

The Association between Audit Fees and the Ownership Structure

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Abstract

This study examines the association between ownership structure and audit fees. Especially, this study focuses on the ownership structure measured by the divergence of control and ownership. If an owner owns a company through the pyramidal structure, it is possible that the voting rights of the owner are greater than the cash flow rights of the same owner. The difference could influence the firm's audit-related

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policy and auditor's behavior. This study examines this issue by focusing on audit fees.

Using 436 firm-year observations collected over 2003-2005 period from Korean stock market and the divergence data provided by Korea Fair Trade Commission, we examine above prediction. The empirical results reveal that the audit fee is negatively correlated with the divergence. It suggests that the audit quality is lower when there exist greater divergence. It is because the divergence is related to the incentive for owners to expropriate minority shareholders. In order to hide the expropriation from outside minority shareholders, it is possible that the owner asks the auditor to provide low quality audit service which in turn results in low audit fees.

Keywords: audit fees, cash flow right, voting right, ownership structure

INTRODUCTION

This study examines the association between ownership structure and audit fees. Especially, this study focuses on the ownership structure measured by the divergence of control (voting right, i.e., the ability to elect the board of directors and influence or dictate decisions that require shareholder approval) and ownership (cash flow rights i.e., claims on cash payouts or dividend). The divergence implies the difference between controlling owners' cash flow rights and voting rights. If an owner owns a company through the pyramidal structure, it is possible that the voting rights of the owner are greater than the cash flow rights of the same owner. The difference could influence the firm's audit-related policy and auditor's behavior. This study examines this issue.

Ownership of the public corporations across the world is not so widely dispersed. Instead, higher ownership concentration somehow prevails in the developed countries as well as in the developing countries (Claessens et al. 2000; Faccio and Lang 2002). Ownership and control structures of many public companies in East Asia and Western Europe are well characterized by family-control, close relation of managers with the controlling owners, and the controlling owner's voting rights exceeding cash flow rights (Claessens et al. 2000; Faccio and Lang 2002; Haw et al. 2004; LaPorta et al. 1999; Shleifer and Vishny 1997).

One of the most salient features of the ownership structure in

East Asia is the complicated pyramidal and cross-holding ownership structures¹⁾ typical among East Asian companies (Fan and Wong 2002). Among these companies, controlling owners in the region usually have higher level of control rights than the level of their equity ownership. Therefore, there exists divergence between cash flow rights and voting rights. In prior accounting and finance literature, this divergence is widely used as a proxy for the information asymmetry or the risk (or the possibility) of expropriations against minority shareholders. This divergence could influence the owner and managers' behavior which in turn influence the audit fee.

On the one hand, the divergence could be positively associated with audit fees. The auditor is paid a fee to attest to the assertions contained in the client's financial statements, and presumably the fee reflects the work the auditor must perform to bear the audit risk (Choi et al. 2007a; Craswell et al. 1995; Simunic 1980). Seetharaman et al. (2002) find that audit fees reflect risk differences across countries with different level of legal liability regime. Higher legal regime motivates the auditors to increase effort in defense against the increased likelihood of future litigation (Simunic and Stein 1996) and/or charge an insurance premium to cover possible future litigation costs (Pratt and Stice 1994). In either case, audit fees should increase if the divergence is related to the risk of audit. We call this 'audit risk perspective.'

On the other hand, it is well known that audit quality is priced in the audit market (Carcello et al. 2002; Choi et al. 2007b; Craswell et al. 1995; Francis et al. 2005). If the divergence is related to the incentive for owners to expropriate minority

1) Pyramidal ownership structure is a chain of ownership relations, in which usually controlling shareholder or his/her family members directly control a firm, which in turn controls another firm and so forth. Via pyramidal ownership, controlling shareholder can control a series of firms in the chain of ownership structure with ownership less than 100%. The example of this structure will be discussed later in this article. In Korea, according to the Korea Fair Trade Committee (KFTC) regulations, affiliated companies in the designated large business conglomerates are not allowed to have cross-shareholdings with other affiliated companies in the same conglomerates. But circular shareholding is not banned. KFTC have designated large business conglomerates in terms of their asset size. Specific regulations are imposed on each of the affiliated firms constituting the designated large business conglomerates.

shareholders, it is possible that the owner asks the auditor to provide low quality audit service in order not to reveal true financial status of the client firms to potential investors.²⁾ We call this view 'low audit quality perspective.'

Using 436 firm-year observations collected over 2003-2005 period from Korean stock market and the divergence data provided by Korea Fair Trade Commission (KFTC), we examine above two predictions. The empirical results reveal that the audit fee is negatively correlated with the divergence, supporting low audit quality perspective.

This paper could contribute to regulators, academics, as well as practitioners and investors in various ways. First, according to the findings in this study, regulators need to pay more attention to the firm having greater divergence in order to improve the transparency of the firms. Academics also need to find way to improve the audit quality for that kind of firms. Both accountants and investors also need to pay more attention when they audit or consider investment in the firms with greater divergence. The divergence could be proxy for the level of expropriation by major shareholders against minority shareholders.

This study is composed as follows. Section 2 discusses prior literature and present research hypothesis. The Section 3 explains the sample, followed by empirical analyses in the Section 4. The final section concludes the study.

2) In contrast, if the owner needs to persuade potential investors to invest in his firm, he has an incentive to signal the firm's quality (Fan and Wong 2005). The hiring of high-quality auditor is one of the example for the way to signal the quality. However, Fan and Wong's study using Korean data find inconclusive result on this topic. In addition, because there exist auditor size regulation in Korea for the listed firms (a client firm that its asset size is greater than 2 trillion Korean Won must hire a large auditor) during the sample period of Fan and Wong's study (1994-1996), the analyses using Korean auditor choice data are not that much meaningful. When we replicate Fan and Wong's study with our data, we also fail to find any significant relationship between the level of ownership divergence and large auditor choice.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Effect of Corporate Ownership Structure

Investors who have a large portion of ownership of a firm have strong incentives to maximize the firm's value and are able to gain information and monitor managers as an agent who have incentive not to act in the best interest of the principal-shareholders, and so can help mitigate one of the agency problems — those of conflicts of interest between outside shareholders and hired professional managers (Jensen and Mecling 1976).

However, complicated structures of modern firms where a controlling shareholder who possesses almost full control over the firm and other minority shareholder stay outside of the firm constitute another suitable but different context of studying the agency theory, in which controlling shareholders have opportunity to expropriate wealth from other outside minority shareholders. Large investors may represent their own interests, which need not coincide with the interests of other investors in the firm, or with the interests of employees and managers (Shleifer and Vishny 1997).

When ownership is sufficiently concentrated such that an owner gains dominant control of a firm, the controlling owner is able to determine the profit distribution and use firms to generate private benefits that are not shared by minority shareholders and may sometimes deprive minority shareholders of their rights to share profits. These agency conflicts can be exacerbated as the controlling owner leverages control through stock pyramids or cross-shareholdings while keeping his or her ownership level low. This is called as 'entrenchment effect of ownership' (Fan and Wong 2002).

From the more actual standpoint of view that is used in the KFTC's definition of the divergence between voting rights and cash flow rights of a controlling shareholder of a firm, the mechanism of creating the disparity between ownership and control is understood more easily. A controlling shareholder, alone or with related parties, gains *de facto* control of the company. In a typical Korean large conglomerate, there is a great

deal of intra-group shareholdings among the affiliated firms. A controlling shareholder or his/her family not merely directly owns a fraction of equity but also indirectly has *de facto* control from the portion of equity which is held by the related parties, such as senior managers of the firm, affiliated non-profit organization and other affiliated firms (Kim and Yi 2006).

However, the controlling shareholder does not have only an incentive to expropriate other investors' wealth, since the controlling shareholder has his/her cash flow rights of the firm, which means he/she loses some wealth too. The higher the cash flow rights the largest shareholder has the higher is the cost he/she bears if he or she were to expropriate, and therefore the more aligned is his/her incentive with minority shareholders. In this way, the incentive of the controlling shareholders to expropriate outside investors is mitigated by their possible pecuniary loss, which means the more ownership the controlling owner has, the less he/she likely to expropriate.³⁾ This is so-called the incentive effect or alignment effect (Jensen and Meckling 1976; Fan and Wong 2002). However, when control rights increase and become greater than cash flow rights or when the controlling shareholder gain effective control via complicated ownership structures such as pyramidal ownership and cross-shareholding, the context in which the controlling shareholder find him/herself changes, where the entrenchment effect dominates the alignment effect.

In this kind of ownership structure, the corporate governance of the firm can become deficient because of the ineffective monitoring by the board. Controlling shareholder and often

3) Fan and Wong (2002; 2005) offer a simple example to explain the case. When considering buying 30% of Firm B, an entrepreneur has two options. The entrepreneur can directly buying 30% of equity of Firm B, which constitutes a typical horizontal corporate structure, or alternatively he/she can indirectly invest in Firm B through Firm A, of which he/she owns 50%, which he/she controls. Choosing the alternative way, the entrepreneur can purchase the shares of the Firm B paying only half cost of direct investment, leaving the saved purchasing cost to be borne by the outside shareholders. Given the ownership illustrated above, it costs the entrepreneur only \$15 for every \$100 expropriated from Company B and therefore 85\$ of net benefit from expropriation falls into the entrepreneur's hands. Clearly, if stock pyramids or cross-shareholdings were used to consolidate control, they would also result in the divergence between ownership and control, which exacerbates the entrenchment problem of controlling owners.

his/her family members usually hold powerful positions on both the top management team and the board of directors. Controlling shareholders are entrenched at the helm and have the power to designate and monitor corporate managers. Thus, having effective control of a corporation enables the controlling owner to make important decisions, such as profit-sharing policy. Although the minority shareholders are entitled to the cash flow rights in the proportion to their share investments, they face the uncertainty that the entrenched controlling owner may opportunistically deprive them of their rights.⁴⁾

Hypothesis Development

When the controlling shareholder is entrenched by his/her voting power and there is a large separation of the voting and cash flow rights, the credibility of accounting is reduced (Fan and Wong 2002; Francis et al. 2005; Kim and Yi 2005). Outside investors pay less attention to the reported accounting numbers, because they expect that the controlling owner produces and reports accounting information out of private incentive rather than as a true reflection of the firm's economic status. In addition, the firm's reported earnings may not be trusted by the outside investors since they perceive the possible manipulation of earnings for outright expropriation by the controlling shareholder. Furthermore, outside investors are aware of the controlling owner's incentive to avoid reporting information that would invite scrutiny from outside shareholders. As a result, the loss of credibility in reported earnings lowers the stock price informativeness of the earnings (Fan and Wong 2002). Francis et al. (2005) also document that earnings are less informative relative to dividends in U.S. firms with dual-class⁵⁾ stocks that

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- 4) Even this kind of agency problem, which arises between controlling shareholders and minority shareholders, is not often illegal. Entrenched controlling shareholder's opportunistic behavior may be often conducted within the legal constraints.
 - 5) Dual-class stocks are a kind of multiple-classes stocks. When the firm has issued two or more classes of stock with differential voting rights, the voting structures constitute multiple-classes stocks. In a firm with a single class of common stock, cash flow rights and voting rights are equal and a controlling owner bears pro rata the shareholder wealth consequences of his/her decision. In a dual class structure, one class of common stock typically has more votes per share than the other, while both classes have equal or almost

separate voting rights from cash flow rights.

Expropriation, if detected, may induce close attention and external intervention by minority shareholders, analysts, stock exchanges, or regulators. Therefore the desire to keep away from external monitoring, potential legal problems, and consequent loss of reputation capital likely encourages insiders to veil their private benefits and non-value-maximizing decisions by managing reported accounting income, especially in the weak legal environment (Haw et al. 2004; Leuz et al. 2003). Because minority shareholders and other external stakeholders are not likely to have the resources or access to relevant information enough to observe insiders' actions, they are, as a result, unable to detect and straighten out insider's earnings management. In particular, by limiting outflow of information to the public, large shareholder also allows political rent seekers to evade potential competition and social sanctions, thus resulting in less disclosure and low transparency in reported income (Fan and Wong 2002).

These characteristics related to the ownership divergence could be influence the level of audit fees. On the one hand, the divergence could be positively associated with audit fees if we accept the 'audit risk perspective.' The auditor is paid a fee to attest to the assertions contained in the client's financial statements, and presumably the fee reflects the work the auditor must perform to bear the audit risk (Choi et al. 2007a; Craswell et al. 1995; Simunic 1980). Seetharaman et al. (2002) find that audit fees reflect risk differences across countries with different level of legal liability regime. Higher legal regime motivates the auditors to increase effort in defense against the increased likelihood of future litigation (Simunic and Stein 1996) and/or charge an insurance premium to cover possible future litigation costs (Pratt and Stice 1994). In either case, audit fees should increase if the divergence is related to the risk of audit. As explained before, because the divergent firms have less transparency and could distort financial reporting, the auditor needs to bear more audit risk. Thus, audit fee could increase as the divergence increases, consistent with the audit risk

equal cash flow rights per share (Francis et al. 2005; Villalonga and Amit 2006).

perspective.

On the other hand, it is well known that audit quality is priced in the audit market (Carcello et al. 2002; Choi et al. 2007b; Craswell et al. 1995; Francis et al. 2005). Consistent with this view, the extant audit pricing models, developed first by Simunic (1980) and further extended by Choi et al. (2007a), predict that audit fees, which are equal to audit costs at a competitive equilibrium, are a function of (1) client characteristics such as client size, client complexity, and client-specific risk and (2) auditor characteristics such as audit firm size and industry expertise at the national level. For example, there is ample evidence that high-quality auditors enjoy audit fee premiums (Simunic 1980). In addition, recent studies by Ferguson et al. (2003) and Francis et al. (2005) document that auditors with city-based industry leadership are able to charge higher audit fees to their clients because city-specific industry expert auditors can provide high-quality audit service.

Thus, if the divergence is related to the incentive for owners to expropriate minority shareholders, it is possible that the owner asks the auditor to provide low quality audit service in order not to reveal true financial status of the client firms to potential investors, following 'low audit quality perspective.'

In summary, because audit risk perspective and low audit quality perspective provide different predictions with respect to the association between audit fees and the divergence, we provide the hypothesis in the null form as follows:

H: There is no association between audit fees and the ownership divergence.

If we reject the null hypothesis as presented in the above hypothesis H, the results would support either audit risk or low audit quality perspective. If we fail to reject the null hypothesis, it is possible that there exist no relationship at all among the audit fee and the divergence or the audit risk perspective cancel low audit quality perspective out.

METHODOLOGY

Sample and Data

We estimate the association between audit fees and deviation of control rights over cash flow rights using data from 436 audits (firm-year observations) performed for the listed large conglomerate-affiliated firms in Korea during 3 years from 2003 to 2005. KFTC compiles ownership and control rights data of large conglomerate-affiliated companies, computes the divergence between them and posts the data in its homepage.⁶⁾ KFTC datasets include the portion of shares held by a controlling shareholder and by his/her related parties. Related parties include relatives, senior managers of the firm, affiliated non-profit organizations, and other affiliated firms. Only listed firms are selected as sample firms since reliable financial data for other key variables are not obtainable even though KFTC datasets includes both of the listed and non-listed firms. For audit fees and audit hours, we collected the data from the filings posted in the DART system.⁷⁾ For control variables other than audit fees and audit hours, we obtained data from KIS-VALUEII database. For a simple recognition of the status of control and ownership structures of the sample, table 1 presents basic statistics of the cash flow rights and the voting rights of the controlling shareholders and the divergences between these two.

Table 1 shows that, for the full sample, the average cash flow right of a controlling shareholder and his/her family members is 13.19% which is 30.17% lower than 43.36% of voting right he/she has. The divergence is substantial, ranging from 0 to 79.79%. The standard deviation (SD) is also very large (20.58), suggesting that there is substantial variability for the divergence. In summary, this can be translated as a controlling shareholder and his/her family member increase and gain de facto control via the ownership of the related parties. This result is consistent

6) www.ftc.go.kr.

7) DART (Data Analysis, Retrieval and Transfer System) is an electronic disclosure system operated by FSS(Financial Supervisory Service of Korea) that allows companies to submit disclosures online, where it becomes immediately available to investors and other users.

Table 1. Basic Statistics of Ownership Structures (%)

	N	Mean	Median	SD	Min.	Max.
Cash flow right	436	13.190	4.015	17.179	0	75.040
Voting right	436	43.356	41.290	17.411	0.600	95.170
Divergence	436	30.165	30.945	20.580	0	79.790

Variable definition: Cash flow right = a sum of direct ownership stakes(%) held by a controlling shareholder of a firm and his/her family members' ownership of the firm. Voting right = a sum of direct ownership held by a controlling shareholder of a firm, ownership held by family members and the ownership held by senior managers of the firm, affiliated non-profit organization and affiliated firms. Divergence = a difference between Cash flow right and Voting right, computed by subtracting Cash flow right(%) from Voting right(%) of the controlling shareholder of the firm.

with the finding by Claessens et al. (2000).

Model

To test hypothesis H, we posit the following regression models:

$$FEE = a_0 + a_1 DVC + a_2 SIZE + a_3 BIG_4 + a_4 ROA + a_5 LEV + a_6 INVREC + a_7 ISSUE + a_8 YEAR2003 + a_9 YEAR2004 + e \quad (1)$$

where, a_0 to a_9 are regressional parameters, e is a normally distributed error term, and the other variables are defined as follows.

FEE = natural log of audit fees in thousand Korean Won;

DVC = divergence, in percentage value, between cash flow rights and voting rights of a controlling shareholder of a firm;

$SIZE$ = natural log of year-end market value of common equity in thousand Korean won;

BIG_4 = 1 if the auditor of the firm is one of international Big 4-affiliated auditors and 0 otherwise;

ROA = return on assets of a firm;

LEV = long-term liabilities divided by total assets of a firm;

INVREC = sum of inventories and account receivables divided by total assets of a firm;

ISSUE = 1 if a firm has issued long-term debts or equities within three years and 0 otherwise;

YEAR2003 = 1 when a firm year is 2003 and 0 otherwise;

YEAR2004 = 1 when a firm year is 2004 and 0 otherwise.

Equation (1) use *FEE* as a dependent variable, which is a natural logarithm of yearly audit fees paid by a client, as posted in the DART system. Equation (1) includes a test variable, *DVC* which is defined as the divergence between voting rights and cash flow rights of a controlling shareholder of a firm. If the audit risk perspective dominates, the coefficient on *DVC* (i.e., a_1) is expected to have a positive relation with *FEE* (i.e., $a_1 > 0$). In contrast, if low audit quality perspective dominates, the coefficient on *DVC* (i.e., a_1) is expected to have a negative relation with *FEE* (i.e., $a_1 < 0$).

The control variables used in equation (1) are chosen based on the prior studies of Simunic (1980) and Choi et al. (2007a). *SIZE* represents firm size which is measured by the natural logarithm of the market value of common stock. Generally, large firms have greater assets to be audited by external auditors, incurring more audit efforts and thus increasing audit fees (Simunic 1980). So, *SIZE* is expected to be positively related to *FEE* (i.e., $a_2 > 0$). *BIG4* captures auditor's size effect on audit fees. Big brand name auditors are well documented to earn a fee premium over non-Big audit firms (Craswell et al. 1995; Francis 1984). So *BIG4* is expected to have a positive relation to *FEE*. *ROA* and *LEV* is the proxies for a client-specific audit risk to be borne by auditors. *ROA* is introduced because more profitable companies are less likely to end up in bankruptcy and so is expected to have a negative association with *FEE*. *LEV* captures risk associated with higher level of debt and thus is expected to have a positive relation with *FEE*. To clear the possible effect of outliers, this variable is first winsorized at the 10st and the 90th percentile values. We also include the ratio of inventory and receivables out of total assets (*INVREC*) as a proxy for audit complexity, which increases audit fees. New debt or equity issuance dummy (*ISSUE*) captures demands for quality audit since a firm is likely to have an incentive to produce quality reporting so as to invite outside

investors when the firm is in needs of new external financing. Quality reporting requires quality audit, which increases audit fees. *ISSUE* also measures litigation risks from bankruptcy, which are likely to be greater for firms who have recently financed external funds by issuing new equity or bonds in capital markets. In either case, *ISSUE* is expected to have a positive relation with audit fees.

EMPIRICAL RESULTS

Descriptive Statistics

Table 2 presents descriptive statistics for all variables included in the regression models. The mean of naturally logged audit fees (*FEE*) is 11.74. Although it is not reported in the table 2, the arithmetic mean of raw audit fees (not logged value) is 184.6 million Korean Won. Sample firms have, on average, 30.17% of divergence (*DVC*) between cash flow rights and voting rights of

Table 2. Summary Statistics of Regression Variables

Variable	Mean	Median	Std. Dev.	Min.	Max.
<i>FEE</i>	11.744	11.608	0.834	9.546	14.731
<i>DVC</i>	30.165	30.945	20.580	0.000	79.790
<i>SIZE</i>	19.616	19.678	1.754	15.303	25.298
<i>BIG4</i>	0.876	1.000	0.329	0.000	1.000
<i>ROA</i>	5.327	5.245	7.487	-63.940	34.670
<i>LEV</i>	37.244	26.600	32.831	3.250	105.240
<i>INVREC</i>	0.210	0.192	0.128	0.000	0.713
<i>ISSUE</i>	0.486	0.000	0.500	0.000	1.00

Variable definition: *FEE* = a natural log of audit fees in thousand Korean Won. *DVC* = divergence, in percentage value, between cash flow rights and voting rights of a controlling shareholder. *SIZE* = a natural log of year-end market value of common equity in thousand Korean won. *BIG4* = 1 if the auditor of the firm is one of international Big 4(5, 6) affiliated auditors and 0 otherwise. *ROA* = a return on assets of a firm. *LEV* = long-term liabilities divided by total assets of a firm. *INVREC* = inventory and an accounts receivable divided by total assets of a firm. *ISSUE* = 1 if a firm has issued long-term debts or equities within three years and 0 otherwise.

controlling shareholders. The mean of naturally logged market value of common equity of firms (*SIZE*) is 19.62. If computed as raw (not logged) market value, the mean of raw market value of common equity of sample firms is 1.691 billion Korean Won. Because the sample firms are the firms belong to business conglomerates in Korea, they are on average very large firms. On average, 87.6% of audits are conducted by one of the Big 4 auditors (*BIG4*). Sample firms have, on average, 5.33% of ROA and 37.24% of leverage ratio (*LEV*). Account receivables and inventories comprise, on average, 21% of total assets (*INVREC*). On average, 49% of firms in the sample have issued long-term debt or equities within three prior years (*ISSUE*).

Correlations

Table 3 reports the Pearson correlation coefficient for all variables that are included in the equation (1) and respective *p* values.⁸⁾ As shown in the table 3, the divergence between voting rights and cash flow rights of a controlling shareholder is negatively correlated to audit fees. The correlation coefficient is -0.3334 between *DVC* and *FEE* and is significant at less than 1% level. This result is apparently inconsistent with the audit risk perspective but consistent with low audit quality perspective.

In addition, the strong positive correlations between *FEE* and *SIZE* and between *FEE* and *BIG4* support the previous literature that large firms and firms audited by Big 4 are likely to charge higher fees. In addition, positive correlation between *FEE* and *LEVE* support the prediction that risky firms pay higher audit fees. However, the positive correlation between *FEE* and *ROA* does not support the prediction. In addition, negative correlation between *FEE* and *INVREC* also do not support the findings in prior studies. This could be due to failure to control for other correlated variables. Thus, we are going to perform multivariate regression analyses later. There exists strong negative correlation between *DVC* and *SIZE* too (-0.3154).

Among control variables, highest correlation exist between *SIZE* and *ROA* (0.3570) and between *SIZE* and *INVREC* (-0.3099). However, given that none of the correlations among

8) Because the results using Spearman correlation are qualitatively similar, we do not report them separately for the simplicity purpose.

Table 3. Pearson Correlations (p-values) for Variables

	<i>FEE</i>	<i>DVC</i>	<i>SIZE</i>	<i>BIG4</i>	<i>ROA</i>	<i>LEV</i>	<i>INVREC</i>	<i>ISSUE</i>
<i>FEE</i>	1.0000							
	-0.3334							
<i>DVC</i>	(<i><.0001</i>)	1.0000						
	0.8216	-0.3154						
<i>SIZE</i>	(<i><0.0001</i>)	(<i><.0001</i>)	1.0000					
	0.3612	-0.0380	0.2924					
<i>BIG4</i>	(<i><.0001</i>)	(<i>0.4284</i>)	(<i><.0001</i>)	1.0000				
	0.1022	-0.1015	0.3570	0.0813				
<i>ROA</i>	(<i>0.0329</i>)	(<i>0.0341</i>)	(<i><.0001</i>)	(<i>0.0900</i>)	1.0000			
	0.3038	0.0589	0.1090	0.1064	-0.3044			
<i>LEV</i>	(<i><.0001</i>)	(<i>0.2191</i>)	(<i>0.0227</i>)	(<i>0.0262</i>)	(<i><.0001</i>)	1.0000		
	-0.1914	0.1015	-0.3099	0.0518	-0.1029	-0.1710		
<i>INVREC</i>	(<i><.0001</i>)	(<i>0.0340</i>)	(<i><.0001</i>)	(<i>0.2804</i>)	(<i>0.0316</i>)	(<i>0.0003</i>)	1.0000	
	-0.0505	0.1793	-0.0496	-0.0800	-0.0627	-0.0332	0.1206	
<i>ISSUE</i>	(<i>0.2921</i>)	(<i>0.0002</i>)	(<i>0.3008</i>)	(<i>0.0952</i>)	(<i>0.1906</i>)	(<i>0.4882</i>)	(<i>0.0117</i>)	1.0000

Variable definition: *FEE* = a natural log of audit fees in thousand Korean Won. *DVC* = divergence, in percentage value, between cash flow rights and voting rights of a controlling shareholder. *SIZE* = a natural log of year-end market value of common equity in thousand Korean won. *BIG4* = 1 if the auditor of the firm is one of international Big 4(5,6) affiliated auditors and 0 otherwise. *ROA* = a return on assets of a firm. *LEV* = long-term liabilities divided by total assets of a firm. *INVREC* = inventory and an accounts receivable divided by total assets of a firm. *ISSUE* = 1 if a firm has issued long-term debts or equities within three years and 0 otherwise.

control variables are greater than 0.4, it is not likely the correlations cause multicollinearity problem during the multivariate regression analyses.

Regression Analyses

Next, we perform regression analyses with equation (1) to see if the divergence influence audit fees even after controlling for

Table 4. Result of Regression Analyses

Variables	Expected Sign	(1) Reduced model		(2) Full model	
		Coefficient	t-value	Coefficient	t-value
<i>DVC</i>	?			-0.0016	-3.53***
<i>SIZE</i>	+	0.4154	30.27***	0.3989	27.26***
<i>BIG4</i>	+	0.0987	3.95***	0.1127	4.44***
<i>ROA</i>	-	-0.0088	-5.63***	-0.0089	-5.78***
<i>LEV</i>	+	0.0007	4.89***	0.0007	5.06***
<i>INVREC</i>	+	0.2316	3.24***	0.2144	2.95***
<i>ISSUE</i>	+	-0.0177	-1.04	-0.0049	-0.28
Constant	?	1.4113	12.23***	1.5865	12.64***
Adj. R ²		0.752		0.758	

Variable definition: *FEE* = a natural log of audit fees in thousand Korean Won. *DVC* = divergence, in percentage value, between cash flow rights and voting rights of a controlling shareholder. *SIZE* = a natural log of year-end market value of common equity in thousand Korean won. *BIG4* = 1 if the auditor of the firm is one of international Big 4(5,6) affiliated auditors and 0 otherwise. *ROA* = a return on assets of a firm. *LEV* = long-term liabilities divided by total assets of a firm. *INVREC* = inventory and an accounts receivable divided by total assets of a firm. *ISSUE* = 1 if a firm has issued long-term debts or equities within three years and 0 otherwise.

The model used in the regression: $FEE = a_0 + a_1 DVC + a_2 SIZE + a_3 BIG4 + a_4 ROA + a_5 LEV + a_6 INVREC + a_7 ISSUE + a_8 YEAR2003 + a_9 YEAR2004 + e$

***: significant at the 1% level.

other possibly correlated variables. The results are reported in table 4.⁹⁾ We repeat regressions twice — with and without *DVC* variable. The column (1) of table 4 reports the results without *DVC* and the column (2) reports those with *DVC*.

First of all, the results shown in column (1) reveal that the explanatory power of the model is very high (0.752) as reported in the bottom row of the table, suggesting that the model explains the substantial portion of audit fees. As also reported in the table, all the control variables are significantly correlated

9) For all the results reported in Table 4, we use White's (1980) method to correct for the heteroskedasticity. In addition, we check VIF scores to see if the multicollinearity cause any problem but there were no VIF values greater than 10.

with audit fees. In addition, the coefficients on the control variables are all in the expected directions, except *ISSUE* variable. For example, the coefficients on *SIZE* is 0.4154 which is significant at the 1% level ($t = 30.27$).

The results using the full model of equation (1) are reported in the column (2) of table 4. The coefficients on *DVC* is -0.0016 which is significant at the 1% level ($t = -3.53$), supporting the prediction of low audit quality perspective. The explanatory power slightly increases from 0.752 in column (1) to 0.758 in column (2). In addition, there are no qualitative differences for other control variables at all between column (1) and (2). These results clearly suggest that the low audit quality effect dominates the audit pricing mechanism with respect to the divergence. It implies that the firms with greater divergence do not want high-quality audit service, thus ask auditors to perform only low-quality audit service and pay audit fees accordingly.

Controls for the Endogeneity

It may be possible that the documented results up to table 4 could be endogenous firm characteristics that determines both the corporate governance mechanism and audit fees. For example, a small-sized client firm may have weak corporate governance mechanism and also prefer low quality audit service. In this case, not the corporate governance mechanism but also the firm size is the main driver of the findings. To check this possibility, we adopt 2-stage regression method by using the following first stage probit regression model.

$$GOODCG = - 4.7179 + 0.2664 \textit{SIZE} - 1.9208 \textit{ROA} - 0.6178 \textit{ISSUE} + 0.2176 \textit{LEV} + e \quad (2)$$

In equation (2), a_0 to a_4 are regressional parameters, e is a normally distributed error term, and *GOODCG* is the measure of good corporate governance. The variable has a value of 1 if the *DVC* is below median value and 0 otherwise. Because there exist no prior studies that examine the determinants of the ownership divergence, we choose three determinants of *GOODCG* (*ROA*, *ISSUE*, and *LEV*) through trial and errors. First, we select every control employed in equation (1) and several other possible

variables and run the probit regression. Among the control variables employed, we left all the variables that have significant coefficients and drop the insignificant variables. As a result, only four variables are left finally.¹⁰⁾ The explanatory power (pseudo R²) of the model is 0.1128 which is not that high. This low explanatory power suggests that there is no strong reason for a company to have low or high ownership divergence.

After adding the inverse Mills ratio calculated using equation (2) into equation (1), we re-perform all the logit analyses reported in this study. However, the second stage regression results do not change qualitatively at all. For example, if we perform the same analyses as those reported in column (2) of table 4, the coefficient on the *DVC* is -0.0041 which is significant at 1% level ($t = -2.80$; $p = 0.006$). The coefficient on inverse Mills ratio is 1.1896 which is significant at 5% level ($t = 2.37$; $p = 0.019$). In summary, these results suggest that endogeneity does not influence our findings in this study.

CONCLUSION

Ownership and control structures of many public companies in East Asia and Western Europe are well characterized by family-control, close relation of managers with the controlling owners, and the controlling owner's voting rights exceeding cash flow rights. This study examines the association between ownership structure and audit fees. Especially, this study focuses on the ownership structure measured by the divergence of control and ownership. If an owner owns a company through the pyramidal structure, it is possible that the voting rights of the owner are greater than the cash flow rights of the same owner. The difference could influence the firm's audit-related policy and auditor's behavior. This study examines this issue.

On the one hand, the divergence could be positively associated

10) Most of the dropped variables in this process do not have significant difference between the two groups in the univariate tests. For example, *LOSS* variable, which have a value of 1 if the firm report loss in current year and 0 otherwise, is not significant different between the two ($t = -1.37$) in the univariate test and drop during the probit regression process because the coefficient of the variable is not significant.

with audit fees. The auditor is paid a fee to attest to the assertions contained in the client's financial statements, and presumably the fee reflects the work the auditor must perform to bear the audit risk. Audit fees should increase if the divergence is related to the risk of audit. On the other hand, it is well known that audit quality is priced in the audit market. If the divergence is related to the incentive for owners to expropriate minority shareholders, it is possible that the owner asks the auditor to provide low quality audit service in order not to reveal true financial status of the client firms to potential investors.

Using 436 firm-year observations collected over 2003-2005 period from Korean stock market and the divergence data provided by KFTC, we examine above two predictions. The empirical results reveal that the audit fee is negatively correlated with the divergence. This finding is somehow inconsistent with the finding in Fan and Wong's (2005) study with other countries' data that have positive association between quality auditor choice and the ownership divergence. The difference could be due to different investor protection and legal system in different countries. Because the level of investor protection is low in Korea, it is possible that client firms in Korea do care less about audit risk but care more about saving audit fee compared with client firms in the strong investor protection and legal system. Under the lack of legal risk, auditors also have less incentive to provide high-quality audit service to avoid investor lawsuits.

The findings in this study are very important because it can contribute to regulators, academics, as well as practitioners and investors in various ways.

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