

Article

Foreign Monitoring and Audit Quality: Evidence from Korea

Sang Cheol Lee ^{1,*}, Mooweon Rhee ² and Jongchul Yoon ³

¹ College of Business Administration, Dongguk University-Seoul, 30, Pildong-ro 1gil, Jung-gu, Seoul 04620, Korea

² School of Business, Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea; mooweon@yonsei.ac.kr

³ College of Business Administration, Keimyung University, 1095 Dalgubeol-daero, Dalseo-Gu, Daegu 42601, Korea; jcyoon@kmu.ac.kr

* Correspondence: sclee68@dongguk.edu; Tel.: +82-2-2260-3899

Received: 5 August 2018; Accepted: 31 August 2018; Published: 4 September 2018



Abstract: This study investigates the effects of both foreign majority shareholders and foreign investors' participation in the board of directors on audit quality, as reflected by auditor size and audit fees. In addition, the study examines the moderating effect of an agency problem on the relationship between foreign investors and the monitoring of audit quality. Using 1574 non-financial firm-year observations listed on the Korea Stock Exchange from 2000 to 2003, we find that the presence of foreign investors such as foreign block shareholders and foreign outside directors increases audit quality. At the same time, the monitoring role of foreign block shareholders is more powerful than that of foreign external directors. Moreover, the foreign block shareholders in professional management-controlled firms exert a more profound influence on audit quality than do those in owner-controlled ones. These test results imply that foreign investors with independence, expertise, and monitoring incentives could play an important role in improving the corporate governance system in Korea, which in turn would not only enhance firm value, but also strengthen the sustainability of Korean companies.

Keywords: foreign block shareholders; foreign external directors; audit quality; auditor size; audit fees; agency problem

1. Introduction

Outside monitors such as external block shareholders and external directors play important roles in setting internal corporate governance structure. While minor shareholders cannot afford the costs of monitoring managers, external block shareholders have an incentive to proactively monitor management, possibly contributing to higher firm value through the checks and balances for management decision-making [1–4]. In addition to the large block shareholders, the external directors appointed at the shareholders' meetings are also believed to enhance firm value by performing similar monitoring activities on behalf of shareholders (a Korean regulation on the qualification of external directors prohibits individuals from being appointed as external directors when they have equity shares of 1% or more of the company, or shares of 300 million Korean Won or more, or whose outstanding balance with the company equals or exceeds 100 million Korean Won (Article 48-5, Paragraph 2 of the Regulation on the Listing of Securities)). The definition of external directors in this paper is people who are not insider directors, including those who have share ownership or an investment relationship with the company. Therefore, the definition of external directors in this paper differs somewhat from that in the Regulation on the Listing of Securities).

However, empirical studies on the effects of the monitoring activities of external block shareholders and external directors have not shown consistent results so far. While some report on a positive relationship between outside monitoring and firm performance [5–8], others do not identify any statistically significant correlation [9–12]. These conflicting results in existing empirical studies indicate that not all of the external block shareholders and the external directors are expert monitors with monitoring incentives. Therefore, there is a need to empirically identify monitors with expertise and monitoring incentives, and separate them from those without.

We chose Korea as our research setting because Korea has made rapid and significant progress in corporate governance mechanisms since its financial crisis in the late 1990s, which allows an effective investigation of the predictions presented below. On the one hand, following recommendations from various international organizations such as the International Monetary Fund (IMF), the Korean government has made efforts to adapt the regulations and systems related to corporate governance to global standards. Although Korea has made significant improvements to its corporate governance system over a relatively short period, the speed of fundamental change in corporate ownership structures remains slow, and the monitoring functions of external block shareholders and external outsiders are limited.

Most of the block shareholders in Korea are related companies that are heavily influenced by either the controlling shareholders or the institutional investors such as securities and insurance companies, which belong to chaebols (a chaebol is a family-run business conglomerate in South Korea. The chaebol structure can encompass a single large company or several groups of companies. Each chaebol is owned, controlled, or managed by the same family dynasty, which is generally that of the group's founder. Samsung, Hyundai Motors, and the LG Group are among the largest and most prominent chaebols.). As a result, their monitoring of firms in the same group is generally passive and perfunctory [13–15]. In addition, in Korean practice, outside directors are mostly appointed by the controlling shareholders because of friendship or acquaintance, and thus outside directors usually cannot maintain their independence from the managers or controlling shareholders [15]. The surveys on corporate governance structure performed in the year 2000 by the Korea Stock Exchange and in the year 2010 by the Korea Listed Companies Association revealed that about 73.8% of all outside directors are appointed through the recommendations of the controlling shareholders, and the approval rate of outside directors on the board proposals is 99% [16]. Therefore, it is hard to believe that such outside directors would faithfully and diligently perform checks and balances against the decision-making of the controlling shareholders and managers. In sum, since the outside block shareholders and directors in Korea are not truly independent, outside block shareholder and directors are not likely to perform the function of monitoring managers [15].

While acknowledging the difficulty of assuming that the external block shareholders and the external directors as a whole are the monitors of companies, we focus on foreign investors as participants in Korea's corporate governance mechanism with the necessary incentive and the expertise for monitoring. Foreign investors, who entered the Korean stock market primarily after the abolition of restrictions on foreign equity ownership in 1998, have filled this gap in external governance mechanisms [17]. Foreign investors in Korean companies are less likely to be informally related to the controlling shareholders. Furthermore, foreign external directors, representing the foreign investment institutions that hold the equity of the invested Korean companies, have the incentive and expertise to independently monitor the company. Since the board seat of foreign external directors can be one of the major conditions for investment by foreign investment companies, their independence has been retained from the beginning.

It is expected that the role of foreign investors as external monitors of corporate activities, would be even bigger in Korea. The shareholdings of the investor group as of the end of 2001 show that foreign investors hold about 30.2% of the total market value of Korean listed companies, which is high compared with foreign investors' holdings in Taiwan (8.8%), Japan (13.2%), and the United States (7.2%). The foreign investors' holding ratio increased to 44% by the middle of 2004, but the ratio

decreased from 2004 to 2009. Foreign investors now hold more than 30% of the public held and traded Korean listed securities. The potentially positive impact of foreign equity investors in Korea can be understood as a special application of the more general proposition that concentrated outside equity ownership can mitigate managerial opportunism [13–15,17]. Also, foreign investors in Korea can influence corporate governance through their shareholder activism as well as participation on the board [7].

Given the setbacks in assuming that the external block shareholders and the external directors as a whole are the monitors of firms, this study focuses on foreign investors as influential participants in the corporate governance structure with the essential incentive and expertise to improve monitoring. Particularly, we analyze the impact of the foreign investors' participation in the board of directors as external directors, as well as the influence that the foreign majority exerts on audit quality, as reflected by auditor size and audit fees. The influence of foreign monitoring on audit quality can differ according to the degree of the agency problem between stockholders and managers. Managers generally are privy to more information regarding the firms' management activities and performance than external stakeholders. If the information asymmetry between shareholders and managers is sufficiently profound, the manager will be far more likely to exhibit opportunistic behavior, using private information to increase her or his own benefit [18–20]. Therefore, we test whether these impacts are greater in professional management-controlled companies than in owner-controlled ones when foreign monitors exist in both types of firms.

The purpose of this study is to analyze the influence of foreign investors' monitoring on audit quality in Korean companies. In order to achieve our research objective, we analyze the impact of the foreign investors' participation in the board of directors as external directors and the influence that foreign majority exerts on audit quality, as reflected by auditor size and audit fees. In addition, we test whether these impacts are greater in professional management-controlled companies than in owner-controlled ones when foreign monitors exist in both types of firms.

Using 1574 non-financial firm-year observations listed on the Korea Stock Exchange from 2000 to 2003, we identify not only external block shareholders who beneficially own at least 5% of a firm's outstanding common stocks, but also foreign directors who participate in the board of directors based on the representativeness of foreign investors. The results suggest that the presence of foreign monitors such as foreign block shareholders and foreign outside directors increases audit quality. At the same time, the monitoring role of foreign block shareholders is more powerful than that of foreign external directors. Moreover, the foreign block shareholders in professional management-controlled firms exert a more profound influence on audit quality than owner-controlled ones do. This study makes the contribution to the construction of more desirable corporate governance structure, which in turn could not only enhance firm value, but also strengthen the sustainability of Korean companies.

The remainder of this paper is organized as follows. Section 2 contains the theoretical and empirical literature to formulate our research hypothesis. Section 3 presents the sample selections, variable measurements, and research models. Section 4 analyzes the relationship between foreign monitoring and audit quality, and reviews the primary results of the empirical analysis. Finally, Section 5 presents the main conclusions and implications of our study. It also explains the future research directions.

2. Literature Review and Hypothesis Development

2.1. Monitoring Roles of External Block Shareholders and Audit Quality

The monitoring of managers has the characteristics of public goods, and as a result, only external block shareholders that can afford the cost of monitoring managers would be able to monitor the managers actively for the purpose of increasing firm value [2,21]. Among external shareholders not participating in management activities, only those shareholders with large stakes have an incentive to monitor the managers' decision-making [4,22,23]. Furthermore, those external block shareholders

who hold their shares for an extended period of time tend to monitor management activities more efficiently, since they have better access to the company's internal information compared with minority shareholders [1,24–26].

Unexpectedly, empirical studies have not yet presented consistent results about the monitoring roles of external block shareholders. Expectedly, on one hand, some empirical studies argue that external block shareholders efficiently monitor the decision-making of management, which ultimately enhances firm value [24,27–29]. Such an increase may be triggered by the market expectation that the existence of external block shareholders would result in the more efficient monitoring of the managers, which in turn would maximize firm value for the shareholders.

On the other hand, there is a stream of research that shows the absence of a statistically significant relationship between the presence of external block shareholders and firm value [10,12,16]. Mehran (1995) [12] identified that firm value is significantly related to the type of external block shareholders, such as individual, institutional, or corporate investors, rather than the equity holdings of external shareholders. One of the possible reasons for the contradictory results in previous studies is that the empirical studies cannot accurately distinguish the external block shareholders who perform the checks and balances against the managers from those who do not.

Among large block shareholders, foreign investors have strong monitoring incentives and control over business functions. While local market participants in developing countries fail to efficiently check and control company activities, it has been widely acknowledged that foreign investors assume important roles in monitoring management as the external block shareholders or the external directors [15,30–32]. The analysis of companies in India by Khanna and Palepu (1999) [33] revealed that foreign investor shares are positively correlated with firm value, which implies that the foreign institutional investors, who are equipped with the incentive to monitor corporate activities and are comfortable with the advanced corporate monitoring system, efficiently and effectively monitor managers. For example, Filatotchev, Strange, and Piesse (2008) [34] showed that foreign investors' monitoring activities leads to a positive relationship between foreign investors' ownership and export intensity, as measured as the proportion of exports to total sales.

Since firms from newly industrialized economies are often controlled by the founding families, who make key strategic decisions [25,35], it is expected that the role of foreign investors as external monitors of corporate activities would be even bigger in Korea. In Korea, foreign block shareholders usually function as independent entities with monitoring incentives and expert knowledge [13–15,17]. Foreign block shareholders who are experienced with advanced monitoring mechanisms in their developed capital markets tend to emphasize firm value and management transparency before investing in an immature stock market such as Korea. Although most block shareholders in Korea are affiliated companies that are heavily influenced by the controlling shareholders, or the institutional investors who share business interests with the managers and are favorable to them, foreign investors in Korean companies are not likely to be affiliated with the controlling shareholders. Therefore, it is very possible that the external foreign block shareholders try to efficiently monitor management activities in cases where a firm has a high percentage of foreign ownership.

If the foreign block shareholders with monitoring incentives and expert knowledge become a part of the governance structure in the less-developed Korean capital market, foreign major shareholders may demand improved external audit quality in order to monitor managers and protect their investments [36,37]. Hay et al. (2008) found that measures of internal auditing, corporate governance, and concentration of ownership are all positively associated with audit fees [38]. According to their results supporting complementary control view (in contrast to the complementary control view, the substitution view, in which internal control mechanisms in a company can be substituted one for another, can be applied. Since audit pricing is a by-product of audit firms' production functions [31,39], better internal control will allow reduced external audit work. Therefore, the substitution effect between internal control mechanisms and external auditing suggests that internal control is associated with lower audit fees), in which the association between external auditing

and internal control mechanisms such as the concentration of ownership and outside directors is complementary, the existence of foreign block shareholders with strong monitoring incentives leads to higher audit fees. Therefore, we state Hypothesis 1 as follows:

Hypothesis 1. *The existence of foreign major shareholders is positively related to audit quality as reflected by auditor size and audit fees.*

2.2. Monitoring Roles of External Directors and Audit Quality

External directors appointed in the shareholders' meetings are responsible for monitoring management activities on behalf of the shareholders. Since external directors maintain their reputation as expert monitors and have a favorable opportunity in the labor market in the future, they are considered incentivized to monitor the managers [18,19,40].

However, empirical studies have not presented consistent results about the monitoring roles of external directors so far [22]. There is sufficient evidence that supports the notion that external directors efficiently monitor managers, as suggested above [41–45]. On the other hand, there is evidence to the contrary that does not support the argument that external directors function more efficiently as expert monitors than internal ones [6,9,11]. The results of those existing studies on the relations between board characteristics and management performance reveal no definite relationship between them, which may be due to the failure to empirically discern cases where the fixed ratio of external directors may not be optimal for certain types of companies, as well as distinguish those external directors that function as expert monitors.

In practice, it is highly likely that external directors in Korean companies may not efficiently perform the function of monitoring managers. External directors are mostly appointed by the controlling shareholders because of friendship or acquaintance, and thus external directors usually cannot maintain their independence from the managers or controlling shareholders [46]. The survey performed in the year 2009 by the Korea Listed Companies Association revealed that 48.1% of all external directors are appointed through the recommendations of the controlling shareholders, and the approval rate of external directors on the board proposals is 99%. Therefore, it is hard to believe that such external directors would faithfully and diligently perform checks and balances against the decision-making of the controlling shareholders and managers.

However, in Korea, foreign external directors are not usually appointed by controlling shareholders. Since foreign directors assume the directorship as a result of requesting board membership to represent the foreign investment companies, they have an incentive to monitor the invested firms [27,47]. As foreign external directors have the expert knowledge of monitoring based on the experience with the advanced capital markets' monitoring mechanisms and skills, foreign external directors can be geared toward efficiently monitoring the management, reducing agency costs, and increasing firm value. Therefore, if the foreign external directors with monitoring incentives and expert knowledge become a part of governance structure in the less-developed Korean capital market, foreign external directors may demand improved external audit quality in order to monitor managers and protect their reputation. Accordingly, Hypothesis 2 is suggested as follows:

Hypothesis 2. *The existence of foreign external directors is positively associated with audit quality as measured by auditor size and audit fees.*

2.3. Moderating Effects of Agency Problem on the Relationship between Foreign Monitoring and Audit Quality

Watts and Zimmerman (1986) [48] argued that in situations involving conflicts of interest between contracting parties, the parties have the incentive to develop mechanisms to reduce the costs of those conflicts. However, as Watts and Zimmerman (1986) [48] noted, those mechanisms would be of little use if their provisions were not monitored and enforced. If the information asymmetry between shareholders and managers is sufficiently profound, the manager will be far more likely to exhibit

opportunism, using private information to increase his own benefit [18–20]. Jensen (1983) described the role that governance mechanisms play in controlling managerial opportunistic behaviors. In addition, auditing plays a central role in certifying the inputs to those mechanisms that are used to overcome costly agency conflicts [38].

Managers' opportunistic behavior can be particularly severe in high agency problems between shareholders and managers when managerial actions are difficult to observe, which can increase audit fees [38,49,50]. A number of scholarly works have argued that earnings management may reflect the opportunistic behaviors of managers. Managers can manage reported earnings to maximize compensation [51,52], increase job security [52,53], and build a professional reputation as a competent leader [54]. If the agency conflict between stockholders and managers is more severe, managers should exhibit a higher degree of earnings management. Therefore, auditors are more likely to supply a greater effort to prevent the misreporting of financial statements associated with earnings management [55,56].

These arguments lead to the expectation that firms in higher agency problem settings are more likely to demand qualified auditors [38,49,50]. Foreign monitors are willing to hire higher quality auditors in order to refrain from managers' diverting private benefits in high-agency problem settings. Therefore, the influence of foreign monitoring on external auditing can differ according to the degree of the agency problem between stockholders and managers. Based on the discussion mentioned above, the following hypothesis is proposed.

Hypothesis 3. *The effect of the presence of foreign block shareholders or external directors on audit quality as defined by auditor size, and audit fees are greater in professional management-controlled companies than in owner-controlled ones.*

3. Research Method

3.1. Sample Selection

The samples for this study consist of companies listed on the Korea Stock Exchange as manufacturing companies from the year 2000 to 2003, during which foreign investors' monitoring activities increased. In order to maintain the external validity of this study, the years 1998 and 1999 were excluded due to the 1997 financial crisis in Korea. Foreign investment in Korea peaked in 2004 and declined in the subsequent years. Thus, it is reasonable that the sampling period must cover the period from 2000 to 2003.

We gathered data on the existence of foreign block shareholders by searching the annual reports as published in the electronic disclosure system DART (Data Analysis, Retrieval, and Transfer System) of the Financial Supervisory Service, and we categorized foreign shareholders whose shares represent 5% or more as the foreign block shareholders. After we gathered data on the existence of foreign external directors by scanning the list of directors in DART, we checked whether the foreign external directors represent foreign investment companies via telephone interviews with the managers of investor relations. Thus, the external directors who did not represent foreign investment companies, but merely held foreign citizenship, were excluded from the category of foreign external directors for this study.

Among all of the 2688 listed firm-year observations on the Korea Stock Exchange from 2000 to 2003, we excluded 216 observations in the banking and finance industry to increase the comparability among the data collected from the samples. To improve the validity of the results, we also ruled out and excluded from the sample 455 observations under supervision or with negative value in the stockholders' equity. In order to eliminate the influence of outliers on the subsequent statistical analysis, we also excluded from the sample 443 observations that had variable values exceeding ± 3 times the standard deviations from the average. The result of the sample selection procedure is given in Table 1 (audit fees of sampled data are greater than those of the rest of population. The sampled data were found to be more likely to use large audit firms than the rest of population, excluding the year 2000.

In addition, we found that firm size reflected by the total assets in the sampled data was greater than that of the unused data from the population). The data of financial statements, foreign investment ratios, and stock prices were obtained by accessing and searching KIS-VALUE, which is a financial database of Korea Information Service, Inc. in Seoul, Korea.

Table 1. Description of Sample Procedure.

Sample Selection Process	Observations
Sample of firm-years listed on the Korean Stock Exchange from 2000 to 2003	2688
Less:	
Firms in the banking and finance industry	216
Firms under supervision or with negative value in stockholders' equity	455
Firms with the value of a variable exceeding ± 3 times standard deviations from the average	443
Total number of sample firm-years	1574

3.2. Variable Measurements

3.2.1. Audit Quality

In this study, we define audit quality as big audit firms and audit fees that are generally accepted. First, we use an accounting firm's size as a basis for differential audit quality. Big audit firms present a higher audit quality because large auditors have a broad client network, and the auditors stand to lose more clients if they misreport [57]. Big audit firms are also more likely to object to managers' accounting choices that increase reported earnings, in order to reduce litigation risk [58–62]. Therefore, consistent with previous research suggesting that auditor size implies higher audit quality, we used the size of audit firms as a proxy of audit quality. We measured auditor size using a dummy variable that was coded 1 if the auditor was a member of the first tier of auditor (the big four audit firms: PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst and Young, and KPMG); otherwise, it was coded 0 [63,64] (the following domestic accountancy firms have joined the membership of international big four firms: Samil—PricewaterhouseCoopers, Anjin—Deloitte Touche Tohmatsu, Samjong—KPMG, and Hanyoung—Ernst and Young).

Second, we regarded audit fees as a reflection of audit quality. The big audit firms are regarded as having higher audit quality, and are expected to be able to earn higher audit fees as a result. Due to the greater expertise of the auditor, big auditors require a premium that is relative to the small audit firms [64]. On average, the big auditors' premium has been around 20% [60]. Audit fees are measured by the natural log of audit fees to improve the linearity between audit fees and right side variables [63–67].

3.2.2. Foreign Block Shareholders and Foreign External Directors

Two types of foreign investors who conduct monitoring roles are identified for this study. The first type includes the presence of foreign block shareholders with a significant amount of shares. External block shareholders, who beneficially own at least 5% of a firm's outstanding common stocks (as defined by SEC Rule 13d-3 and Korean Securities and Exchange Act Article 200-2) but do not serve as executive officers or directors, are an important external mechanism to govern managers, especially for firms without significant managerial ownership [4,68]. According to the Korean Securities and Exchange Act Article 200-2 (Report on Mass Holdings, etc. of Stocks, etc.), any person who holds stocks, etc. of any stock-listed corporation or any KOSDAQ-listed corporation in bulk (referring to cases where the number of the stocks, etc. owned by the person himself and specially related person is 5/100 or more of the total number of such stocks, etc.), shall report the status of his stockholdings and the purposes of his holdings (referring to whether his holdings are intended to influence the corporate governance rights of issuers) to the Financial Services Commission and the Exchange within five days.

After considering the “5% rule”, we established a dummy variable for whether there exists a foreigner among the block shareholders of a company with equity shares of 5% or more.

The second type refers to the case when foreign directors participate in the board of directors, representing foreign investment institutions having invested in the company only in the form of equity holdings. A dummy variable is used to differentiate companies with foreign external directors representing foreign investors from those without. This variable indicates that foreign investors monitor the management of the invested companies through their participation in decision-making. In this study, foreign external directors are not merely defined based on nationality, but also on the representativeness of foreign investors. These foreign external directors are not appointed by controlling shareholders; instead, they are elected as a result of requesting board membership to represent foreign investors. Thus, they have the incentive to monitor the invested companies, and they are judged as being independent of controlling shareholders.

3.2.3. Agency Problem between Shareholders and Managers

Under agency theory, the auditor is employed to monitor the manager’s performance on behalf of the shareholders, because the manager as an agent may place his interests above those of the owners, giving rise to agency costs for preventing a manager’s opportunistic behavior [23,48,57,69]. We select the level of the agency problem as the moderating variable that affects the relationship between foreign monitors and audit quality. The level of the agency problem between shareholders and the manager is measured by the background and style of a chief executive officer (CEO). A dummy variable is created to differentiate the top managers of professional management-controlled companies from those of owner-controlled ones. If the CEO of a company is either a founder or related to the founder, then the company is categorized as owner-controlled. In addition, if a CEO has more than 5% of the total ownership, then the company is also considered owner-controlled. The value of 1 is given to the top manager of an owner-controlled company; otherwise, it is given a value of 0.

3.2.4. Control Variables

We classified various control variables into two groups by dependent variables such as auditor size or audit fees. First, in order to control for other factors in the prior research to be associated with the choice of the big four audit firms as audit quality, we used the total assets, asset turnover, return on assets, negative earnings, debt-to-assets ratio, quick ratio, current assets, overseas sales, institutional investors, and conglomerate-affiliated firm as control variables. To control for audit efforts, we used total assets and asset turnover [64,69]. Total assets were measured as the log of total assets and asset turnover was measured as sales divided by total assets.

We chose return on assets and negative earnings as variables for profitability of the client firms [22,41,64]. The formula for return on assets was calculated as earnings before interest and taxes divided by total assets. Negative earning was measured as 1 if the firm incurred a loss in the previous year, and 0 otherwise.

To capture the short-term and long-term financial structures of the companies, we included the debt-to-assets ratio and quick ratio [31,66]. We defined the debt-to-assets ratio as the ratio of total debt to total assets, and calculated the quick ratio by dividing the current assets minus the inventory by the total assets.

Since current assets and overseas sales are regarded as relatively high-risk assets, the audits of these assets required specific audit procedures [22,67]. Therefore, we included the current assets divided by the total assets as a control variable in the model. We also used the ratio of sales earned from exports to total assets.

To control for the effects of monitoring on audit quality, we included institutional investor ownership and conglomerates-affiliated companies [70,71]. We measured institutional investor ownership as the number of shares held by institutional investors divided by the total number

of shares outstanding in the firm. We also included in the model a dummy variable to indicate an affiliated firm of the Korean conglomerate groups.

Second, to control for other factors related to audit fees in the previous literature, we included the total assets, total accrual, current assets, overseas sales, number of segments, return on assets, debt-to-assets ratio, negative earnings, reporting lag, fiscal year-ends, institutional investors, and conglomerate-affiliated firm as control variables.

Total assets were measured as the log of total assets in order to control for firm size serving as a proxy for audit effort [31,49,64,72]. To control for audit complexity, we choose total accruals, current assets, overseas sales, and number of segments. Total accruals were measured as the difference between cash flow from operations and net income scaled by total assets [41]. Current assets were denoted as the ratio of current assets—computed by summing the cash, receivables, and inventory—to total assets [69]. Overseas sales are the ratio of foreign segment sales to total assets [64,67]. The number of segments is computed as the number of business segments [41,73].

To control for audit risk, we also include the return on assets, debt-to-assets ratio, negative earnings, and reporting lag between the fiscal year-end and the earnings announcement date [22,41,66,69]. Return on assets is expressed as the earnings before interest and taxes divided by the total assets. The debt-to-assets ratio is the ratio of total liabilities to total assets. Negative earnings is an indicator variable for firm-years with negative earnings. Reporting lag is computed as the number of days between the earnings announcement date and the respective fiscal period end date.

To control for any seasonal peak in audit costs, we assigned an indicator variable that was equal to 1 if a firm's fiscal year-end is in December, and 0 otherwise [41,66]. To control for the effects of monitoring on audit quality, we included institutional investor ownership and conglomerates-affiliated companies into the model (2) [70,74]. We measured institutional investor ownership as the number of shares held by institutional investors divided by the total number of shares outstanding in the company. We also used an indicator variable to show the affiliated firms of the Korean conglomerate groups.

3.3. Research Models

To investigate whether the existence of foreign monitors such as foreign block shareholders and external directors enhanced the audit quality measured by the big four audit firms, we set the logistic regression model as follows:

$$\begin{aligned} \text{Big 4 Audit Firms} = & \alpha + \beta_1 \text{Foreign Monitors} + \beta_2 \text{Total Assets} + \beta_3 \text{Asset Turnover} \\ & + \beta_4 \text{Return on Assets} + \beta_5 \text{Negative Earnings} + \beta_6 \text{Debt to Assets Ratio} + \beta_7 \text{Quick Ratio} \\ & + \beta_8 \text{Current Assets} + \beta_9 \text{Overseas Sales} + \beta_{10} \text{Institutional Investors} \\ & + \beta_{11} \text{Conglomerate-affiliated Firm} + \varepsilon \quad (1) \end{aligned}$$

Model (1) determines the effect of the foreign monitors such as foreign block shareholders or external directors on the audit quality measured by the big four audit firms. Taking Hypotheses 1 and 2, we expect that the coefficients of the foreign monitors are positive and statistically significant.

We use the following regression model to examine whether the existence of foreign monitors affects audit quality as measured by audit fees.

$$\begin{aligned} \text{Audit Fees} = & \alpha + \beta_1 \text{Foreign Monitors} + \beta_2 \text{Total Assets} + \beta_3 \text{Total Accrual} + \beta_4 \text{Current Assets} \\ & + \beta_5 \text{Overseas Sales} + \beta_6 \text{Number of Segments} + \beta_7 \text{Return on Assets} + \beta_8 \text{Debt to Assets Ratio} \\ & + \beta_9 \text{Negative Earnings} + \beta_{10} \text{Reporting Lags} + \beta_{11} \text{Fiscal Year-ends} + \beta_{12} \text{Institutional Investors} \\ & + \beta_{13} \text{Conglomerate-affiliated Firm} + \varepsilon \quad (2) \end{aligned}$$

Model (2) determines the effect of the foreign monitors such as foreign block shareholders and external directors on the audit quality measured by audit fees. Considering Hypotheses 1 and 2, we expect that the coefficients of the foreign monitors are positive and statistically significant.

In order to test the moderation effects of the agency problem on the relationship between foreign monitors and audit quality (big four audit firms or audit fees), we used a multiple logistic regression Model (3) and a regression Model (4) with all of the predictor variables and their interaction terms.

$$\begin{aligned} \text{Big 4 Audit Firms} = & \alpha + \beta_1 \text{Foreign Monitors} + \beta_2 \text{Total Assets} + \beta_3 \text{Asset Turnover} \\ & + \beta_4 \text{Return on Assets} + \beta_5 \text{Negative Earnings} + \beta_6 \text{Debt to Assets Ratio} + \beta_7 \text{Quick Ratio} \\ & + \beta_8 \text{Current Assets} + \beta_9 \text{Overseas Sales} + \beta_{10} \text{Institutional Investors} \\ & + \beta_{11} \text{Conglomerate-affiliated Firm} + \beta_{12} \text{Owner-controlled Firm} \\ & + \beta_{13} \text{Foreign Monitors} \times \text{Owner-controlled Firm} + \varepsilon \quad (3) \end{aligned}$$

$$\begin{aligned} \text{Audit Fees} = & \alpha + \beta_1 \text{Foreign Monitors} + \beta_2 \text{Total Assets} + \beta_3 \text{Total Accrual} + \beta_4 \text{Current Assets} \\ & + \beta_5 \text{Overseas Sales} + \beta_6 \text{Number of Segments} + \beta_7 \text{Return on Assets} + \beta_8 \text{Debt to Assets Ratio} \\ & + \beta_9 \text{Negative Earnings} + \beta_{10} \text{Reporting Lags} + \beta_{11} \text{Fiscal Year-ends} + \beta_{12} \text{Institutional Investors} \\ & + \beta_{13} \text{Conglomerate-affiliated Firm} + \beta_{14} \text{Owner-controlled Firm} \\ & + \beta_{15} \text{Foreign Monitors} \times \text{Owner-controlled Firm} + \varepsilon \quad (4) \end{aligned}$$

The regression coefficients on the interaction term β_{13} in Model (3) and β_{15} in Model (4) provide an estimate of the moderation effect. Thus, if β_{13} in Model (3) and β_{15} in Model (4) are statistically different from zero, there is significant moderation of the relation between foreign monitoring and auditor size or foreign monitoring and audit fees in the data. Based on Hypothesis 3, it is expected that the coefficients on interaction terms will be negative and statistically significant.

4. Empirical Results

4.1. Descriptive Statistics

Table 2 shows the descriptive statistics of the variables employed in the models.

Table 2. Descriptive Statistics.

Variables	Unit	Mean	Median	Standard Deviation	Minimum	Maximum
BIG	dummy variable	0.690	1	0.462	0	1
AF	million KRW	89.384	55.000	117.769	3.800	1713.636
FBS	dummy variable	0.360	0	0.482	0	1
FED	dummy variable	0.080	0	0.270	0	1
AST	billion KRW	117.789	20.379	406.615	0.733	6452.974
AT	ratio	0.974	0.886	0.554	0.041	11.969
ROA	ratio	0.031	0.033	0.093	−0.989	1.277
NE	dummy variable	0.350	0.000	0.477	0.000	1.000
LEV	ratio	0.488	0.484	0.189	0.061	0.998
QR	ratio	1.209	0.938	1.078	0.041	9.486
CA	ratio	0.431	0.427	0.175	0.033	0.919
OS	ratio	0.282	0.185	0.302	0	1.000
INS	ratio (%)	8.269	4.000	11.604	0.000	84.560
CAF	dummy variable	0.216	0	0.411	0	1
ACC	ratio	−0.034	−0.031	0.096	−0.517	1.264
NOS	integer	2.140	1.000	1.544	1.000	10.000
RL	Integer day	89.232	90.000	1.996	56.000	91.000
FYE	dummy variable	0.990	1.000	0.097	0.000	1.000
OCF	dummy variable	0.796	1	0.403	0	1

Notes: The table provides descriptive statistics for 1574 firm-year observations from 2000 to 2003. BIG: Big 4 Audit Firms; AF: Audit Fees; FBS: Foreign Block Shareholders; FED: Foreign External Directors; AST: Total Assets; AT: Asset Turnover; ROA: Return on Assets; NE: Negative Earnings; LEV: Debt-to-Assets Ratio; QR: Quick Ratio; CA: Current Assets; OS: Overseas Sales; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm; ACC: Total Accruals; NOS: Number of Segments; RL: Reporting Lag; FYE: Fiscal Year-Ends; OCF: Ownership-Controlled Firm.

The dependent variables, which measure audit quality, include auditor size and audit fees. The mean of auditor size, which is a dummy variable to indicate the big four audit firms, is 0.690. This means that 69% of firms in our sample select large audit firms. The average of the audit fees is 89.384 million Korean Won, and the median is 55 million Korean Won. The independent variables include the presence of foreign block shareholders and foreign external directors. The average of the foreign block shareholder dummy variable is 0.360, which means that 36% of firms in the sample have foreign block shareholders. The mean of the foreign external director dummy variable is 0.080, indicating that 8% of firms in the sample have foreign external directors representing foreign investment companies. The dummy variable representing the type of manager as a moderating variable shows a mean of 0.796, indicating that professional management-controlled firms consists of 20.4% of total firms in the data set.

Table 3 shows the Pearson correlation coefficients of the variables to be used in research models.

Table 3. Pearson Correlation Statistics.

Panel A: Correlation among Variable Big to QR										
Variables	1	2	3	4	5	6	7	8	9	10
1	1.000	0.292 ***	0.131 ***	0.048 **	0.269 ***	0.029	0.006	−0.024	0.065 ***	−0.084 ***
2		1.000	0.373 ***	0.073 ***	0.867 ***	0.012	0.024	−0.009	0.248 ***	−0.222 ***
3			1.000	0.219 ***	0.417 ***	0.029	0.208 ***	−0.183 ***	0.074 ***	0.041
4				1.000	0.072 **	0.032	0.068 ***	−0.081 ***	−0.006	0.061 ***
5					1.000	−0.032	0.060 ***	−0.065 ***	0.263 ***	−0.232 ***
6						1.000	0.117 ***	−0.081 ***	−0.138 ***	−0.074 ***
7							1.000	−0.291 ***	−0.067 ***	0.246 ***
8								1.000	0.123 ***	−0.225 ***
9									1.000	−0.232 ***
10										1.000
Panel B: Correlation among Variable CA to OCF										
Variables	11	12	13	14	15	16	17	18	19	
2	−0.340 ***	0.090 ***	−0.041	−0.003	−0.144 ***	0.272 ***	0.122 ***	0.039	−0.183 ***	
3	−0.105 ***	0.009	−0.145 ***	−0.008	−0.009	−0.013	0.010	−0.116 ***	−0.027	
4	−0.013	−0.033	−0.009	−0.006	−0.036	−0.088 ***	−0.038	−0.068 ***	−0.100 ***	
5	−0.395 ***	0.078 ***	−0.061 ***	−0.013	−0.144 ***	0.256 ***	0.103 ***	0.019	−0.182 ***	
6	0.237 ***	0.061 ***	−0.021	−0.003	0.013	−0.002	0.003	0.007	−0.002	
7	0.152 ***	−0.086 ***	−0.036	0.001	0.526 ***	−0.084 ***	−0.058 ***	−0.016	0.092 ***	
8	−0.119 ***	0.063 ***	0.002	0.011	−0.086 ***	0.078 ***	0.019	0.003	−0.100 ***	
9	−0.577 ***	0.034	−0.007	0.018	−0.065 ***	0.055 ***	−0.031	−0.014	−0.022	
10	0.409 ***	−0.014	−0.017	−0.018	0.136 ***	−0.123 ***	−0.040	−0.012	0.047 **	
11	1.000	−0.086 ***	0.017	0.016	0.147 ***	−0.055 ***	−0.033	−0.008	−0.002	
12		1.000	−0.043 **	0.011	−0.047 **	0.051 ***	−0.010	0.062 ***	−0.001	
13			1.000	0.150 ***	−0.031	0.007	0.012	0.037	−0.061 ***	
14				1.000	−0.024	0.023	0.024	−0.014	0.028	
15					1.000	−0.026	−0.040	−0.019	0.082 ***	
16						1.000	0.065 ***	0.051 ***	0.026	
17							1.000	−0.007	−0.035	
18								1.000	−0.051 ***	
19									1.000	

Notes: The table presents correlation statistics between variables for the sample of 1574 firm-year observations from 2000 to 2003. ***, **, and * indicate significance at the 1%, 5% and 10% levels, respectively. The numbers stand for variables as follows: 1. BIG: Big 4 Audit Firms; 2. AF: Audit Fees; 3. FBS: Foreign Block Shareholders; 4. FED: Foreign External Directors; 5. AST: Total Assets; 6. AT: Asset Turnover; 7. ROA: Return on Assets; 8. NE: Negative Earnings; 9. LEV: Debt-to-Assets Ratio; 10. QR: Quick Ratio; 11. CA: Current Assets; 12. OS: Overseas Sales; 13. INS: Institutional Investors; 14. CAF: Conglomerate-Affiliated Firm; 15. ACC: Total Accruals; 16. NOS: Number of Segments; 17. RL: Reporting Lag; 18. FYE: Fiscal Year-Ends; 19. OCF: Ownership-Controlled Firm.

The foreign block shareholder is positively correlated with both auditor size and audit fees, which represent audit quality. The foreign external director dummy variable is positively correlated with both auditor size and audit fees. The foreign external director is positively correlated with foreign block shareholders, with a correlation coefficient of 0.219 and a significance level of 1%. This suggests that firms with foreign block shareholders have a moderately high probability of having foreign directors as board members.

4.2. Effect of Foreign Monitoring on Big Four Audit Firms

To test the influence of foreign monitoring such as foreign block shareholders and foreign external directors on big four audit firms, we performed the logistic regression Model (1) (audit firm size is usually measured by an indicator variable that takes the value of 1 if the audit firms are big, and 0 otherwise. Therefore, we perform the logistic regression Model (1) with a dichotomous dependent variable to test the influence of foreign monitoring such as foreign block shareholders and foreign external directors on audit firm size). Table 4 shows the results of the logistic regression analysis, demonstrating the effect of foreign monitoring on big four audit firms.

Table 4. Relationship between Foreign Monitoring and Big Four Audit Firms.

Independent Variables	Predicted Sign	Dependent Variable: BIG					
		<Model 1-1>		<Model 1-2>		<Model 1-3>	
		Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
Intercept		0.363	0.620	0.565	0.436	0.357	0.626
FBS	+	0.476 ***	0.002			0.445 ***	0.004
FED	+			0.410 *	0.085	0.248	0.307
AST	+	0.241 ***	0.001	0.256 ***	0.000	0.238 ***	0.001
AT	+ or −	0.261	0.105	0.249	0.120	0.250	0.120
ROA	−	−0.266	0.690	−0.211	0.750	−0.271	0.685
NE	+	0.006	0.962	−0.003	0.979	0.011	0.938
LEV	+	0.252	0.334	0.230	0.747	0.242	0.734
QR	+	0.004	0.948	0.004	0.954	0.001	0.989
CA	+	−0.517	0.485	−0.518	0.486	−0.537	0.470
OS	+	−0.333	0.128	−0.322	0.142	−0.329	0.134
INS	+	0.004	0.456	0.005	0.421	0.005	0.421
CAF	+	1.078 ***	0.000	1.087 ***	0.000	1.083 ***	0.000
X ² value		199.129 ***		199.629 ***		200.444 ***	
Cox–Snell R ²		0.123		0.123		0.124	
% Correctly Classified		68.4		68.4		68.6	
Hosmer–Lemeshow test's p-value		0.402		0.402		0.584	

Notes: Table 4 displays the test results that foreign monitoring has an effect on Big 4 audit firms. Table 4 presents estimated coefficients from logistic regression. Model 1-1, Model 1-2, and Model 1-3 using Big 4 audit firms as the dependent variable. ***, **, and * indicate significance at the 1%, 5% and 10% levels, respectively. BIG: Big 4 Audit Firms; FBS: Foreign Block Shareholders; FED: Foreign External Directors; AST: Total Assets; AT: Asset Turnover; ROA: Return on Assets; NE: Negative Earnings; LEV: Debt-to-Assets Ratio; QR: Quick Ratio; CA: Current Assets; OS: Overseas Sales; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm.

The empirical results of Model 1-1 and Model 1-2 in Table 4 show that the presence of foreign block shareholders and the existence of foreign external directors are related positively to the big four audit firms. These results support Hypotheses 1 and 2, that the existence of foreign major shareholders and the presence of foreign external directors are positively related to auditor size. Moreover, the empirical results of Model 1-3 in Table 4 show that the foreign external director variable is not related positively to big four audit firms, but the foreign block shareholder variable is positively related to auditor size. These findings uncover that the monitoring role of foreign block shareholders is more powerful than that of foreign external directors. At the same time, these empirical results reveal that the foreign block shareholder is a really important factor in determining audit quality, whereas the foreign external director is not.

In terms of control variables, we find that the coefficients of total assets and conglomerate-affiliated firms are significantly positive. These results are consistent with prior research [22,31,64,70]. The results of the chi-square test and Hosmer–Lemeshow test for assessing the goodness-of-fit of the logistic regression models show that the overall model fit is adequate.

4.3. Effect of Foreign Monitoring on Audit Fees

This section presents the effect of foreign monitoring such as foreign block shareholders and foreign external directors on audit fees. To examine the influence of foreign monitoring on audit fees, the regression Model (2) is executed. The results of regression diagnostics reveal multicollinearity between foreign monitoring and total assets. To solve the multicollinearity problem, we used an instrumental variable approach. After regressing the total assets on foreign monitoring, the residual is defined as an instrumental variable for the total assets. Therefore, in Model (2), the instrumental variable is utilized instead of total assets.

The empirical results of Model 2-1 and Model 2-2 in Table 5 show that the foreign block shareholder variable and the foreign external director variable are related positively to audit fees. These results support Hypotheses 1 and 2; the existence of foreign major shareholders and the existence of foreign external directors are positively related to audit fees. Furthermore, the empirical results of Model 2-3 in Table 5 show that while the foreign external director variable is not related to audit fees, the foreign block shareholder variable is positively related to audit fees. These findings obviously certify that the monitoring role of foreign block shareholders is more powerful than that of foreign external directors. In addition, these empirical results demonstrate that the foreign block shareholder plays a major role in supporting audit quality, whereas the foreign external director does not.

Table 5. Relationship between Foreign Monitoring and Audit Fees.

Independent Variables	Predicted Sign	Dependent Variable: AF					
		<Model 2-1>		<Model 2-2>		<Model 2-3>	
		Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
Intercept		17.442 ***	0.000	17.599 ***	0.000	17.420 ***	0.000
FBS	+	0.512 ***	0.000			0.511 ***	0.000
FED	+			0.221 ***	0.000	0.022	0.492
AST	+	0.392 ***	0.000	0.393 ***	0.000	0.392 ***	0.000
ACC	+	0.001	0.990	0.013	0.905	0.015	0.885
CA	+	−0.031	0.751	−0.035	0.721	−0.036	0.713
OS	+	−0.031	0.336	−0.028	0.373	−0.029	0.367
NOS	+	0.020 ***	0.001	0.021 ***	0.000	0.021 ***	0.000
ROA	−	−0.234 **	0.047	−0.238 **	0.041	−0.244 **	0.038
LEV	+	−0.071	0.466	−0.074	0.449	−0.073	0.456
NE	+	0.036 **	0.054	0.037 **	0.051	0.037 **	0.047
RL	+	0.004	0.394	0.004	0.358	0.004	0.353
FYE	+	−0.158	0.209	−0.170	0.176	−0.168	0.181
INS	+	0.003 ***	0.001	0.003 ***	0.001	0.003 ***	0.001
CAF	+	0.101 ***	0.000	0.100 ***	0.000	0.100 ***	0.000
F-value		221.051 ***		221.810 ***		213.476 ***	
Adj. R ²		0.792		0.792		0.792	

Notes: Table 5 displays the test results that foreign monitoring has an effect on audit fees. Table 5 presents estimated coefficients from regression Model 2-1, Model 2-2, and Model 2-3 using audit fees as the dependent variable. ***, **, and * indicate significance at the 1%, 5% and 10% levels, respectively. AF: Audit Fees; FBS: Foreign Block Shareholders; FED: Foreign External Directors; AST: Total Assets; ACC: Total Accruals; CA: Current Assets; OS: Overseas Sales; NOS: Number of Segments; ROA: Return on Assets; LEV: Debt-to-Assets Ratio; NE: Negative Earnings; RL: Reporting Lag; FYE: Fiscal Year-Ends; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm.

Among the control variables, the total assets, number of segments, negative earnings, institutional investors, and conglomerate-affiliated firms took positive and statistically significant values. In addition, the coefficients of the control variables were generally consistent with prior research [22,41,64,66,69–71]. On the other hand, return on assets showed significantly negative values, which is consistent with prior results [22,41].

4.4. Moderating Effects of Agency Problem on the Relationship between Foreign Monitoring and Big 4 Audit Firms

This section examines the influence of manager type on the relationship between foreign external monitors and the big four audit firms. We use the interaction terms of foreign monitors as foreign major shareholders and external directors with an owner-controlled dummy variable as independent variables to predict the moderating effect of agency problems on the relationship between foreign monitoring and auditor size. Table 6 contains the statistical test results on whether agency problem has an effect on the relationship between foreign external monitors and the big four audit firms.

Table 6. Moderating Effect of Agency Problem on the Relationship between Foreign Monitoring and Big Four Audit Firms.

Independent Variables	Predicted Sign	Dependent Variable: BIG					
		<Model 3-1>		<Model 3-2>		<Model 3-3>	
		Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
Intercept		0.547	0.480	0.973	0.203	0.521	0.502
FBS	+	1.218 ***	0.002			1.156 ***	0.003
FED	+			0.768	0.142	0.428	0.424
AST	+	0.235 ***	0.001	0.253 ***	0.000	0.231 ***	0.001
AT	+ or −	0.263 *	0.101	0.241	0.131	0.252	0.115
ROA	−	−0.208	0.761	−0.018	0.979	−0.221	0.747
NE	+	−0.012	0.929	−0.037	0.784	−0.009	0.945
LEV	+	0.266	0.709	0.160	0.825	0.240	0.739
QR	+	−0.002	0.977	−0.002	0.979	−0.006	0.927
CA	+	−0.523	0.485	−0.612	0.414	−0.538	0.474
OS	+	−0.333	0.129	−0.305	0.165	−0.324	0.140
INS	+	0.003	0.676	0.002	0.759	0.003	0.633
CAF	+	1.018 ***	0.000	1.046 ***	0.000	1.029 ***	0.000
OCF	+	−0.130	0.525	−0.297	0.107	−0.095	0.650
FBS × OCF	−	−0.860 **	0.034			0.812 **	0.049
FED × OCF	−			−0.540	0.357	−0.312	0.603
X ² -value		208.727 ***		204.608 ***		209.750 ***	
Cox-Snell R ²		0.128		0.126		0.129	
% Correctly Classified		68.5		68.4		68.5	
Hosmer-Lemeshow test's p-value		0.405		0.175		0.225	

Notes: Table 6 contains the statistical test results regarding whether agency problem has an effect on the association between foreign monitoring and the Big 4 audit firms. Table 6 shows estimated coefficients from logistic regression Model 3-1, Model 3-2, and Model 3-3 using Big 4 audit firms as the dependent variable. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. BIG: Big 4 Audit Firms; FBS: Foreign Block Shareholders; FED: Foreign External Directors; AST: Total Assets; AT: Asset Turnover; ROA: Return on Assets; NE: Negative Earnings; LEV: Debt-to-Assets Ratio; QR: Quick Ratio; CA: Current Assets; OS: Overseas Sales; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm; OCF: Ownership-Controlled Firm.

According to the results from the analysis in Model 3-1 of Table 6, the coefficient of the interaction term of foreign block shareholders with the owner-controlled dummy variable is negatively related to the big four audit firms, indicating that the big four audit firms are more negatively related to foreign block shareholders in owner-controlled firms compared with professional management-controlled firms. However, we did not find that the estimated coefficient of the interaction term of foreign external directors with the owner-controlled dummy variable was significantly negative in Model 3-2 of Table 6. More importantly, we found that the coefficient of the interaction term of foreign block shareholders with owner-controlled firms was significantly negative in the combined Model 3-3 of Table 6; on the other hand, the coefficient of the interaction term of foreign external directors with owner-controlled firms was not.

These results show that under high-agency problem conditions, the association between foreign block shareholders and big four audit firms is greater than under conditions of low-agency problems.

In other words, these results support the suggestion that if the agency conflict between shareholders and managers is greater, the foreign external monitors as major shareholders will demand higher external audit services to inspect managers' activities, which may lead to select big four audit firms. Therefore, these results support our hypothesis that the effect of the presence of foreign block shareholders on external auditor size is greater in professional management-controlled companies than in owner-controlled ones.

4.5. Moderating Effects of Agency Problem on the Relationship between Foreign Monitoring and Audit Fees

This section examines the effect of foreign monitors on audit fees for owner-controlled firms versus professional management-controlled companies. To predict the moderating effect of agency problems on the relationship between foreign monitoring and audit fees, we use the interaction terms of foreign monitors as foreign major shareholders and external directors with an owner-controlled dummy variable as independent variables. Table 7 reports the test results that agency problem has an effect on the relationship between foreign external monitors and audit fees.

Table 7. Moderating Effect of Agency Problem on the Relationship between Foreign Monitoring and Audit Fees.

Independent Variables	Predicted Sign	Dependent Variable: AF					
		<Model 4-1>		<Model 4-2>		<Model 4-3>	
		Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
Intercept		17.454 ***	0.000	17.604 ***	0.000	17.426 ***	0.000
FBS	+	0.611 ***	0.000			0.610 ***	0.000
FED	+			0.251 ***	0.000	0.032	0.552
AST	+	0.392 ***	0.000	0.394 ***	0.000	0.392 ***	0.000
ACC	+	0.005	0.963	0.013	0.901	0.020	0.851
CA	+	−0.011	0.914	−0.034	0.728	−0.013	0.893
OS	+	−0.032	0.312	−0.027	0.389	−0.030	0.344
NOS	+	0.021 ***	0.000	0.021 ***	0.001	0.022 ***	0.000
ROA	−	−0.264 **	0.027	−0.238 **	0.043	−0.278 **	0.020
LEV	+	−0.060	0.539	−0.076	0.437	−0.061	0.529
NE	+	0.039 **	0.039	0.037 **	0.052	0.041 **	0.032
RL	+	0.003	0.473	0.004	0.368	0.003	0.431
FYE	+	−0.163	0.192	−0.168	0.181	−0.172	0.170
INS	+	0.003 ***	0.000	0.003 ***	0.001	0.003 ***	0.000
CAF	+	0.097 ***	0.000	0.101 ***	0.000	0.097 ***	0.000
OCF	+	0.043	0.134	0.004	0.880	0.050 *	0.086
FBS × OCF	−	−0.125 ***	0.004			−0.124 ***	0.005
FED × OCF	−			−0.045	0.493	−0.013	0.847
F-value		206.397 ***		205.772 ***		193.103 ***	
Adj. R ²		0.792		0.792		0.792	

Notes: Table 7 contains the statistical test results on whether the agency problem has an effect on the association between foreign monitoring and audit fees. Table 7 shows estimated coefficients from regression Model 4-1, Model 4-2, and Model 4-3 using audit fees as the dependent variable. ***, **, and * indicate significance at the 1%, 5% and 10% levels, respectively. AF: Audit Fees; FBS: Foreign Block Shareholders; FED: Foreign External Directors; AST: Total Assets; ACC: Total Accruals; CA: Current Assets; OS: Overseas Sales; NOS: Number of Segments; ROA: Return on Assets; LEV: Debt-to-Assets Ratio; NE: Negative Earnings; RL: Reporting Lag; FYE: Fiscal Year-Ends; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm.

As can be seen in Model 4-1 of Table 7, the coefficient of the interaction term of foreign block shareholders with an owner-controlled dummy variable is significantly negative. However, we did not find that the estimated coefficient of the interaction term of foreign external directors with the owner-controlled dummy variable was significantly negative in Model 4-2 of Table 7. At the same time, the results in Model 4-3 of Table 7 indicated that the effect of foreign block shareholders on audit fees for professional management-controlled companies was greater than for owner-controlled firms.

However, we found that the effect of foreign external directors on audit fees for owner-controlled firms was insignificant.

These results confirm that under high-agency problem conditions, the association between foreign block shareholders and audit fees is greater than under conditions of low-agency problems. In other words, these results support the suggestion that if the agency conflict between shareholders and managers is greater, the foreign external monitors as major shareholders will demand higher external audit services to inspect managers' activities, which may lead to higher audit fees. Therefore, these results support our hypothesis that the effect of the presence of foreign block shareholders on external audit fees is greater in professional management-controlled companies than in owner-controlled ones.

4.6. Robustness Checks

In this section, we report the results from several robustness checks. First, in order to justify our measurement of foreign block shareholders as an independent variable, we run the additional analysis using foreign ownership as a continuous variable that measures the percentage of equity held by foreign investors. Since turning continuous variables into dummy variables would cause a loss of information, we have tested additional models that include foreign ownership. The results are presented in Tables 8 and 9.

Table 8. Moderating Effect of Agency Problem on the Relationship between Foreign Ownership and Big Four Audit Firms.

Independent Variables	Predicted Sign	Dependent Variable: BIG			
		<Model 5-1>		<Model 5-2>	
		Coefficient	p-Value	Coefficient	p-Value
Intercept		−11.076 ***	0.000	−10.771 ***	0.000
FO	+	0.259 **	0.044	0.649 ***	0.009
FED	+	−0.027	0.918	0.237	0.496
AST	+	0.432 ***	0.000	0.439 ***	0.000
AT	+ or −	0.322 **	0.032	0.282 *	0.074
ROA	−	−0.685	0.290	−0.712	0.300
NE	+	0.032	0.809	−0.035	0.800
LEV	+	−0.227	0.459	−0.388	0.238
QR	+	−0.009	0.881	0.012	0.854
CA	+	−0.786 *	0.098	−1.075 **	0.035
OS	+	−0.506 ***	0.008	−0.303	0.146
INS	+	0.009 *	0.102	0.009	0.116
CAF	+	0.188	0.205	0.181	0.250
OCF	+			−0.168	0.468
FO × OCF	−			−0.538 **	0.015
X ² -value		167.225 ***		158.001 ***	
Cox–Snell R ²		0.101		0.110	
% Correctly Classified		69.0		67.1	
Hosmer–Lemeshow test's p-value		0.268		0.150	

Notes: Table 8 displays the test results on whether foreign monitoring has an effect on the Big 4 audit firms. Table 8 presents the estimated coefficients from logistic regression Model 5-1 and Model 5-2 using the Big 4 audit firms as the dependent variable. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. BIG: Big 4 Audit Firms; FO: Foreign Ownership; FED: Foreign External Directors; AST: Total Assets; AT: Asset Turnover; ROA: Return on Assets; NE: Negative Earnings; LEV: Debt-to-Assets Ratio; QR: Quick Ratio; CA: Current Assets; OS: Overseas Sales; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm; OCF: Ownership-Controlled Firm.

Table 9. Moderating Effect of Agency Problem on the Relationship between Foreign Ownership and Audit Fees.

Independent Variables	Predicted Sign	Dependent Variable: AF			
		<Model 6-1>		<Model 6-2>	
		Coefficient	p-Value	Coefficient	p-Value
Intercept		6.598 ***	0.000	6.671 ***	0.000
FO	+	0.064 ***	0.001	0.089 ***	0.000
FED	+	0.018	0.622	0.015	0.687
AST	+	0.394 ***	0.000	0.391 ***	0.000
ACC	+	−0.028	0.803	0.007	0.948
CA	+	0.088	0.179	0.075	0.266
OS	+	0.046	0.116	0.053 *	0.078
NOS	+	0.024 ***	0.000	0.024 ***	0.000
ROA	−	−0.152	0.214	−0.190	0.131
LEV	+	0.078 *	0.081	0.081 *	0.075
NE	+	0.066 ***	0.001	0.066 ***	0.001
RL	+	0.010 **	0.022	0.010 **	0.029
FYE	+	−0.075	0.570	−0.082	0.533
INS	+	0.001	0.195	0.001	0.187
CAF	+	0.004	0.857	0.009	0.687
OCF	+			0.029	0.376
FO × OCF	−			−0.037 **	0.016
F-value		169.482 ***		188.491 ***	
Adj. R ²		0.764		0.765	

Notes: Table 9 displays the test results on whether foreign monitoring has an effect on audit fees. Table 9 presents estimated coefficients from regression Model 6-1 and Model 6-2 using audit fees as the dependent variable. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. AF: Audit Fees; FO: Foreign Ownership; FED: Foreign External Directors; AST: Total Assets; ACC: Total Accruals; CA: Current Assets; OS: Overseas Sales; NOS: Number of Segments; ROA: Return on Assets; LEV: Debt-to-Assets Ratio; NE: Negative Earnings; RL: Reporting Lag; FYE: Fiscal Year-Ends; INS: Institutional Investors; CAF: Conglomerate-Affiliated Firm.

In both Model 5-1 of Table 8 and Model 6-1 of Table 9, the estimated coefficients of foreign ownership are significantly positive. These empirical results uncover that foreign ownership is a really important factor that influences audit quality. In addition, the results in both Model 5-2 of Table 8 and Model 6-2 of Table 9 report that the coefficients of the interaction terms of foreign ownership with the owner-controlled dummy variable are significantly negative. These results support our hypothesis that the effect of the foreign ownership on external audit quality is greater in professional management-controlled companies than in owner-controlled ones.

Second, we tested a model with domestic institutional investors as an additional control variable to determine the independent impact of foreign monitors on the respective measures of audit quality. To control for institutional investors' monitoring incentives, we regarded domestic institutional investor ownership as an additional control variable in Tables 4 and 5. We found that the institutional investor ownership was positively related to audit fees in Table 5, but not to auditor size in Table 4. After controlling for the effect of institutional investor ownership on audit quality, our results were consistent with our hypothesis that the existence of foreign monitors is positively associated with external audit quality.

Third, we performed additional correlation tests to check the association between audit quality proxies used as the dependent variable in this paper and other audit quality proxies. We used two measures of accrual quality [75,76] and going-concern audit opinion [65,77] as alternative proxies for audit quality. In addition, we ran correlation tests to confirm the relation between foreign monitors such as foreign block shareholders and external directors and alternative proxies for audit quality. The results are presented in Table 10.

Panel A of Table 10 reports the Pearson correlation coefficients among audit quality proxies. According to the *p*-value shown on Panel A of Table 10, audit fees are negatively correlated with two measures of accrual quality. These results suggest that audit fees are positively related with accounting quality. In addition, the negative correlation between audit fees and going-concern audit opinion suggests that auditors file fewer going-concern audit opinions about auditees when audit fees are higher.

Panel B of Table 10 shows the Pearson correlation coefficients between foreign monitors such as foreign block shareholders and external directors, and alternative proxies for audit quality. As shown in Panel B of Table 10, the foreign block shareholder is negatively correlated with two measures of accrual quality and going-concern audit opinion. These results suggest that firms with foreign block shareholders are inclined to improve accounting quality. On the contrary, foreign external directors are not correlated with accounting quality and going-concern audit opinion.

Table 10. Other Proxies for Audit Quality.

<Panel A> Pearson Correlation Coefficients between the Proxies of Audit Quality Used in This Paper and Other Audit Quality Proxies			
	Accrual Quality		Going-Concern Audit Opinion
	Dechow and Dichev (2002)	McNichols (2002)	
Audit fees	−0.079 ***	−0.067 ***	−0.076 ***
(<i>p</i> -value)	−0.002	−0.010	−0.003
Auditor size	−0.022	−0.014	0.005
(<i>p</i> -value)	−0.404	−0.583	−0.837
<Panel B> Pearson correlation coefficients between foreign monitors and other audit quality proxies			
	Accrual Quality		Going-Concern Audit Opinion
	Dechow and Dichev (2002)	McNichols (2002)	
Foreign Block Shareholders	−0.058 **	−0.044 *	−0.081 ***
(<i>p</i> -value)	−0.027	−0.095	−0.001
Foreign External Directors	0.003	−0.013	−0.021
(<i>p</i> -value)	−0.903	−0.608	−0.405

Notes: Panel A of Table 10 reports the correlation coefficients among audit quality proxies. Panel B of Table 10 shows the test results of the correlation between foreign monitors such as foreign block shareholders and external directors and alternative proxies for audit quality. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Finally, in order to mitigate the endogeneity issue of whether foreign investors' monitoring drives audit quality or audit quality attracts foreign investors, we performed tests using lagged dependent variables on the right-hand side of the regression models [78]. Since lagged variables are used as instruments for level equations, we made audit quality reflected by auditor size and audit fees lagged one year as instruments in our test models [78,79]. An untabulated analysis showed that the presence of foreign block shareholders and the existence of foreign external directors were related positively to the lagged audit quality, as reflected by auditor size and audit fees. In addition, the monitoring role of foreign block shareholders is more powerful than that of foreign external directors. Moreover, the foreign block shareholders in professional management-controlled firms exert a more profound influence on the lagged audit quality than those in owner-controlled ones. These untabulated test results are consistent with our hypotheses.

5. Discussion and Conclusions

We analyzed the relationship between foreign monitoring and audit quality as well as the moderation effect of agency problems on the association. Using 1574 non-financial firm-year observations listed on the Korea Stock Exchange from 2000 to 2003, we found the following test results.

First, the audit quality of firms with foreign block shareholders was higher than those without. This finding indicates that if the foreign block shareholders with monitoring incentives and expert

knowledge become part of a corporate governance structure in the less-developed Korean capital market, foreign major shareholders may demand improved external audit quality in order to monitor managers and protect their investments, which may lead to higher audit fees.

Second, the audit quality of firms with foreign external directors turned out to be higher. This result shows that the foreign external directors with monitoring incentives and expert knowledge may demand improved external audit quality in order to monitor managers and protect their reputation, which may lead to higher audit fees.

Third, the monitoring role of foreign block shareholders was more powerful than that of foreign external directors. This empirical result reveals that the foreign block shareholders are a really important factor in audit quality, whereas foreign external directors are not.

Fourth, the foreign block shareholders in professional management-controlled firms exerted a more profound influence on audit quality than those in owner-controlled ones. This finding indicates that if the agency conflict between shareholders and managers is greater, the foreign block shareholders will demand higher external audit services to inspect managers' activities, which may lead to higher audit fees.

These test results suggest that the presence of foreign monitors such as foreign block shareholders and foreign outside directors increases audit quality. This implies that foreign investors with independence, expertise, and monitoring incentives could play an important role in improving the corporate governance system in Korea, which in turn would not only enhance firm value, but also strengthen the sustainability of Korean companies. The policy implication of this research is that the regulators may need to review the current regulation that shareholders with major stakes in the firm's performance and the incentive to monitor should be allowed appointments as outside directors on their own behalf. Likewise, since the shareholders armored with the incentive and expertise necessary for corporate monitoring can efficiently monitor and control the decision-making of the managers, the shareholders may be given the opportunity to monitor managers. Furthermore, as foreign investors with independence, expertise, and monitoring incentives could play an important role in improving the corporate governance system in Korea, authorities need to create conditions that will facilitate foreign investment.

As there are a few competing theories and mixed empirical evidence on the effects of the monitoring activities of external block shareholders and external directors, this study may provide additional evidence using unexplored data from a fast growing Korean stock market. While existing studies consider foreign investors just a monitoring entity as a whole, this study classifies them into foreign block shareholders and foreign external directors, and attempts to specifically differentiate the monitoring role of foreign investors to a greater extent. Moreover, since this study suggests that the relationship between corporate governance structure and audit quality is due to the multiple stakeholders influencing decisions about control and auditing in firms, this study will contribute to future research on the impact of foreign investors' monitoring on managerial decision-making.

We suggest several approaches for future research into the monitoring role of foreign investors and audit quality. We can examine whether foreign investors influence the sensitivity between executive compensation and firm performance. Likewise, we can investigate whether foreign investors dismiss a former CEO because of past poor performance and appoint a new CEO. In addition, we can focus on the relationship between the monitoring of foreign investors and managerial action. For example, we can analyze whether foreign investors contribute to the improvement of accounting quality in order to monitor management. On the other hand, we need to test the empirical validity of both audit firm size and audit fees, which were used as indirect measures for audit quality in this paper. Further empirical research to compare the different monitoring effects between foreign-elected directors and foreign block shareholders would also be interesting.

Author Contributions: S.C.L. and J.Y. designed the research framework, analyzed the data and wrote the paper. M.R. guided this work and provided extensive revisions during the study.

Funding: This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea [NRF-2017S1A5A2A01025232].

Conflicts of Interest: The authors declare no conflict of interest.

References

- Ching, Y.; Qian, Y.; Sherman, A. Endogenous entry and partial adjustment in IPO auctions: Are institutional investors better informed? *Rev. Financ. Stud.* **2010**, *23*, 1200–1230. [\[CrossRef\]](#)
- Grossman, S.; Hart, O. Takeover bids, the free-rider problem, and the theory of the corporation. *Bell J. Econ.* **1980**, *11*, 42–64. [\[CrossRef\]](#)
- Holderness, C. A survey of blockholders and corporate control. *FRBNY Econ. Policy Rev.* **2003**, *9*, 51–64. [\[CrossRef\]](#)
- Shleifer, A.; Vishny, R. Large shareholders and corporate control. *J. Polit. Econ.* **1986**, *94*, 461–488. [\[CrossRef\]](#)
- Barclay, M.; Holderness, C. Private benefits from control of public corporations. *J. Financ. Econ.* **1989**, *25*, 371–395. [\[CrossRef\]](#)
- Black, B.; Jang, H.; Kim, W. *Does Corporate Governance Affect Firm Value? Evidence from Korea*; Working Paper; The University of Texas at Austin: Austin, TX, USA, 2002.
- Choi, J.; Park, S.; Yoo, S. The value of outside directors: Evidence from corporate governance reform in Korea. *J. Financ. Quant. Anal.* **2007**, *42*, 941–962. [\[CrossRef\]](#)
- Noe, T. Investor activism and financial market structure. *Rev. Financ. Stud.* **2002**, *15*, 289–318. [\[CrossRef\]](#)
- Bhagat, S.; Black, B. The non-correlation between board independence and long-term firm performance. *J. Corp. Law* **2002**, *27*, 231–273. [\[CrossRef\]](#)
- Demsetz, H.; Lehn, K. The structure of corporate ownership: Causes and consequences. *J. Polit. Econ.* **1985**, *93*, 1155–1177. [\[CrossRef\]](#)
- Hermalin, B.; Weisbach, M. The effects of board composition and direct incentives on firm performance. *Financ. Manag.* **1991**, *20*, 101–112. [\[CrossRef\]](#)
- Mehran, H. Executive compensation structure, ownership, and firm performance. *J. Financ. Econ.* **1995**, *38*, 163–184. [\[CrossRef\]](#)
- Lee, S. Corporate governance and firm performance; evidence from institutional investors and proxy voting in Korea. *Hitotsubashi J. Econ.* **2015**, *56*, 35–53.
- Lee, S.; Kim, J. An effect of foreign monitoring on agency costs and firm value. *Korean J. Manag. Account.* **2009**, *9*, 95–133.
- Shin, H.; Lee, S.; Chang, J. Outside monitors and firm value. *Korean J. Financ.* **2004**, *17*, 41–72.
- Korea Listed Companies Association. An analysis on appointment of outside directors in Korean listed companies. *Mon. List.* **2008**, *418*, 50–58.
- Jeon, J.; Lee, C.; Moffett, C. Effects of foreign ownership on payout policy: Evidence from the Korean market. *J. Financ. Mark.* **2011**, *14*, 344–375. [\[CrossRef\]](#)
- Fama, E. Agency problem and the theory of the firm. *J. Polit. Econ.* **1980**, *88*, 288–307. [\[CrossRef\]](#)
- Fama, E.; Jensen, M. Separation of ownership and control. *J. Law Econ.* **1983**, *26*, 301–325. [\[CrossRef\]](#)
- Jensen, M.; Meckling, W. Theory of the firm: Managerial behavior, agency costs and ownership structure. *J. Financ. Econ.* **1976**, *3*, 305–360. [\[CrossRef\]](#)
- Cheng, M.; Lin, B.; Lu, R.; Wei, M. Non-controlling large shareholders in emerging markets: Evidence from China. *J. Corp. Financ.* **2017**, in press. [\[CrossRef\]](#)
- Cronqvist, H.; Fahlenbrach, R. Large shareholders and corporate policies. *Rev. Financ. Stud.* **2009**, *22*, 3941–3976. [\[CrossRef\]](#)
- Edmans, A. Blockholders and corporate governance. *Annu. Rev. Financ. Econ.* **2014**, *6*, 23–50. [\[CrossRef\]](#)
- Barclay, M.; Holderness, C. Negotiated block trades and corporate control. *J. Financ.* **1991**, *46*, 861–878. [\[CrossRef\]](#)
- Chemmanur, T.; He, S.; Hu, G. The role of institutional investors in seasoned equity offerings. *J. Financ. Econ.* **2009**, *94*, 384–411. [\[CrossRef\]](#)
- Tong, W.; Zhang, S.; Zhy, Y. Trading on inside information: Evidence from the share-structure reform in China. *J. Bank. Financ.* **2013**, *37*, 1422–1436. [\[CrossRef\]](#)

27. Ahmed, A.; Iwasaki, T. *Foreign Ownership, Manager Monitoring, and Firm Value: Evidence from Japanese Firms*; Working Paper; Texas A & M University: College Station, TX, USA, 2015.
28. Holderness, C.; Sheehan, D. The role of majority shareholders in publicly held corporations. *J. Financ. Econ.* **1988**, *20*, 317–346. [[CrossRef](#)]
29. Mikkelsen, W.; Ruback, R. An empirical analysis of the inter-firm equity investment process. *J. Financ. Econ.* **1985**, *14*, 523–553. [[CrossRef](#)]
30. Huang, W.; Zhu, T. Foreign institutional investors and corporate governance in emerging markets: Evidence of a split-share structure reform in China. *J. Corp. Financ.* **2015**, *32*, 312–326. [[CrossRef](#)]
31. Okubo, T.; Wagner, A.; Yamada, K. *Does Foreign Ownership Explain Company Export and Innovation Decisions?* Discussion Paper Series 17-E-099; Research Institute of Economy, Trade and Industry: Tokyo, Japan, 2017.
32. Siegel, J. Contingent political capital and international alliances: Evidence from South Korea. *Adm. Sci. Q.* **2007**, *52*, 621–666. [[CrossRef](#)]
33. Khurana, I.; Raman, K. Litigation risk and the financial reporting credibility of Big 4 versus non-Big 4 audits: Evidence from Anglo-American countries. *Account. Rev.* **2004**, *79*, 473–495. [[CrossRef](#)]
34. Filatotchev, L.; Strange, R.; Piesse, J.; Lien, Y. Ownership structure, strategic controls and export intensity of foreign-invested firms in transition economies. *J. Int. Bus. Stud.* **2008**, *39*, 1133–1148. [[CrossRef](#)]
35. Filatotchev, L.; Stephan, J.; Jindra, B. FDI by firms from newly industrialised economies in emerging markets: Corporate governance, entry mode and location. *J. Int. Bus. Stud.* **2007**, *38*, 556–572. [[CrossRef](#)]
36. Hay, D.; Knechel, W.; Ling, H. Evidence on the impact of internal control and corporate governance on audit fees. *Int. J. Audit.* **2008**, *12*, 9–24. [[CrossRef](#)]
37. Jensen, M. The modern industrial revolution, exit, and the failure of internal control systems. *J. Financ.* **1993**, *48*, 830–879. [[CrossRef](#)]
38. Griffin, P.; Lont, D.; Sun, Y. Agency problems and audit fees: Further tests of the free cash flow hypothesis. *Account. Financ.* **2010**, *50*, 321–350. [[CrossRef](#)]
39. O’Keefe, T.; King, R.; Gaver, K. Audit fees, industry specialization, and compliance with GAAS reporting standards. *Audit. J. Pract. Theory* **1994**, *13*, 41–55.
40. Kaplan, S.; Reishus, D. Outside directorships and corporate performance. *J. Financ. Econ.* **1990**, *27*, 389–410. [[CrossRef](#)]
41. Balsmeier, B.; Fleming, L.; Manso, G. Independent boards and innovation. *J. Financ. Econ.* **2017**, *123*, 536–557. [[CrossRef](#)]
42. Beasley, M. An empirical analysis of the relation between the board of director composition and financial statement fraud. *Account. Rev.* **1996**, *71*, 443–465.
43. Rosenstein, S.; Wyatt, J. Outside directors, board independence, and shareholder wealth. *J. Financ. Econ.* **1990**, *26*, 175–191. [[CrossRef](#)]
44. Shivdasani, A. Board composition, ownership structure, and hostile takeovers. *J. Account. Econ.* **1993**, *16*, 167–198. [[CrossRef](#)]
45. Weisbach, M. Outside directors and CEO turnover. *J. Financ. Econ.* **1988**, *20*, 431–460. [[CrossRef](#)]
46. Adams, R.; Licht, A.; Sagiv, L. Shareholders and stakeholders: How do directors decide? *Strateg. Manag. J.* **2011**, *32*, 1331–1355. [[CrossRef](#)]
47. Cheng, M.; Lin, B.; Wei, M. How does the relationship between multiple large shareholders affect corporate valuations? Evidence from China. *J. Econ. Bus.* **2013**, *70*, 43–70. [[CrossRef](#)]
48. Watts, R.; Zimmerman, J. *Positive Accounting Theory*; Prentice-Hall: London, UK, 1985.
49. Bell, T.; Landsman, W.; Miller, B.; Yeh, S. The valuation implications of employee stock option accounting for profitable computer software firms. *Account. Rev.* **2002**, *77*, 971–996. [[CrossRef](#)]
50. Tsui, J.; Jaggi, B.; Gul, F. CEO domination, growth opportunities, and their impact on audit fees. *J. Account. Audit. Financ.* **2001**, *16*, 189–208. [[CrossRef](#)]
51. Dechow, P.; Skinner, D. Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Account. Horiz.* **2000**, *14*, 235–250. [[CrossRef](#)]
52. Healy, P. The effects of bonus schemes on accounting decisions. *J. Account. Econ.* **1985**, *7*, 85–107. [[CrossRef](#)]
53. Holthausen, R.; Larcker, D.; Sloan, R. Annual bonus schemes and the manipulation of earnings. *J. Account. Econ.* **1995**, *19*, 29–74. [[CrossRef](#)]
54. Bowen, R.; DuCharme, L.; Shores, D. Stakeholders’ implicit claims and accounting method choice. *J. Account. Econ.* **1995**, *20*, 255–295. [[CrossRef](#)]

55. Chung, R.; Firth, M.; Kim, J. Earnings management, surplus free cash flow, and external monitoring. *J. Bus. Res.* **2005**, *58*, 766–776. [[CrossRef](#)]
56. Jaggi, B.; Gul, F. *Evidence of Accruals Management: A Test of the Free Cash Flow and Debt Monitoring Hypotheses*; Working Paper; The State University of New Jersey: Newark, NJ, USA, 2005.
57. DeAngelo, L. Auditor size and audit quality. *J. Account. Econ.* **1981**, *3*, 183–199. [[CrossRef](#)]
58. Becker, C.; DeFond, M.; Jiambalvo, J.; Subramanyam, K. The effect of audit quality on earnings management. *Contemp. Account. Res.* **1998**, *15*, 1–24. [[CrossRef](#)]
59. Davidson, R.; Neu, D. A note on the association between audit firm size and audit quality. *Contemp. Account. Res.* **1993**, *9*, 479–488. [[CrossRef](#)]
60. Francis, J. What do we know about audit quality? *Br. Account. Rev.* **2004**, *34*, 345–368. [[CrossRef](#)]
61. Francis, J.; Maydew, E.; Sparks, H. The role of big 6 auditors in the credible reporting of accruals. *Audit. J. Pract. Theory* **1999**, *18*, 17–34. [[CrossRef](#)]
62. Watkins, A.; Hillison, W.; Morecroft, S. Audit quality: A synthesis of theory and empirical evidence. *J. Account. Lit.* **2004**, *23*, 153–193.
63. Simon, D.; Francis, J. The effect of auditor change on audit fees: Test of price cutting and price recovery. *Account. Rev.* **1988**, *63*, 255–269.
64. Simunic, D. The pricing of audit services: Theory and evidence. *J. Account. Res.* **1980**, *18*, 161–190. [[CrossRef](#)]
65. Carcello, J.; Neal, T. Audit committee characteristics and auditor dismissals following ‘new’ going-concern reports. *Account. Rev.* **2003**, *78*, 95–117. [[CrossRef](#)]
66. Francis, J.; Stokes, D. Audit prices, product differentiation, and scale economies: Further evidence from the Australian market. *J. Account. Res.* **1986**, *24*, 383–393. [[CrossRef](#)]
67. Hay, D.; Knechel, W.; Wong, N. Audit fees: A meta-analysis of the effect of supply and demand attributes. *Contemp. Account. Res.* **2006**, *23*, 141–191. [[CrossRef](#)]
68. Shleifer, A.; Vishny, R. A survey of corporate governance. *J. Financ.* **1997**, *52*, 737–783. [[CrossRef](#)]
69. Chaney, P.; Jeter, D.; Shivakumar, L. Self-Selection of auditors and audit pricing in private firms. *Account. Rev.* **2004**, *79*, 51–72. [[CrossRef](#)]
70. Choi, J.; Kwak, S.; Yoo, S. The association between audit fees and the ownership structure. *Seoul J. Bus.* **2007**, *13*, 941–962.
71. Velury, U.; Reisch, J.; O’Reilly, D. Institutional ownership and the selection of industry specialist auditors. *Rev. Quant. Financ. Account.* **2003**, *21*, 35–48. [[CrossRef](#)]
72. Clatworthy, M.; Peel, M. The effect of corporate status on external audit fees: Evidence from the UK. *J. Bus. Financ. Account.* **2007**, *34*, 169–201. [[CrossRef](#)]
73. Francis, J.; Simon, T. A test of audit pricing in the small-client segment of the U.S. audit market. *Account. Rev.* **1987**, *62*, 145–157.
74. Kane, G.; Velury, U. The role of institutional ownership in the market for auditing services: An empirical investigation. *J. Bus. Res.* **2004**, *57*, 976–983. [[CrossRef](#)]
75. Dechow, P.; Dichev, I. The quality of accruals and earnings: The role of accrual estimation errors. *Account. Rev.* **2002**, *77*, 35–59. [[CrossRef](#)]
76. McNichols, M. Discussion of The quality of accruals and earnings: The role of accrual estimation errors. *Account. Rev.* **2002**, *77*, 61–69. [[CrossRef](#)]
77. Knechel, W.; Vanstraelen, A. The relationship between auditor tenure and audit quality implied by going concern opinions. *Audit. J. Pract. Theory* **2007**, *26*, 113–131. [[CrossRef](#)]
78. Abdalla, W.; Goergen, M.; O’Sullivan, N. Endogeneity: How failure to correct for it can cause wrong inferences and some remedies. *Br. J. Manag.* **2015**, *26*, 791–804. [[CrossRef](#)]
79. Jayaraman, S.; Milbourn, T. CEO incentives and financial misreporting; the role of auditor expertise. *Account. Rev.* **2014**, *90*, 321–350. [[CrossRef](#)]

