendly outsider * M&A threat	0.301*		
	(0.185)		
Independent outsider * Standalone dummy		-0.141*	
		(0.080)	
Friendly outsider * Standalone dummy		0.123*	
		(0.075)	
Independent outsider * Distress			-0.065
			(0.101)
Friendly outsider * Distress			0.217*
			(0.131)
Industry(Year) dummy	Yes	Yes	Yes
Number of firms	3,836	3,836	3,836
Adj. R^{2}	0.257	0.257	0.257

Table 8
The boundary spanner role of friendly boards

This table presents the results when the dependent variable, Tobin's Q, is regressed on board independence/friendliness and firm characteristics from 1999 to 2006. Tobin's Q is the ratio of the sum of the market value of common equity and the book values of preferred equity and long-term debt to the book value of assets. *Independent outsiders* are the ratio of outside directors who have no business and no personal ties within a firm to board size. *Friendly outsiders* are the ratio of outside directors who appear to have business or personal ties to a firm to board size. *Independent /Friendly outsiders* are fitted values from a first-stage regression in Table 3. *Domestic firm dummy* is one when a firm operates in domestic markets only. See Table 1 for exact definitions of the variables. *Industry dummies* and *year dummies* are employed to control for industry fixed effects and economy-wide shocks. Standard errors are shown in parentheses. We correct the standard errors for heteroskedasticity and double-cluster the errors at the firm and time level. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

	Tobin's Q	
Variable	(1)	(2)
Independent outsiders	0.282***	0.221***
	(0.063)	(0.055)
Friendly outsiders	-0.188**	-0.191***
	(0.085)	(0.078)
Board size	0.007	0.002
	(0.021)	(0.021)
Board age	-0.726***	-0.717***
	(0.067)	(0.067)
Largest ownership	-0.022	-0.005
	(0.042)	(0.042)
CAPEX/Assets	-0.006	-0.005
	(0.022)	(0.022)
Leverage	0.427***	0.440***
	(0.038)	(0.038)
Firm size	0.008	0.014*
	(0.007)	(0.007)
Current profitability	0.074	0.097
	(0.059)	(0.059)
Distress dummy	-0.026*	-0.026
	(0.016)	(0.017)
Standalone dummy	-0.029	-0.025
	(0.021)	(0.021)
Sensitivity to market risk(beta)	0.104***	0.102***
	(0.022)	(0.022)
Domestic firm dummy	0.027	
	(0.025)	
Entertainment expenses/sales		0.047**
		(0.024)
Independent outsiders * Domestic firm dummy	-0.198**	
	(0.097)	
Friendly outsiders * Domestic firm dummy	0.367***	
	(0.140)	
Independent outsiders * Entertainment expenses/sales		-0.085
		(0.110)
Friendly outsiders * Entertainment expenses/sales		0.608***
		(0.171)
Industry dummy	Yes	Yes
Year dummy	Yes	Yes
Number of firms	3,836	3,836
Adj. R^2	0.269	0.273