

7-10-2008

Two Essays on Multiple Directorships

Chia-wei Chen

University of South Florida

Follow this and additional works at: <https://scholarcommons.usf.edu/etd>



Part of the [American Studies Commons](#)

Scholar Commons Citation

Chen, Chia-wei, "Two Essays on Multiple Directorships" (2008). *Graduate Theses and Dissertations*.
<https://scholarcommons.usf.edu/etd/171>

This Dissertation is brought to you for free and open access by the Graduate School at Scholar Commons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact scholarcommons@usf.edu.

Two Essays on Multiple Directorships

by

Chia-wei Chen

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Finance
College of Business Administration
University of South Florida

Co-Major Professor: Jianping Qi, Ph.D.
Co-Major Professor: Ninon Sutton, Ph.D.
Patrick Kelly, Ph.D.
Christos Pantzalis, Ph.D.

Date of Approval: July 10th, 2008

Key Words: Corporate Governance, Board of Directors, Busy Outside Directors,
Shareholder Wealth, Agency Problems, Growth Opportunities, Acquisitions

© Copyright 2008, Chia-wei Chen

Table of Contents

List of Tables	ii
Abstract	iii
Essay 1 — Growth Opportunities, Agency Conflicts, and the Effectiveness of Busy Outside Directors	
1. Introduction	1
2. Hypothesis Development	5
3. The Sample and Variables	
A. The Sample Selection Process	10
B. Descriptive Statistics of the Sample	11
4. Empirical Results	
A. Univariate Tests	16
B. Multivariate Tests	19
C. Robustness Tests	23
5. Summary and Conclusions	29
Essay 2 — Outside Directorships and Acquirer Returns	
1. Introduction	31
2. Motivation	33
3. The Sample and Variables	
A. The Sample Selection Process	41
B. Descriptive Statistics of the Sample	42
4. Empirical Results	
A. Multivariate Tests	47
B. Robustness Tests	51
C. Diversifying Acquisitions	55
D. Multiple Directorships and CEO Title	57
5. Summary and Conclusions	60
References	63
About the Author	

List of Tables

Table 1	Data Description	12
Table 2	Growth Opportunities, Agency Conflicts, Multiple Directorships, and Firm Performance	17
Table 3	Busy Outside Directors and Firm Performance	21
Table 4	Busy Outside Directors and Firm Performance – Robustness Tests	25
Table 5	Summary Statistics	35
Table 6	Correlation	38
Table 7	Sample Distribution	42
Table 8	Busy Outside Directors and Acquirer Returns	48
Table 9	Busy Outside Directors and Acquirer Returns – Robustness Tests	52
Table 10	Diversifying Acquisitions	56
Table 11	S&P 500-CEO Busy and Non-Busy Outside Directors	58
Table 12	S&P 500- and Non-S&P 500-CEO Busy Outside Directors	60

Two Essays on Multiple Directorships

Chia-wei Chen

ABSTRACT

This dissertation includes two related chapters that investigate the value of multiple directorships. In the first chapter, I focus on potential tradeoffs between the costs and benefits of multiple directorships held by outside directors and attempt to determine how firm characteristics affect such tradeoffs. It is widely believed that outside directors of a firm play important functions of monitoring and advising. As a result, the basic hypothesis of the first essay is that multiple directorships by outside directors can have different implications for firms that have different levels of monitoring and advising needs. Consistent with this hypothesis, the evidence suggests that firm performance is positively associated with multiple directorships for firms with high growth opportunities and low agency conflicts. Such firms would benefit more from better advising while not suffering much from less monitoring. Likewise, firm performance is negatively associated with multiple directorships for firms with low growth opportunities and high agency conflicts. In the second essay, I examine how multiple directorships held by outside directors affect shareholder wealth during acquisitions. The evidence indicates that not all busy outside directors have the same effect and some types of busy outside directors may benefit the firms.

Essay 1

Growth Opportunities, Agency Conflicts, and the Effectiveness of Busy Outside Directors

1. Introduction

Do outside directors with multiple directorships add value to the board? Evidence has been mixed thus far. While Ferris, Jagannathan, and Pritchard (2003) find no evidence that such directors harm firm value, Fich and Shivdasani (2006) and Jiraporn, Kim, and Davidson (2007) suggest that multiple directorships result in ineffective monitoring and therefore reduce shareholder wealth. In contrast, Harris and Shimizu (2004) find that outside directors with multiple directorships are important sources of knowledge during acquisitions. In this essay, we attempt to provide a possible explanation for these conflicting findings and demonstrate empirically the conditions under which the costs and benefits of multiple directorships are most pronounced. Our results help to reconcile the conflicting findings in the extant literature and help to shed additional light on the on-going debate about multiple directorships.

In the literature, two competing hypotheses—*reputation hypothesis* and *busyness hypothesis*—have been proposed concerning the effect of multiple directorships on firm value [see Ferris, Jagannathan, and Pritchard (2003)]. The *Reputation hypothesis* argues that directorships on the boards of other firms represent a reward from the labor market to a valuable director [Fama (1980) and Fama and Jensen (1983)]. As such, multiple directorships signal a director's superior talent in serving the firms. Consistent with the

reputation hypothesis, Gilson (1990) finds that directors who resigned from financially distressed firms tend to hold fewer seats on other boards following their departure. Brickley, Linck, and Coles (1999) report that the likelihood of a retired CEO serving as an outside director on other boards is positively related to his/her performance while being the CEO, and Coles and Hoi (2003) find that directors who rejected anti-takeover provisions are more likely to obtain additional outside directorships.

The *busyness hypothesis*, on the other hand, argues that simultaneously serving on multiple boards over-commits an individual to functions of those boards [Lipton and Lorsch (1992)]. Consequently, such individuals are likely to have less time to attend to functions of a given board and may therefore have to shirk their director responsibilities. Consistent with this view, Beasley (1996) finds that the likelihood of financial statement fraud is positively related to the number of directorships held by outside directors. Core, Holthausen, and Larcker (1999) document that boards dominated by busy outside directors are associated with excessively high levels of CEO compensation and poor firm performance. Fich and Shivdasani (2006) report a negative association between busy outside directors and firm performance.

If outside directors play dual roles of monitors and advisors for the firm [see, for example, Fama and Jensen (1983)], it seems likely that multiple directorships would have different implications for those two roles. Indeed, it makes sense to suggest that outside directors with multiple directorships—i.e., busy outside directors—may be better at advising the firms whose boards they seat because of their perceived talent and experience, but busy outside directors may also be less effective at monitoring firm

management because of the time constraint imposed by their busyness.¹ More specifically, the value of outside directorships lies not just in the signal they provide about the director's quality, but they also enable the director to enrich his or her experience as well as additional business contacts that would in turn be valuable for firm management teams and help to improve firm performance. Of course, multiple directorships also reduce the precious time available for the directors to provide effective monitoring on management decisions and, thus, may have a negative impact on firm performance. Therefore, whether or not multiple directorships by outside directors enhance or diminish the roles of a corporate board depends on the relative importance of advising or monitoring by outside directors. Furthermore, this trade-off has interesting implications for the relationship between busy outside directors and firm performance.² In this context, although some existing evidence suggests a negative relationship between multiple directorships and firm performance, more studies are needed to delineate between the potential costs and benefits of multiple directorships for different firms.

In this essay, we provide empirical evidence to demonstrate that the costs and benefits of multiple directorships are sensitive to firm growth opportunities and managerial agency conflicts. The level of firm growth opportunities and managerial agency conflicts has interesting implications for multiple directorships because it affects

¹ Previous literature attributed three functions to the board of directors: the *control* role, the *strategic decision* role [see, for example, Baysinger and Hoskisson (1990)], and the *resource acquirer* role [see, for example, Boyd (1990)]. The last two functions require the experience, knowledge, or expertise of directors and are less likely to create a conflict of interest with the managers. We refer to these two functions as the advisory role. Detailed review for the board of directors could be found in Johnson, Daily, and Ellstrand (1996), for example.

² Throughout this essay, a busy outside director is regarded as an outside director with multiple directorships or at least three directorships.

the relative importance of advising vis-à-vis monitoring functions of firm boards, particularly by their outside directors. For firms with relatively high growth opportunities and low managerial agency conflicts, the advising role of outside directors is likely to be more prominent than their monitoring role. Therefore, all else the same, high growth (and more rapidly changing) firms are likely to benefit more from the superior advice provided by outside directors with multiple directorships, who can bring to these firms their considerable knowledge and talent, as evidenced by their reputation in the directorship market. Busy outside directors are also likely to be less damaging to firms with low managerial agency conflicts because such firms do not require as much monitoring of management by outside directors. On the other hand, for firms with low growth opportunities and high managerial agency conflicts, the monitoring role of outside directors is relatively more important while their advising role is less so. Thus, for these types of firms, the downside associated with less effective monitoring by busy outside directors can lead to poorer firm performance as management pursues its own self interests at the expense of firm shareholders.

With a sample of 3,428 firm-year observations from 1998 to 2003, our empirical results are supportive of the tradeoff contention. In particular, our analysis documents that outside directors with three or more directorships—“busy directors”—have a significant and positive effect on the performance of firms having low agency conflicts (less need for monitoring) and high growth opportunities (greater need for advising). However, such directors are detrimental to performance of firms that have high agency conflicts (high demand for monitoring) and low growth opportunities (low demand for

advising). Our findings remain qualitatively unchanged when a two-stage analysis is employed to control for the potential endogeneity problem or when alternative measures of firm performance, busy outside directors, growth opportunities, and agency conflicts are applied.

The remainder of this essay is organized as follows. Section 2 summarizes our hypothesis development. Section 3 describes the sample and the measures of key variables used in our analyses. Section 4 presents our empirical findings as well as additional robustness tests. Section 5 concludes the essay.

2. Hypothesis Development

Fama and Jensen (1983) suggest that outside directors add value to a corporate board by performing two important functions: monitoring and advising management. As monitors, outside directors having no affiliation with the firm other than their directorship should protect shareholder interests and enhance their wealth. Consistent with the monitoring role of outside directors, Weisbach (1988) reports that the likelihood of a firm's CEO being replaced after a period of poor firm performance is indeed sensitive to the proportion of outside directors on the firm's board. Uzun, Szewczyk, and Varma (2004) also report that the likelihood of corporate wrongdoing decreases when firm boards are dominated by outside directors.

As advisors or providers of knowledge to management, outside directors can share their experience or business connections which can be helpful for the management team and can therefore increase the likelihood of firm success. Dalton, Daily, Johnson,

Ellstrand (1999) similarly indicate that outside directors provide constructive advice which may not be available from insiders because of different perspectives by outsiders. Supporting this view, Brook and Rao (1994) find evidence that outside directors are valuable to financial distress firms that adopt liability limitation provisions.

In general, empirical evidence is mixed on the benefit of outside directors. Rosenstein and Wyatt (1990) document a positive stock price reaction surrounding the appointments of outside directors. However, Baysinger and Butler (1985), Hermalin and Weisbach (1991), Klein (1998), and Bhagat and Black (2001) find weak or no relationship between board independence—dominated by outside directors—and firm performance. Agrawal and Knoeber (1996) actually find a negative association between the percentage of outside directors on the board and firm performance measured by Tobin's q . Coles, Daniel, and Naveen (2008) also suggest additional value to having insiders on the boards of R&D-intensive firms, as insider directors are knowledgeable about firm-specific investment opportunities and challenges.

More recently, research has shifted the focus to the number of directorships held by outside directors.³ Lipton and Lorsch (1992) and Shivdasani and Yermack (1999), among others, argue that the effectiveness of monitoring by outside directors could be damaged if outside directors have too many other board appointments. Serving on

³ The inconclusive evidence on the relationship between firm performance and outside directors on the board could be the result of firm characteristics, such as firm performance [Gilson (1990)], firm size, degrees of agency conflicts, growth opportunities, [see, for example, Boone, Field, Karpoff, and Raheja (2007), Lehn, Patro, and Zhao (2005), Coles, Daniel, and Naveen (2008)], and negotiation between outside directors and the CEO [Hermalin and Weisbach (1998) and Kieschnick and Moussawi (2004)]. In addition, Agrawal and Knoeber (2001) suggest that politically experienced directors could be important on the boards of firms in which politics matters more. While there are many different aspects to the debate on the relationship between firm performance and outside directors on the board, we focus on the directorships held by outside directors. Directorships signal the value of a director and as a result could make directors different.

multiple boards reduces available time an outside director can concentrate on one firm and thereby undermines the effectiveness of the director's inspection of the firm's managerial decisions. On the other hand, Fama (1980) and Vafeas (1999) among others argue that multiple directorships by outside directors can have positive implications for the firm. Being appointed to multiple boards represents a high regard for the individuals in the labor market and likely signals superior quality of such directors. Mace (1986) suggests that serving in multiple boards provides the directors with access to different management skills and business networking contacts, which could enhance their knowledge and enable them to better their services at different boards. Therefore, outside directors with multiple directorships could obtain a greater diversity of experience and become valuable sources of knowledge for the firms. Moreover, since multiple directorships are positively associated with firm size [Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006)], such directors could be more capable or skillful, given the size and complexity of firm management or firm operations they oversee.⁴

The cost and benefit tradeoff involving multiple directorships complicate the analysis of busy outside directors. The value of advising is enriched by multiple directorships, but the role of monitoring is damaged. Thus, while Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006) find that the likelihood for outside directors to obtain more board seats is increasing in the performance of the firms in which they serve on their boards, the costs of multiple directorships are also observed in corporate events such as financial statement fraud [Beasley (1996)], CEO turnover [Fich

⁴ Our sample also reports a significantly positive association between firm size and multiple directorships as shown on Table 1.

and Shivdasani (2006)], and acquisitions [Ahn, Jiraporn, and Kim (2008)]. Thus far, to our knowledge, there have been no studies that focus specifically on the cost and benefit tradeoff of multiple directorships.⁵ In particular, it is unclear that under what circumstances multiple directorships would add value to the board and to firm performance. Under what circumstances would the value of advising by busy outside directors outweigh the cost of less effective monitoring? And under what circumstances would multiple directorships be beneficial? We address these questions. Answers to such questions would help to shed light on the conflicting evidence concerning the value of multiple directorships as well as to provide a better view for shareholders and/or regulators to address the importance of having an outsider-dominated corporate board.

As we have made clear, we view outside directors as playing important dual roles of monitoring and advising to firm management. Failure to serve effectively as a monitor or an advisor compromises the function of the board and can harm firm performance. Therefore, the value of multiple directorships for a firm depends crucially on the relative importance of monitoring versus advising required of outside directors. If the need for monitoring is important for certain types of firms, outside directors with multiple directorships would be less able to provide the necessary level of oversight. In this case, we could expect a possibly negative relationship between multiple directorships and firm performance. In contrast, if the need for advising is relatively more important, multiple

⁵ Adams (2002) discusses the dual (advising and monitoring) roles of the board. In particular, he suggests the tradeoff between advising and monitoring depends on managerial ownerships and manager's career concern. Adams (2003) examines board behavior and suggests that the board provides different functions (monitoring, dealing with strategic issues and considering the interests of stakeholders) in firms with different characteristics. While the advising and monitoring roles have been introduced, there is no study that looks at the linkage between multiple directorships and board functions.

directorships could be beneficial by enriching the experience, knowledge, as well as business connections for outside directors.⁶ In the latter case, the cost of ineffective monitoring could be offset and a positive relationship may exist between multiple directorships and firm performance.

In summary, in light of the dual advising and monitoring roles of corporate boards, we propose the following hypotheses in which the value of multiple directorships may be positive, negative, or generally indeterminate, depending on firm types.

I. In firms with relatively greater need for advising but less need for monitoring by outside directors, multiple directorships should add value to board functions and therefore should be positively associated with firm performance.

II.A. In firms with greater need for both advising and monitoring, the relationship between firm performance and multiple directorships is generally ambiguous.

⁶ Multiple directorships reduce the time for directors to provide effective monitoring and therefore make busy outside directors costly. While additional appointments may also reduce the time for directors to provide valuable advising, Harris and Shimizu (2004) indicate that directorships represent sources of knowledge and find that shareholder wealth is associated with the number of directorships held by directors. In addition, our empirical evidence shows a positive association between the average directorships held by outside directors and firm performance, as shown in Table 3.

II.B. In firms with less need for both advising and monitoring, the relationship between firm performance and multiple directorships is generally also ambiguous.

III. In firms with relatively less need for advising but greater need for monitoring, multiple directorships should hamper the effectiveness of board monitoring and therefore should be negatively associated with firm performance.

3. The Sample and Variables

A. The Sample Selection Process

Included in our sample are S&P 500 firms and other publicly traded firms that have at least one billion dollars in total assets at the year end from 1998 to 2003. We restricted our sample only to such large firms because directors in these firms are likely to hold multiple directorships.⁷ For each observation, financial data must be available from the Center for Research in Security Prices (CRSP) and from Compustat. Information about the board of directors must be available on the Edgar data retrieval system. Finally, utilities (SIC 4900-4949) and financial firms (SIC 6000-6999) are excluded in our sample because these firms are highly regulated. The criteria yield a final sample of 3,428 observations for 923 companies from 1998 to 2003.

⁷ This restriction allows us to compare our results with studies such as Fich and Shivdasani (2006) in which *Fortune* 500 firms are applied. Not included in the tables, we randomly select firms that are not S&P 500 firms and have less than one billion dollars in total assets. The percentage of busy outside directors on average is about 12%. In addition, more than 50% of these relatively small firms do not have busy outside directors.

B. Descriptive Statistics of the Sample

The goal of this essay is to estimate the value of multiple directorships by analyzing the relationship between firm performance and multiple directorships. However, several variables could be related to firm performance as well as multiple directorships and could affect our results about the value of multiple directorships. We group these variables into *board characteristics* and *firm characteristics* and provide detailed description about these variables in following sections.

B.1 Board Characteristics

To capture multiple directorships, we employ three measures: percentage of busy outside directors, average directorships held by outside directors, and busy board indicator. These measures could also be found in studies such as Core, Holthausen, and Larcker (1999), Ferris, Jagannathan, and Pritchard (2003), Perry and Peyer (2005), and Fich and Shivdasani (2006). Outside directors are defined as busy if they serve on at least three corporate boards and a board is defined as busy if 50% or more of its outside directors are busy.

In Table 1, descriptive statistics for characteristics of our sample firms indicates that the average (median) directorships held by an outside director is 2.23 (2.14), suggesting that grouping outside directors into busy or non-busy by three directorships separates our sample about equally into two sub-samples. For the percentage of busy outside directors, the average (median) is 34% (33%). The percentage of busy boards in

our sample firms is about 32%. These numbers are relatively small compared with data around the early 1990s [see, for example, Fich and Shivdasani (2006)]. In addition, the average for the percentage of busy outside directors decreases from about 37% in 1998 to about 32% in 2003. Similarly, the percentage of busy boards in our sample decreases from about 37% in 1998 to about 26% in 2003. The likelihood of appointing a busy

Table 1
Data Description

Table 1 provides statistics for characteristics of our sample firms. The sample consists of 3,428 annual observations for 923 companies between 1998 and 2003. Companies are included in our sample if they are either S&P 500 firms or their total assets are at least \$1 billion. Utility (4900-4949) and financial companies (6000-6999) are excluded in our sample. Outside directors are defined as busy if they hold at least 3 directorships. Busy board is a dummy variable. It is 1 if 50% or more than 50% of outside directors are busy and 0 otherwise. CEO busy outside directors are busy outside directors with a CEO title in another firm. Industry busy outside directors are busy outside directors with 50% or more than 50% of their directorships sharing the same 2-digit SIC code. CEO chairman is a dummy variable. It is 1 if CEO is the chairman of the board and 0 otherwise. Firm age is the number of years since the stock inclusion in the CRSP database. Operating margin is operating income divided by total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variable	Mean	Median	5%	95%	Correlation with "busy board"
Board Characteristics					
Percentage of busy outside directors	0.34	0.33	0	0.78	0.81***
Average directorships per outside director	2.23	2.14	1	3.67	0.72***
Busy board (0, 1)	0.32	0	0	1	
Percentage of CEO busy outside directors	0.09	0	0	0.33	0.43***
Percentage of industry busy outside directors	0.02	0	0	0.20	0.16***
Percentage of outside directors	0.64	0.67	0.29	0.90	0.09***
Board size	9.90	10	6	14	0.14***
Outside director ownership	0.01	0	0	0.04	-0.07***
CEO chairman (0, 1)	0.70	1	0	1	0.09***
CEO ownership	0.02	0	0	0.12	-0.04**
CEO in the nominating committee (0, 1)	0.11	0	0	1	-0.02
Percentage of outside directors in the nominating committee	0.60	0.75	0	1	0.12***
Firm Characteristics					
Total assets (\$ million)	8,418	2,817	1,062	28,464	0.14***
Firm age	23.4	25	4	41	0.11***
Operating margin	0.15	0.14	0.03	0.29	0.02
Governance index (Gompers et al. (2003))	9.53	10	5	14	0.07***
Tobin's q	1.65	1.11	0.37	4.61	0.03*

outside director has decreased in recent years possibly in response to the push for stronger corporate governance [see, for example, NACD (1998)].

Other than the measures of multiple directorships, we include several variables related to board structure. Fich (2005) find evidence from *Fortune* 1000 firms that CEOs are sought as outside directors to enhance firm value. We capture the percentage of busy outside directors with a CEO title. Holding directorships in the same industry indicates that directors are specialized in this given industry. However, these directors could also be less distracted by demand for multiple directorships [Ferris, Jagannathan, and Pritchard (2003)]. We also add a variable, the percentage of industry busy outside directors, to capture whether busy outside directors hold 50% or more of their directorships in the same industry classified by 2-digit SIC code. Yermack (1996) as well as Eisenberg, Sundgren, and Wells (1998) report a negative association between board size and firm value. We measure board size by the number of directors on the board. Management ownership signals the alignment of management and shareholder interests [Jensen and Meckling (1976) and Morck, Shleifer, and Vishny (1988)]. In addition, Weisbach (1988), Baker and Gompers (2000), and Lasfer (2006) report that managers with high ownership are more likely to choose a board that is unlikely to monitor. We measure the percentage of shares held by the CEO and outside directors. While inconclusive evidence has been found for the relationship between firm performance and CEO duality (chairman of the board and CEO are the same individual) [see, for examples, Rechner and Dalton (1991) and Daily and Dalton (1992)], CEO duality could potentially reduce the effectiveness of board monitoring. We use a dummy variable to capture the

CEO duality in our sample firms. Finally, the selection of a board member could be related to the nominating committee [Shivdasani and Yermack (1999)]. We include the percentage of outside directors in the nominating committee as well as a dummy variable to capture the CEO being in the nominating committee.

Consistent with related studies, the mean and median of the variables described above indicate that the percentage of both CEO and industry-related busy outside directors are small. The Chairman of the board and the CEO are likely to be the same individual. Both CEO ownership and outside director ownership are equal to or less than 2% on average. As shown in the last column of Table 1, we also capture the correlation between variables and a busy board. For board characteristics, a busy board is positively related to the percentage of CEO and industry-related busy outside directors, percentage of outside directors, board size, dual CEO, and percentage of outside directors in the nominating committee. In contrast, a busy board is negatively related to CEO ownership and outside director ownership. These results suggest busy outside directors are pronounced in a large board and a board dominated by outside directors. In addition, insider ownerships which potentially reduce agency conflicts may alter the proportion of busy outside directors. However, a positive relationship between the percentage of outside directors in the nominating committee and a busy board casts a doubt: if busy outside directors are associated with weak corporate governance as well as weak firm performance [Fich and Shivdasani (2006)], then it is unclear why an independent nominating committee would invite these directors to join the board.

B.2 Firm Characteristics

Since we suspect that the relationship between multiple directorships and firm performance is sensitive to the need for advising and monitoring, we employ growth opportunities (measured by Tobin's q) and managerial agency conflicts (measured by governance index) to proxy, respectively, the need for advising and monitoring. Tobin's q , which is widely used to proxy a firm's growth opportunities, is defined as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets [Chung and Pruitt (1994)]. A higher Tobin's q indicates higher growth opportunities, and vice versa. The governance index is constructed by Gompers, Ishii, and Metrick (2003); it measures the impact of 28 provisions related to shareholder protection on the balance of power between managers and shareholders. Although Jensen (1986) argues that the threat of takeover is a strong form of managerial discipline, a firm with higher governance index (i.e., more anti-takeover provisions) is expected to have a higher degree of managerial agency problem.

To capture firm performance, we use the operating profit margin, which is calculated as the firm's operating income standardized by total assets. In our robustness tests, additional measures, including sales scaled by total assets, earnings per share, and market to book ratio are applied to verify our findings. Finally, firm size and firm age have been found to be related to firm growth [Evans (1987)]. We measure firm size by total assets, in millions of dollars, and firm age by the number of years since the stock's inclusion in the CRSP database.

Results in Table 1 indicate that all firm characteristics, except operating margin, are positively and significantly associated with a busy board. Consistent with related studies, larger and older firms are more likely to have a busy board. While the likelihood of a busy board is positively related to agency conflicts, it is also positively related to growth opportunities. The lack of a significant relationship between firm performance and a busy board may reflect the opposing effects associated with the costs and benefits of multiple directorships in the sample as a whole. In further analysis, we attempt to disentangle the costs and benefits by looking at certain types of firms in which the relative costs and benefits may be more pronounced.

4. Empirical Results

A. Univariate Tests

Multiple directorships enrich the experience, knowledge, as well as business contacts of a director and could therefore be valuable sources of knowledge to managers. Alternatively, if managers are not focused on maximizing shareholder wealth, the need for monitoring becomes more important. Multiple directorships weaken the monitoring effectiveness of the board. Accordingly, the value (cost) of multiple directorships is more pronounced when the need for advising is more (less) pressing—when growth opportunities are high (low), and when the need for monitoring is less (more)—when managerial agency conflicts are low (high).

In Table 2, we group firms by the sample medians of growth opportunities and managerial agency conflicts. High Tobin's q and low governance index firms are likely to

have high demand for advising and low demand for monitoring, while low Tobin's q and high governance index firms should have low demand for advising and high demand for monitoring. Within each group, we compare the operating margin for firms in which the average directorships held by outside directors is greater than 2 and for firms in which the average directorships held by outside directors is less than or equal to 2. In the group with high growth opportunities (high Tobin's q) and low agency conflicts (low governance index), firms with average directorships held by outside directors greater than 2 have higher operating margin in either mean or median than firms with average directorships

Table 2
Growth Opportunities, Agency Conflicts, Multiple Directorships, and Firm Performance

Table 2 provides the operating margin under each group constructed by Tobin's q, governance index (Gompers et al. (2003)), and average directorships held by outside directors. High (low) Tobin's q and governance index indicate that the Tobin's q and governance index are above (below or equal to) the sample medians. The sample consists of 3,428 annual observations for 923 companies between 1998 and 2003. Companies are included in our sample if they are either S&P 500 firms or their total assets are at least \$1 billion. Utility (4900-4949) and financial companies (6000-6999) are excluded in our sample. Operating margin is operating income divided by total assets. Tobin's q and governance index are applied to proxy growth opportunities and agency conflicts. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. ** and *** denote statistical significance at the 5% and 1% levels, respectively.

		High Tobin's q & low governance index	Low Tobin's q & high governance index	Difference	t/z statistics
Average directorships held by outside directors > 2	Mean	0.183	0.110	0.073***	14.1
	Median	0.186	0.115	0.071***	13.9
	N	377	546		
Average directorships held by outside directors <= 2	Mean	0.166	0.120	0.046***	7.9
	Median	0.172	0.121	0.051***	9.2
	N	463	412		
Difference	Mean	0.017**	-0.010***		
	Median	0.014**	-0.006**		
	N	840	958		
t statistics		2.51	2.62		
z statistics		2.42	2.00		

held by outside directors less than or equal to 2. This difference suggests that multiple directorships add value to firms when there is a strong need for advising but a weak need for monitoring. In contrast, in the group with low growth opportunities (low Tobin's q) and high agency conflicts (high governance index), firms with average directorships held by outside directors greater than 2 have a significantly lower operating margin than firms with average directorships held by outside directors less than or equal to 2, suggesting that multiple directorships are costly to the firms that need more monitoring but less advising.

The mean (median) difference between high growth/low agency problem firms and low growth/high agency problem firms is 0.073 (0.071) in firms with average directorships held by outside directors greater than 2 compared to 0.046 (0.051) in firms with directorships held by outside directors less than or equal to 2. This evidence potentially highlights the opposite roles of multiple directorships. A board dominated by outside directors with more than 2 directorships on average provides better advising but weak monitoring. In contrast, a board in which outside directors hold no more than 2 directorships on average provides more effective monitoring but relatively poor advising.

While these results support our hypotheses that the relationship between firm performance and multiple directorships is sensitive to the need for advising and for monitoring, the impact of advising seems comparable to the impact of ineffective monitoring on firm performance. More specifically, when the need for advising is strong (weak) and the need for monitoring is weak (strong), multiple directorships increase

(decrease) operating margin by 0.01 (0.007) on average and by 0.005 (0.005) based on medians.⁸

B. Multivariate Tests

Firm performance could be related to firm characteristics and other board characteristics. To address this issue, we apply multivariate analyses to control for the potential impact from such variables. In addition, the fixed-effect analysis is applied to prevent the potential problems arising from repeated observations of individual sample firms. In each regression, we include two interactive terms to capture the value and cost of multiple directorships. The first interaction term is the measure of multiple directorships times the (0, 1) indicator of high growth opportunities (high Tobin's q) and low agency conflicts (low governance index). High (low) Tobin's q or governance index is defined as above (below or equal to) the sample median of Tobin's q or governance index. If the value of multiple directorships is mostly pronounced in firms with higher need for advising and lower need for monitoring, the coefficient of this interactive term should be significantly positive. The second interactive term is the measure of multiple directorships times the {0, 1} indicator of low growth opportunities (low Tobin's q) and high agency conflicts (high governance index). If the cost of multiple directorships is more pronounced in firms with higher need for monitoring and lower need for advising, a significantly negative coefficient for this interactive term should be observed. The

⁸ The mean (median) of operating margin for firms with high grow/ low agency problem is 0.173 (0.181). The mean (median) of operating margin for firms with low grow/ high agency problem is 0.117 (0.119).

coefficient for the measure of multiple directorships therefore represents the value (or cost) of multiple directorships in firms with higher need for both monitoring and advising (or with lower need for both monitoring and advising). According to our hypotheses developed in section 2, this coefficient could be positive, negative, or generally indeterminate.

In regressions (1) and (3) of Table 3, we test whether multiple directorships improve firm performance by including only the first interaction term introduced above. Multiple directorships are measured by the percentage of busy outside directors in regression (1) and the average directorships held by outside directors in regression (3). Consistent with our expectation, when Tobin's q is high (i.e., high demand for advising) and governance index is low (i.e., low demand for monitoring), the operating margin for firms in which all outside directors are busy is about 0.025 higher than the operating margin for firms in which all outside directors are not busy. Similarly, in this case, the operating margin in firms in which outside directors hold 3 directorships on average is about 0.014 higher than the operating margin in firms in which outside directors hold only 1 directorship. The relatively small coefficients for the interactive terms in regression (3) could be the result of numerous directorships held by certain outside directors. In other words, while the average directorships held by outside directors is 3, it is not necessarily true that all outside directors are busy outside directors. However, the significant coefficient for the interactive term in regression (3) suggests individual directorships could have their own value.

Table 3
Busy Outside Directors and Firm Performance

Table 3 provides fixed effects regressions of operating margin and busy outside directors. The sample consists of 3,428 annual observations for 923 companies between 1998 and 2003. Companies are included in our sample if they are either S&P 500 firms or their total assets are at least \$1 billion. Utility (4900-4949) and financial companies (6000-6999) are excluded in our sample. Dependent variable, operating margin, is calculated as operating income divided by total assets. Outside directors are defined as busy if they hold at least 3 directorships. CEO busy outside directors are busy outside directors with a CEO title in another firm. Industry busy outside directors are busy outside directors with 50% or more than 50% of their directorships sharing the same 2-digit SIC code. CEO chairman is a dummy variable. It is 1 if CEO is the chairman of the board and 0 otherwise. Firm age is the number of years since the stock inclusion in the CRSP database. Tobin's q and governance index (Gompers et al. (2003)) are applied to proxy growth opportunities and agency conflicts. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. High (low) Tobin's q and governance index indicate the Tobin's q and governance index are above (below or equal to) the sample medians. The t-statistics are reported in brackets. *, **, and *** stand for statistical significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)
Percentage of busy outside directors	-0.017** (-2.16)	-0.007 (-0.90)		
Average directorships held by outside directors			0.0004 (0.15)	0.002 (0.87)
Percentage of busy outside directors x high Tobin's q & low governance index	0.025*** (3.24)	0.021*** (2.68)		
Percentage of busy outside directors x low Tobin's q & high governance index		-0.028*** (-3.69)		
Average directorships held by outside directors x high Tobin's q & low governance index			0.007*** (4.47)	0.006*** (4.29)
Average directorships held by outside directors x low Tobin's q & high governance index				-0.007*** (-4.89)
Percentage of CEO busy outside directors	0.015 (1.40)	0.016 (1.44)	0.007 (0.65)	0.007 (0.65)
Percentage of industry busy outside directors	0.021 (1.16)	0.017 (0.97)	0.013 (0.73)	0.012 (0.69)
Percentage of outside directors	0.025** (2.30)	0.024** (2.23)	0.023** (2.12)	0.021** (1.97)
Outside director ownership	-0.015 (-0.37)	-0.014 (-0.36)	-0.012 (-0.31)	-0.011 (-0.28)
Log (board size)	-0.015* (-1.75)	-0.016* (-1.84)	-0.015* (-1.82)	-0.017** (-1.99)
CEO chairman (0, 1)	-0.0002 (-0.09)	-0.0001 (-0.02)	-0.0002 (-0.07)	-0.0002 (0.01)
CEO ownership	-0.034 (-1.01)	-0.033 (-0.99)	-0.034 (-1.02)	-0.032 (-0.97)
Log (asset)	0.002 (0.45)	0.002 (0.56)	0.002 (0.39)	0.003 (0.61)
Log (firm age)	-0.005 (-0.46)	-0.003 (-0.32)	-0.006 (-0.57)	-0.004 (-0.43)
Tobin's q	0.007*** (12.4)	0.007*** (12.3)	0.007*** (12.3)	0.006*** (12.1)
Governance index	0.001 (0.58)	0.001 (0.84)	0.001 (0.96)	0.002 (1.61)
Year (0, 1) indicators	Yes	Yes	Yes	Yes
R ²	0.21	0.22	0.22	0.23

While we observe the value of multiple directorships from firms with higher need for advising and lower need for monitoring, the coefficient for the percentage of busy outside directors in regression (1) suggest that busy outside directors could reduce operating margin in other firms. To verify that the cost of multiple directorships could be mostly pronounced in firms with low Tobin's q (less need for advising) and high governance index (more need for monitoring), we add a second interactive term in regression (2) and (4) to capture the cost of multiple directorships. Coefficients of the second interaction term indicate that if Tobin's q is low and governance index is high, the operating margin is 0.028 lower in firms in which all outside directors are busy than in firms in which all outside directors are not busy. Similarly, if Tobin's q is low and governance index is high, operating margin is about 0.014 lower in firms in which outside directors hold 3 directorships on average than in firms in which outside directors hold only 1 directorship. These findings are consistent with our argument that the value (cost) of multiple directorships is more pronounced in firms with higher (lower) need for advising and lower (higher) need for monitoring.⁹ In addition, in firms with either lower need for both advising and monitoring or higher need for both advising and monitoring, multiple directorships measured by the percentage of busy outside directors in regression (2) and the average directorships held by outside directors in regression (4) provide

⁹ In terms of advising, the number of busy outside directors could be more important than the percentage of such directors. Not reported in tables, we measure multiple directorships by the number of busy outside directors on the board. The coefficient for the number of busy outside directors in firms with low agency conflicts and high growth opportunities (high agency conflicts and low growth opportunities) is 0.03 (-0.03) and significant at 1% level. Accordingly, the value of advising as well as monitoring could be observed when different measures of multiple directorships are applied.

unclear effect in firm performance; either both advising and monitoring are ineffective or the value of advising is offset by the cost of less effective monitoring.

Our results show that most of the control variables are insignificant, but the operating margin is negatively associated with board size and positively associated with the percentage of outside directors and Tobin's q. The significant and positive coefficients of the percentage of outside directors suggest that the operating margin is about 0.023 higher in firms in which all directors are outside directors than in firms without outside directors. Combined with the value of multiple directorships, we could further conclude that the operating margin is 0.045 (i.e. $0.021+0.024$) higher in firms in which all directors are busy outside directors and the need for advising (monitoring) is high (low) than in firms without outside director. The mean and median of operating margin in our sample are about 0.15 and 0.14, respectively, as reported on Table 1. An increase of 0.045 in operating margin is non-trivial economically. For the variables of ownerships, we do not find a positive relationship between these variables and operating margin, but the negative coefficients for these variables remain insignificant in all regressions. Finally, the coefficients for the governance index indicate a positive relationship between agency conflicts and firm performance. However, they are relatively small and remain insignificant in all regressions.

C. Robustness Tests

To check the robustness of our results, we include different regression models as well as different measures of firm performance, multiple directorships, growth opportunities, and agency conflicts in our analysis. Results are reported in Table 4.

We first apply a two-stage analysis as shown in regressions (1) and (2) in Panel A of Table 4. Multiple directorships could be the result of board characteristics as well as firm characteristics [see, for examples, Lehn, Patro, and Zhao (2005), Coles, Daniel, and Naveen (2008), Boone, Field, Karpoff, and Raheja (2007)]. Shivdasani and Yermack (1999), in addition, report that the nature of appointments to the board could be influenced by the nominating committee. We use the percentage of outside directors in the nominating committee as well as a dummy variable, *CEO in the nominating committee*, to instrument the percentage of busy outside directors.¹⁰ CEO characteristics and firm characteristics are also included in the first stage tobit regression to predict the percentage of busy outside directors for the analysis in the second stage. While the coefficients in regression (1) indicate that the percentage of busy outside directors is associated with the percentage of outside directors in the nominating committee as well as with several variables related to board and firm characteristics, our findings in Table 3 still hold in regression (2) of Table 4. The coefficients for the two interactive terms retain the same signs and significance at the 5% level. In addition, the value of busy outside directors is even stronger in firms with higher need for advising and lower need for monitoring than reported in regression (2) in Table 3.

¹⁰ The correlation between *the percentage of outside directors in the nominating committee* and *the percentage of busy outside directors* is 0.24 and significant at 1% level. The correlation between *the percentage of outside directors in the nominating committee* and the error term in the explanatory equation is 0.002 and insignificant.

In regression (3) as shown in Panel A of Table 4, we report OLS regression results for sample firms in the first year, 1998. Similar coefficients for the interactive terms are obtained. In regression (4), we replace the percentage of busy outside directors with a busy board indicator {0, 1}. Supporting our findings, the coefficients for the interactive terms in regression (4) indicate that if the board is dominated by busy outside directors, the operating margin increases by 0.01 in firms with higher (lower) need for advising (monitoring). In contrast, if the board is dominated by busy outside directors, the

Table 4
Busy Outside Directors and Firm Performance – Robustness Tests

Table 4 provides regression results of firm performance and busy outside directors with two-stage analysis and alternative measures of busy outside directors, firm performance, and agency conflicts. In Panel A, regression (1) and (2) represent two-stage analysis of firm performance and busy outside directors. Dependent variable in regression (1) is the percentage of busy outside directors. Regression (3) only includes observations in the first year, 1998. In regression (4) the percentage of busy outside directors is replaced by a dummy indicator, *busyboard*. It is 1 if 50% or more than 50% of outside directors are busy and 0 otherwise. Firm performance in regression (2), (3) and (4) of Panel A is measured by operating margin. Operating margin is calculated as operating income divided by total assets. In Panel B, firm performance is measured by sales over assets in regression (1), earnings per share in regression (2), and market to book ratio in regression (3), and operating margin in regression (4). In regression (3), Tobin's q is replaced by R&D expenses scaled by total assets. In regression (4), the governance index (Gompers et al. (2003)) is replaced by Herfindahl. The sample consists of 3,428 annual observations for 923 companies between 1998 and 2003. Companies are included in our sample if they are either S&P 500 firms or their total assets are at least \$1 billion. Utility (4900-4949) and financial companies (6000-6999) are excluded in our sample. Outside directors are defined busy if they hold at least 3 directorships. CEO busy outside directors are busy outside directors with a CEO title in another firm. Industry busy outside directors are busy outside directors with 50% or more than 50% of their directorships sharing the same 2-digit SIC code. CEO chairman is a dummy variable. It is 1 if CEO is the chairman of the board and 0 otherwise. Firm age is the number of years since the stock inclusion in the CRSP database. Tobin's q and R&D expenses scaled by total assets are applied to proxy growth opportunities. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Governance index and Herfindahl index are applied to proxy agency conflicts. Herfindahl index is calculated by summing the squares of total sales of each firm sharing the same 2-digit SIC code divided by the square of total sales in the industry. High (low) Tobin's q, governance index, Herfindahl index, and analyst coverage indicate the Tobin's q, R&D scaled by total assets, governance index, and Herfindahl index are above (below or equal to) the sample medians. The t-statistics are reported in brackets. *, **, and *** stand for statistical significance at the 10%, 5%, and 1% level, respectively.

Table 4 – Continue

Panel A: Two-stage analysis, first-year regression, and alternative measure of busy outside directors				
	(1)	(2)	(3)	(4)
Percentage of outside directors in the nominating committee	0.027** (2.21)			
CEO in the nominating committee (0, 1)	-0.008 (-0.68)			
Percentage of busy outside directors		-0.223 (-1.56)	0.020 (1.48)	
Busyboard indicator (0, 1)				-0.003 (-1.01)
Percentage of busy outside directors x high Tobin's q & low governance index		0.046*** (4.19)	0.029** (2.01)	
Percentage of busy outside directors x low Tobin's q & high governance index		-0.025** (-2.45)	-0.028** (-2.08)	
Busyboard indicator (0, 1) x high Tobin's q & low governance index				0.010* (1.92)
Busyboard indicator (0, 1) x low Tobin's q & high governance index				-0.012*** (-2.62)
Percentage of CEO busy outside directors		0.008 (0.81)	0.028 (1.27)	0.019* (1.93)
Percentage of industry busy outside directors		0.015 (0.89)	-0.022 (-0.64)	0.024 (1.43)
Percentage of outside directors	0.140*** (4.58)	0.058** (2.30)	0.024 (1.60)	0.032*** (3.09)
Outside director ownership	-0.102 (-0.93)	-0.036 (-0.84)	-0.018 (-0.23)	-0.030 (-0.78)
Log (board size)	0.010 (0.45)	-0.013 (-1.50)	0.025** (2.16)	-0.010 (-1.19)
CEO chairman (0, 1)	0.006 (0.75)	0.001 (0.40)	0.015*** (2.64)	0.000 (-0.11)
CEO ownership	-0.083 (-0.93)	-0.053 (-1.48)	-0.012 (-0.23)	-0.025 (-0.79)
Log (asset)	0.069*** (10.6)	0.016 (1.46)	-0.022*** (-7.44)	-0.001 (-0.25)
Log (firm age)	-0.007 (-0.72)	-0.006 (-0.54)	0.001 (0.21)	-0.004 (-0.41)
Tobin's q	-0.002 (-1.12)	0.006*** (10.3)	0.031*** (16.5)	0.006*** (10.9)
Governance index	0.005** (1.96)	0.003* (1.79)	0.001 (0.70)	0.0002 (0.15)
Year (0, 1) indicators	Yes	Yes	No	Yes
Chi ²	262			
R ²		0.22	0.53	0.20

operating margin decreases by 0.012 in firms with lower (higher) need for advising (monitoring).

In Panel B of Table 4, we replace the measure of firm performance by sales scaled by total assets, earnings per share, and market to book ratio in regression (1), (2), and (3),

Table 4 – Continue

Panel B: Alternative measures of firm performance, growth opportunities, and agency conflicts				
Dependent variable	Sales/Assets	EPS	MB	OPM
	(1)	(2)	(3)	(4)
Percentage of busy outside directors	0.008 (0.26)	-0.198 (-0.69)	0.020 (0.17)	-0.007 (-0.84)
Percentage of busy outside directors x high Tobin's q & low governance index	0.082*** (2.84)	0.594** (2.19)		
Percentage of busy outside directors x low Tobin's q & high governance index	-0.104*** (-3.68)	-0.722*** (-2.66)		
Percentage of busy outside directors x high R&D/asset & low governance index			0.347* (1.68)	
Percentage of busy outside directors x low R&D/asset & high governance index			-0.149* (-1.71)	
Percentage of busy outside directors x high Tobin's q & low Herfindahl index				0.028*** (3.30)
Percentage of busy outside directors x low Tobin's q & high Herfindahl index				-0.028*** (-3.13)
Percentage of CEO busy outside directors	0.094** (2.34)	0.919** (2.38)	0.274* (1.66)	0.005 (0.41)
Percentage of industry busy outside directors	-0.121* (-1.88)	-0.171 (-0.28)	0.093 (0.29)	-0.009 (-0.45)
Percentage of outside directors	0.061 (1.50)	1.411*** (3.64)	0.227 (1.20)	0.032*** (2.66)
Outside director ownership	0.100 (0.65)	0.439 (0.31)	-0.531 (-1.09)	-0.015 (-0.33)
Log (board size)	0.021 (0.66)	-0.556* (-1.85)	0.189 (1.51)	-0.004 (-0.45)
CEO chairman (0, 1)	-0.004 (-0.41)	-0.100 (-1.03)	-0.016 (-0.41)	-0.001 (-0.27)
CEO ownership	0.257** (2.07)	-1.746 (-1.47)	0.407 (0.70)	-0.035 (-0.95)
Log (asset)	-0.156*** (-9.79)	0.510*** (3.42)	-0.528*** (-5.42)	-0.006 (-1.19)
Log (firm age)	0.078** (2.03)	-0.028 (-0.08)	-0.362** (-2.43)	-0.008 (-0.73)
Tobin's q	0.013*** (6.67)	0.065*** (3.54)		0.008*** (13.4)
R&D/asset			2.949*** (2.86)	
Governance index	0.004 (0.71)	0.085 (1.61)	-0.003 (-0.13)	
Herfindahl index				0.048 (0.68)
Year (0, 1) indicators	Yes	Yes	Yes	Yes
R ²	0.21	0.07	0.17	0.22

respectively. The earnings per share is before extraordinary items and discontinued operations. The market to book ratio is the market value of the firm's equity at the end of the year plus the difference between the book value of the firm's assets and the book value of firm's equity at the end of the year, scaled by the firm's total asset at the end of

the year. Tobin's q may proxy for things other than growth opportunities [Morck, Shleifer, and Vishny (1988)]. Therefore, we also replace Tobin's q by R&D expenses scaled by total assets in regression (3). While the sizes of coefficients for the interactive terms are different, these coefficients remain significant and are qualitatively consistent with our earlier findings in Table 3.

In regression (4) in Panel B of Table 4, we replace the governance index by the Herfindahl index which is sometimes used to proxy for the degree of potential managerial agency problems.¹¹ Consistent with our earlier results, multiple directorships measured by the percentage of busy outside directors enhance (reduce) operating margin in firms with higher (lower) need for advising and lower (higher) need for monitoring (as proxied by the new measures). Though not reported in the tables, similar results are also obtained when we apply ROA and analyst coverage to proxy firm performance and agency conflicts.¹² Instead of using the sample median to indicate high and low Tobin's q or governance index, we separate high and low Tobin's q by 1 [Lang, Stulz, and Walkling (1989)], and high and low governance index by 9 [Gompers, Ishii, Metrick (2003)]. The results, once again, are similar. Finally, board characteristics could be the result of firm performance [Gilson (1990)]. We apply the 1-year lagged values of all independent variables into our analysis. The coefficients (not reported in the tables) for both

¹¹ Hart (1983) indicates the competition in the product market reduces the amount of managerial slack. Jagannathan and Srinivasan (1999) empirically test the relation between product market competition and corporate agency costs and report supporting evidence. Similarly we employ Herfindahl index, also known as Herfindahl-Hirschman index, to proxy the competition in the product market. Herfindahl index is calculated by summing the squares of total sales of each firm sharing the same 2-digit SIC code divided by the square of total sales in the industry.

¹² Financial analysts, as an information intermediary, play the role of information production and a solution to the agency problem (see e.g., Healy and Palepu (2001)). Accordingly, a firm with low analyst coverage is expected to have high degree of agency problem.

interactive terms are similarly 0.029 and -0.033, respectively, and remain significant at the 1% level.

5. Summary and Conclusion

While previous empirical studies have highlighted the potential costs of multiple directorships [see, for examples, Beasley (1996), Core, Holthausen, and Larcker (1999), and Jiraporn, Kim, and Davidson (2007)], the potential benefits of multiple directorships have not been carefully examined. We attempt to fill this void in this essay.

With a sample of 3,428 firm-year observations of 923 large U.S. public firms from 1998 to 2003, our empirical evidence supports our hypothesis that multiple directorships have both costs and benefits to the firm. Furthermore, we reexamine the relationship between multiple directorships and firm performance and we analyze how the tradeoff between the cost and benefit of multiple directorships affect this relationship. More specifically, we observe that in firms with high growth opportunities (likely having greater need for advising) and low agency conflicts (likely having less need for monitoring), multiple directorships can be sources of beneficial advising, which improves board functions and firm performance. In contrast, in firms with low growth opportunities (lower need for advising) and high agency conflicts (more need for monitoring), multiple directorships can undercut effective monitoring by outside directors and therefore can negatively affect firm performance.

Although Ahn, Jiraporn, and Kim's (2008) suggest that the number of directorships as a result of the director's reputation is positively associated with

shareholder wealth, excess directorships have been shown to be costly. Our findings provide an additional explanation for the conflicting evidence in previous studies regarding the association between multiple directorships and firm performance. These directors could be sources of knowledge but could also be weak monitors. Not knowing what a firm needs from these directors could make these directors costly and could therefore make the board ineffective. Finally, our findings are in line with Ferris, Jagannathan, and Pritchard (2003) and cast a doubt for limiting the number of directorships held by outside directors.

Essay 2

Outside Directorships and Acquirer Returns

1. Introduction

Outside directorships signal the reputation of a valuable director [Fama (1980) and Fama and Jensen (1983)]. Supporting this notion, researchers find evidence that the likelihood for outside directors to obtain additional board seats is related to the performance of the firm in which they serve on the board [see Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006)]. Similarly, Harris and Shimizu (2004) show that multiple directorships could be important sources of knowledge that help to improve shareholder value during acquisitions. However, other recent studies suggest that outside directors with multiple directorships, also known as busy outside directors, serve less actively on board functions and therefore may shirk their responsibilities to protect shareholder wealth. Consistent with this hypothesis, such directors, for example, are positively associated with the likelihood of financial fraud [Beasley (1996)] and with excessive CEO compensation [Core, Holthausen, and Larcker (1999)], and negatively associated with firm performance [Fich and Shivdasani (2006)]. While the debate on the value of busy outside directors focuses on two competing hypotheses, the *reputation* and the *busyness hypotheses* [see Ferris, Jagannathan, and Pritchard (2003)], there is limited research examining the link between shareholder wealth and the characteristics of individual busy outside directors.

Agrawal and Knoeber (2001) suggest that politically experienced directors could be relatively important on the boards of firms in which politics matters more. Defond, Hann, and Hu (2005) report that financial expertise on audit committees improves corporate governance and enhances shareholder value. Fich (2005) finds that shareholders react positively to director appointments when the appointees are CEOs of other firms. Potentially, individual directors with different occupations, experience, or expertise, could have specialized knowledge and make different contributions to the firm.¹³ Thus, the association between busy outside directors and shareholder value creation could depend on the characteristics of individual busy outside directors.

In this study, we provide additional evidence on the value of busy outside directors by examining their influence on wealth gains in mergers and acquisitions. With a sample of 854 acquisitions from 1998 to 2004, we find busy outside directors are not all the same. Although busy outside directors in general are negatively associated with acquirer returns during the announcement of acquisitions, those with a CEO title in an S&P 500 firm and those with outside directorships in different industries do not have a similar negative association. In addition, our results indicate that multiple directorships do not reduce the value of outside directors who have a CEO title in an S&P 500 firm. Although we do not find that busy outside directors with directorship(s) in the target's industry improve acquirer returns, our results suggest that multiple directorships in different industries and management experience in relatively large firms make busy outside directors valuable sources of knowledge. Our results, therefore, suggest that the

¹³ In contrast, Klein (1998) reports that firm performance is not sensitive to the outside director's occupation.

different characteristics of individual busy directors can have different effects on firm value. These findings may help to explain the conflicting relationships between firm value and busy outside directors found in previous studies.

The remainder of this essay is organized as follows. Section 2 introduces our research questions. Section 3 describes our sample selection process, data sources, variables, and the summary statistics of these variables. Empirical results and robustness tests are reported in Section 4. Section 5 concludes this essay.

2. Motivation

Acquisitions are major investments that can potentially change the strategic direction of the firm and significantly affect the wealth of its shareholders. However, it has been argued in the literature that acquisition decisions could result from potential conflicts of interest between managers and shareholders [Jensen and Meckling (1976)]. Indeed, available empirical evidence suggests that managers may not always make acquisitions with the purpose of maximizing shareholder wealth. Morck, Shleifer, and Vishny (1990), for example, argue that managers may extract private benefits at the expense of firm shareholders. Malmendier and Tate (2003) report that corporate investment decisions may have been driven by CEO hubris or overconfidence. In this context, independent outside directors play an important role in monitoring management's investment decisions, so as to mitigate managerial agency conflicts and protect shareholder interests [see, for examples, Byrd and Hickman (1992) and Cotter, Shivdasani, and Zenner (1997)].

Fama (1980) and Fama and Jensen (1983) suggest that if labor markets are efficient, directors of well-performing firms are likely to be rewarded with additional directorships. Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006) empirically test the relation between director's additional outside appointment and the performance of the firm in which the director is on the board and find supporting evidence. Thus, outside directors with multiple directorships can be viewed as likely having superior talent in serving as a director and in enhancing board functions as well as shareholder value. With this in mind, several studies measure a director's value by the number of directorships the director holds [see, for example, Shivdasani (1993) and Vafeas (1999)]. However, other studies, such as Beasley (1996), Core, Holthausen, and Larcker (1999), and Fich and Shivdasani (2006), argue that multiple directorships could lower the effectiveness of monitoring since busy directors may not have the time to carefully scrutinize managerial activities. Thus, busy directors may be associated with lower firm value.

Thus far, the debate on the value of busy outside directors has mainly focused on the number of directorships they hold. Left unexplored is how the characteristics of busy outside directors may have different effects on firm performance. Indeed, there is no reason why the impact of busy outside directors who have different occupational or job experiences should necessarily be the same. For instance, industry directors, those who have a majority of their directorships in the same industry and therefore potentially specialize in the industry [Ferris, Jagannathan, Pritchard (2003)] could be quite different from those who serve in boards of different industry firms. If outside directorships

provide directors with valuable knowledge and information on different management skills and business network contacts [see, for examples, Mace (1986), Rosenstein and Wyatt (1994), Booth and Deli (1996), Carpenter and Westphal (2001) and Loderer and Peyer (2002)], then outside directors with multiple directorships in different industries (we will call them non-industry busy outside directors) could obtain a greater diversity of experience and consequently could become more valuable sources of knowledge for the firm.

Table 5 **Summary Statistics**

Table 5 reports summary statistics for each variable in Panel A and the distribution of busy outside directors in firm level and director level in Panel B. The percentage for firm level in Panel B represents the percentage of firms in our sample with specific busy outside directors and is calculated as N divided by 854 (number of acquiring firms). For example, 68.7% for *busy outside directors* indicates 68.7% of our sample acquiring firms have at least 1 busy outside directors. The percentage for director level in Panel B represents the percentage of total outside directors in our sample with specific characteristic and is calculated as N divided by 4,913 (number of outside directors). For example, 31.7% for *busy outside directors* indicates 31.7% of our sample outside directors are busy outside directors or have at least 3 directorships. The sample consists of 854 acquisitions from 1998 to 2004. CAR (-1, 1) and CAR (-2, 2) are equal-weighted three-day and five-day cumulative abnormal returns in percentage points calculated using the market model. Outside directors are defined as busy if they hold three or more directorships. Industry busy outside directors are busy outside directors with at least 50% of their directorships sharing the same 2-digit SIC code. Non-industry busy outside directors are busy outside directors with all outside directorships in other industries classified by 2-digit SIC code. SP500-CEO (Non-SP500-CEO) busy outside directors are busy outside directors with a CEO title in a S&P 500 (non-S&P 500) firm. Non-SP500 busy outside directors are busy outside directors not current employees or directors of S&P 500 firms. Board size measures the number of directors. Acquirer's pre-announcement stock price run-up is acquirer's buy-and-hold abnormal return during the period (-210, -11) with the CRSP value-weighted market index as the benchmark. Free cash flow is calculated as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Leverage is the book value of long-term debts and short-term debts over market value of total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Relative deal size is deal value over acquirer's market capitalization. Market capitalization, measured in millions, is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Diversifying acquisitions are acquisitions in which acquirers and targets do not share a 2-digit SIC code. Intrastate is a dummy indicator and is 1 if acquirer and target are in the same state. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Table 5 - Continue

Panel A: Summary statistics					
Variable	Mean	Median	5%	95%	
<i>Abnormal returns:</i>					
CAR (-1, 1)	-1.88	-1.01	-14.3	8.15	
CAR (-2, 2)	-1.72	-1.20	-15.1	9.84	
<i>Board characteristics:</i>					
Percentage of outside directors	0.63	0.67	0.29	0.90	
Percentage of busy outside directors	0.33	0.33	0	0.80	
Percentage of industry busy outside directors	0.03	0	0	0.22	
Percentage of non-industry busy outside directors	0.10	0	0	0.38	
Percentage of SP500-CEO busy outside directors	0.06	0	0	0.30	
Percentage of non-SP500-CEO busy outside directors	0.02	0	0	0.17	
Percentage of non-SP500 busy outside directors	0.11	0	0	0.40	
Average directorships of outside directors	2.23	2.17	1	3.80	
Board size	9.90	10	6	15	
CEO chairman	0.70	1	0	1	
Inside ownership	0.06	0.01	0	0.24	
<i>Acquirer characteristics:</i>					
Acquirer's market capitalization	26,114	5,473	415	146,135	
Acquirer's pre-announcement stock price run-up	0.18	0.07	-0.43	1.07	
Free cash flow	0.08	0.08	-0.02	0.20	
Leverage	0.16	0.12	0	0.42	
Total assets	20,133	4,385	488	50,409	
Tobin's q	2.14	1.39	0.40	6.02	
<i>Deal characteristics:</i>					
All-cash deal	0.29	0	0	1	
Diversifying acquisitions	0.40	0	0	1	
Intrastate	0.19	0	0	1	
Relative deal size	0.24	0.09	0	1.04	
Tender offer	0.24	0	0	1	

Panel B: Busy outside directors					
	Firm level		Director level		
	N	%	N	%	
Busy outside directors	587	68.7	1,556	31.7	
Industry busy outside directors	99	11.6	143	2.9	
Non-industry busy outside directors	338	39.6	561	11.4	
SP500-CEO busy outside directors	243	28.5	464	9.4	
Non-SP500 busy outside directors	394	46.1	497	10.1	

In our sample of 854 acquisitions from 1998 to 2004, as shown on Panel B of Table 5, about 70 percent of acquirers have at least one busy outside director. More than 10 percent of these acquirers have industry busy outside director(s) (i.e. at least 50% of directorships sharing the same 2-digit SIC code) and about 40 percent of these acquirers have non-industry busy outside director(s). Among our total sample of 4,913 outside directors, only about 3 percent of these directors have a majority of their directorships in the same industry while about 10 percent of these directors have all their outside

directorships in other industries. The number of non-industry busy outside directors is over one-third of the number of busy outside directors.

In addition, according to the correlations reported in Table 6, the percentage of non-industry busy outside directors are positively associated with the percentage of outside directors but this association is not observed between the percentage of outside directors and the percentage of industry busy outside directors. Furthermore, industry and non-industry busy outside directors are negatively related to several firm characteristics. For example, the percentage of industry busy outside directors is associated with low agency conflicts (i.e. low governance index), young firms, and firms with high growth opportunities (i.e. high Tobin's q). In contrast, the percentage of non-industry busy outside directors is associated with high agency conflicts (i.e. high governance index), low inside ownership, old firms, and large firms. Potentially, industry and non-industry busy outside directors could have different impact on shareholder value. Thus, our first research question is whether industry or non-industry busy outside directors adds value to acquiring firms during the acquisition announcements.

Directors from large firms or directors who are CEOs of large firms are more likely to receive additional directorships [Ferris, Jagannathan, and Pritchard (2003)]. The size and complexity of the operations in large firms suggests that these directors may be more skillful and may provide broader networking contacts to firms in which they serve on their boards. Similarly, Fama and Jensen (1983) indicate that serving as directors on other boards could signal the executive's competence. Kaplan and Reishus (1990), Shivdasani (1993), and Brickley, Linck, and Coles (1999) among others offer empirical

evidence to support this notion. Fich (2005) further finds a positive shareholder reaction to the appointment of outside directors who are CEOs of other firms. With this in mind, the value of a director's skills and networking contacts may be even more pronounced if the director is also the CEO of an S&P 500 firm, which tends to be a leader in its industry [see Cai (2007)]. Since directors with CEO titles in S&P 500 firms are likely to be attractive candidates for other boards, do these directors lead to better firm performance than do other busy outside directors who are not S&P 500 firm CEOs? Furthermore, do multiple directorships add value to outside directors with CEO titles in S&P 500 firms? Do busy outside directors with a CEO title in a S&P 500 firm differ from busy outside directors with a CEO title in a non-S&P 500 firm?

As shown on Panel B of Table 5, about two thirds of busy outside directors have either directorship(s) or CEO title(s) in S&P 500 firm(s) and one third of busy outside directors (9.4 percent of outside directors) having a CEO title in an S&P 500 firm. Non-S&P500 busy outside directors are about 10 percent of total outside directors in our

Table 6 Correlation

The sample consists of 854 acquisitions from 1998 to 2004. Outside directors are defined as busy if they hold three or more directorships. Industry busy outside directors are busy outside directors with at least 50% of their directorships sharing the same 2-digit SIC code. Non-industry busy outside directors are busy outside directors with all outside directorships in other industries classified by 2-digit SIC code. SP500-CEO busy outside directors are busy outside directors with a CEO title in a S&P 500 firm. Non-SP500 busy outside directors are busy outside directors not current employees or directors of S&P 500 firms. CAR (-2, 2) is the equal-weighted five-day cumulative abnormal return in percentage points calculated using the market model. Governance index is constructed by Gompers, Ishii, and Metrick (2003). Firm age is the number of years since the stock inclusion in the CRSP database. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets.

Table 6 – Continue

	Percentage of outside directors	Percentage of busy outside directors	Percentage of industry busy outside directors	Percentage of non-industry busy outside directors	Percentage of SP500-CEO busy outside directors	Percentage of non-SP500 busy outside directors	CAR (-2, 2)	Governance index	Inside ownership	Firm age	Total assets
Percentage of busy outside directors	0.281 (0.00)										
Percentage of industry busy outside directors	-0.040 (0.32)	0.225 (0.00)									
Percentage of non-industry busy outside directors	0.216 (0.00)	0.627 (0.00)	-0.081 (0.04)								
Percentage of SP500-CEO busy outside directors	0.247 (0.00)	0.562 (0.00)	0.011 (0.78)	0.522 (0.00)							
Percentage of non-SP500 busy outside directors	0.070 (0.08)	0.487 (0.00)	0.336 (0.00)	0.035 (0.38)	-0.052 (0.20)						
CAR (-2, 2)	0.049 (0.22)	0.001 (0.98)	-0.025 (0.53)	0.070 (0.08)	0.093 (0.02)	-0.061 (0.13)					
Governance index	0.274 (0.00)	0.058 (0.17)	-0.086 (0.04)	0.093 (0.03)	0.023 (0.59)	0.041 (0.33)	-0.001 (0.98)				
Inside ownership	-0.307 (0.00)	-0.099 (0.01)	-0.040 (0.32)	-0.095 (0.02)	-0.094 (0.02)	0.038 (0.34)	0.004 (0.92)	-0.145 (0.00)			
Firm age	0.303 (0.00)	0.164 (0.00)	-0.154 (0.00)	0.233 (0.00)	0.206 (0.00)	-0.088 (0.03)	0.075 (0.06)	0.322 (0.00)	-0.271 (0.00)		
Total assets	0.042 (0.29)	0.178 (0.00)	-0.058 (0.15)	0.201 (0.00)	0.128 (0.00)	-0.037 (0.35)	0.008 (0.84)	-0.094 (0.03)	-0.053 (0.18)	0.068 (0.09)	
Tobin's q	-0.035 (0.38)	0.126 (0.00)	0.085 (0.03)	0.037 (0.36)	0.161 (0.00)	0.017 (0.68)	0.039 (0.33)	-0.184 (0.00)	-0.007 (0.87)	-0.128 (0.00)	-0.060 (0.13)

sample and about one third of total busy outside directors. While this evidence is consistent with the notion that multiple directorships are large firm phenomenon [see Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006)], the characteristics of busy outside directors with a CEO title in an S&P 500 firm (we will call them SP500-CEO busy outside directors) are similar to non-industry busy outside directors as shown in Table 6, except that the percentage of SP500-CEO busy outside directors is associated with high growth opportunities (i.e. high Tobin's q). The percentage of non-SP500 busy outside directors, in contrast, is not significantly related to governance index, inside ownership, total assets, or Tobin's q. However, similar to the percentage of industry busy outside directors, the percentage of non-SP500 busy outside directors is negatively associated with firm age. Once again, busy outside directors could be different and the difference could have different impacts on shareholder wealth.

Previous studies find that diversifying acquisitions tend to destroy shareholder wealth [see, for example, Morck, Shleifer, and Vishny (1990)]. Busy outside directors with directorship(s) in the target industry could potentially protect shareholder interests by accurately evaluating the target, given their experience in the target industry, thereby preventing value-reducing acquisitions by management. Thus, these industry busy outside directors could be different and could have a different implication for the relationship between shareholder value and busy outside directors. In short, we examine in this essay whether different types of busy directors may have different effects on firm value and we capture the characteristics of busy outside directors from a perspective that has not been done before.

3. The Sample and Variables

A. The Sample Selection Process

Examining acquirer returns around acquisitions sidesteps the potential endogeneity problem and allows us to observe whether outside directors play their role to protect shareholder interests when there are potential agency conflicts between managers and shareholders.

We first obtain a sample of acquisitions from the Securities Data Corporation's (SDC) data. Shareholder reaction to acquisitions could be different based on the target's public status because the choice between a public and a private target could be related to the acquirer's managerial motive [see Jensen (1986), Roll (1986), and Moeller, Schlingemann, and Stulz (2004)], the availability of target information [Chang (1998)], or target bargaining power [Ang and Kohers (2001)]. Because these factors potentially bias our analyses in the relationship between busy outside directors and acquirer returns, we exclude private targets from our sample.

Observations in our sample must meet the following criteria: (1) The announcement date is between 1998 and 2004; (2) the acquirer controls less than 50% of the shares of the target at the announcement date and controls 100% of the shares after the transaction; (3) the deal value is at least \$1 million; and (4) data on acquirer stock prices, accounting variables, and director information are available from CRSP, COMPUSTAT, and EDGAR data retrieval system, respectively. Following these criteria,

we obtain a sample of 854 firm-year acquisitions made by 476 acquirers. Within 854 observations, 299 are diversifying acquisitions made by 200 acquirers.

Table 7 reports the sample distribution by announcement year. Consistent with related studies, the number of acquisitions increased at the end of 1990's (beginning in 1998) and then dropped year by year to 2002. In 2003 and 2004, the number of acquisitions increased about 16% from 67 to 78, and about 20% from 67 to 81, respectively. Similarly, the medians of market capitalization (calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date) and deal value (calculated as the value of transaction, excluding fees and expenses) are relatively high around 2000. However, while the medians of acquirer market capitalization remain low in recent years, the medians of deal value and relative deal size increase in both 2003 and 2004.

Table 7
Sample Distribution

The sample consists of 854 acquisitions from 1998 to 2004. Market capitalization is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Deal value is the value of transaction, excluding fees and expenses. Both market capitalization and deal value are measured in millions. Relative deal size is deal value over acquirer's market capitalization.

Year	Number of acquisitions	Percentage of sample	Median acquirer market capitalization	Median deal value	Median relative deal size
1998	166	19.4	5,542	301	0.09
1999	188	22.0	6,405	402	0.08
2000	155	18.1	6,652	453	0.09
2001	119	13.9	6,013	182	0.06
2002	67	7.8	4,121	149	0.05
2003	78	9.1	3,342	281	0.11
2004	81	9.5	3,487	528	0.11

B. Descriptive Statistics of the Sample

B.1. Board Characteristics

Outside directors are defined as directors without any affiliation with the firm. As in other related studies, board members in our sample firms are dominated by outside directors. The average (median) percentage of busy outside directors is about 33 percent. It is smaller than the 52 percent reported by Fich and Shivdasani (2006) because our sample is not restricted to large firms. Outside directors are defined as being busy if they hold at least three directorships.

To capture the differences among busy outside directors, we focus on the industry characteristics and large firm characteristics of outside directorships held by busy outside directors. Industry busy outside directors are busy outside directors with at least 50 percent of their directorships in firms sharing the same 2-digit SIC code [Ferris, Jagannathan, and Pritchard (2003)].¹⁴ These directors potentially have superior talent in a given industry. In contrast, non-industry busy outside directors are busy outside directors with all outside directorships in other industries, who may have a great diversity of experience. In addition, these directors are associated with large firms and could be more skillful due to the complexity of operations they oversee. Table 5 indicates that more than 50 percent of acquirers do not have these directors and both the average and median percentages of industry and non-industry busy outside directors are small.

The variable that captures large firm characteristics of busy outside directors—percentage of SP500-CEO busy outside directors—is the percentage of outside directors who have at least three directorships and who also have a CEO title in an S&P 500 firm.

¹⁴ Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2006) include industry directors, not restricted to outside directors, as a dummy variable for their analysis of the association between firm performance and multiple directorships.

The variable, percentage of non-SP500 busy outside directors, captures the busy outside directors without either a CEO title or directorship(s) in an S&P 500 firm(s). These two variables allow us to examine if experience from serving on the board of a large firm and experience from managing a large firm add value to busy outside directors. In addition, we also capture busy outside directors with a CEO title only in a non-S&P 500 firm to see whether these directors are different from SP500-CEO busy outside directors. As shown in Panel A of Table 5, the percentage of SP500-CEO busy outside directors and the percentage of non-SP500 busy outside directors comprise more than 50 percent of busy outside directors, while the rest of the busy outside directors have directorships in S&P 500 firms but do not have a CEO title in an S&P 500 firm. The lower percentage of non-SP500-CEO busy outside directors suggests that directors with a CEO title in an S&P 500 firm could be more attractive as board members than busy outside directors with a CEO title in a non-S&P 500 firm.

The average (median) number of directorships held by outside directors in our sample is about 2.23 (2.17). Other than outside directors and directorships held by outside directors, we employ three control variables which potentially affect shareholder value. Yermack (1996) and Eisenberg, Sundgren, and Wells (1998) report a negative association between board size and firm value. We measure board size by the number of directors on the board. Management ownership signals the alignment of management and shareholder interests [Jensen and Meckling (1976) and Morck, Shleifer, and Vishny (1988)]. We capture this effect by measuring the percentage of shares held by firm insiders. While the evidence on the relationship between firm performance and CEO duality is generally

mixed [see, for examples, Rechner and Dalton (1991) and Daily and Dalton (1992)], being a dual CEO—the CEO is also the chairman of the board—could reduce the effectiveness of board monitoring. We use a CEO chairman indicator to capture CEO duality, which is 1 if the CEO is also the chairman and is 0 if otherwise.

B.2 Abnormal Returns

To measure acquirer returns, we compute both three-day (-1, 1) and five-day (-2, 2) cumulative abnormal returns (CARs) during the acquisition announcement period. From a random sample, Fuller, Netter, and Stegemoller (2002) report that about 92.6 percent of announcement dates from SDC are accurate and the rest are within at most two days of the actual announcement dates. Therefore, five-day CARs potentially capture most announcement effect during acquisitions. We use the CRSP equal-weighted return as the market return and estimate the market model parameters over the period from event day -210 to event day -11. As shown on Panel A of Table 5, the average (median) five-day CARs is -1.72 (-1.20), similar to the CARs reported by Masulis, Wang, and Xie (2007) for acquisitions of public targets.

B.4. Control Variables

Acquirer returns could be affected by several other factors. Accordingly, we control for acquirer and deal characteristics in our regressions and provide summary statistics for these variables in Table 5. For acquirer characteristics, Moeller, Schlingemann, and Stulz (2004) report a negative association between acquirer

announcement returns and bidder size. We measure bidder size by market capitalization, measured as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. We calculate Tobin's q as market value of common equity plus preferred stock liquidating value, plus long-term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets [Chung and Pruitt (1994)]. Variable values for Tobin's q are at the year end prior to announcement date. While free cash flow may exacerbate the conflict of interest between shareholders and managers, debt may prevent firms from wasting resources [Jensen (1986)]. We calculate free cash flow as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Financial leverage is the book value of long-term debt and short-term debt over market value of total assets. Finally, we control for acquirer pre-announcement stock price run-up measured as the acquirer's buy-and-hold abnormal return from event day -210 to event day -11 with the CRSP value-weighted market index as the benchmark to proxy firm performance.

Deal characteristics include method of payment, relative deal size, and indicators of intrastate, diversifying acquisition, and tender offer. Travlos (1987), Servaes (1991), and Brown and Ryngaert (1991) among others have found that the method of payment affects acquirer returns. We use a cash deal indicator to capture payment method, which is 0 if the acquisition is financed partially or fully with stock and is 1 if otherwise. Morck, Shleifer, and Vishny (1990) suggest that diversifying acquisitions could benefit managers at the expense of shareholders. We define a diversifying acquisition as one in which the acquirer and the target do not share the same 2-digit SIC code. Relative deal size may

also affect acquirer returns during acquisitions [Moeller, Schlingemann, and Stulz (2004)]. We calculate relative deal size as the deal value of acquirer market capitalization at the year end prior to the acquisition. Finally, geographical distance between the acquirer and the target may proxy for the availability of information, and we use an intrastate indicator to capture acquisitions in which acquirers and targets are within the same state. As shown in Table 5, most acquisitions in our sample are financed with stock. About 40 percent are diversifying acquisitions. Tender offers comprise 24 percent in our sample, and about 20 percent of acquisitions involve acquirers and targets within the same state.

4. Empirical Results

A. Multivariate Tests

In Table 8, we apply OLS regression to test the relationship between acquirer returns and busy outside directors. The dependent variable is the five-day cumulative abnormal return [CARs (-2, 2)]. In regression (1), we first test the relationship between busy outside directors and acquirer returns without considering the characteristics of busy outside directors. Consistent with Ahn, Jiraporn, and Kim (2008), we find that acquirer returns are negatively associated with the percentage of busy outside directors, suggesting that multiple directorships reduce the effectiveness of monitoring by outside directors [Fich and Shivdasani (2006)]. However, when variables indicating the characteristics of busy outside directors are added into regressions, we find that some types of busy outside directors are differently associated with acquirer returns. In regression (3), for example,

the coefficient for the percentage of non-industry busy outside directors suggests that these busy outside directors do not reduce acquirer returns. While a one percent increase of busy outside directors reduces five-day CARs by about 0.05 percentage points, if the increased busy outside directors are non-industry busy outside directors, the reduced CARs could be recovered and the total impact from non-industry busy outside directors on acquirer returns is not different from non-busy outside directors (i.e. 0.046 percent increase in five-day CARs).

The coefficient for the percentage of SP500-CEO busy outside directors, as shown in regression (4), suggests that busy outside directors with a CEO title in an S&P 500 firm are not associated with negative acquirer returns. One percentage increase of

Table 8 **Busy Outside Directors and Acquirer Returns**

The sample consists of 854 acquisitions from 1998 to 2004. The dependent variable is the acquirer's equal-weighted five-day (-2, 2) cumulative abnormal return in percentage points calculated using the market model. Outside directors are defined as busy if they hold three or more directorships. Industry busy outside directors are busy outside directors with at least 50% of their directorships sharing the same 2-digit SIC code. Non-industry busy outside directors are busy outside directors with all outside directorships in other industries classified by 2-digit SIC code. SP500-CEO busy outside directors are busy outside directors with a CEO title in a S&P 500 firm. Non-SP500 busy outside directors are busy outside directors not current employees or directors of S&P 500 firms. Board size measures the number of directors. Acquirer's pre-announcement stock price run-up is acquirer's buy-and-hold abnormal return during the period (-210, -11) with the CRSP value-weighted market index as the benchmark. Free cash flow is calculated as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Leverage is the book value of long-term debts and short-term debts over market value of total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Relative deal size is deal value over acquirer's market capitalization. Market capitalization, measured in millions, is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Diversifying acquisitions are acquisitions in which acquirers and targets do not share a 2-digit SIC code. Intrastate is a dummy indicator and is 1 if acquirer and target are in the same state. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Table 8 – Continue

Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-3.719** (-2.38)	-3.553** (-2.47)	-5.426*** (-2.78)	-5.271*** (-3.01)	-2.603* (-1.69)
Percentage of industry busy outside directors		-1.439 (-0.24)			
Percentage of non-industry busy outside directors			5.726** (2.16)		
Percentage of SP500-CEO busy outside directors				8.034** (2.40)	
Percentage of non-SP500 busy outside directors					-3.267 (-1.19)
Percentage of outside directors	4.695* (1.90)	4.596* (1.87)	4.623* (1.88)	4.300* (1.74)	4.659* (1.89)
Log (board size)	0.602 (0.41)	0.564 (0.40)	0.518 (0.36)	0.523 (0.36)	0.535 (0.37)
Log (inside ownership)	0.523 (1.42)	0.511 (1.40)	0.503 (1.38)	0.560 (1.53)	0.545 (1.48)
CEO chairman	-0.663 (-0.88)	-0.672 (-0.89)	-0.698 (-0.93)	-0.660 (-0.88)	-0.657 (-0.88)
Acquirer's pre-announcement stock price run-up	-3.394*** (-3.65)	-3.404*** (-3.70)	-3.412*** (-3.65)	-3.429*** (-3.67)	-3.450*** (-3.71)
Free cash flow	-5.492 (-0.44)	-5.674 (-0.47)	-5.850 (-0.47)	-5.718 (-0.46)	-5.613 (-0.45)
Leverage	3.240 (0.89)	3.103 (0.89)	3.399 (0.93)	3.667 (0.99)	3.176 (0.87)
Log (total asset)	0.285 (1.13)	0.273 (1.12)	0.193 (0.78)	0.236 (0.94)	0.224 (0.88)
Log (firm age)	-0.185 (-0.36)	-0.202 (-0.40)	-0.246 (-0.48)	-0.236 (-0.47)	-0.241 (-0.48)
Tobin's q	0.414** (2.30)	0.416** (2.33)	0.438** (2.45)	0.398** (2.20)	0.405** (2.24)
Intrastate	0.931 (0.86)	0.952 (0.88)	0.968 (0.90)	0.914 (0.85)	0.958 (0.89)
Relative deal size	-3.416*** (-3.08)	-3.420*** (-3.08)	-3.303*** (-3.04)	-3.369*** (-3.05)	-3.358*** (-3.07)
All-cash deal	1.849*** (2.72)	1.853*** (2.72)	1.844*** (2.73)	1.767*** (2.61)	1.771*** (2.60)
Diversifying acquisitions	-0.785 (-1.14)	-0.786 (-1.14)	-0.745 (-1.09)	-0.751 (-1.10)	-0.773 (-1.13)
Year dummies	Yes	Yes	Yes	Yes	Yes
R ²	0.14	0.14	0.15	0.15	0.14

busy outside directors with a CEO title in an S&P 500 firm potentially recovers the negative acquirer returns caused by multiple directorships held by busy outside directors, and in fact increases acquirer returns by about 0.03 percentage points [i.e. 0.08 + (-0.05)] although this positive return is not significantly different from zero. However, similar to non-industry busy outside directors, SP500-CEO busy outside directors are not different

from non-busy outside directors and also improve acquirer returns by about 0.04 percentage points.¹⁵

For industry busy outside directors and non-SP500 busy outside directors, as shown respectively in regression (2) and (5), we do not find positive or significant coefficients for these variables, suggesting that these busy outside directors are not different from most busy outside directors. A one percent increase of industry or non-SP500 busy outside directors could reduce acquirer returns by 0.04 or 0.03 percentage points, respectively. Although the coefficients for the percentage of busy outside directors are different in regression (2) and (5) because of the potential difference between industry and non-SP500 busy outside directors, the difference is not significantly different from zero. Combining the results from all regressions reported in Table 8, we see that while busy outside directors are negatively associated with five-day CARs during acquisitions, not all busy outside directors are the same. Non-industry busy outside directors and SP500-CEO busy outside directors are associated with more outside directorships, directorships in different industries, and directorships in large firms. Potentially, these directors with their great diversity of experience could be valuable source of knowledge to the firms in which they serve on their boards. However, while we

¹⁵ While the coefficient of the percentage of SP500-CEO busy outside directors in regression (4) is greater than the coefficient of the percentage of non-industry busy outside directors in regression (3), the difference between these two coefficients is not significantly different from zero. Although the correlation between non-industry busy outside directors and SP500-CEO busy outside directors as shown on Table 2 is 0.522 and significant, indicating busy outside directors with a CEO title in S&P 500 firms are likely to hold directorships in different industries and vice versa, our results still hold when we drop acquirers with both types of busy outside directors. Among 1,556 busy outside directors, 221 busy outside directors are non-industry busy outside directors and in the meantime have a CEO title in S&P 500 firms. Among 854 acquirers, 193 acquirers have both non-industry busy outside directors and SP500-CEO busy outside directors.

find these directors could be better than other busy outside directors, we do not find the evidence that these directors are better than non-busy outside directors.¹⁶

Our results also indicate a positive association between the percentage of outside directors and acquirer returns during acquisitions. A one percent increase of outside directors, without considering the characteristics of individual outside directors, improves five-day CARs by about 0.05 percentage points. Similar to Masulis, Wang, and Xie (2007), we find negative and significant coefficients for acquirer pre-announcement stock price run-up. Consistent with Lang, Stulz, and Walkling (1991) and Servaes (1991), we find a positive association between Tobin's q and acquirer returns. Relative deal size is negatively associated with acquirer returns [Moeller, Schlingemann, and Stulz (2004)]. Cash deal is positively associated with acquirer returns [see, for example, Travlos (1987)]. While coefficients for several control variables are not significant in our regressions, most of these variables obtain the signs similar to other related studies. For example, negative coefficients are found for free cash flow, diversifying acquisitions, and CEO duality. Positive coefficients are found for inside ownership, leverage, and intrastate indicator.

B. Robustness Tests

¹⁶ It is possible that busy outside directors with a CEO title in S&P 500 firms or with directorships in other industries are invited to join the board before the announcement of acquisitions to enhance shareholder wealth. However, the average (median) tenure in the sample is 6.77 (5) years for busy outside directors with a CEO title in S&P 500 firms and is 8.19 (6) years for busy outside directors with directorships in other industries. These tenure characteristics suggest that strategically hiring busy outside directors shortly before a merger announcement is not prevalent.

To check the robustness of our main results, we apply several additional tests as reported in Table 9. First, acquirers may have multiple acquisitions within a short time and the calculation of acquirer returns of individual acquisitions could be biased by other acquisitions within this period. Therefore, we exclude observations with multiple acquisitions within a year and redo the Table 8 regressions. The sample that excludes multiple acquisitions consists of 470 acquisitions made by 331 acquirers. Similar results are obtained in Panel A of Table 9. We find that firms with non-industry busy outside directors and firms with SP500-CEO busy outside directors reduce the negative acquirer returns caused by multiple directorships held by busy outside directors. In Panel B, we replace the percentage measures of particular types of busy outside directors by dummy variables. For example, the variable, *with SP500-CEO busy outside director(s)*, is 1 if there is at least 1 SP500-CEO busy outside directors on the board and 0 if otherwise. Although the sizes of the coefficients in regression (3) and (4) are relative small compared with those reported in Table 8, our previous findings remain qualitatively unchanged.

Table 9
Busy Outside Directors and Acquirer Returns – Robustness Tests

The sample consists of 854 acquisitions from 1998 to 2004. In Panel A, observations with multiple acquisitions within a year are excluded. The dependent variable in Panel A and B is the acquirer's equal-weighted five-day (-2, 2) cumulative abnormal return in percentage points calculated using the market model. Outside directors are defined as busy if they hold three or more directorships. Industry busy outside directors are busy outside directors with at least 50% of their directorships sharing the same 2-digit SIC code. Non-industry busy outside directors are busy outside directors with all outside directorships in other industries classified by 2-digit SIC code. SP500-CEO busy outside directors are busy outside directors with a CEO title in a S&P 500 firm. Non-SP500 busy outside directors are busy outside directors not current employees or directors of S&P 500 firms. Additional variables are all other variables as shown on Table 8. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Table 9 - Continue

Panel A: Exclude multiple acquisitions					
Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-4.523*** (-2.57)	-4.392*** (-2.72)	-5.882*** (-2.79)	-5.488*** (-2.83)	-3.653** (-2.16)
Percentage of industry busy outside directors		-0.993 (-0.17)			
Percentage of non-industry busy outside directors			5.180* (1.83)		
Percentage of SP500-CEO busy outside directors				5.665* (1.65)	
Percentage of non-SP500 busy outside directors					-2.432 (-0.82)
Additional variables	Yes	Yes	Yes	Yes	Yes
R ²	0.15	0.15	0.15	0.15	0.15
Panel B: Alternative measures of busy outside directors					
Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-4.523*** (-2.57)	-4.472*** (-2.59)	-5.607*** (-2.87)	-5.467*** (-2.97)	-4.586*** (-2.65)
With industry busy outside director(s)		-0.136 (-0.12)			
With non-industry busy outside director(s)			1.469* (1.68)		
With SP500-CEO busy outside director(s)				1.645** (1.97)	
With non-SP500 busy outside director(s)					0.069 (0.09)
Additional variables	Yes	Yes	Yes	Yes	Yes
R ²	0.15	0.15	0.15	0.16	0.15
Panel C: CAR (-1, 1) equal-weighted					
Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-3.100** (-2.21)	-2.340* (-1.78)	-4.977*** (-2.84)	-4.523*** (-2.84)	-1.181 (-0.85)
Percentage of industry busy outside directors		-6.567 (-1.35)			
Percentage of non-industry busy outside directors			6.298*** (2.72)		
Percentage of SP500-CEO busy outside directors				7.371** (2.50)	
Percentage of non-SP500 busy outside directors					-5.620** (-2.33)
Additional variables	Yes	Yes	Yes	Yes	Yes
R ²	0.16	0.17	0.17	0.17	0.17
Panel D: CAR (-2, 2) value-weighted					
Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-3.845** (-2.39)	-3.667** (-2.51)	-5.274*** (2.02)	-5.258*** (-2.89)	-2.882* (-1.83)
Percentage of industry busy outside directors		-1.540 (-0.26)			
Percentage of non-industry busy outside directors			4.793* (1.82)		
Percentage of SP500-CEO busy outside directors				7.313** (2.16)	
Percentage of non-SP500 busy outside directors					-2.820 (-1.05)
Additional variables	Yes	Yes	Yes	Yes	Yes
R ²	0.16	0.17	0.17	0.17	0.17

Table 9 - Continue

Panel E: CAR (-1, 1) value-weighted					
Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-3.397** (-2.39)	-2.619** (-1.99)	-5.245*** (-2.96)	-4.745***	-1.483 (-1.08)
Percentage of industry busy outside directors		-6.715 (-1.41)			
Percentage of non-industry busy outside directors			6.201*** (2.68)		
Percentage of SP500-CEO busy outside directors				6.980** (2.30)	
Percentage of non-SP500 busy outside directors					-5.604** (-2.36)
Additional variables	Yes	Yes	Yes	Yes	Yes
R ²	0.18	0.18	0.18	0.18	0.18

In Panel C, five-day CARs are replaced by three-day CARs (-1, 1). While coefficients for the percentage of non-industry busy outside directors and the percentage of SP500-CEO busy outside directors remain significantly positive, the percentage of non-SP500 busy outside directors is found to be significantly negatively associated with acquirer returns, indicating that these busy outside directors potentially reduce shareholder value. In addition, the insignificant coefficient for the percentage of busy outside directors in regression (5) suggests that the negative impact from busy outside directors on acquirer returns could be dominated by non-SP500 busy outside directors.

In Panels (D) and (E), we employ the CRSP value-weighted return as the market return to estimate the market model parameters over the period and then calculate the three-day (-1, 1) and five-day (-2, 2) CARs. Panel (D) shows results that are consistent with those reported in Table 8, and results on Panel (E) are also similar to those on Panel (C). The coefficient for percentage of non-SP500 busy outside directors remains negative and significant when three-day CARs is applied.

C. Diversifying Acquisitions

In this section, we focus on diversifying acquisitions in which acquirers and targets do not share the same 2-digit SIC code. Diversifying acquisitions could be driven by managerial objectives and potentially destroy shareholder value [Morck, Shleifer, and Vishny (1990)].¹⁷ If outside directors protect shareholder wealth, outside directors with directorship(s) in the target industry could have better information about the target industry and therefore could be better at evaluating the target. As a consequence, these directors could be more valuable than other outside directors for acquirer shareholders. However, our evidence in Table 10 indicates that busy outside directors with directorship(s) in the target industry are not better than other busy outside directors. The coefficients for the percentage of busy outside directors with directorship(s) in target industry in regression (3) and (5) are positive but insignificant. This finding suggests that while outside directors improve acquirer returns by about 9 percentage points, busy outside directors including busy outside directors with directorship(s) in the target industry appear to reduce acquirer firm returns. Not reported in the table, non-busy outside directors (i.e. outside directors with only two directorships) with directorship in the target industry are not different from industry busy outside directors as well during diversifying acquisitions.

In contrast, we still find busy outside directors with a CEO title in an S&P 500 firm perform better than other busy outside directors. While the impact from the

¹⁷ Recent studies such as Campa and Kedia (2002) and Villalonga (2004) indicate diversification may not necessarily reduce firm value.

Table 10
Diversifying Acquisitions

The sample consists of 299 diversifying acquisitions from 1998 to 2004. Diversifying acquisitions are acquisitions in which acquirers and targets do not share a 2-digit SIC code. In regression (1), (2), and (3), the dependent variable is the acquirer's equal-weighted five-day (-2, 2) cumulative abnormal return in percentage points calculated using the market model. Value-weighted five-day (-2, 2) cumulative abnormal return in percentage points is applied in regression (4) and (5). Outside directors are defined as busy if they hold three or more directorships. SP500-CEO busy outside directors are busy outside directors with a CEO title in a S&P 500 firm. Board size measures the number of directors. Acquirer's pre-announcement stock price run-up is acquirer's buy-and-hold abnormal return during the period (-210, -11) with the CRSP value-weighted market index as the benchmark. Free cash flow is calculated as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Leverage is the book value of long-term debts and short-term debts over market value of total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Relative deal size is deal value over acquirer's market capitalization. Market capitalization, measured in millions, is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Intrastate is a dummy indicator and is 1 if acquirer and target are in the same state. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Variable	(1)	(2)	(3)	(4)	(5)
Percentage of busy outside directors	-4.126* (-1.66)	-6.206** (-2.23)	-4.822** (-1.98)	-6.791** (-2.57)	-5.225** (-2.19)
Percentage of SP500-CEO busy outside directors		10.72** (1.94)		11.81** (2.24)	
Percentage of busy outside directors with directorships(s) in target industry			2.160 (0.65)		2.256 (0.75)
Percentage of outside directors	9.889** (2.38)	8.897** (2.11)	9.888** (2.37)	8.236* (1.93)	9.327** (2.22)
Log (board size)	2.476 (1.08)	2.219 (1.00)	2.670 (1.19)	2.693 (1.26)	3.179 (1.46)
Log (inside ownership)	0.794 (1.05)	0.820 (1.09)	0.790 (1.05)	1.111 (1.49)	1.078 (1.44)
CEO chairman	-1.116 (-0.94)	-1.093 (-0.92)	-1.180 (-1.00)	-1.148 (-1.00)	-1.241 (-1.08)
Acquirer's pre-announcement stock price run-up	-1.855** (-2.35)	-1.904** (-2.23)	-1.867** (-2.35)	-2.101*** (-2.65)	-2.060*** (-2.84)
Free cash flow	8.580 (0.71)	8.383 (0.70)	7.001 (0.58)	1.816 (0.15)	0.384 (0.03)
Leverage	1.076 (0.27)	1.388 (0.34)	1.093 (0.27)	0.533 (0.13)	0.206 (0.05)
Log (total asset)	0.276 (0.63)	0.186 (0.43)	0.269 (0.61)	0.424 (1.03)	0.516 (1.24)
Log (firm age)	0.480 (0.57)	0.525 (0.63)	0.519 (0.63)	0.178 (0.22)	0.169 (0.21)
Tobin's q	0.172 (0.52)	0.133 (0.41)	0.181 (0.55)	0.231 (0.79)	0.283 (0.96)
Intrastate	2.452 (1.24)	2.423 (1.23)	2.489 (1.26)	2.020 (1.04)	2.090 (1.07)
Relative deal size	-7.281*** (-3.31)	-7.466*** (-3.49)	-7.208*** (-3.30)	-7.342*** (-3.43)	-7.062*** (-3.25)
All-cash deal	1.259 (1.17)	0.935 (0.87)	1.377 (1.28)	1.156 (1.13)	1.636 (1.58)
Year dummies	Yes	Yes	Yes	Yes	Yes
R ²	0.21	0.22	0.21	0.23	0.22

percentage of SP500-CEO busy outside directors on acquirer returns offsets the impact from the percentage of busy outside directors, SP500-CEO busy outside directors still improve acquirer returns by about 9 percentage points, which is the coefficients of the percentage of outside directors. It should be noted that using directorships in the target industry to proxy for the experience of busy outside directors could be inappropriate because the director could obtain experience in the target industry from other sources, such as previously being an employee in target industry. Overall, the results reported in Table 10 are consistent with our earlier findings that some busy outside directors are better than others.¹⁸

D. Multiple Directorships and CEO Title

D.1 Do Multiple Directorships Add Value to Directors Who Are CEOs of Other Firms?

In regression (4) of Table 8, we report a positive and significant coefficient for the percentage of SP500-CEO busy outside directors, indicating that these busy outside directors could offset the negative impact from multiple directorships held by busy outside directors on acquirer returns. However, these busy outside directors with a CEO title in an S&P 500 firm are not better than non-busy outside directors. We might, therefore, question whether multiple directorships reduce the value of holding a CEO title in an S&P 500 firm. To address this issue, we develop a variable, percentage of SP500-CEO non-busy outside directors, to compare with the percentage of SP500-CEO busy

¹⁸ Not reported in Table 11, we test the relationship between five-day cumulative abnormal returns (CARs) and the percentage of non-industry busy outside directors. The coefficient for the percentage of non-industry busy outside directors is 6.306 with t-statistics of 1.37.

outside directors. As shown on Table 11, while the coefficients for the percentage of SP500-CEO non-busy outside directors are insignificant in all regressions, we observe positive and significant coefficients for the percentage of SP500-CEO busy outside directors. The positive impact from SP500-CEO busy outside directors on acquirer returns recovers the negative impact from multiple directorships held by busy outside directors. Thus, our results indicate that CEOs of S&P 500 firms who hold multiple directorships are not less valuable members of the board than CEOs of S&P 500 firms who are not busy.

D.2 Are SP500-CEO Busy Outside Directors Better than Non-SP500-CEO Busy Outside Directors?

Table 11
S&P 500-CEO Busy and Non-Busy Outside directors

The sample consists of 854 acquisitions from 1998 to 2004. In regression (1), and (2) the dependent variable is the acquirer's equal-weighted five-day (-2, 2) cumulative abnormal return in percentage points calculated using the market model. Value-weighted five-day (-2, 2) cumulative abnormal return in percentage points is applied in regression (3) and (4). Outside directors are defined as busy if they hold three or more directorships. SP500-CEO busy (non-busy) outside directors are busy (non-busy) outside directors with a CEO title in a S&P 500 firm. Board size measures the number of directors. Acquirer's pre-announcement stock price run-up is acquirer's buy-and-hold abnormal return during the period (-210, -11) with the CRSP value-weighted market index as the benchmark. Free cash flow is calculated as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Leverage is the book value of long-term debts and short-term debts over market value of total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Relative deal size is deal value over acquirer's market capitalization. Market capitalization, measured in millions, is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Diversifying acquisitions are acquisitions in which acquirers and targets do not share a 2-digit SIC code. Intrastate is a dummy indicator and is 1 if acquirer and target are in the same state. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Table 11 – Continue

Variable	(1)	(2)	(3)	(4)
Percentage of busy outside directors	-3.693** (-2.36)	-5.260*** (-3.00)	-3.802** (-2.35)	-5.241*** (-2.87)
Percentage of SP500-CEO busy outside directors		8.142** (2.43)		7.477** (2.21)
Percentage of SP500-CEO non-busy outside directors	3.053 (0.57)	3.756 (0.71)	5.060 (0.92)	5.705 (1.04)
Percentage of outside directors	4.567* (1.83)	4.136* (1.66)	3.649 (1.40)	3.254 (1.25)
Log (board size)	0.541 (0.37)	0.447 (0.31)	0.432 (0.29)	0.346 (0.24)
Log (inside ownership)	0.529 (1.43)	0.567 (1.55)	0.561 (1.49)	0.597 (1.59)
CEO chairman	-0.650 (-0.87)	-0.644 (-0.86)	-0.682 (-0.90)	-0.676 (-0.89)
Acquirer's pre-announcement stock price run-up	-3.394*** (-3.65)	-3.428*** (-3.67)	-4.020*** (-4.00)	-4.052*** (-4.01)
Free cash flow	-5.492 (-0.44)	-5.721 (-0.46)	-5.341 (-0.42)	-5.551 (-0.43)
Leverage	3.228 (0.88)	3.658 (0.99)	2.563 (0.68)	2.958 (0.78)
Log (total asset)	0.283 (1.12)	0.233 (0.93)	0.393 (1.55)	0.347 (1.38)
Log (firm age)	-0.195 (-0.38)	-0.249 (-0.49)	-0.421 (-0.81)	-0.470 (-0.91)
Tobin's q	0.409** (2.29)	0.392** (2.19)	0.423** (2.24)	0.407** (2.15)
Intrastate	0.970 (0.89)	0.961 (0.88)	1.007 (0.92)	0.998 (0.91)
Relative deal size	-3.456*** (-3.15)	-3.418*** (-3.13)	-3.793*** (-3.34)	-3.758*** (-3.32)
All-cash deal	1.838*** (2.71)	1.751*** (2.60)	1.797*** (2.71)	1.717*** (2.61)
Diversifying acquisitions	-0.792 (-1.15)	-0.758 (-1.10)	-0.640 (-0.93)	-0.609 (-0.88)
Year dummies	Yes	Yes	Yes	Yes
R ²	0.14	0.15	0.17	0.17

Finally, if busy outside directors with a CEO title in an S&P 500 firm are better than other busy outside directors, we might question whether a CEO title in an S&P 500 firm is different from a CEO title in a non-S&P 500 firm. To address this issue, we measure the percentage of non-SP500-CEO busy outside directors to compare with the percentage of SP500-CEO busy outside directors. As reported in Table 12, the relatively small and insignificant coefficients for the percentage of non-SP500-CEO busy outside directors indicate that busy outside directors with a CEO title in a non-S&P 500 firm

could be different from busy outside directors with a CEO title in an S&P 500 firm. Busy outside directors with a CEO title in an S&P 500 firm could recover the negative impact from multiple directorships held by busy outside directors on acquirer returns as we found in previous sections. However, similar evidence is not found for busy outside directors with a CEO title in a non-S&P 500 firm. It supports the notion that management skills in relatively large, well-known firms could add value to outside directors and therefore enhance shareholder wealth.

5. Summary and Conclusion

With a sample of 854 acquisitions from 1998 to 2004, we examine the differences among individual busy outside directors and we find that the generally ambiguous

Table 12
S&P 500- and Non-S&P 500-CEO Busy Outside Directors

The sample consists of 854 acquisitions from 1998 to 2004. In regression (1), and (2) the dependent variable is the acquirer's equal-weighted five-day (-2, 2) cumulative abnormal return in percentage points calculated using the market model. Value-weighted five-day (-2, 2) cumulative abnormal return in percentage points is applied in regression (3) and (4). Outside directors are defined as busy if they hold three or more directorships. SP500-CEO (Non-SP500-CEO) busy outside directors are busy outside directors with a CEO title in a S&P 500 (non-S&P 500) firm. Board size measures the number of directors. Acquirer's pre-announcement stock price run-up is acquirer's buy-and-hold abnormal return during the period (-210, -11) with the CRSP value-weighted market index as the benchmark. Free cash flow is calculated as operating income before depreciation minus interest expenses, income taxes, and capital expenditures scaled by book value of total assets. Leverage is the book value of long-term debts and short-term debts over market value of total assets. Tobin's q is calculated as market value of common equity plus preferred stock liquidating value, plus long term debt, minus short-term assets, plus short-term liabilities, and then scaled by total assets. Relative deal size is deal value over acquirer's market capitalization. Market capitalization, measured in millions, is calculated as the number of shares outstanding multiplied by the stock price at the year end prior to announcement date. Diversifying acquisitions are acquisitions in which acquirers and targets do not share a 2-digit SIC code. Intrastate is a dummy indicator and is 1 if acquirer and target are in the same state. The *t*-statistics is reported in parenthesis. *, **, and *** stand for statistical significance based on two-sided tests at the 10%, 5%, and 1% level, respectively.

Table 12 – Continue

Variable	(1)	(2)	(3)	(4)
Percentage of busy outside directors	-3.727** (-2.29)	-5.398*** (-2.90)	-3.907** (-2.32)	-5.450*** (-2.81)
Percentage of SP500-CEO busy outside directors		8.203** (2.39)		7.567** (2.17)
Percentage of non-SP500-CEO busy outside directors	0.147 (0.03)	1.882 (0.35)	1.226 (0.23)	2.827 (0.51)
Percentage of outside directors	4.690* (1.89)	4.222* (1.70)	3.817 (1.48)	3.386 (1.31)
Log (board size)	0.600 (0.41)	0.506 (0.35)	0.522 (0.36)	0.435 (0.30)
Log (inside ownership)	0.523 (1.41)	0.563 (1.53)	0.553 (1.45)	0.590 (1.56)
CEO chairman	-0.663 (-0.88)	-0.662 (-0.89)	-0.704 (-0.93)	-0.703 (-0.93)
Acquirer's pre-announcement stock price run-up	-3.394*** (-3.63)	-3.422*** (-3.64)	-4.017*** (-3.97)	-4.042*** (-3.98)
Free cash flow	-5.494 (-0.44)	-5.743 (-0.46)	-5.354 (-0.42)	-5.584 (-0.43)
Leverage	3.246 (0.88)	3.759 (1.00)	2.637 (0.69)	3.110 (0.80)
Log (total asset)	0.285 (1.13)	0.241 (0.96)	0.400 (1.57)	0.359 (1.42)
Log (firm age)	-0.185 (-0.36)	-0.235 (-0.46)	-0.402 (-0.77)	-0.448 (-0.87)
Tobin's q	0.414** (2.29)	0.402** (2.21)	0.434** (2.26)	0.422** (2.19)
Intrastate	0.930 (0.85)	0.892 (0.82)	0.928 (0.84)	0.893 (0.81)
Relative deal size	-3.416*** (-3.08)	-3.374*** (-3.05)	-3.730*** (-3.23)	-3.691*** (-3.20)
All-cash deal	1.850*** (2.70)	1.775*** (2.61)	1.822*** (2.71)	1.754*** (2.63)
Diversifying acquisitions	-0.784 (-1.14)	-0.734 (-1.07)	-0.620 (-0.90)	-0.573 (-0.83)
Year dummies	Yes	Yes	Yes	Yes
R ²	0.14	0.15	0.17	0.17

relationships between busy outside directors and firm value could be driven by different types of busy outside directors. Supporting this latter argument, we find that busy outside directors are associated with lower acquirer returns during acquisitions. However, busy outside directors with a CEO title in an S&P 500 firm and busy outside directors with all outside directorships in other industries do not reduce shareholder value during acquisitions. While our results do not indicate that these busy outside directors are better

than non-busy outside directors, we do provide empirical evidence suggesting that simply using the number of directorships to evaluate outside directors could be inappropriate.

Busy directors with multiple directorships in different industries and directors with a CEO title in an S&P 500 firm can be valuable sources of knowledge and experience to firms. Therefore, despite their busyness, these directors may still be good candidates for corporate boards. Fich (2005) suggests that some outside directors could be better than the others. Our results indicate that busy outside directors with diverse outside directorships and management skills in large, well-known firms are different from other busy directors and may be valuable to acquiring firms.

References

- Adams, Renée B., 2002, The dual role of corporate boards as advisors and monitors of management: Theory and evidence, Working paper, Federal Reserve Bank of New York.
- Adams, Renée B., 2003, What do boards do? Evidence from board committee and director compensation data, Working paper, Federal Reserve Bank of New York.
- Agrawal, Anup and Charles R. Knoeber, 1996, Firm performance and mechanisms to control agency problems between managers and shareholders, *The Journal of Financial and Quantitative Analysis* 31, 377-397.
- Agrawal, Anup and Charles R. Knoeber, 2001, Do some outside directors play a political role? *The Journal of Law and Economics* 44, 179-198.
- Ahn, Seoungpil, Pornsit Jiraporn and Young Sang Kim, 2008, Multiple directorships and acquirer returns, Working paper, National University of Singapore.
- Ang, James and Ninon Kohers, 2001, The take-over market for privately held companies: The US experience, *Cambridge Journal of Economics* 25, 723-748.
- Baker, Malcolm and Paul Gompers, 2000, An analysis of executive compensation, ownership, and control in entrepreneurial firms, Working paper, Harvard University.
- Baysinger, Barry D. and Henry N. Butler, 1985, The role of corporate law in the theory of the firm, *Journal of Law and Economics* 28, 179-191.
- Baysinger, Barry D. and Robert E. Hoskisson, 1990, The composition of boards of directors and strategic control: Effects on corporate strategy, *The Academy of Management Review* 15, 72-87.
- Beasley, Mark, 1996, An empirical analysis of the relation between the board of director composition and financial statement fraud, *The Accounting Review* 71, 443-465.
- Bhagat, Sanjai and Bernard Black, 2001, The non-correlation between board independence and long-term firm performance, *Journal of Corporation Law* 27, 231-274.

- Boone, Audra L., Laura Casares Field, Jonathan M. Karpoff and Charu G. Raheja, 2007, The determinants of corporate board size and composition: An empirical analysis, *Journal of Financial Economics* 85, 66-101.
- Booth, James R. and Daniel N. Deli, 1996, Factors affecting the number of outside directorships held by CEOs, *Journal of Financial Economics* 40, 81-104.
- Boyd, Brian, 1990, Corporate linkages and organizational environment: A test of the resource dependence model, *Strategic Management Journal* 11, 419-430.
- Brickley, James A., James S. Linck and Jeffrey L. Coles, 1999, What happens to CEOs after they retire? New evidence on career concerns, horizon problems, and CEO incentives, *Journal of Financial Economics* 52, 341-377.
- Brook, Yaron and Ramesh K. S. Rao, 1994, Shareholder wealth effects of directors' liability limitation provisions, *The Journal of Financial and Quantitative Analysis* 29, 481-497.
- Brown, David T. and Michael D. Ryngaert, 1991, The mode of acquisition in takeovers: Taxes and asymmetric information, *The Journal of Finance* 46, 653-669.
- Byrd, John W. and Kent A. Hickman, 1992, Do outside directors monitor managers? Evidence from tender offer bids, *Journal of Financial Economics* 32, 195-221.
- Cai, Kai, 2007, What's in the news? Information content of S&P 500 additions, *Financial Management* 36, 113-124.
- Campa, Jose Manuel and Simi Kedia, 2002, Explaining the diversification discount, *The Journal of Finance* 57, 1731-1762.
- Carpenter, Mason A. and James D. Westphal, 2001, The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making, *The Academy of Management Journal* 44, 639-660.
- Chang, Saeyoung, 1998, Takeovers of privately held targets, method of payment, and bidder returns, *Journal of Finance* 53, 773-784.
- Chung, Kee H. and Stephen W. Pruitt, 1994, A simple approximation of Tobin's q, *Financial Management* 23, 70-74.
- Coles, Jeffrey L., Naveen D. Daniel and Lalitha Naveen, 2008, Boards: Does one size fit all? *Journal of Financial Economics* 87, 329-356.

- Coles, Jeffrey L. and Chun-Keung Hoi, 2003, New evidence on the market for directors: Board membership and Pennsylvania Senate Bill 1310, *The Journal of Finance* 58, 197-230.
- Core, John E., Robert W. Holthausen and David F. Larcker, 1999, Corporate governance, chief executive officer compensation, and firm performance, *Journal of Financial Economics* 51, 371-406.
- Cotter, James F., Anil Shivdasani and Marc Zenner, 1997, Do independent directors enhance target shareholder wealth during tender offers? *Journal of Financial Economics* 43, 195-218.
- Daily, Catherine M. and Dan R. Dalton, 1992, The relationship between governance structure and corporate performance in entrepreneurial firms, *Journal of Business Venturing* 7, 375-386.
- Dalton, Dan R., Catherine M. Daily, Jonathan L. Johnson and Alan E. Ellstrand, 1999, Number of directors and financial performance: A meta-analysis, *The Academy of Management Journal* 42, 674-686.
- Defond, Mark L., Rebecca N. Hann and Xuesong Hu, 2005, Does market value financial expertise on audit committees of boards of directors? *Journal of Accounting Research* 43, 153-193.
- Eisenberg, Theodore, Stefan Sundgren and Martin T. Wells, 1998, Larger board size and decreasing firm value in small firms, *Journal of Financial Economics* 48, 35-54.
- Evans, David S., 1987, The relationship between firm growth, size, and age: Estimates for 100 manufacturing industries, *The Journal of Industrial Economics* 35, 567-581.
- Fama, Eugene F., 1980, Agency problems and the theory of the firm, *Journal of Political Economy* 88, 288-307.
- Fama, Eugene F. and Michael C. Jensen, 1983, Separation of ownership and control, *Journal of Law and Economics* 26, 301-325.
- Ferris, Stephen P., Murali Jagannathan and A.C. Pritchard, 2003, Too busy to mind the business? Monitoring by directors with multiple board appointments, *The Journal of Finance* 58, 1087-1112.
- Fich, Eliezer M., 2005, Are some outside directors better than others? Evidence from director appointments by Fortune 1000 Firms, *The Journal of Business* 78, 1943-1972.

- Fich, Eliezer M. and Anil Shivdasani, 2006, Are busy boards effective monitors? *The Journal of Finance* 61, 689-724.
- Fuller, Kathleen, Jeffrey Netter and Mike Stegemoller, 2002, What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions, *Journal of Finance* 57, 1763-1794.
- Gilson, Stuart C., 1990, Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default, *Journal of Financial Economics* 27, 355-387.
- Gompers, Paul, Joy Ishii and Andrew Metrick, 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107-155.
- Harris, Ira C. and Katsuhiko Shimizu, 2004, Too busy to serve? An examination of the influence of overboarded directors, *Journal of Management Studies* 41, 775-798.
- Hart, Oliver D., 1983, The Market Mechanism as an Incentive Scheme, *Bell Journal of Economics* 14, 366-382.
- Healy, Paul M. and Krishna G. Palepu, 2001, Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature, *Journal of Accounting and Economics* 31, 405-440.
- Hermalin, Benjamin E. and Michael S. Weisbach, 1991, The effects of board composition and direct incentives on firm performance, *Financial Management* 20, 101-112.
- Hermalin, Benjamin E. and Michael S. Weisbach, 1998, Endogenously chosen boards of directors and their monitoring of the CEO, *The American Economic Review* 88, 96-118.
- Jagannathan, Ravi and Shaker B. Srinivasan, 1999, Does Product Market Competition Reduce Agency Costs? *North American Journal of Economics and Finance* 10, 387-399.
- Jensen, Michael C., 1986, Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *American Economic Review* 76, 323-329.
- Jensen, Michael C. and William H. Meckling, 1976, Theory of the firm: Managerial behavior agency costs and ownership structure, *Journal of Financial Economics* 3, 305-360.

- Jiraporn, Pornsit, Young Sang Kim and Wallace N. Davidson III, 2007, Multiple directorships and corporate diversification, *Journal of Empirical Finance*, Forthcoming.
- Johnson, Jonathan L., Catherine M. Daily and Alan E. Ellstrand, 1996, Boards of directors: A review and research agenda, *Journal of Management* 22, 409-438.
- Kaplan, Steven N. and David Reishus, 1990, Outside directorships and corporate performance, *Journal of Financial Economics* 27, 389-410.
- Kieschnick, Robert and Rabih Moussawi, 2004, The board of directors: A bargaining perspective, Working paper, University of Texas at Dallas.
- Klein, April, 1998, Firm performance and board committee structure, *The Journal of Law and Economics* 41, 275-304.
- Lang, Larry H. P., Rene M. Stulz and Ralph A. Walkling, 1989, Managerial performance, Tobin's Q, and the gains from successful tender offers, *Journal of Financial Economics* 24, 137-154.
- Lang, Larry H.P., Rene M. Stulz and Ralph A. Walkling, 1991, A test of the free cash flow hypothesis: The case of bidder returns, *Journal of Financial and Quantitative Analysis* 40, 693-719.
- Lasfer, Ameziane M., 2006, The interrelationship between managerial ownership and board structure, *Journal of Business Finance & Accounting* 33, 1006-1033.
- Lehn, Kenneth, Sukesh Patro and Mengxin Zhao, 2005, Determinants of the size and structure of corporate boards: 1935-2000, Working Paper, University of Pittsburgh.
- Lipton, Martin and Jay W. Lorsch, 1992, A modest proposal for improved corporated governance, *Business Lawyer* 48, 59-77.
- Loderer, Claudio and Urs Peyer, 2002, Board overlap, seat accumulation and share prices, *European Financial Management* 8, 165-192.
- Mace, Myles L., 1986, *Directors: Myth and reality*, Harvard University Press, Boston, MA.
- Malmendier, Ulrike and Geoffrey Tate, 2003, Who makes acquisitions? CEO overconfidence and the market's reaction, NBER Working Paper No. 10813.

- Masulis, Ronald W., Cong Wang and Fei Xie, 2007, Corporate governance and acquirer returns, *The Journal of Finance*, Forthcoming.
- Moeller, Sara B., Frederik P. Schlingemann and Rene M. Stulz, 2004, Firm size and the gains from acquisitions, *Journal of Financial Economics* 73, 287-329.
- Morck, Randall, Andrei Shleifer and Robert W. Vishny, 1988, Management ownership and market valuation: An empirical analysis, *Journal of Financial Economics* 20, 293-315.
- Morck, Randall, Andrei Shleifer and Robert W. Vishny, 1990, Do managerial incentives drive bad acquisitions? *Journal of Finance* 45, 31-48.
- NACD (National Association of Corporate Directors), 1998, *Report of the NACD Blue Ribbon Commission on Director Professionalism*, 1-52.
- Perry, Tod and Urs Peyer, 2005, Board seat accumulation by executives: A shareholder's perspective, *The Journal of Finance* 60, 2083-2123.
- Rechner, Paula L. and Dan R. Dalton, 1991, CEO duality and organizational performance: A longitudinal analysis, *Strategic Management Journal* 12, 155-160.
- Roll, Richard, 1986, The hubris hypothesis of corporate takeovers, *The Journal of Business* 59, 197-216.
- Rosenstein, Stuart and Jeffrey G. Wyatt, 1990, Outside directors, board independence, and shareholder wealth, *Journal of Financial Economics* 26, 175-191.
- Rosenstein, Stuart and Jeffrey G. Wyatt, 1994, Shareholder wealth effects when an officer of one corporation joins the board of directors of another, *Managerial and Decision Economics* 15, 317-327.
- Servaes, Henri, 1991, Tobin's q and the gains from takeover, *Journal of Finance* 46, 409-419.
- Shivdasani, Anil, 1993, Board composition, ownership structure, and hostile takeovers, *Journal of Accounting and Economics* 16, 167-198.
- Shivdasani, Anil and David Yermack, 1999, CEO involvement in the selection of new board members: An empirical analysis, *The Journal of Finance* 54, 1829-1853.
- Travlos, Nickolaos G., 1987, Corporate takeover bids, method of payment, and bidding firm's stock returns, *Journal of Finance* 52, 943-963.

- Uzun, Hatice, Samuel H. Szewczyk, and Raj Varma, 2004, Board composition and corporate fraud, *Financial Analysts Journal* 60, 33-43.
- Vafeas, Nikos, 1999, Board meeting frequency and firm performance, *Journal of Financial Economics* 53, 113-142.
- Villalonga, Belén, 2004, Diversification discount or premium? New evidence from the business information tracking series, *The Journal of Finance* 59, 479-506.
- Weisbach, Michael S., 1988, Outside directors and CEO turnover, *Journal of Financial Economics* 20, 431-460.
- Yermack, David, 1996, Higher market valuation of companies with a small board of directors, *Journal of Financial Economics* 40, 185-211.

About the Author

Chia-wei Chen is a Ph.D. candidate in the Department of Finance at the University of South Florida. His primary area of research is in corporate governance focusing on the board of directors. He has presented his papers at national academic conferences including EFA, FMA, SFA, and SWFA. He holds a MBA from the University of Houston and Bachelor's degree in International Trade from National Chengchi University.