DO DIRECTORS' OUTSIDE APPOINTMENTS HURT BOARD EFFECTIVENESS: AN ANALYSIS UNDER FAMILIAL DOMINANCE IN THE TAIWAN CASE

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Abstract

Appointing directors to affiliated companies is common practice to reinforce control or build connections under the familial-oriented culture in East Asia. This paper investigates whether outside appointments entrench board monitoring effectiveness on management investment behaviour for Taiwanese firms. The results show that investments are significantly related to internal cash flow. However, no economically significant relationship exists between multiple directorships and investment-cash flow sensitivity, indicating that the outside appointments of chairpersons neither aggregate nor alleviate managerial discretion problem on investment in this sample. We also provide explanations for the results.

Keywords: Directors, Investment, Investment-Cash Flow Sensitivity, Family

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1. Introduction

In theory, the financial structure of a firm is irrelevant to investment because external funds provide a perfect substitute for internal capital. With perfect market assumption, the investment decisions of a firm are independent of its financial condition (Modigliani and Miller 1958). However, Myers and Majluf (1984) propose that misaligned managerial incentives and asymmetric information in the capital market usually cause misuse of cash flow and investment distortions. Subsequent studies have found relationships between investment expenditure and cash flow (Fazzari et al., 1988; Hoshi et al., 1991; Almeida et al., 2004). This study extends the scope of corporate governance by examining the relationship between board composition and investment, specifically on the impact of multiple directorships on firm investment decisions.

Under the agency view, inadequate investment could be the result of misused free cash flow. By utilizing free cash flow to finance projects internally, managers could avoid monitoring capital markets when the firm needs new capital. Such investment increases their control power and causes firms to grow beyond their optimal size. Jensen (1986) suggests that debt creation and hostile takeovers can reduce agency costs by reducing the cash flow available for spending at the discretion of managers. In addition to controlling internal cash flow, board monitoring is considered an alternative mechanism to reduce organization inefficiencies. For example, Core et al. (1999) use the percentage of outside directors over the age of 69 and the percentage of busy outside directors as proxy to measure effectiveness of outside directors. They find that firms with lower outside director effectiveness are more likely to pay higher compensation to chief executive officers (CEOs) and cause inferior performance.

The monitoring effectiveness of directors' outside appointments has been concerned. Fich and White (2003) find that CEOs in companies with board interlocking have excessive salary and lower turnover. Fich and Shivdasani (2006) state that firms with busy outside directors exhibit lower market-to-book ratios, weaker profitability, and lower sensitivity of CEO turnover to firm performance. These findings question directors' effectiveness and comprise the Busyness Hypothesis.

In contrast, some studies suggest that external appointments are associated with firm success. Cotter et al. (1997) find that shareholders have larger premiums in tender offers when directors hold multiple directorships. Ferris et al. (2003) compare the committee service of multiple directors with that of non-multiple directors. They find that directors serve on more committees, attend more committee meetings, and have no relationship between the number of directorships and the likelihood of securities fraud litigation. Donato and Tiscini (2009) provide evidence that interlocking directorates between banks and listed firms increase the cost of debt and the level of indebtness of non-financial firms. They explain that the bank-firm connection will increase the bargaining power of the former when banks hold equity interests of the firm, and the bank appoints fiduciary directors in the board of the firm. Perry and Peyer (2005) find that shareholders have a positive reaction when executives join a firm in a similar industry or with greater growth opportunities. They propose that executives can benefit the sender firms through industry-specific knowledge transfer or by learning new technologies, products, or management innovation.

However, few studies relate multiple directorships to corporate investment. Building on prior studies, this research studies whether multiple directorships affect the investment decision of managers. If directors who serve on several committees become busy and evade monitoring duties, then firms with multiple directorships are more likely to have inadequate investment and higher investment-cash flow sensitivity due to ineffective monitoring on management. However, if joining outside firms signals the ability of directors or helps them learn managerial expertise among interlocked firms (Ferris et al., 2003), multiple directorships may relate to higher managerial expertise. As a result, firms appointing directors to other companies may benefit from monitoring effectiveness, including fewer inefficient investment decisions. This will cause a lower degree of investment-cash flow sensitivity.

We use a panel data set consisting of 7,476 firm-year observations in Taiwan between 1999 and 2007. Like many countries around world, Taiwan is considered to have a familial-oriented culture. Controlling families usually use cross-holdings and pyramidal ownership to reinforce control (La Porta et al. 1999, Claessens et al. 2000, Yeh and Woidtke 2005). Appointing specific directors to other family business or affiliated companies is a common way to reinforce control or build connection. In this sample, approximately 20% of observations involve chairpersons with outside appointments. This characteristic enables the testing of monitoring effectiveness of directors with outside appointments.

Our results show that investments are significantly related to internal cash flow. This implies the possibility of an overinvestment or underinvestment under managerial discretion in Taiwanese firms. This finding agrees with theoretical predictions and empirical findings in the US and the UK. We do not discover economically significant relationships between multiple directorships and investment-cash flow sensitivity. Thus, the premise that the outside appointments of chairpersons aggregate or alleviate managerial discretion problem on investment is not proven in Taiwanese firms. The findings differ from the Busyness Hypothesis, but are in line with the claim of (Ferris et al. 2003) that there is no evidence that directors appointed to multiple boards avoid their responsibilities. We provide two explanations. First, there is a tradeoff between the advantage and disadvantage of multiple directorships. Second, the governance function through interlocking directorates might be absent innately based on the familial culture in East Asia.

The remainder of this paper is organized as follows. Section 2 provides director interlocking and corporate governance in the Taiwan context; Section 3 describes the data and the model; Section 4 analyzes results; and Section 5 presents the conclusions.

2. The Taiwan context

Like most countries in East Asia, the Taiwan corporate governance system features a high concentration of ownership. Controlling shareholders usually build power through direct shareholding, cross shareholding and stock pyramids. As mentioned by Claessens et al. (2000), controlling shareholdings usually result in excessive cash flow right and a conflict of interests between controlling and minority shareholders. Several studies found entrenchment to minority shareholders and include Taiwan as an example. For example, La Porta et al. (2002) find that firms with controlling shareholder and higher cash-flow ownership have higher valuation, which is not found in firms with controlling shareholder and low cash-flow ownership. Fan and Wong (2002) provide evidence that controlling ownership in East Asia is associated with opacity and low information on earnings because controlling owners tend to report accounting information for self-interest. Du and Dai (2005) note that controlling shareholders with small ownership share in East Asia are more likely to construct a risky capital structure owing to increased leverage through external finance and will not dilute their shareholding dominance. Chou et al. (2007), Lin and Chang (2008) and Lin et al. (2005) directly investigate the entrenchment effect of managerial ownership on Taiwan public companies. They classify the degree of managerial ownership concentration into low, medium, and high, and find that firms have negative performance and low asset utilization efficiency when managers have high-level concentrated shareholdings.

Another characteristic of corporate governance in Taiwan is that many public companies are dominated by families. Although family control has the potential advantage of strong leadership and cohesive management teams (Yeh et al. 2001), family-controlled businesses are usually associated with insider trading and tunneling, leading to expropriation of minority shareholders (Cheung et al. 2006). Including direct and indirect shareholdings of nominal agents and other institutions controlled by families, Yeh et al. (2001) show that about 76% of listed firms in Taiwan are family controlled when fixing the critical control level to 20%. They provide evidence that when family control is central, low levels of family ownership and high levels of family board representation increase the conflict of interest between majority and minority shareholders.

The governance features of concentrated ownership and family dominance significantly influence board composition in Taiwan under Chinese cultural norms. As mentioned by Fan (2002), family ties and *guanxi* (connections) to the state and related parties are vital in managing businesses in Greater China. Chinese family firms often select a CEO or managing director from family members or friends to maintain close control on business groups and maintain social relationships with interested parties (Lien et al. 2005, Liu et al. 2006). The familial-oriented thought bring the outcome that directorship and top management positions are filled with family members or close friends rather than out side professionals. The outside appointments of directors create director affiliation but weaken the independence of the board committee, while independence is viewed as a vital factor to enhance the monitoring service of the board in Anglo-Americans. Yeh and Woidtke (2005) provide evidence for the problem that divergence between cash-flow and control rights is more pronounced in family-controlled firms, which are more likely to retain affiliated directors than are non-family-controlled firms[1].

The Enron case gained worldwide attention on ways to improve monitoring in firms. Following the Sarbanes-Oxley Act of 2002, Taiwan initiate corporate board reform to enhance corporate-monitoring functions. In 2002, the Taiwan Stock Exchange (TWSE) request all newly listed companies to have at least two independent directors and at least one supervisor. Although this rule is not required for existing public firms, many companies voluntarily engage independent directors and supervisors. A famous case is that of Taiwan Semiconductor Manufacturing Corp. (TSMC), who invited Carly S. Fiorina, the previous chairman and CEO of HP, to join as an independent director in 2006. At that time, the TSMC board committee included Michael E. Porter, eminent professor at Harvard Business School, and Sir Peter Leahy Bonfield, previous CEO of British Telecom (BT).

In view of increasing debate regarding the outside appointments of directors, in 2006, TWSE initiate "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" to restrict the number of multiple directorships. According to Article 4 of this rule, "no independent director of a public company may concurrently serve as an independent director of more than three other public companies." This rule undoubtedly limits and pressures the outside appointments of independent directors. However, it does not restrict the number of multiple directorships for non-independent directors. The legal institutional settings and features of corporate governance in Taiwan resulte in our research question on whether multiple directorships affect monitoring effectiveness in Taiwan in terms of the adequacy of investment behavior. Likewise, this question is important for an emerging country like Taiwan, which seeks development in the current global environment because board effectiveness could help firms improve competitive ability and reduce corporate risk (Liu et al. 2006).

3. Data and Methodology

3.1 Sample

The sample consists of listed firms in Taiwan Stock Exchange (TWSE) from 1999 to 2007. After excluding financial institutions, missing data, and truncating the samples at the first percentile, an unbalanced panel with 7,476 firm-year observations is used for our analysis. Table 1 shows that the observations include 28 industries, in which manufacturing accounts for over two-thirds and 3,633 observations come from electronics-related industries (TWSE code 24-31). The manufacturing industry, specifically electronic manufacturing, have many tangible and intangible investments to meet production requirements and intense worldwide competition. Based on the corporate governance features of Taiwan and industry characteristics, this sample helps provide an understanding of the relationship between multiple directorships and investment decision. All data are drawn from the Taiwan Economic Journal data bank.

[1] The board is considered affiliated when seats are held by the largest shareholder, their identifiable relatives, or by legal representatives from other companies or entities controlled by the largest shareholder (Yeh and Woidtke, 2005).

Table 1. Sample by industry types

TWSE code	Industry type	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
1	Cement	7	6	7	7	7	7	7	6	6	60
2	Food	21	20	20	22	20	20	22	21	22	188
3	Plastics	21	24	23	24	24	27	27	26	26	222
4	Textile	49	50	51	53	50	52	50	50	49	454
5	Electric Machinery	29	34	39	44	53	58	63	64	65	449
6	Electrical and Cables	12	12	12	13	12	13	13	13	12	112
8	Glass	5	5	5	5	4	3	3	4	5	39
9	Paper-making	7	7	7	7	7	7	5	5	6	58
10	Iron and steel	28	31	32	32	34	35	35	38	38	303
11	Rubber	9	10	10	10	10	9	9	11	11	89
12	Automobile	4	4	4	4	3	3	4	4	4	34
14	Construction	34	37	41	43	43	42	42	41	41	364
15	Shipping and Transportation	19	19	19	19	22	20	20	17	17	172
16	Tourist	9	9	10	10	11	12	11	11	10	93
18	Trading and Consumers' Goods	10	11	10	13	15	16	16	17	15	123
21	Chemical	24	28	31	31	33	36	38	38	38	297
22	Biotechnology and Medical Care	6	7	12	18	26	33	36	37	40	215
23	Gas and Electricity	8	10	10	10	11	12	12	12	13	98
24	Semiconductor	32	33	39	52	67	82	87	97	107	596
25	Computers and Peripherals	30	37	45	58	67	68	74	66	69	514
26	Optoelectronic	15	23	29	43	50	66	71	78	99	474
27	Communications and Internet	14	18	27	38	48	56	60	63	64	388
28	Electronic Parts and Components	42	51	66	94	110	132	149	152	164	960
29	Electronic Products Distribution	6	11	14	14	16	20	21	18	20	140
30	Information Service	6	10	14	25	26	31	33	34	36	215
31	Other Electronic	13	15	22	32	38	51	55	54	66	346
80	Management of stock	2	5	5	4	3	4	4	3	2	32
20	Others	33	38	44	50	54	53	56	56	57	441
	Total	495	565	648	775	864	968	1023	1036	1102	7476

Note: The listed industry types are utilized in regression model to control industry effects.

3.2 Methodology

We first specify our baseline model by equation 1:

$$\left(\frac{FI}{K}\right)_{i,t} = \beta_0 + \beta_1 \cdot \left(\frac{CF}{K}\right)_{\mathrm{i,t}} + \beta_2 \cdot \left(\frac{CF}{K}\right)_{\mathrm{i}} * MD_{it} + \beta_3 \cdot \left(\frac{Sale}{K}\right)_{i,t-1} + \beta_4 \cdot \left(\frac{Debt}{K}\right)_{i,t-1} + \mu_i + \nu_t + \varepsilon_{i,t}. \quad (1)$$

FI is investment in plant and equipment for firm *i* during year *t*. CF is cash flow measured as a sum of operation income with depreciation and amortization. It measures the influence of cash flow on investment-cash flow sensitivity (Fazzari et al. 1988). MD is the number of outside appointments of chairpersons in director and manager positions. The interaction term of cash flow and multiple directorships is utilized to investigate the impact of outside appointments on investment. Sale is annual sale to represent the impact of sale on investment (Goergen and Renneboog, 2001). Debt is long-term debt to control its effect on investment (Kaplan and Zingales, 1997). Investment and financial variables are scaled by the beginning of year-fixed asset (K). μ and ν are utilized to accounts for industry-fixed effects and time-fixed effects. As in (Fazzari and Peterson 1993), we apply two-stage-least squares regression (2SLS). Three-stage least squares (3SLS) method is also adopted to obtain more efficient coefficient estimation (Greene, 2008).

3.3 Summary Statistics

Outside Appointments of Chairpersons

Table 2 shows the distribution of the outside appointments of chairpersons to director or manager positions. For total 7,476 observations, 79.40% (5,936) of chairpersons do not work for other companies as directors or managers at the same time. Of the chairpersons with outside appointments, 1,195 observations (78%) hold one or two outside seats. This means 22% of interlocked chairpersons hold three or more outside seats. Furthermore, the average number of outside appointments decreases from 2.1 for 1999 to 1.71 for 2007, indicating a decreasing trend in the number of multiple directorships in recent years.

Table 2. Distribution of chairman's outside appointments

	Number of Multiple Directorships (MD)									MD=0	Total
Year	1	2	3	4	5	6	7	Means	Obs.	Obs.	Obs.
1999	65	22	15	11	7	5	0	2.10	125(25.25%)	370(74.75%)	495
2000	77	19	15	10	7	6	1	2.06	135(23.89%)	430(76.11%)	565
2001	98	20	12	12	5	6	0	1.85	153(23.61%)	495(76.39%)	648
2002	91	33	19	10	5	6	0	1.92	164(21.16%)	611(78.84%)	775
2003	109	29	23	8	5	5	0	1.80	179(20.72%)	685(79.28%)	864
2004	114	41	20	10	5	5	0	1.80	195(20.14%)	773(79.86%)	968
2005	127	29	16	9	9	4	0	1.74	194(18.96%)	829(81.04%)	1023
2006	120	34	17	12	0	4	0	1.66	187(18.05%)	849(81.95%)	1036
2007	135	32	11	26	4	0	0	1.71	208(18.87%)	894(81.13%)	1102
Total	936	259	148	108	47	41	1	1.83	1540(20.60%)	5936(79.40%)	7476

Financial Variables

Table 3 provides summary statistics of financial variables. The average fixed asset investment ratio is 0.11 and ranges from 1.47 to 0, with standard deviation of 0.14. The high standard deviation indicates the variation of investment considerations between observations. The average internal cash flow ratio is 0.34 and ranges from 2.90 to -2.73, with standard deviation of 0.57. The wide range of cash flow illustrates the variation of company policies to keep internal cash flow. The average sales ratio and long-term debt ratio are 3.70 and 0.29, respectively.

Table 3. Summary Statistics

Variable	Mean	Median	Std.Dev	Maximum	Minimum
FI/K	0.1052	0.0543	0.1438	1.4662	0.0000
CF/K	0.3404	0.2164	0.5667	2.9007	-2.7277
Sale/K	3.6976	1.8669	4.6031	31.0108	0.0057
Debt/K	0.2892	0.1265	0.7055	40.6416	0.0000
K(in millions)	11,696	2,971	38,715	620,942	122

Note: FI is fixed asset investment of each period, Sale is annual sale amount, Debt is long-term debt, CF is cash flow measured as a sum of operation income with depreciation and amortization, K is the sum of tangible assets.

4. Empirical Findings and Discussion

Table 4 summarizes the regression results. The 2SLS coefficient on cash flow is significantly positive at the 1% level (coefficient 0.033, t=9.84). The result indicates that investment in Taiwanese firms depends on their generated cash flow, indicating the possibility of over- or underinvestment in Taiwanese firms. This baseline finding agrees with theoretical predictions and empirical findings in the US and the UK. The coefficient on interaction terms of cash flow and the number of multiple directorships ($\left(\frac{CF}{K}\right)*MD$) is negative and statistically significant (coefficient -0.008, t=9.84). However, its economic significance is small because one standard deviation increase in multiple directorships decreases the investment-cash flow sensitivity by only 0.008. This implies that the number of multiple directorships does not affect investment-cash flow sensitivity in an economically meaningful way. The findings of 3SLS are similar to those of 2SLS.

Table 4. Multiple directorships and investment-cash flow Sensitivity

Estimation Method	2SLS		3SLS	
	Coefficient	t-statistic	Coefficient	t-statistic
$(CF/K)_{t}$	0.033	9.84^{***}	0.029	8.70^{***}
$(CF/K)_{t}$* MD $_{t}$	-0.008	-2.98^{***}	-0.008	-2.99^{***}
$(Sale/K)_{t-1}$	0.001	1.63	0.001	2.26^{**}
$(Debt/K)_{t-1}$	0.001	0.38	0.002	0.46
Adj. R^2	0.2878		0.2676	
No. of obs.	7476		7476	

Note1: This table reports regression results for the number of chairmen's outside appointments on investment. The dependent variable is fixed asset investment. 2SLS presents two-stage least squares regression. 3SLS presents three-stage least squares regression. CF is cash flow measured as a sum of operation income, depreciation and amortization. MD is the number of chairmen's outside appointments. Sale is annual sale amount. Debt is long-term debt. K is the sum of tangible assets. The intercept, industry dummies and year dummies over 1999-2007 are included for all regressions, but not reported.
Note 2: *, ** and ***significant at 0.1, 0.05 and 0.01 level or better.
Note3: system weighted R-sq that adjusted by cross-model covariance matrix is applied for measuring goodness of fit of the model.

Table 5 adapts Equation (1) by using a dummy variable MDdummy to observe the differential impact between firms with and without outside appointments. The coefficient of cash flow for 2SLS regression is positive and significant (coefficient 0.034, t=9.90). The coefficient on interaction term of cash flow and the dummy variable for the condition of multiple directorships ($\left(\frac{CF}{K}\right)*MDdummy$) is negative and statistically significant. Again, the coefficient however is economically small with a limited decrease in investment-cash flow sensitivity of 0.018 (t=-3.23). The results of 3SLS are similar to those of 2SLS.

Overall, the findings in Tables 4 and Table 5 indicate that outside appointments are not economically relevant to investment for Taiwanese firms. This finding implies that the premise that outside appointments of chairpersons aggregate or alleviate managerial discretion problem on investment is not proven. The findings differ from those who argue ineffective monitoring caused by outside directorships (Fich and White, 2003), but are in line with (Ferris et al. 2003), which find no evidence that multiple directors evade their responsibilities to serve on board committees.

We provide two explanations for the economically insignificant effect of outside appointments on investment. First, a tradeoff effect of the advantage and disadvantage brought by multiple directorships may exist. As mentioned by Fich and White (2003) and Fich and Shivdasani (2006), busy directors may cause monitoring problems and inferior performance. However, their affiliation through outside appointments could help reduce information asymmetry, increase knowledge transfer, and obtain additional resources such as external funding. In Taiwan, most chairpersons have outside appointments of less than three seats (61% with one seat; 78% with one or two seats in this sample). This means the overall problem of monitoring effectiveness of the board might not be striking. The second explanation is the possibility that a significant monitoring effect on managerial discretionary behavior, either positive or negative, may be absent innately. Based on the culture of familial-oriented control in Taiwan, governance through interlocking directorates might be absent since chairpersons and directors are family members or friends. Sending them out to related parties, thus, centers more on strategy rather than monitoring.

Table 5. Condition of outside appointments and Investment-Cash flow Sensitivity

Estimation Method	2SLS		3SLS	
	Coefficient	t-statistic	Coefficient	t-statistic
$(CF/K)_{t}$	0.034	9.90^{***}	0.030	8.78^{***}
$(CF/K)_{t}$* MDdummy$_{t}$	-0.018	-3.23^{***}	-0.018	-3.27^{***}
$(Sale/K)_{t-1}$	0.001	1.61	0.001	2.25^{**}
$(Debt/K)_{t-1}$	0.001	0.31	0.001	0.39
Adj. R^2	0.2879		0.2878	
No. of obs.	7476		7476	

Note1: This table reports regression results for the condition of chairmen's outside appointments on investment. The dependent variable is fixed asset investment. 2SLS presents two-stage least squares regression. 3SLS presents three-stage least squares regression. CF is cash flow measured as a sum of operation income, depreciation and amortization. MDdummy is a dummy variable equal to 1 for the company whose chairman has outside appointments. Sale is annual sale amount. Debt is long-term debt. K is the sum of tangible assets. The intercept, industry dummies and year dummies over 1999-2007 are included for all regressions, but not reported.
Note 2: *, ** and ***significant at 0.1, 0.05 and 0.01 level or better.
Note3: system weighted R-sq that adjusted by cross-model covariance matrix is applied for measuring goodness of fit of the model.

5. Conclusions

This paper examines whether the outside appointments of chairpersons affect managerial discretionary behavior on investment. Financial theories point that agency problem and information asymmetry cause the dependence of investment on internal cash flow. Board monitoring effectiveness is considered one of governance mechanisms to alleviate agency problem. However, monitoring effectiveness of outside appointment has been questioned recently. The Busyness Hypothesis proposes that outside appointments cause ineffective monitoring and inferior performance. In contrast, some studies suggest that directors' external appointments are associated with firm success or are irrelevant to performance.

In Taiwan, the corporate governance system features a high concentration of ownership and family dominance. It is common practice for Taiwan firms to select CEOs or managing directors from family members to maintain close control on business groups or interested parties. Such outside appointments create director affiliation but weaken the independence of board committee, while independence is vital for the board to provide monitoring services among Anglo-Americans.

Using a sample of 7,476 firm-year observations of Taiwan from 1999 to 2007, we observe that approximately 20% of observations with outside appointments. We find that internal cash flow is significantly related to investment. The results indicate that investment depends on generated cash flow and the possibility of an overinvestment or underinvestment in Taiwanese firms. However, our results suggest no economically significant relationship between outside appointments and investment-cash flow sensitivity. We provide two explanations for this finding. First, the advantage and disadvantage of multiple directorships might have tradeoff effects. Second, governance through interlocking directorates might be absent due to the familial strategy to build relationships rather for monitoring. Finally, we suggest that studies related to board effectiveness could be extended in area with a similar cultural context.

References

1. Almeida, H., Campello, M. and Weisbach, M. S. (2004) 'The cash flow sensitivity of cash', *The Journal of Finance,* 59(4), 1777-1804.
2. Cheung, Y.-L., Rau, P. R. and Stouraitis, A. (2006) 'Tunneling, propping, and expropriation: evidence from connected party transactions in Hong Kong', *Journal of Financial Economics,* 82(2), 343-386.
3. Chou, S., Wu, C. and Chen, A. (2007) 'Control or invest: Understanding the complex interests of managerial ownership', *Studies in Economics and Finance,* 24(3), 188-206.
4. Claessens, S., Djankov, S. and Lang, L. H. P. (2000) 'The separation of ownership and control in East Asian Corporations', *Journal of Financial Economics,* 58(1-2), 81-112.
5. Core, J. E., Holthausen, R. W. and Larcker, D. F. (1999) 'Corporate governance, chief executive officer compensation, and firm performance', *Journal of Financial Economics,* 51(3), 371-406.
6. Cotter, J., Shivdasani, A. and Zenner, M. (1997) 'Do independent directors enhance target sgareholder wealth during tender offers? ', *Journal of Financial Economics,* 43, 195-218.
7. Donato, F. d. and Tiscini, R. (2009) 'Cross ownership and interlocking directorates between banks and listed firms: An empirical analysis of the effects on debt leverage and cost of debt in the Italian case ', *Corporate ownership & Control,* 6(3), 473-481.
8. Du, J. and Dai, Y. (2005) 'Ultimate Corporate Ownership Structures and Capital Structures: evidence from East Asian economies', *Corporate Governance: An International Review,* 13(1), 60-71.
9. Fan, J. P. H. and Wong, T. J. (2002) 'Corporate ownership structure and the informativeness of accounting earnings in East Asia ', *Journal of Accounting and Economics,* 33(3), 401-425
10. Fan, Y. (2002) 'Questioning Guanxi: Definition, Classification and Implications', *International Business Review,* 11(5), 543-561
11. Fazzari, S. M., Hubbard, R. G. and Peterson, B. C. (1988) 'Financing constraints and corporate investment', *Brookings Papers on Economics Activity,* no.1, 141-195.
12. Fazzari, S. M. and Peterson, B. C. (1993) 'Working capital and fixed investment: new evidence on financing constraints', *Rand Journal of Economics,* 24, 328-341.
13. Ferris, S. P., Jagannathan, M. and Pritchard, A. C. (2003) 'Too Busy to Mind the Business? Monitoring by Directors with Multiple Board Appointments', *Journal of Finance,* 58(3), 1087-1111.
14. Fich, E. M. and White, L. J. (2003) 'CEO Compensation and Turnover: The Effects of Mutually Interlocked Boards ', *Wake Forest Law Review,* 38, 935-959.
15. Goergen, M. and Renneboog, L. (2001) 'Investment policy, internal financing and ownership concentration in the UK', *Journal of Corporate Finance,* 7, 257-284.
16. Greene, W. H. (2008) *Econometric Analysis,* 6 ed., New York, NY.: Prentice Hall.

17. Hoshi, T., kashyap, A. and Scharfstein, D. (1991) 'Corporate structure, liquidity and investment: evidence from Japanese industrial groups', *Quarterly Journal of Economics,* 106, 33-60.
18. Jensen, M. C. (1986) 'Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers', *American Economic Review.,* 76, 323-329.
19. Kaplan, S. N. and Zingales, L. (1997) 'Do investment-cash flow sensitivities provide useful measures of financing constraints? ', *The Quarterly Journal of Economics,* 112, 169-215.
20. La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999) 'Corporate Ownership Around the World', *Journal of Finance,* 54(2), 471-517.
21. La Porta, R., Lopez-De-Silanes, F., Shleifer, A. and Vishny, R. (2002) 'Investor Protection and Corporate Valuation', *Journal of Finance,* 57(3), 1147-1170.
22. Lien, Y., Piesse, J., Strange, R. and Filatotchev, I. (2005) 'The role of corporate governance in. FDI decisions: Evidence from Taiwan', *International Business Review,* 14(6), 739-763.
23. Lin, F.-L. and Chang, T. (2008) 'Does managerial ownership reduce agency cost in Taiwan? A panel threshold regression analysis', *Corporate Ownership and Control,* 5(4), 119-127.
24. Lin, Y.-H., Hu, S.-Y. and Chen, M.-S. (2005) 'Managerial optimism and corporate investment: Some empirical evidence from Taiwan', *Pacific-Basin Finance Journal,* 13(5), 523-546.
25. Liu, Y., Ahlstrom, D. and Yeh, K. S. (2006) 'The separation of ownership and management in Taiwan's public companies: An empirical study', *International Business Review,* 15(4), 415-435.
26. Modigliani, F. and Miller, M. H. (1958) 'The Cost of Capital,Corporation Finance and the Theory of Investment', *American Economic Review,* 48, 261–297.
27. Myers, S. C. and Majluf, N. S. (1984) 'Corporate financing and investment decisions when firms have information that investors do not have', *Journal of Financial Economics,* 13(2), 187-221.
28. Perry, T. O. D. and Peyer, U. R. S. (2005) 'Board Seat Accumulation by Executives: A Shareholder's Perspective', *Journal of Finance,* 60(4), 2083-2123.
29. Yeh, Y.-H. (2005) 'Commitment or Entrenchment?: Controlling Shareholders and Board Composition '.
30. Yeh, Y.-H., Lee, T.-S. and Woidtke, T. (2001) 'Family Control and Corporate Governance: Evidence from Taiwan', *International Review of Finance,* 2(1/2), 21.
31. Yeh, Y.-H. and Woidtke, T. (2005) 'Commitment or entrenchment?: Controlling shareholders and board composition', *Journal of Banking & Finance,* 29(7), 1857-1885.