THE IMPACT OF CORPORATE GOVERNANCE ON EARNINGS MANAGEMENT IN KOREA

Hyo Jin Kim
Sungkyunkwan University, Korea

Soon Suk Yoon
Chonnam National University, Korea

Abstract

The purpose of this study is to analyze whether an improvement in corporate governance can mitigate earnings management. Our study further investigates corporate governance factors that mitigate the earnings management practices.

Our sample consists of the companies listed on the Korea Stock Exchange as of 2004 and 2005. The degree of earnings management is measured by discretionary accruals and total accruals. We use mean difference tests and regression analyses to investigate the impact of corporate governance on earnings management. The main variables of interest in our study are the activities of outside directors in board meetings, the establishment of an audit committee, concentrated ownership and foreign ownership.

We find that the independence of the board of directors, ownership concentration, foreign ownership, leverage ratio and firm size significantly affect discretionary accruals and total accruals. In sum, our results partially support the hypothesis that corporate governance and earnings management are significantly related. However, we find that the adoption of an audit committee does not significantly affect the degree of accruals.

Keywords: *corporate governance, earnings management, audit committee, board independence*

Introduction

In this study, we examine whether corporate governance affects earnings management practices for Korean firms. The question how firms choose their governance strategies for mitigating earnings management remains unresolved even after decades of extensive research. The notion of corporate governance is used in two different perspectives: Performance enhancing perspective and misbehavior control perspective. The misbehavior control perspectives take the position that corporate governance is effective in stopping fraud or reducing earnings management by corporate managers. While the first perspective of corporate governance is important, this study emphasizes the second perspective.

Effective corporate governance leads to a greater accountability that, in turn, implies a more transparent corporate reporting. Reductions in earnings manipulation will result in greater transparency. Transparent financial reporting will, in turn, improve investor confidence. Increased transparency has been identified as one of the most important aims of corporate governance reforms worldwide (OECD, 1999).

Recent empirical studies on corporate governance led to a better understanding of the current state and future evolution of corporate governance. Some studies in this area have examined the internal and external factors affecting corporate governance, the general impact of corporate governance on earnings management, and the roles played by management, the board of directors, and internal audits. Apparently increased transparency improves the effectiveness of corporate governance. Levitt, (1999) at the time the chairman for the US Securities Exchange Commission, stated that the importance of transparent, timely, and reliable financial statements, and their relationships to investor protection, has never been more apparent.

The Sarbanes-Oxley Act (2002) aims at improving corporate governance through measures that will strengthen internal checks and balances and ultimately strengthen corporate accountability. Compliance with the Sarbanes-Oxley Act should result in increased corporate accountability. In addition, the Act may also become a catalyst for improved transparency and reporting practices. Some companies view the laws as opportunities to improve internal controls, improve the performance of the board, and improve their public financial reporting. Companies may ultimately be better run, more transparent, and therefore, more attractive to investors. Effective governance by boards of directors is recognized as influencing the quality of financial reporting. Investor confidence will be increased if stronger governance policies are developed (Levitt, 1998).

The on-going global debate may have improved the transparency and confidence in the Korean market by strengthening the general financial reporting environments in Korea. The Korean Code of Best Practices (2005) recommends an increase in the number of outside directors and the strengthened oversight of corporate disclosure systems. Since the financial crisis in 1997, there has already been a wide range of reforms in the areas of accounting systems, investor protection, and corporate governance in Korea. We have witnessed accordingly, significant improvements in corporate governance practices. Recently, corporate governance attributes have generated significant public, media, and regulatory attention with respect to earnings management in Korea. However, improvements are needed to strengthen the overall quality and implementation of these practices. At this time, we do not have appropriately established systems to adequately evaluate corporate governance practices in Korea.

In this study, we investigate how corporate governance affects earnings management practices in Korea using a sample of 635 firms listed as at the end of 2004 and 2005. As a first step in our analysis, we examine the relationships among characteristics of boards, establishment of an audit committee, concentrated ownership, foreign ownership and earnings management using multiple regression models.

We find that participation levels by outside directors on corporate boards are related to lower accruals. The results imply that board independence mitigates earnings management. This result is consistent with Beasley (1996) and Dechow et al. (1996). This may indicate that firms for which the participation by outside directors in the activities of the board of directors is relatively high tend to decrease accruals. However, we find that there are no significant differences in earnings management practices between the firms that established an audit committee and firms that did not do so during the same time period.

We next conducted an exploratory analysis to investigate the effect of the voluntary establishment of an audit committee on earnings management. The findings from this examination for firms with total assets of less than two trillion Korean won[1] are that there are also no differences in earnings management between the firms that established an audit committee voluntarily and those that did not during the sample period. This result suggests that the introduction of an audit committee is not significantly related to the degree of earnings management regardless of its spontaneity.

We also document that earnings management has a positive relationship with ownership concentration and a negative relationship with foreign equity ownership. The results indicate that the controlling shareholders' ownership concentration tend to aggravate the agency cost, while the foreign shareholders' monitoring role tend to reduce the agency costs.

We also find that leverage ratios are negatively related to the degree of earnings management. This result is consistent with Jensen (1986 and 1993), Stulz (1990), Hart and Moore (1995), and McConnell and Servaes (1995). Apparently, debt can also create value by giving management an opportunity to signal its willingness and confidence to be monitored by lenders.

Our results partially support the hypothesis of a negative relationship between corporate governance and earnings management. For example, firms with better corporate governance generate lower accruals. The results of this study provide timely and useful implications for regulators as well as academics and business practitioners.

The study proceeds as follows. In Section 2, we discuss how our study compares to previous studies of corporate governance in Korea and develop our hypothesis. Section 3 presents our sample and methodology. Section 4 provides the results of our tests, and Section 5 concludes.

Background and Hypothesis Development

The firm's internal governance structures include the functions and processes established to oversee and influence the firms' management actions. The role for these mechanisms in relation to financial reporting is to ensure compliance with mandated reporting requirements and to maintain the credibility of a firm's financial statements (Dechow et al., 1995).

In the present study, we examine the impact of the following factors on earnings management: 1) the activities of outside directors in board meetings, 2) audit committees, 3) ownership concentration 4) foreign ownership, and 5) leverage ratios.

Fama and Jensen (1983) identify the board of directors as the most important controlling mechanism available because the board forms the apex of a firm's internal governance structure. In terms of monitoring financial discretion, an effective board of directors should monitor the validity of the accounting choices made by management and the financial implications of such decisions (NYSE, 2002). From an agency perspective, the ability of the board to act as an effective monitoring mechanism is dependent upon its independence from management (Beasley, 1996; Dechow et al., 1996). Board independence refers to the extent to which a board is comprised of independent directors who have no relationships with the firm beyond the role of director. An independent director is defined as a director who is not employed in the company's business activities and whose role is to provide an outsider's contribution and oversight to the board of directors (Hanrahan *et al.,* 2001). Some assume that an independent director who is entirely independent from management can offer shareholders the greatest protection in monitoring management (Baysinger and Butler, 1985). Fama and Jensen (1983) posit that the superior monitoring ability of independent directors can be attributed to their respective incentives to maintain their reputations in the external labour market.

Published literature generally supports international corporate governance guidelines that recognize the relative importance of independent directors' monitoring roles (OECD, 1999; and NYSE, 2002). These guides suggest that best practice with respect to board composition includes a majority of independent directors. This is supported by research evidence (Beasley 1996) that independent directors decrease the likelihood of financial statement fraud. Dechow et al. (1996), report that firms with a greater proportion of independent directors are less likely to be subject to SEC's scrutiny in the U.S.

Chtourou et al. (2001) predict that board independence is also likely to be associated with a reduction in earnings management. Peasnell et al. (2000) find empirical support for their prediction with respect to U.K. firms, while Chtourou et al. (2001) fail to find an association between earnings management and board independence for a sample of U.S. firms. Some research relates the roles of outside directors[2] to the better monitoring of management decisions and activities by corporate boards (Fama, 1980). The monitoring by the board of directors is one of several mechanisms that help resolve the agency problems between top management and shareholders. However, the board effectiveness in fulfilling this monitoring role is not clear. Despite these conflicting results, we hypothesize a negative association between board independence and earnings management to prove the monitoring role of outside directors as follows.

H1: Accruals are low for firms with higher activities of outside directors in the activities of the board of directors.

We use the participation of outside directors in board meetings multiplied by the number of outside directors as a variable to examine the relationships between outside directors and earnings management practices.

One function of audit committees is to ensure the quality for both financial reporting and control systems.[3] Audit committee is a monitoring mechanism available for reducing information asymmetry between insiders and outsides. The presence of an audit committee is expected to improve monitoring quality. The audit committee is a board sub-committee with a primary responsibility for monitoring. Since an audit committee consists mainly of outside directors in Korea, we expect that the amount of information asymmetry should be reduced in most cases. Forker (1992) argued that audit committees may improve internal controls. Therefore, audit committee should be an effective monitoring device for mitigating earnings management practices. Hence, we hypothesize that companies with an audit committee should have lower levels of earnings management. We believe that an effective audit committee should provide a firm with an added layer of governance that is expected to constrain earnings management behavior. Therefore, the hypothesis that earnings management is negatively associated with the presence of an audit committee can be tested empirically.

H2: Accruals are low for firms with an (voluntary) audit committee.

Stephen et al. (1993) examine the relationships between corporate ownership structure and earnings management by investigating differences in the frequency, gain/loss earnings impact, and financial statement disposition of extraordinary items among sample firms classified according to ownership structure. The results indicate that managers tend to report extraordinary gains in the income statement and extraordinary losses in the retained earnings statement. In addition, non-owner managers tend to report extraordinary items in a favourable manner as compared to owner-managers. Choi and Kim (2001) document that manager-controlled firms have higher discretionary accruals and lower earnings response coefficients than owner-controlled firms do.

For firms with well diversified ownership structures, managers have incentives to manage reported earnings because they are under high pressure to meet the expectations of the capital markets. Paek and Cho (2006) analyze whether the largest stockholder's equity holdings are related with earnings management and whether this depends on a firm's equity ownership structure. They document that equity holdings by largest stockholders are positively related with earnings management. Warfield et al. (1995) hypothesize that the level of managerial ownership affects both information about earnings and the magnitude of discretionary accruals.

The Korean governance structure is characterized by the dominance of the largest shareholder who typically exercises significant influences on management decisions directly or indirectly. We believe we should not use the variables directly identified from prior studies for other countries because the ownership structures of Korean firms are distinctively different from other countries. Ko (2002) measured the ownership concentrations by the control rights rather than the cash flow rights of the controlling shareholders to reflect the observation that most Korean firms are controlled by the controlling shareholders. The ownership concentration by the controlling shareholders represents the combined ownership by the shareholders, their families and other entities controlled by them.

The controlling shareholders are usually the founders of conglomerate firms. Typically, they exercise disproportionately stronger voting rights in excess of their cash-flow rights by utilizing such methods as pyramiding schemes and cross-holdings. An increase in the gap between cash-flow rights and voting rights means that the controlling shareholders would minimize the risk of ownership while maximizing the benefits of control rights. Firms with such characteristics may have very unique corporate governance structure and management styles. We believe that there may be increased conflicts between management and external minority shareholders. Agency conflicts of Korean firms are derived from the divergence of external minority shareholders and internal controlling shareholders (Claessens et al., 2000).

The power of the controlling shareholders is sometimes overwhelmingly large that minority shareholders and other stakeholders are not well protected. When this is the case, the controlling shareholders will have incentives and opportunities of exploiting minority shareholders and other stakeholders. We hypothesize that the higher exercise of voting rights by the controlling shareholders will bring about higher accruals.

H3: Accruals are high for firms with more concentrated ownership.

National economies have opened up their doors to foreign trade and investments in recent years. These changes have significant implications for corporate governance practices across countries. The liberalization of capital movements across borders in developing economies has implications on two levels. First, foreign financial institutions as privately owned and managed entities when compared to public financial institutions may have higher incentives to monitor corporate managers to ensure higher returns on their investment. Second, these foreign institutions may possess more efficient tools for monitoring managers than do local private financial institutions in developing economies (Khanna and Palepu, 1999; Rapaczynski, 1996). Therefore, we use the proportion of equity ownership by foreign investors as one of our variables and hypothesize that higher foreign ownership will lead to lower accruals.

H4: Accruals are low for firms with more foreign ownership.

Jensen (1986, 1993), Stulz (1990), and Hart and Moore (1995), among others, suggest that debt discourages free cash flows over-investment by self-serving managers. Debt can also create value by providing management an opportunity to signal its willingness to distribute cash flows and to be monitored by lenders. Empirically, McConnell and Servaes (1995) find that book leverage is positively correlated with accounting transparency when investment opportunities are scarce. These results are consistent with the hypothesis that debt alleviates the over-investment problem. Agrawal and Knoeber (1996) and Beiner et al. (2004) find no relationship between leverage and manager's behavior. The authors argue that leverage is employed optimally in conjunction with other governance mechanisms.

Therefore, we hypothesize that higher debt ratio will bring about lower accruals as follows.

H5: Accruals are low for firms with higher leverage.

Sample and Research Methods

Sample Selection

Our first sample included all firms contained in the KIS-FAS database[4] at the end of year 2004 and 2005. We manually collected all data regarding board of directors and audit committees from the FSS's electronic disclosure system, DART[5], and equity ownership information from the KIS-LINE[6] database. We deleted observations with missing information on board composition, those with no ownership data and firms with missing and insufficient financial data. Our final sample consisting of 635 firms is selected as follows:

Population:	Manufacturing firm-year observations (2004-2005)	1,266	
Less:	Ownership data unavailable		(516)
	Financial data unavailable		(76)
	Outliers		(39)
	Final Sample		635

Methodology

Most of previous studies examining the effectiveness of corporate governance mechanisms concentrate on specific aspects of corporate governance in isolation. Examples include takeover defenses (Gompers et al., 2003), executive compensation (Loderer and Martin, 1997), stockholdings (Demsetz and Lehn, 1985; Demsetz and Villalonga, 2001), board size (Eisenberg et al., 1998) or board composition (Hermalin and Weisbach, 1991; Bhagat and Black, 2002). However, the existence of alternative corporate governance mechanisms may lead to a 'missing variables' bias and spurious correlations. We, therefore, use an extensive set of governance mechanisms simultaneously.

In order to test the relationships between corporate governance and earnings management, we use multiple regression analyses. The performance of regression equations depends on proxy choices for corporate governance and exogenous control variables. Several studies have examined the impact of corporate governance attributes on firm's characteristics and earnings management. Based on previous literature, we develop our own model to examine the impact of corporate governance on earnings management.

We conduct the following multiple regression analysis to investigate the effectiveness of board of directors and the corporate governance mechanisms.

$$DA\ (TA) = b_0 + b_1\,OUT + b_2\,ACT + b_3\,AC(VAC) + b_4\,SUB + b_5\,BLOCK + b_6\,FOR + b_7\,LEV + b_8\,SIZE + b_9\,GROW + e$$

The variables used in these tests are defined as follows:

OUT	=	the ratio of the participation of outside directors in board meetings[7] multiplied by the number of outside directors,
AC	=	a dummy variable with a value of 1 when a firm has an audit committee and a value of 0 otherwise,
VAC	=	a dummy variable with a value of 1 when a firm with total assets less than 2 trillion won has an audit committee and a value of 0 otherwise,
BLOCK	=	the proportion of aggregate shares owned by the controlling shareholders and other entities and individuals controlled by the controlling shareholders,
FOR	=	the proportion of equity ownership by foreign investors,
LEV	=	financial leverage measured as the ratio of total liabilities to total assets
SIZE	=	the natural logarithm of total assets,
GROW	=	the average annual growth of sales over the past three years.

Our first exogenous variable is firm size, measured as the natural logarithm of total assets because larger firms may face more serious agency problems. A measure of growth opportunities is used as the second control variable. Firms with growth opportunities may need to raise external financing. These firms may improve their managerial performances by reducing the cost of capital. Following Klapper and Love (2004), we use the average annual sales growth over the past three years (2002-2004) as a measure of growth opportunities.

The degree of earnings management, the dependent variable in our model, is measured as total accruals and discretionary accruals using a cross-sectional version of the modified Jones model (Dechow et al. 1995) as follows.

$$TA_t/A_{t-1} = b_0\,(1/A_{t-1}) + b_1\,((REV_t - REC_t)/A_{t-1}) + b_2\,(PPE_t/A_{t-1}) + e_t$$

Where,

TA = total accruals (= *Net Income – Cash Flows from Operations*)

A = total assets

REV = change in revenue

REC = change in trade receivables

PPE = property, plant, and equipment

e = error term

$$DA_t = TA_t / A_{t-1} - [\beta_0\,(1/A_{t-1}) + \beta_1\,((REV_t - REC_t)/A_{t-1}) + \beta_2\,(PPE_t/A_{t-1})]$$

Where,

DA = discretionary accruals

As discussed, literature shows positive relationships between good corporate governance and accounting transparency. Corporate governance improvements seem to encourage managers to behave in the interest of outside shareholders. If this is the case, then better corporate governance should reduce agency costs and this in turn would presumably lead to lower earnings management practices.

Empirical Results

Descriptive Statistics

Table 1 shows the descriptive statistics for the major variables.

Table 1: Descriptive Statistics (n = 635)

Variables	Mean	Std. Dev.	Minimum	Median	Maximum
OUT	1.6724	1.3076	0.0000	1.1585	7.9000
AC	0.2000	0.4003	0.0000	0.0000	1.0000
VAC	0.0992	0.2992	0.0000	0.0000	1.0000
BLOCK	0.6018	0.1752	0.0009	0.6280	0.9231
FOR	0.1150	0.1551	0.0000	0.0364	0.5563
LEV	0.4353	0.1833	0.0289	0.4362	0.9100
SIZE	19.4825	1.5064	16.1495	19.1623	24.8444
GROW	0.0688	0.2005	-0.4300	0.0518	0.9400
DA	0.0002	0.0726	-0.2014	0.0020	0.1910
TA	-0.0186	0.0748	-0.2015	-0.0192	0.2092

The participation by outside directors in the board meeting multiplied by the number of outside directors (OUT) averages 1.6724 and the maximum OUT amounts to 7.9000. As noted, some outside directors never participate (the minimum value of zero in OUT) in board meetings. This indicates that possible measurement errors might have been introduced in prior studies when researchers used the ratio of outside directors in the board composition as a measure of board independence when, in fact, outside directors for some firms never attended board meeting.

The firms with an audit committee (AC) account for 20.00% of manufacturing firms on average while the firms that adopt an audit committee voluntarily (VAC) average 9.92%.

Average ownership of the Korean firms by foreign investors is about 11.50%. About 60.18% of the firms are owned by controlling shareholders, and other entities and individuals controlled by the controlling shareholders. Total accruals average –0.0186 while discretionary accruals average 0.0002.

The Results of Correlation Analysis

Table 2 shows correlation coefficients between pairs of analyzed variables for the total sample.

The correlation analysis indicates the activity of outside directors in a board meeting (OUT), controlling shareholders’ voting rights (BLOCK), foreign equity ownership (FOR), and leverage ratio (LEV) are significantly correlated with the level of discretionary (DA). These results are consistent with the hypothesis that the activities of outside directors and foreign ownership are reversely related with earnings management, thanks to their

Table 2: Correlation Coefficients[8] between Variables

	OUT	AC	VAC	BLOCK	FOR	LEV	SIZE	GROW	DA
OUT	1								
AC	0.616**	1							
VAC	0.176**	0.664**	1						
BLOCK	-0.164**	-0.156**	-0.063	1					
FOR	0.376**	0.267**	-0.015	-0.008	1				
LEV	0.117**	0.182**	0.067	-0.184**	-0.145**	1			
SIZE	0.618**	0.565**	0.102*	-0.044	0.490**	0.158**	1		
GROW	-0.006	0.029	0.027	0.026	0.009	0.068	0.036	1	
DA	-0.212**	-0.073	-0.021	0.137**	-0.095*	-0.106**	-0.041	0.074	1
TA	-0.190**	-0.060	-0.002	0.137**	-0.081*	-0.105**	-0.016	0.094*	0.891**

**: statistically significant at 1% level
*: statistically significant at 5% level

superior monitoring of the disclosure process. Furthermore, sales growth (GROW) is significantly correlated with the total accruals (TA).

For the control variables, firm size (SIZE) is significantly related to the activities of outside directors in board meetings (OUT), the existence of an audit committee (AC), foreign equity ownership (FOR), and firm's leverage (LEV).

The Results of Mean Difference Tests

We performed mean difference tests to investigate the impact of an audit committee (AC), voluntary audit committee (VAC), the activities of outside directors (OUT), concentrated ownership (BLOCK) and foreign ownership (FOR).

Table 3: The Impact of Corporate Governance on Accruals-Mean Difference Tests

Variables			DA			TA		
			Mean	Std. Dev.	t-value	Mean	Std. Dev.	t-value
AC	*1*	*127*	*-0.0103*	*0.0742*	*-1.8114**	-0.0276	*0.0748*	*-1.5204*
	0	508	0.0029	0.0721		-0.0164	0.0748	
VAC	1	63	-0.0042	0.0728	-0.5155	-0.0191	0.0755	-0.0516
	0	572	0.0007	0.0728		-0.0186	0.0748	
OUT	*high*	*318*	*-0.0163*	*0.0768*	*-5.8820***	*-0.0330*	*0.0755*	*-4.9386***
	low	317	0.0168	0.0640		-0.0042	0.7141	
BLOCK	*high*	*318*	*0.0055*	*0.0693*	*1.8299**	*-0.0133*	*0.0707*	*1.8003**
	low	317	-0.0050	0.0755		-0.0240	0.0787	
FOR	*high*	*318*	*-0.0074*	*0.0685*	*-2.6744***	*-0.0242*	*0.0693*	*-1.8717**
	low	*317*	*0.0079*	*0.0762*		*-0.0131*	*0.0800*	

**: statistically significant at 1% level
*: statistically significant at 5% level

As presented in Table 3, discretionary accruals vary in a statistically significant manner is not depending on whether there is or is not an audit committee (AC). Discretionary accrual is statistically lower when the activities of outside directors (OUT) are higher. However, discretionary accrual is statistically higher when the controlling shareholders' voting rights (BLOCK) are higher. Outside directors' activities (OUT) have the strongest effect on curbing earnings management practices. The foreign ownership (FOR) has the second strongest impact on accruals.

The Results of Regression Analyses

Our primary interest lies in the regression coefficients of corporate governance variables. Table 4 reports the results of the regression analyses. Model 1 defines the adoption of an audit committee (AC) as an independent variable, together with other significant variables including the activities of outside directors (OUT), controlling shareholder's ownership (BLOCK), foreign ownership (FOR) and firm's leverage (LEV).

Table 4: The Impact of Corporate Governance on Discretionary Accruals and Total Accruals-Regression Analysis

Independent Variable	Dependent Variable			
	DA		TA	
	Model 1 Coeff.(t-ratio)	Model 2 Coeff.(t-ratio)	Model 3 Coeff.(t-ratio)	Model 4 Coeff.(t-ratio)
Constant	-0.133(-2.736)	-1.153(-3.310)	-0.177(-3.535)	-0.195(-4.091)
OUT	-0.016(-5.482)	-0.015(-5.354)	-0.016(-5.174)	-0.015(-5.159)
AC	0.013(1.421)		0.012(1.244)	
VAC		0.004(0.416)		0.008(0.795)
BLOCK	0.035(2.120)	0.033(2.021)	0.036(2.120)	0.035(2.048)
FOR	-0.049(-2.282)	-0.049(-2.290)	-0.051(-2.300)	-0.050(-2.272)
LEV	-0.046(-2.846)	-0.044(-2.739)	-0.049(-2.937)	-0.048(-2.854)
SIZE	0.008(3.093)	0.009(3.631)	0.010(3.468)	0.105(3.965)
GROW	0. 256(1.851)	0.026(1.870)	0.034(2.368)	0.034(2.374)
Adjusted R^2	0.079	0.077	0.077	0.076
N	635			

A negative coefficient of OUT and FOR implies that the improvement of corporate governance relates to lower earnings management. We find that the proportion of participation by outside directors in the board meetings multiplied by the number of independent directors (OUT) and foreign ownership (FOR) are negatively related to accruals. These results indicate that board independence mitigates earnings management. Our statistically significant relationships are consistent with Beasley (1996) and Dechow et al. (1996) and support our hypothesis 1 and hypothesis 4.

We do not find that audit committees relate to lower earnings management practices. These results are inconsistent with the results of the mean difference tests of our study. The evidence indicates that there are no differences in earnings management between the firms that established an audit committee and firms that did not do so during the same time period.

We conducted an exploratory analysis to investigate the effects of the voluntary establishment of audit committees on earnings management. Model 2 in Table 5 presents the result of this exploratory analysis. Model 2 uses the voluntary introduction of audit committees as an independent variable together with other key variables. Because firms with total assets of more than 2 trillion won are required to establish audit committees in Korea, we can argue that the voluntary adoption of an audit committee may lead to lower earnings management. In addition, we believe that confident firms may voluntarily adopt audit committees to signal their inside information to outsiders.

However, our results indicate that there are also no differences in earnings management among firms that voluntarily established audit committees, firms that were mandated to have the committees and firms that did not establish these committees at all. These results suggest that the introduction of audit committee does not significantly decrease the levels of earnings management regardless of its spontaneity and do not support the second hypothesis of our study.

We find that the controlling shareholders' ownership has a positive relationship with earnings management and these results support our third hypothesis. As we mentioned before, foreign ownership has a negative sign, indicating a lower level of earnings management. These results indicate that the ownership concentration tend to aggravate the agency costs, whereas the foreign shareholders' monitoring role tend to reduce those costs.

We also find that the leverage ratio is negatively related to earnings management. This result is consistent with Jensen (1986, and 1993), Stulz (1990), Hart and Moore (1995), and McConnell and Servaes (1995) and support the fifth hypothesis of our study. These results indicate that debt can also create value by giving the management an opportunity to signal its willingness to be monitored by lenders.

As for the control variables, firm size (SIZE) is positive and significant. This is inconsistent with prior studies (Jensen 1986) that found that larger firms tended to choose stricter governance rules. The coefficient for the growth variable is positive, and significant.

Concluding Remarks

Since the financial crisis in 1997, many Korean firms have worked on developing systematic sound corporate governance practices in order to improve accounting transparency. In this paper, we investigate the relationship between corporate governance and earnings management using a sample of 635 firms listed on the Korea Stock Exchange as of 2004 and 2005.

As a first step in our analysis, we examined the relationships between factors of corporate governance and accruals by using mean difference tests and multiple regressions. We find that the independence of board of directors, foreign ownership and firm's leverage significantly decrease the levels of earnings management practices, and the controlling shareholders' voting rights increase discretionary accruals and total accruals. Furthermore, we document that the critical factors are the real activities and the assurance of independence by outside directors rather than their ostensible representation in the board composition. However, we find that the adoption of audit committees does not significantly decrease earnings management practices.

We next conduct an exploratory analysis to investigate the effect of voluntary establishment of audit committees on earnings management. Our findings indicate that there are no differences in earnings management between the firms that voluntarily established audit committees and firms that did not do so within the same time period. The result suggests that the introduction of audit committees by itself is not related to the levels of earnings management regardless of its spontaneity.

The limitation of our study is that the establishment of an audit committee today would not be expected to lead to changes in earnings management practices today, but probably would over a period of time. We believe that the two year dataset as used in empirical study is insufficient to identify a robust relationship between corporate governance variables and earnings management.

Our results partially support the hypothesis that negative relationships between corporate governance and earnings management exist for Korean companies. Firms with better corporate governance should have lower accruals. We hope that the results of this study are very timely and useful for regulators as well as academics and business practitioners.

Notes

1 Firms with total assets of less than two trillion won are not mandated to establish an audit committee in Korea.

2 The Korean Securities and Exchange Act (2000) uses a term 'independent directors' for outside directors.
The Securities and Exchange Act defines an independent director as a non-executive director who is elected and qualified in accordance with the Act. (February 1998, revised on November 2000).
The requirements for listed companies are as follows:
(a) At least one independent director should be on the board and the total number of independent directors should amount to one quarter of the board at a minimum.
(b) For companies with assets more than two trillion Korean won, at least three

independent directors should be on the board and the total number of independent directors should be one- half of the board at a minimum.

3 According to the Korean Commercial Act (2000) on board committees, the board of directors may, under the conditions set forth in the articles of incorporation, establish committees within the board that consist of two or more directors. The board of directors may delegate to the committees its power, other than in matters set forth as follows:
(a) Proposal of matters subject to the approval of the general shareholders' meeting;
(b) Appointment or dismissal of the representative director;
(c) Establishment of committees and appointment or dismissal of their members;
(d) Any other matters, as set forth by the articles of incorporation.
While the Commercial Act allows companies to choose from the statutory (internal) auditor or audit committee system, the Securities and Exchange Act requires the adoption of the audit committee for large listed companies with assets over two trillion won, large financial institutions, and large financial holding companies.

4 KIS-FAS (Korea Investors Service - Financial Accounting Service) is the Korean Compustat database.

5 FSS (Financial Supervisory Service) is the Korean Securities and Exchange Commission. DART stands for Data Analysis, Retrieval and Transfer system.

6 KIS-Line provides online access to corporate information.

7 The ratio of the participation by outside directors = (Number of outside directors attending the board meetings/ Total number of board members) x (Number of board meetings attended by outside directors/ Number of board meetings in a year)

8. We investigated variance inflation factors among the independent variables to check the multicollinearity problem. We found that the multicollinearity is not a problem in our model.

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