“The association between foreign directors and opportunistic financial reporting”

AUTHORS	JungHwa Suh https://orcid.org/0000-0003-3307-1158 http://www.researcherid.com/rid/R-2770-2018 Ho-Young Lee https://orcid.org/0000-0003-4950-5838 http://www.researcherid.com/rid/R-3037-2018 Hansol Lee https://orcid.org/0000-0001-6776-410X http://www.researcherid.com/rid/R-2609-2018

ARTICLE INFO	JungHwa Suh, Ho-Young Lee and Hansol Lee (2018). The association between foreign directors and opportunistic financial reporting. *Investment Management and Financial Innovations*, *15*(4), 98-112. doi:10.21511/imfi.15(4).2018.08
DOI	http://dx.doi.org/10.21511/imfi.15(4).2018.08
RELEASED ON	Thursday, 08 November 2018
RECEIVED ON	Monday, 17 September 2018
ACCEPTED ON	Wednesday, 31 October 2018

JOURNAL	"Investment Management and Financial Innovations"
ISSN PRINT	1810-4967
ISSN ONLINE	1812-9358
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
42	0	10

BUSINESS PERSPECTIVES

LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy, 40022, Ukraine

www.businessperspectives.org

JungHwa Suh (Korea), **Ho-Young Lee** (Korea), **Hansol Lee** (Korea)

THE ASSOCIATION BETWEEN FOREIGN DIRECTORS AND OPPORTUNISTIC FINANCIAL REPORTING

Abstract

This study examines the effect of foreign directors in the board of directors on the monitoring function by analyzing the association between foreign directors and opportunistic financial reporting. The authors address this question by examining the effect of the foreign directors in the board on firms' discretionary accruals and book-tax difference. The researchers analyze by using Korean firm data for the years 2001–2014 as Korea is one of the few countries that nepotism is strong within the board, providing the ideal setting to analyze the effect of foreign directors on the monitoring function of the board. The authors find that foreign directors have a positive effect on the monitoring function of the board, as discretionary accruals and book-tax differences of firms with foreign directors are lower than those without foreign directors. Further, the researchers find that the positive effect of foreign directors on the monitoring function is more pronounced if foreign directors are independent directors or expertise in accounting or finance. Overall, the findings support the view that foreign directors in the board increase the board diversity, which increases the independence of the board and so the monitoring function.

Keywords foreign director, board diversity, board independence, monitoring function, opportunistic financial reporting, discretionary accruals, book-tax difference

JEL Classification M480

Received on: 17th of September, 2018
Accepted on: 31st of October, 2018

JungHwa Suh, Ph.D. Candidate, Yonsei University, Seoul, Korea.

Ho-Young Lee, Professor, Yonsei University, Seoul, Korea.

Hansol Lee, Ph.D. Candidate, Yonsei University, Seoul, Korea.

INTRODUCTION

As global management and multinational corporations are becoming common, many Korean firms are expanding their businesses to overseas markets, and the rapid development of the internet, communication technologies, and distribution channels are accelerating the growth of international trade. Therefore, corporations today require to design their business strategies on a global basis and develop their products and services that work across borders, so today's multinational firms need to have directors or leaders who can develop business strategies that work effectively outside of their own territory.

The demand for foreign directors, therefore, is increasing because of the pace and nature of globalization. Recently, Korean firms are actively appointing foreigners as members of board of directors to rey spond to the rapidly changing foreign markets and to seek new business opportunities[1,2]. Prior researches offer that foreign directors bring

1 IBM, the multinational firm, organized a Task Force (TF) team of executives – divided into eight groups including Asian, Black, Hispanic, Native American, LGBT, Men, Disabled, and Women – and set environment and policy to engage in business without any discrimination in every part such as recruitment and project (The Economic Daily, 2015).

2 It is no longer surprising that major Korean corporations are making higher sales in overseas markets than in the domestic market. With the globalization of their businesses, major Korean firms are actively hiring foreign directors, Peter Schreyer, the former chief designer at Hyundai-Kia, is a typical example (Yeonhap News, 2016).

http://dx.doi.org/10.21511/imfi.15(4).2018.08

the variety of backgrounds, experiences, and knowledge to the boardroom that enhances the firm performance and the value (Oxelheim & Randoy, 2003; Masulis et al., 2012; Byoun et al., 2016). Therefore, firms are actively appointing foreigners as members of board of directors with the expectation that they will help business expansion by bringing diverse perspectives and viewpoints to the boardroom.

Prior studies show that strong governance helps firms to improve monitoring function, restricting managers' opportunistic behaviors (Denies & McConnell, 2003; Bhagt & Bolton, 2008; Chen et al., 2009). According to the prior literature, the benefit of including foreigners in the boardroom is not only the increase in the value of the company, but also the enhancement of the corporate governance. According to Fama and Jensen (1983), from the perspective of the board of directors, the good corporate governance is the governance that reduces dissensus among stakeholders and that effectively overwatches managers' activities. These major functions of the boardroom are strengthened with board's independence (Dechow et al., 1996; Beasley, 1996), and the research by Carter et al. (2008) suggests that the independence of the board increases with the board diversity. Bhagat and Bolton (2008) also suggest that the board independence is required to discipline management of poorly performing firms. Thus, the inclusion of the foreign directors in the firm helps firms to form an effective board of directors by increasing the independence of the boardroom.

While firms benefit from including foreigners in the boardroom, on the other hand, there could be cost incurred from board diversity due to greater communication and coordination problems among board members. Diverse directors with different background and characteristics can increase the conflicts among members of the board and impede the decision-making process[3]. Also, since the main purpose of including foreign directors in the board is to develop the business strategies to expand the businesses to the foreign market or to make efficient decisions, the positive effects of foreign directors may be limited only to the business operation.

The effect of foreign directors in the board and board diversity are one of the major areas of interest in the corporate governance literature. Thus, most of the extant literature has explored the relationship between the board diversity or foreign directors and the firm performance. However, the effect of foreign directors or board diversity on the specific functions of boardroom has not been explored. Therefore, our research focuses on the monitoring function of foreign directors in the boardroom.

As mentioned above, there are two general conflicting views regarding the monitoring function of foreign directors in the boardroom. Some researchers suggest that diversity leads to greater independence, improving the monitoring function of the boardroom. On the other hand, some other researchers assert that there can be the negative effect of board diversity on monitoring function, because the different or disparate background and characteristics cause the coordination and communication problems, which reduce the efficiency of monitoring function (Masulis et al., 2012).

In this research, we hypothesize that the board diversity enhances the monitoring function of the board, as diversity increases the board independence by preventing or restricting nepotism that reduces the monitoring function. To examine the effect of foreign directors on the monitoring function, we analyzed the influence of foreign directors on the opportunistic financial reporting by examining how the existence of foreign directors in the board of directors affects the firms' discretionary accruals and book-tax difference.

Our study has several contributions to the literature. First, this study clarifies ongoing disputes on the effectiveness of foreigners in the board of directors by analyzing the monitoring functions of foreign directors. This study provides useful implications for such stakeholders as regulators and investors to

3 In 2007, LG Electronics filled all senior vice president positions in with foreigners. However, all of them were either replaced or fired three years later. LG was criticized for appointing foreigners to top positions without concerning cultural differences (Hankyung Biz, 2010).

understand the effect of foreign directors on opportunistic financial reporting. Second, understanding the role of foreign directors in the countries where strong nepotism exists will help international investors and multinational companies in making investment decisions.

The paper is organized as follows. We provide prior literature and theoretical background in the first section. In the second section, we discuss hypotheses development. We present the methodology and empirical results in the third section, and the final section provides the conclusion of the research.

1. PRIOR LITERATURE AND THEORETICAL BACKGROUND

1.1. The role of the board of directors

Generally, the board of directors is believed to have three major roles: (1) monitoring and controlling role; (2) service role; and (3) resource dependence role (Johnson et al., 1996). Monitoring and controlling role, one of the most important roles of the board, is a fundamental concept derived from the agency theory, and many researches have focused on this such role of board of directors in the decision-making and implementation process (Daily & Dalton, 1994; Fama & Jensen, 1983; Goodstein & Boeker, 1991). As one of the most important monitoring devices in the firm, board of directors' main purpose is to resolve the shareholder-manager conflict by mitigating the agency problem through monitoring activities (Fama & Jensen, 1983; Jensen & Meckling, 1976; Zahra & Pearce, 1989). According to Carter et al. (2008), board of directors can maximize its effectiveness of monitoring function by diversifying its members. They suggest that board diversity increases its independence, enhancing the monitoring function. Masulis et al. (2012) also argued that director diversity enhances the managerial monitoring as diversity brings a variety of experiences, backgrounds, and knowledge.

1.2. Board diversity and foreign directors

Extant researches are usually focused on the relationship between the board diversity and firm performance. Most of the researches related to board diversity examine the effect of gender and ethnic diversity, but the researches on the effect of foreigners themselves on the functions of boardroom have not been conducted sufficiently. Jeon et al. (2017) analyzed the relationship between board diversity and earnings management. In particular, they used gender, former bureaucrats, and foreign director as proxies for the board diversity and examine the effect of diversity on the real earnings management. The result of the study offers that board diversity is negatively associated with the real earnings management. However, they could not find any significant relationship between foreign director and real earnings management. They concluded that communication problems that arise from the difference in backgrounds may undermine the monitoring function of the board.

Gwak et al. (2011), in respect of resource dependency theory, examined the factors that determine the appointment of the foreign directors in the Korean manufacturing firms. In their research, they classified the foreign directors in the boardroom as a type of resources, and they suggest that the percentage of the foreign directors in the board of directors increases as firms are younger, smaller or more dependent on the overseas sales. However, the possibilities of appointing foreign directors decrease as the competitive pressure in market increases.

The research by Carter et al. (2008), which examines the relationship between the gender and ethnic minority diversity of the board of directors and the financial performance of the firm shows that board diversity has a positive effect on financial performance. They argue that board diversity enhances the strategic decision-making process by providing various perspectives and viewpoints. In addition, they also assert that diverse directors increase the quality of communication by broadening the topics of the conversation among board members. Oxelheim and Randoy (2003) also examine the effects of foreign directors from the UK or U.S. on corporate performance measured

http://dx.doi.org/10.21511/imfi.15(4).2018.08

in terms of firm value, and they also found that foreign directors have positive effect on the firm value.

Unlike other researches that examined the effects of board diversity or foreign directors on the firm value or performance, the research by Winfried et al. (2007) investigates how the directors' nationality and gender interact with the directors' level of independence. The result of the research suggests that foreign directors are more likely to be independent, while female directors are more likely to be affiliated to firm management through family ties.

While many numbers of researchers assert that the board diversity has a positive effect on the firm performance, the research by Masulis et al. (2012) shows that foreign directors are more likely to have negative effect on the firm performance. In their research, they explored the financial costs and benefits of board diversity and assert that the diversity brings various perspectives and talents to the boardroom, enhancing managerial monitoring. However, the result of the research shows that foreign independent directors decrease the firm performance as they are more likely to miss board meetings, and are more likely to engage in intentional misreporting. These findings in their research indicate that the board with foreign independent directors weakens the monitoring functions of the boardroom.

As mentioned previously, researches on the effect of board diversity and foreign directors show conflicting views. Some researchers assert that diversity and foreign directors have positive effect on the firm overall, because they bring diverse perspectives and viewpoints that increase the firm performance and independence of the board. On the other hand, some argue that there can be negative effect of board diversity because they have different backgrounds and characteristics that may impede decision-making process and hinder communication among board members. In this study, we examine the effect of foreign directors on the monitoring functions of the board by investigating whether the foreign directors have a significant effect on the opportunistic financial reporting.

2. HYPOTHESES DEVELOPMENT

The main purpose of this study is to analyze the effect of foreign directors on opportunistic financial reporting, which represents the monitoring function of the board, by examining whether the inclusion of foreign directors in the board has any significant influence on the discretionary accruals and book-tax difference (BTD). Recently, many foreign directors are acting as members of board of directors and playing an important role in developing overseas markets (Adams et al., 2010) by providing various knowledge and experiences to the boardroom (Erhard et al., 2003; Masulis et al., 2012). Foreign directors in the board are also acting as an alternative device to reduce the cost of capital, because the presence of foreigners in the board signals the openness to foreign investors and the enhancement of corporate transparency (Oxelheim & Randoy, 2003).

As the role of foreigners is getting more important, many researchers dived into the research on the effects of foreigners who are related to the firm, including investors and directors. However, most researches on the effects of foreigners on the firm are usually focused on the foreign investors and the percentage of their shareholdings. According to Shleifer and Vishny (1997) and Shin et al. (2014), internal and external corporate governance structures complement each other and even if external governance does not work properly, management supervision or monitoring activities could be efficiently carried out through mutual complementarity among corporate governance structures. Also, it has been found that foreign investors are the effective monitoring device that mitigates the agency cost and earnings management through many researches on the foreigners related to the firm (Rajopal et al., 1999; Kim, 2004; Park et al., 2009). However, there are not many researches that have been conducted on foreign directors due to the difficulty of collecting related data.

Including Oxelheim and Randoy (2003), many other researchers have conducted a study on the effect of foreign directors in the board, and they have found that the foreign directors in the board have positive effect on the firm value and the firm

performance (Carter et al., 2003; Carter et al., 2008; Erhard et al., 2003; Jeon et al., 2017). Other studies (Byoun et al., 2016; Winfried et al., 2007) also offer that foreign directors increase the board diversity, and the diversity increases the independence of the board, which improves the monitoring function of the boardroom.

In this study, we argue that to reduce the opportunistic behavior of executives that causes agency cost, the independence of the board is required. According to Winfried et al. (2007), foreign directors have positive effect on the level of independence of board of directors by enhancing the managerial monitoring. Also, the research by Anderson et al. (2011) suggests that board diversity provides greater monitoring benefits to stakeholders by bringing various perspectives on executive actions.

Overall, the prior researches on the effect of foreign directors on the board independence and monitoring function show the positive results. Therefore, we set the first hypothesis with the expectation that foreign directors increase the board diversity, which increases the board independence and so the monitoring function of the board.

H1-1: The presence of foreign directors in the board of directors is negatively associated with discretionary accruals.

Most of the recent studies analyzed the book-tax difference (BTD) in the perspective of agents (Chen et al., 2009; Desai & Dharmapala, 2006). Tax avoidance in the perspective of agents has negative effects on the firm as it increases the uncertainty of future profits for investors, lowers the corporate transparency, and increases the information asymmetry. Also, it serves as an element that discounts the firm value in the capital market. Kang and Ko (2014) argue that tax avoidance has negative effect on the firm value, and strong corporate governance is one of the most effective solutions that reduce such negative effect.

The prior researches on the effect of foreign directors clearly show that the presence of the foreign directors in the board increases the board diversity, which also increases the board independence. Therefore, based on the fact that board diversity increases the independence of the board, which mitigates the negative effect of tax avoidance, we set the following hypothesis.

H1-2: The presence of foreign directors in the board of directors is negatively associated with the book-tax difference.

Sarbanes-Oxley Act requires independent directors to become the leaders of board of directors to strengthen the role of the boardroom. Song (2014) argues that the inclusion of independent directors enhances the managerial monitoring, which helps firms to decentralize the power of corporate governance and improves the investors' rights.

If the inclusion of independent directors is the effective way of enhancing the monitoring function of the board, recruiting foreigners as independent directors would have greater positive effect on the monitoring function of the boardroom. Therefore, we set the second hypothesis as follows.

H2-1: The inclusion of foreign independent directors is negatively associated with discretionary accruals.

H2-2: The inclusion of foreign independent directors is negatively associated with the book-tax difference.

The monitoring function of the board could be influenced by the expertise of the directors. If directors on the board of directors have expertise in accounting or finance, the monitoring function of the boardroom will be strengthened. The professional knowledge on accounting or finance also helps directors to resolve the conflicts between executives and the board of directors. According to Lee and Moon (2004), the quality of reported earnings increases if directors in the board possess the expertise in accounting or finance. The research by Seo et al. (2010) also shows that there is a positive relationship between the number of accounting or finance specialists in the board and the firm performance. Therefore, based on these results, we expect that foreign directors with an expertise in accounting or finance are more effective in managerial monitoring, and we set the following hypothesis.

http://dx.doi.org/10.21511/imfi.15(4).2018.08

H3-1: The inclusion of foreign directors with expertise in accounting and finance is negatively associated with discretionary accruals.

H3-2: The inclusion of foreign directors with expertise in accounting and finance is negatively associated with the book-tax difference.

3. RESEARCH DESIGN AND EMPIRICAL RESULTS

3.1. Research design

3.1.1. Measuring discretionary accrual

Jones (1991) discovered through empirical research that American firms adjust their accruals discretionarily to lower the profit and receive government support. Therefore, he developed the following model to measure the discretionary accruals:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1\left[\frac{1}{A_{i,t-1}}\right] + \\ +\beta_2\left[\frac{\Delta SALES_{i,t}}{A_{i,t-1}}\right] + \beta_3\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + \varepsilon_{i,t}, \quad (1)$$

where $TA_{i,t}$ – total accruals of firm i in year t, $\Delta SALES_{i,t}$ – change in sales of firm i in year t, $PPE_{i,t}$ – property, plant, and equipment of firm i in year t, $\varepsilon_{i,t}$ – error term of firm i in year t.

This model clearly shows that current accruals are closely related to change in sales and that non-current accruals, the depreciation cost, is related to PPE. Afterward, new models have been developed to reduce the measurement errors of the discretionary accruals (Dechow et al., 1996; Kothari et al., 2005), but the fundamentals of the model are not different from Jones (1991) model.

3.1.2. Measuring book-tax difference (BTD)

The book-tax difference (BTD) is earnings before tax minus taxable income divided by beginning total asset. Since the real taxable income is not disclosed in public, it is difficult to separate the information that related to tax avoidance. However, the following models are widely used, because they can predict the difference between accounting income and taxable income without collecting actual tax data.

Afterward, Desai and Dharmapala (2006, 2009) separated the "earnings management" measured by discretionary accruals from the elements that constitute BTD, and used its residuals as a proxy for tax sheltering behavior (DD_BTD). Both BTD and discretionary BTD (DD_BTD) have been used as proxies for "tax sheltering behavior" (Mills et al., 1998; Wilson, 2009). The following equations (2) and (3) are used in this study to measure BTD and DD_BTD, and it is interpreted that as the related value increases, the "tax sheltering behavior" increases.

$$BTD_{i,t} = \gamma_{i,t}^{S} - \gamma^{T}\_hat_{i,t}, \quad (2)$$

$$BTD_{i,t} = \beta_1 TA_{i,t} + \varepsilon_{i,t}, \quad (3)$$

where $BTD_{i,t}$ – book-tax difference [(Income before corporate tax-taxable income)/Beginning total asset], $\gamma_{i,t}^{S}$ – income before corporate tax, $\gamma^{T}\_hat_{i,t}$ – estimated taxable income (Corporate tax/Corporate tax rate), $TA_{i,t}$ – total accruals/beginning total asset, $\varepsilon_{i,t}$ – estimated amount of tax avoidance $\left(DD\_BTD_{i,t}\right)$ of firms that controlled unique effect.

In this study, we assume that the foreign directors have positive effect on the monitoring function of the boardroom, lowering discretionary accruals (*DA*) and book-tax difference (*BTD*). Thus, this study set the following models by including discretionary accruals (*DA*), book-tax difference (*BTD*), and discretionary book-tax difference (*DD_BTD*) as dependent variables. Also, the dummy variable, *FOREIGN*, is used as an independent variable to indicate whether there is a foreign director in the boardroom.

Model 1 – Hypothesis 1-1

$$DA_{i,t} = \beta_0 + \beta_1 FOREIGN_{i,t} + \beta_2 SIZE_{i,t} + \\ +\beta_3 BM_{i,t-1} + \beta_4 GROWTH_{i,t} + \beta_5 LEV_{i,t} + \\ +\beta_6 OCFS_{i,t} + \beta_7 BIG4_{i,t} + \beta_8 OPIN_{i,t} + \\ +\sum YEAR + \sum IND + \varepsilon_{i,t}.$$

Model 2 – Hypothesis 1-2

$$BTD(DD\_BTD)_{i,t} = \beta_0 + \beta_1 FOREIGN_{i,t} + \\ + \beta_2 SIZE_{i,t} + \beta_3 INTAN_{i,t} + \beta_4 INVEN_{i,t} + \\ + \beta_5 LEV_{i,t} + \beta_6 OCFS_{i,t} + \beta_7 ROA_{i,t} + \beta_8 BIG4_{i,t} + \\ + \beta_9 OPIN_{i,t} + \sum YEAR + \sum IND + \varepsilon_{i,t}.$$

Model 3 – Hypothesis 2-1

$$DA_{i,t} = \beta_0 + \beta_1 FOREIGN\_EXT_{i,t} + \beta_2 SIZE_{i,t} + \\ + \beta_3 BM_{i,t-1} + \beta_4 GROWTH_{i,t} + \beta_5 LEV_{i,t} + \\ + \beta_6 OCFS_{i,t} + \beta_7 BIG4_{i,t} + \beta_8 OPIN_{i,t} + \\ + \sum YEAR + \sum IND + \varepsilon_{i,t}.$$

Model 4 – Hypothesis 2-2

$$BTD(DD\_BTD)_{i,t} = \beta_0 + \beta_1 FOREIGN\_EXT_{i,t} + \\ + \beta_2 SIZE_{i,t} + \beta_3 INTAN_{i,t} + \beta_4 INVEN_{i,t} + \\ + \beta_5 LEV_{i,t} + \beta_6 OCFS_{i,t} + \beta_7 ROA_{i,t} + \\ + \beta_8 BIG4_{i,t} + \beta_9 OPIN_{i,t} + \sum YEAR + \sum IND + \varepsilon_{i,t}.$$

Model 5 – Hypothesis 3-1

$$DA_{i,t} = \beta_0 + \beta_1 FOREIGN\_PRO_{i,t} + \beta_2 SIZE_{i,t} + \\ + \beta_3 BM_{i,t-1} + \beta_4 GROWTH_{i,t} + \beta_5 LEV_{i,t} + \\ + \beta_6 OCFS_{i,t} + \beta_7 BIG4_{i,t} + \beta_8 OPIN_{i,t} + \\ + \sum YEAR + \sum IND + \varepsilon_{i,t}.$$

Model 6 – Hypothesis 3-2

$$BTD(DD\_BTD)_{i,t} = \beta_0 + \beta_1 FOREIGN\_PRO_{i,t} + \\ + \beta_2 SIZE_{i,t} + \beta_3 INTAN_{i,t} + \beta_4 INVEN_{i,t} + \\ + \beta_5 LEV_{i,t} + \beta_6 OCFS_{i,t} + \beta_7 ROA_{i,t} + \beta_8 BIG4_{i,t} + \\ + \beta_9 OPIN_{i,t} + \sum YEAR + \sum IND + \varepsilon_{i,t}.$$

The dependent variable *DA* represents discretionary accruals measured by *ROA*. *BTD* is the book-tax differences calculated by the method previously discussed. *DD_BTD* represents residual value from the regression analysis of *BTD* and *TA* of each industry and year. *FOREIGN* is an indicator variable that equals one if there is a foreign director in the boardroom and zero otherwise. *FOREIGN_EXT* is also the indicator variable that equals one if the foreign director is an independent director and zero otherwise. *FOREIGN_PRO* represents the indicator variable that equals one if foreign director is an expert in accounting or finance and zero otherwise.

The following control variables are included according to the protocol in prior literature (Dechow et al., 1996; Desai & Dharmapala, 2006; Jeon et al., 2017; Becker et al., 1998). *BM* is a price-to-book ratio of net asset at year *t*–1 and the *GROWTH* represents the change in sales divided by the lagged total assets. *SIZE* is calculated as natural logarithm of total assets. *INTAN* is the intangible assets divided by lagged total assets. *INVEN* is calculated by dividing the total inventories by lagged total assets. *LEV* is a total debt divided by total asset. *OCFS* is the operating cash flow divided by beginning total assets and *ROA* is the return on asset. *BIG*4 is the indicator variable that is equal to one if the external auditor of a firm is one of Big 4 accounting firms and zero otherwise. *OPIN* is also the indicator variable, and it is equal to one if the audit opinion is unqualified, zero otherwise.

3.2. Empirical result

3.2.1. Sample selection

First, we identify firms in Korea Composite Stock Price Index (KOSPI) and the Korean KOSDAQ with data available on Kis-value, TS-2000, and Electronic Disclosure System (DART) for fiscal years 2001 through 2014. To secure the homogeneity of the sample, we only selected firms with the fiscal year end of December, and exclude firms with the capital impairment and firms in the banking, insurance, and financing industries. The information of foreign directors is collected manually by checking their names, universities they graduated and past careers.

Out of 1,884 samples, only 3.42 percent of the sample has foreigners in their board of directors. To test the hypothesis, we use a propensity score matching technique to alleviate selection bias in our sample. For each firm with foreign director, a firm without foreign directors with the closest propensity score is matched in one-to-two manner by using the caliper matching technique.

http://dx.doi.org/10.21511/imfi.15(4).2018.08

Table 1 summarizes the number of firms included in the sample period. Out of 1,884 firms in the sample, 628 firms had foreigners in their boardroom, and each firm with foreign directors was matched with another firm with similar characteristics by the propensity score matching method.

Table 1. Sample composition by year and industry

Year	Existence of foreign directors		Sum
	0	1	
2001	48	39	87
2002	64	40	104
2003	62	46	108
2004	55	50	105
2005	76	48	124
2006	82	48	130
2007	71	50	121
2008	67	45	112
2009	103	41	144
2010	112	38	150
2011	114	46	160
2012	125	48	173
2013	129	50	179
2014	148	39	187
Total	1,256	628	1,884

3.2.2. *Descriptive statistics and correlation matrix*

Table 2 shows descriptive statistics of variables used in the hypotheses tests. Each mean of discretionary accrual, *BTD*, and *DD_BTD* is 0.000, 0.018, and 0.018, respectively. There were no abnormal values for standard deviation, minimum, and maximum value for the proxies of tax avoidance. Since the variable *FOREIGN* is calculated through 1:2 propensity score matching, the mean value shows exactly 0.333.

Table 3 shows the correlation matrix. *BTD* and *DD_BTD* shows significant and positive correlations. Also, the correlation coefficient between *BTD* and *DA* is 0.067, and that between *DD_BTD* and *DA* is 0.075, which are also significant at one percent level. The correlations among *FOREIGN*, *BTD*, *DD_BTD*, and *DA* shows the value of –0.002, –0.004, and –0.006, respectively, but they are not statistically significant. However, the level of significance is not reliable without considering the control variables. Thus, we ran the following regression analysis.

3.2.3. *The effect of the foreign directors in the board of directors on the discretionary accruals*

Table 4 offers the results for hypothesis 1-1. We use the independent variable *FOREIGN* as an indicator variable, which is equal to one if a firm has foreigners in the boardroom as directors and zero otherwise. *DA*, the dependent variable, is discretionary accruals that are calculated by the Jones (1991) model. To the extent that the inclusion of foreign directors in the board have

Table 2. Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max	Median
BTD	0.018	0.044	–0.039	0.115	0.008
DD_BTD	0.018	0.045	–0.039	0.117	0.009
DA	0.000	0.109	–1.873	1.652	0.000
FOREIGN	0.333	0.471	0.000	1.000	0.000
FOREIGN_EXT	0.131	0.337	0.000	1.000	0.000
FOREIGN_PRO	0.059	0.236	0.000	1.000	0.000
SIZE	26.801	1.826	22.156	32.305	26.472
INTAN	0.024	0.058	–0.209	0.722	0.006
INVEN	0.102	0.095	0.000	0.771	0.008
LEV	0.455	0.242	0.003	2.249	0.442
OCFS	0.069	0.107	–0.627	1.209	0.061
BIG4	0.685	0.464	0.000	1.000	1.000
OPIN	0.994	0.074	0.000	1.000	1.000
MARKET	0.747	0.434	0.000	1.000	1.000
BM	1.320	5.742	–403.83	391.81	1.103
GROWTH	0.160	0.906	–30.125	67.88	0.060
ROA	0.042	0.111	–0.854	1.471	0.043

Table 3. Correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) *BTD*	1.000	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(2) *DD_BTD*	0.996***	1.000	–	–	–	–	–	–	–	–	–	–	–	–	–
(3) *DA*	0.067***	0.075***	1.000	–	–	–	–	–	–	–	–	–	–	–	–
(4) *FOREIGN*	–0.002	–0.004	–0.006	1.000	–	–	–	–	–	–	–	–	–	–	–
(5) *SIZE*	–0.002	–0.005	0.028***	0.110***	1.000	–	–	–	–	–	–	–	–	–	–
(6) *INTAN*	–0.742***	–0.738***	–0.007	–0.001	0.014**	1.000	–	–	–	–	–	–	–	–	–
(7) *INVEN*	–0.323***	–0.314***	0.350***	–0.001	0.013*	0.999***	1.000	–	–	–	–	–	–	–	–
(8) *LEV*	–0.768***	–0.763***	0.000	–0.001	0.014**	0.999***	0.998***	1.000	–	–	–	–	–	–	–
(9) *OCFS*	–0.458***	–0.458***	–0.712***	–0.001	0.013***	0.999***	0.998***	0.998***	1.000	–	–	–	–	–	–
(10) *BIG4*	0.004	0.002	–0.011*	0.033***	0.297***	0.006	0.006	0.006	0.008	1.000	–	–	–	–	–
(11) *OPIN*	0.015	0.013	–0.012*	0.014**	0.148***	0.000	–0.000	0.000	0.002	0.358***	1.000	–	–	–	–
(12) *MARKET*	–0.006	–0.007	–0.009	0.058***	0.029***	0.003	0.003	0.003	0.012*	0.028	0.004	1.000	–	–	–
(13) *ROA*	–0.520***	–0.517***	0.134***	0.001	–0.014***	–0.998***	–0.998***	–0.999***	–0.995***	–0.000	0.006	–0.002	1.000	–	–
(14) *BM*	–0.001	–0.001	–0.001	0.001	0.008	0.034***	–0.000	–0.000	–0.000	–0.000	–0.010	0.001	–0.011	1.000	–
(15) *GROWTH*	–0.677***	–0.671***	0.140***	–0.011	–0.096***	0.617***	0.490***	0.709***	0.350***	–0.012*	–0.014**	–0.008	0.322***	–0.000	1.000

Notes: 1. This table reports the Pearson correlations among variables used in this study. 2. ***,**,* denote significance at the 1%, 5%, and 10% levels, respectively. 3. Please refer to Appendix A for variable definition. 4. $N = 1,884$.

http://dx.doi.org/10.21511/imfi.15(4).2018.08

positive effects on the boards' monitoring function, β_1 is expected to be negative.

The results of the regression analysis generally indicate that the variable of interest, *FOREIGN*, shows the negative association with the discretionary accruals (*DA*). The slope of *FOREIGN* is –0.011 at one percent significance level, meaning that foreign directors in the board of directors have positive effect on the monitoring function of the board by curbing the opportunistic financial reporting. We argue that foreign directors in the board increase the board diversity, and the diversity increases the independence of the board, which enhances the monitoring function.

Table 4. The effect of the foreign directors in the board of directors on the discretionary accruals

Dependent variables: Kothari's discretionary accruals	Discretionary accruals
Intercept	–0.005 (–0.69)
FOREIGN	–0.011*** (–2.79)
SIZE	0.002** (2.16)
BM	–0.005** (–2.16)
GROWTH	0.068*** (7.15)
LEV	–0.058*** (–4.98)
OCFS	–0.711*** (–12.36)
BIG4	0.000 (0.01)
OPIN	0.069 (0.95)
Industry and year dummies	Included
Adj. *R*-square	0.675
No. of observations	1,884

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

3.2.4. The effect of foreign directors in the board of directors on BTD

Table 5 shows the results of the regression analysis for hypothesis 1-2. It examines the relationship between the independent variable, *FOREIGN*, and dependent variables, *BT* and *DD_BTD*. The results show the value of –0.006 and –0.007 with the one percent significance level, meaning that foreign directors in the boardroom have positive effect on the monitoring function of the board by reducing tax avoidance behavior of executives. The results suggest that board diversity enhances the independence of the board, which also improves the firm transparency.

Table 5. The effect of foreign directors on the board of directors on *BTD*

Dependent variables: TAX AVOIDANCE	*BTD*	*DD_BTD*
Intercept	0.023 (0.34)	0.036 (0.52)
FOREIGN	–0.006*** (–2.13)	–0.007*** (–2.23)
SIZE	0.000 (0.16)	–0.000 (–0.29)
INTAN	0.066** (2.22)	0.055 (1.62)
INVEN	–0.023 (–1.45)	–0.025 (–1.44)
LEV	0.013* (1.68)	0.019*** (2.23)
OCFS	0.022 (1.09)	0.010 (0.50)
ROA	0.235*** (7.08)	0.258*** (6.98)
BIG4	0.001 (0.29)	0.001 (0.24)
OPIN	–0.057 (–0.92)	–0.060 (–0.94)
Industry and year dummies	Included	
Adj. *R*-square	0.276	0.259
No. of observations	1441	1441

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

3.2.5. The effect of foreign independent directors in the board on the discretionary accrual

Table 6 indicates the results for hypothesis 2-1. *FOREIGN_EXT*, the independent variable, is the indicator variable, which is equal to one if the foreign director in the board is the independent director. The results show that *FOREIGN_EXT* is negatively associated with the discretionary accruals as it shows the coefficient of –0.019 at one percent significance level. The result of the analysis suggests that the foreign directors in the board have positive effect on the monitoring function of the board by reducing the discretionary accruals and that the positive effect of foreign directors is more pronounced when the foreign director is an independent director.

Table 6. The effect of foreign independent director on the board on the discretionary accrual

Dependent variables: Kothari's discretionary accruals	Discretionary accruals
Intercept	–0.425*** (–0.69)
FOREIGN_EXT	–0.019*** (–5.79)
SIZE	0.007*** (8.02)
BM	–0.001 (–1.61)
GROWTH	0.050*** (4.18)
LEV	–0.147*** (–25.47)
OCFS	–0.662*** (–44.02)
BIG4	0.005 (1.62)
OPIN	0.388*** (9.02)
Industry and year dummies	Included
Adj. *R*-square	0.323
No. of observations	1,884

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

3.2.6. The effect of foreign independent director in the board on *BTD*

Table 7 is the result of hypothesis 2-2. The results show the association between *FOREIGN_EXT* and the book-tax difference, and *DD_BTD*, the dependent variables. The coefficient of each relationship shows the value of –0.004 and –0.007, which are consistent with the expectation but are not statistically significant.

Table 7. The effect of foreign independent director on the board on *BTD*

Dependent variables: TAX AVOIDANCE	*BTD*	*DD_BTD*
Intercept	–0.043 (0.34)	–0.085 (0.52)
FOREIGN_EXT	–0.004 (–0.98)	–0.007 (–1.28)
SIZE	0.002* (1.96)	0.002 (1.45)
INTAN	–0.254** (–1.96)	0.083 (1.53)
INVEN	0.063** (2.34)	0.092*** (2.96)
LEV	0.038*** (3.76)	0.055*** (5.13)
OCFS	0.029 (1.04)	0.111*** (3.25)
ROA	0.379*** (9.16)	0.480*** (10.51)
BIG4	–0.005 (–1.03)	–0.009 (–1.63)
OPIN	0.154*** (2.36)	0.017 (0.23)
Industry and year dummies	Included	
Adj. *R*-square	0.357	0.359
No. of observations	1,441	1,441

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

3.2.7. *The effect of foreign directors with expertise in accounting or finance on discretionary accrual*

Table 8 shows the results for hypothesis 3-1. The independent variable, *FOREIGN-PRO*, is an indicator variable that equals to one if foreign directors in the board have expertise in accounting or finance and zero otherwise. The relationship between *FOREIGN_PRO* and *DA* shows the coefficient of negative value –0.009 at one percent significance level, meaning foreign directors with expertise in accounting or finance has positive effect on the monitoring function of the board and reduces the earnings management behavior of executives.

Table 8. The effect of foreign directors with expertise in accounting or finance on discretionary accruals

Dependent variables: Kothari's discretionary accruals	Discretionary accruals
Intercept	–0.022 (–0.49)
FOREIGN_PRO	–0.009*** (–3.00)
SIZE	0.005*** (4.84)
BM	–0.000 (–0.11)
GROWTH	0.089*** (16.69)
LEV	–0.040*** (–5.85)
OCFS	–0.654*** (–40.92)
BIG4	0.005* (1.78)
OPIN	–0.044*** (–2.24)
Industry and year dummies	Included
Adj. *R*-square	0.339
No. of observations	1,884

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

http://dx.doi.org/10.21511/imfi.15(4).2018.08

Table 9. The effect of foreign directors with expertise in accounting or finance on *BTD*

Dependent variables: TAX AVOIDANCE	*BTD*	*DD_BTD*
Intercept	–0.170 (–1.50)	–0.150 (–1.33)
FOREIGN_PRO	–0.031*** (–3.48)	–0.030*** (–3.36)
SIZE	–0.004* (–1.82)	–0.004** (–1.73)
INTAN	–0.121 (–1.49)	–0.146* (–1.78)
INVEN	–0.070 (–1.47)	–0.057 (–1.21)
LEV	0.050*** (2.51)	0.048*** (2.42)
OCFS	–0.249*** (–4.90)	–0.269*** (–5.27)
ROA	0.622*** (9.06)	0.564*** (8.20)
BIG4	0.028*** (3.26)	0.031*** (3.50)
OPIN	0.251*** (4.26)	0.217*** (3.69)
Industry and year dummies	Included	
Adj. *R*-square	0.357	0.359
No. of observations	1,441	1,441

Notes: 1. This table presents results from OLS model. 2. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively. All *t*-values are based on two-tailed tests using firm and year clustered standard errors. 3. Please refer to Appendix A for variable definitions.

3.2.8. The effect of foreign directors with expertise in accounting or finance on *BTD*

Table 9 shows the results of the regression analysis for hypothesis 3-2. It analyzes the relationship between the independent variable, *FOREIGN_PRO*, and *BT* and *DD_BTD*. The results show the coefficient of –0.031 and –0.030 with the one percent significance level, meaning that foreign directors with the expertise in accounting or finance have positive effect on the monitoring function of the board by reducing tax avoidance behavior of executives. Also, the results suggest that the positive effect of foreign directors is more pronounced when they have expertise in accounting or finance.

CONCLUSION

This study examines the effect of foreign directors in the board of directors on the monitoring function by analyzing the association between foreign directors and opportunistic financial reporting. We address this question by utilizing discretionary accruals and book-tax difference, and by examining the relationship with the presence of the foreign directors in the board. Based on the prior literature, we hypothesize that foreign directors in the board have a positive effect on the monitoring function of the board as they increase the board diversity, which also increases the independence of the board.

We test our hypothesis by using Korean firm data for the years 2001–2014 as Korea is one of the few countries that Nepotism is strong within the board, providing the ideal setting to examine the effect of foreign directors on the monitoring function of the board. We find that foreign directors reduce the earnings management and tax avoidance behavior of executives. We also find that the positive effect of foreign directors on the monitoring function is more pronounced when they are an independent director and expertise in accounting or finance. Taken together, our findings suggest that not only the various perspectives and viewpoints, but also foreign directors bring the independence that improves the monitoring function of the board.

Our research also supports the extant researches that suggest that board diversity has positive effect on the firm value and performance (Anderson et al., 2011; Carter et al., 2008; Jeon et al., 2017; Oxelheim & Randoy, 2003). Our results clearly show that foreign directors curb the opportunistic financial reporting behavior, and we argue that the inclusion of foreign directors could be the alternative way to enhance the corporate governance by improving the independence and the monitoring function of the board. By providing empirical evidence that foreign directors have significant positive effect on the monitoring function of the board, our study provides useful implications for such stakeholders as regulators, investors, and shareholders. Nonetheless, there are some limitations in our study. For instance, because of the limitations of the data collected manually, it is difficult to classify the foreign directors' expertise that may influence our results.

REFERENCES

1. Adams, R., Hermalin, B., & Weisbach, M. (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature, 48*(1), 58-107. https://doi.org/10.1257/jel.48.1.58
2. Anderson, R. C., Reeb, D. M., Upadhyay, A., & Zhao, W. (2011). The economics of director heterogeneity. *Financial Management, 40*(1), 5-38. https://doi.org/10.1111/j.1755-053X.2010.01133.x
3. Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review,* 443-465. Retrieved from https://www.jstor.org/stable/248566
4. Becker, C. L., Defond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The effect of audit quality on earnings management. *Contemporary Accounting Research, 15*(1), 1-24. https://doi.org/10.1111/j.1911-3846.1998.tb00547.x
5. Bhagt, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance, 14*(3), 257-273. https://doi.org/10.1016/j.jcorpfin.2008.03.006
6. Black, J. S., Morrison, J., & Gregersen, H. B. (1999). *Global explorers: The next generation of leaders*. psychology press.
7. Byoun, S., Chang, K., & Kim, Y. S. (2016). Does corporate board diversity affect corporate payout policy? *Asia Pacific Journal of Financial Studies, 45*(1), 48-101. https://doi.org/10.1111/ajfs.12119
8. Carpenter, M., Sanders, W., & Gregersen, H. (2001). Building human capital with organizational context: The impact of international assignment experience on multinational firm performance and CEO pay. *Academy of Management Journal, 44*(3), 493-511. https://doi.org/10.5465/3069366
9. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review, 38*(1), 33-53. https://doi.org/10.1111/1540-6288.00034
10. Carter, D., Simkins, B., D'souza, F., & Simpson, W. (2008). *The diversity of corporate board committees and financial performance* (Working paper). Oklahoma state university. http://dx.doi.org/10.2139/ssrn.972763
11. Chen, K. C., Chen, Z., & Wei, K. J. (2009). Legal protection of investors, Corporate governance, and the cost of equity capital. *Journal of Corporate Finance, 15*(3), 273-289. https://doi.org/10.1016/j.jcorpfin.2009.01.001
12. Daily, C., Dalton, D. (1994). Corporate governance and the bankrupt firm: An empirical assessment. *Strategic Management Journal, 15*(8), 643-654. https://doi.org/10.1002/smj.4250150806
13. Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research, 13*(1), 1-36. https://doi.org/10.1111/j.1911-3846.1996.tb00489.x
14. Denis, D. K., & McConnell, J. J. (2003). International corporate governance. *Journal of Financial and Quantitative Analysis, 38*(01), 1-36. https://doi.org/10.2307/4126762
15. Desai, M., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics, 79*(1), 145-179. https://doi.org/10.1016/j.jfineco.2005.02.002
16. Desai, M., & Dharmapala, D. (2009). Corporate tax avoidance and firm value. *The Review of Economics and Statistics, 91*(3), 537-546. https://doi.org/10.1162/rest.91.3.537
17. Erhardt, N., Werbel, J., & Shrader, C. (2003). Board of director diversity and firm financial performance. *Corporate Governance, 11*(2), 102-111. https://doi.org/10.1111/1467-8683.00011
18. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law & Economics, 26*(2), 301-325. https://doi.org/10.1086/467037
19. Goodstein, J., & Boeker, W. (1991). Organizational performance and adaption: Effects of environment and performance on changes in board composition. *Academy of Management Journal, 34*(4), 805-826. https://doi.org/10.5465/256390

http://dx.doi.org/10.21511/imfi.15(4).2018.08

20. Gwak, J. Y., Lee, Y. J., & Min, H. J. (2011). Determinants of the foreign-director appointment in Korean firms: a resource dependence approach. *Korean Journal of International Trade and Industry Studies, 16*(3), 79-107 [printed in Korean]. Retrieved from https://kiss.kstudy.com/thesis/thesis-view.asp?key=2949148

21. Jensen, M., Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economies, 3*(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

22. Jeon, K. G., Shin, Y. Z., & Kim, H. P. (2017). Board diversity and real earnings Management. *Korean Accounting Journal, 26*(3), 33-77 [printed in Korean]. http://doi.org/10.24056/KAJ.2017.04.004

23. Jeon, K. G., Shin, Y. Z., & Kim, H. P. (2018). Foreign director on the board and investment efficiency. *Korean Accounting Review, 43*(1), 119-165 [printed in Korean]. Retrieved from http://kiss.kstudy.com.access.yonsei.ac.kr:8080/thesis/thesis-view.asp?key=3573841

24. Johnson, M., Daily, C., & Ellstrand, A. (1996). Board of director: A review and research agenda. *Journal of Management, 22*(3), 409-438. https://doi.org/10.1177/014920639602200303

25. Jones, J. (1991). Earnings management during import relief investigation. *Journal of Accounting Research, 29,* 193-228. https://doi.org/10.2307/2491047

26. Kang, J. Y., & Ko, J. K. (2014). Tax avoidance, firm value and corporate governance. *Korean Accounting Review, 39*(1), 147-183 [printed in Korean]. Retrieved from https://kiss.kstudy.com/thesis/thesis-view.asp?key=3206398

27. Kim, M. T. (2004). A magnitude and direction of earnings management by foreign investors in Korea. *Korean Accounting Information Review, 22,* 88-111 [printed in Korean]. Retrieved from https://kiss.kstudy.com/thesis/thesis-view.asp?key=2437024

28. Kothari, S. P., Leone, A., & Wasley, C. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics, 39,* 163-197. https://doi.org/10.1016/j.jacceco.2004.11.002

29. Lee, H. I., & Moon, S. H. (2004). *The effect of board and audit committee characteristics on the earnings quality and value relevance* (Working Paper: Korean Accounting Association Conference: 421-464) [printed in Korean].

30. Masulis, R., Wang, C., & Xie, F. (2012). Globalizing the boardroom – The effect of foreign directors on corporate governance and firm performance. *Journal of Accounting and Economics, 53,* 527-554. https://doi.org/10.1016/j.jacceco.2011.12.003

31. Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organization groups. *Academy of Management Review, 21*(2), 402-433. https://doi.org/10.5465/amr.1996.9605060217

32. Mills, L. M., Erickson, M., & Maydew, E. (1998). Investments in tax planning. *The Journal of the American Taxation Association, 20*(1), 1-20. Retrieved from https://search.proquest.com/docview/211139522?accountid=15179

33. Oxelheim, L., & Randoy, T. (2003). The impact of foreign board membership on firm value. *Journal of Banking and Finance, 27*(12): 2369-2392. https://doi.org/10.1016/S0378-4266(02)00395-3

34. Park, J. I., Jeon., K. A., Choi, J. H., & Park, C. W. (2009). The role of large auditors in restricting the earnings management by largest shareholders and foreign investors ownership. *Korean Accounting Information Review, 27,* 201-229 [printed in Korean]. Retrieved from https://kiss.kstudy.com/thesis/thesis-view.asp?key=2786618

35. Rajgopal, S., Venkatachalam, M., & Jiambalvo, J. J. (1999). *Is institutional ownership associated with earnings management and the extent to which stock prices reflect future earnings?* (Working paper). University of Washington. http://dx.doi.org/10.2139/ssrn.163433

36. Seo, Y. M., Goh, J. M., & Lee, H. Y. (2010). Association between outside directors' characteristics and management compensation based on firm performance. *Korean Academic Society of Accounting, 15*(1), 1-31 [printed in Korean]. Retrieved from http://scholar.dkyobobook.co.kr/searchDetail.laf?barcode=4010023022505

37. Shin, I. H., Lee, M. G., & Lee, E. C. (2014). Market competition and real earnings management – Focusing on interaction with corporate governance. *Korean Accounting Review, 39*(3), 57-90 [printed in Korean]. Retrieved from https://kiss.kstudy.com/thesis/thesis-view.asp?key=3250936

38. Shlefer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance, 52*(2), 737-783. https://doi.org/10.1111/j.1540-6261.1997.tb04820.

39. Song, D. S. (2014). The influence of outside director characteristics on the relation of earnings management to firm performance. *Korean Business Education Review, 29*(2), 109-131 [printed in Korean]. Retrieved from http://scholar.dkyobobook.co.kr/searchDetail.laf?barcode=4010023790433

40. Winfreid, R., Simon, P., & Sabina, T. (2007). Nationality and gender diversity on swiss corporate boards. *Corporate Governance, 15*(4), 546-557. https://doi.org/10.1111/j.1467-8683.2007.00587.x

41. Wilson, R. (2009). An examination of corporate tax shelter participants. *The Accounting Review, 84*(3), 969-999. https://doi.org/10.2308/accr.2009.84.3.969

42. Zahra, S., & Pearce, J. (1989). Board of directors and corporate financial performance: A review and integrative model. *Journal of Management, 15*(2), 201-244. https://doi.org/10.1177/014920638901500208

APPENDIX A

Table 1A. Definition of variables

Variable	Definition
	Dependent variables
DA	Discretionary accruals of Kothari et al. (2005)
BTD	Book income minus estimated taxable income scaled by total asset (top and bottom 1% winsorized)
DD_BTD	Discretionary BTD as in Desai and Dharmapala (2006) (top and bottom 1% winsorized)
	Variables of interest
FOREIGN	An indicator variable that equals one if there is foreign director in the boardroom and zero otherwise
FOREIGN_EXT	An indicator variable that equals one if the foreign director in the boardroom is an independent director and zero otherwise
FOREIGN_PRO	An indicator variable that equals one if foreign director is an expert in accounting or finance and zero otherwise
	Control variables
SIZE	The natural log of the firm's total assets
INTAN	Intangible assets divided by lagged total assets
INVEN	Inventory assets divided by lagged total assets
LEV	Leverage ratio, measured by total liabilities divided by lagged total assets
OCFS	Operating cash flow divided by lagged total assets
BIG4	The indicator variable that is equal to one if the external auditor of a firm is one of Big4 accounting firms and zero otherwise
OPIN	The indicator variable that is equal to one if the audit opinion is unqualified, zero otherwise
BM	A price-to-book ratio of net asset at year *t*–1
GROWTH	Represents the change in sales divided by the beginning total assets
ROA	Return on asset measured by net income over total asset at the beginning of the year

http://dx.doi.org/10.21511/imfi.15(4).2018.08