

세무와회계저널
제12권 제2호 2011년 6월 pp.135~173
한국세무학회

Economic Consequences of Accounting Enforcement Actions*

Park, Kyung-Ho** · Roh, Hee Chun***

〈Abstract〉

This paper provides a comprehensive analysis of financial misreporting investigated and disclosed by the FSS. In this essay, we examine whether the enforcement actions have economic consequences on the firm which is caught by regulators on committing GAAP violations. This research topic is motivated by a need to understand whether and how the enforcement actions by the FSS affect the firm economically and capital market both in the long-term and by firm's listing status. To investigate these issues, we use various variables to proxy for economic consequences and add some debt-related variables. We also classify the sample firm-years into before and after years relative to violation year and detection year to examine the effects of enforcement actions in the long term. In addition, we separate the listed companies into two groups based on exchange listing, the firms listed in Korea Stock Exchange (hereafter, KSE) and the firms listed in the Korean Securities Dealers Automated Quotations (hereafter, KSQ) because the two groups are supposed to be different in terms of various firm characteristics such as size, profitability, and ownership structure. Empirical findings show that the effects of enforcement actions are different across listing status. In particular, KSQ-listed firms show more sensitive reactions to the enforcement actions than KSE-listed firms in most of analyses (short-term stock market reactions, firm performance, working capital, leverage, investment, discretionary accruals, forecast dispersion, bond maturity, and credit rating). In addition, debt market participants such as bondholders and rating agencies react to enforcement actions differently from stock market analyst and across listing status of firm. Overall, these findings suggest that distinguishing KSQ-listed firms from KSE-listed firms is important to understand the motivations for GAAP violations and the consequences of enforcement actions.

〈Key words〉 GAAP violation, accounting enforcement actions, economic consequences, financing decisions, listing status

* This paper is based on Park's dissertation completed at Seoul National University.

** Assistant professor, Soongsil University, atoz9@ssu.ac.kr, 02-820-7258, First author

*** Assistant professor, Soongsil University, rhc0401@ssu.ac.kr, 02-820-0541, Corresponding author

I. Introduction

The purpose of earnings management is to mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Schipper 1989 ; Healy and Wahlen 1999).¹⁾ Therefore, when violation of Generally Accepted Accounting Principles (GAAP) is detected and made public, investors and creditors would revise downward their beliefs about both the firms' future economic prospects and the credibility of the firms' financial disclosures regardless of the reasons for earnings management.²⁾ Prior literature supports for this prediction by providing empirical evidence that stock market returns significantly decline for short windows surrounding the announcement of GAAP violation (Feroz et al. 1991 ; Dechow et al. 1996 ; Sohn and Park 1998 ; Hribar and Jenkins 2004).

However, there are few extant studies that examine GAAP violator's responses to fraud detection while various enforcement actions are taken against GAAP violator. While several recent studies investigate this issue, they just focus on governance mechanism, not economic consequences on the business activities such as operating, investment, and financing activities. In addition, there is little research that addresses the debtholder's responses to fraud detection while debt contract is considered as an important motivation for earnings management. Furthermore, there is little research that takes the differences in firm characteristics into consideration.

Therefore, this study is motivated by a need to understand whether and how the enforcement actions by Financial Supervisory Service (FSS) affect the firm economically and capital market both in the long-term and by firm's listing status. To investigate these issues, we use various variables to proxy for economic consequences and add some debt-related variables. We also classify the sample firm-years into before and after years relative to violation year and detection year to examine the effects of enforcement actions in the long term. In addition, We separate the

1) More specifically, Dechow et al. (1996) conclude "that important motivations for earnings manipulation are the desire to raise external financing at low cost and to avoid debt covenant restrictions." In contrast, Beneish (1999) concludes "that managers' desire to sell their equity contingent wealth at higher prices is a motivation for earnings overstatement."

2) According to Dechow et al. (1996), "earnings management" is restricted to reporting practices within the bounds of GAAP. Therefore, they define "earnings manipulation" to include both within and outside the bounds of GAAP. In my study, We use the terms, "GAAP violation" or "fraud" to define misreporting outside the bounds of GAAP, which include both management of earnings and omission of other requirements of GAAP not affecting earnings itself.

listed companies into two groups based on exchange listing, the firms listed in Korea Stock Exchange (hereafter, KSE) and the firms listed in the Korean Securities Dealers Automated Quotations (hereafter, KSQ) because the two groups are supposed to be very different in terms of various firm characteristics such as size, profitability, and ownership structure.³⁾ Prior studies indicate that those characteristics are related to the motivations for or ability of earnings management. Therefore, we expect that the ways of earnings management and the consequences of fraud detection might be different across these subsamples.

In sum, the first research objective is to examine whether the enforcement actions have economic consequences in the long-term on the firm which is caught by regulators on committing GAAP violations. The second is to examine whether the enforcement actions are effective in improving fraud firms' governance and reporting quality, which is an ultimate goal of regulators' enforcement actions. The third is to analyze the responses of informed capital market participants including bondholder and rating agencies to the enforcement actions.

Using a sample of 254 firms indentified by the FSS, we find that there are, in general, differences in the way of GAAP violations and the effects of enforcement actions between KSE-listed and KSQ-listed firms. The empirical findings reveal that the economic consequences of enforcement actions are more significant for KSQ-listed firms and that the improvement in governance is limited to KSE-listed firms. In addition, debt capital market participants such as bondholders and rating agencies react to enforcement actions differently from stock market analyst and across listing status of firm.

Overall, my findings suggest that distinguishing KSQ-listed firms from KSE-listed firms is important to understand the motivations for GAAP violations and the consequences of enforcement actions. Therefore, it is important for interested parties to pay more attention to understanding the characteristics of KSQ-listed firms.

The remainder of this paper is organized as follows. In Section 2, we provide a brief review of the relevant literature. Section 3 contains a description of the sample. Section 4 contains the empirical results. We summarize and conclude in Section 5.

3) First, the listing requirements related to size and profitability are more generous for KSQ relative to for KSE because KSQ is made for small and medium firms including venture companies. Second, the ownership structure is different between KSE-listed and KSQ-listed firms. For example, individuals are major shareholders for KSQ-listed firms while the proportions of institutional and foreign investors are high for KSE-listed firms. Furthermore, the importance of KSQ-listed firms in capital markets are increasing.

II. Related literature

1. Supervision of audit reports

Fraudulent financial reporting can have significant consequences for the organization and for public confidence in capital markets. Because of the concerns above, external audit is forced by the “Act on external audit of stock companies” (hereafter, Act), which was enacted in 1980.⁴⁾ The purpose of external audit is to protect the interested parties and contributed to the sound growth of companies by supplementing any defects of internal audit systems and by inducing an adequate settlement of accounts. In addition, regulators also supervise the external audit system because there is always the possibility that external auditors fail to play it right in the audit process. To accomplish the intended goal, the Act (in article 15) prescribes subparagraphs as follows :

- (1) The Securities and Futures Commission (hereafter, SFC) shall supervise the audit reports, if necessary in order to ensure a fair performance of auditing, and ... (emphasis added)
- (4) The SFC may delegate or entrust part of its authorities or duties under this Act to the Chairman of the SFC or the Governor of the Financial Supervisory Service (hereafter, FSS)⁵⁾ ... (emphasis added)
- (5) The SFC may delegate or entrust all or part of its duties in paragraph (1) ... to the KICPA in accordance with ... (emphasis added)

Based on the law (and regulations), the FSS executes supervision of audit reports (hereafter, post-audit review) for listed companies including KSE-listed and KSQ-listed firms.⁶⁾ Specifically, the FSS executes post-audit review of financial statements of listed companies

-
- 4) In Korea, the post-audit review program began in 1975. At that time, the program was voluntarily executed by KICPA. However, after the Act was enacted in 1980, the post-audit review has been executed by regulatory organization such as the FSS.
 - 5) As a more detailed regulation, “Regulation on external audit and accounting” (hereafter, Regulation) provides matters delegated to the SFC and the Financial Services Commission (hereafter, FSC) by the Act and defines necessary conditions for its enforcement. Although the SFC has the authority for post-audit review and resultant the enforcement actions, the FSS does most working-level tasks. Therefore, we use the term of “FSS” for representing regulator involving in post-audit review and enforcement action.
 - 6) For unlisted companies, the KICPA has executed post-audit review because the Act delegate the task of post-audit review to this institution.

which are randomly selected or suspected of accounting violation. When it identifies intentional earnings manipulations and/or negligent accounting errors, it issues various enforcement actions depending on the degree of accounting violations, which include warning, caution, monetary fines, restrictions on securities issuance, and recommendations for dismissal of management involved in the misconduct. Therefore, the reports of accounting enforcement actions provide a unique opportunity to observe the ways how firms manipulate financial statements and the enforcement actions taken against the firms and related parties involving in GAAP violations.⁷⁾

In summary, the FSS enforcement program consists of investigations and subsequent injunctive actions against offending registrants and auditor. In addition, the program provides incentives for corporate officers and independent CPAs to avoid unacceptable practices. Therefore, it is considered as a useful regulatory mechanism to protect the interested parties and to contribute to the sound growth of companies because it help to preserve the integrity of the disclosure system. However, periodic high profile cases of fraudulent financial reporting raise concern about the credibility of the financial reporting process and call into question the roles of auditors, regulators.

2. Research on GAAP violation

There is a large body of literature examining earnings management. It is because earnings management is very provocative topic for most of interested parties such as investors, creditors, regulators and academics (Healy and Wahlen 1999 ; Dechow and Skinner 2000 ; Lo 2008). To date, however, this literature has provided relatively limited evidence concerning the consequences of earnings management while many studies in this literature examines whether, how, and why firms manage earnings. Furthermore, there is relatively little research on the effect of GAAP violation which is extreme and actual instances of earnings management. Because GAAP violation is the earnings management outside the bounds of GAAP, it damages the credibility of financial information more seriously than the earnings management within GAAP and regulators express concerns about it.

The research topics investigated in prior studies on GAAP violation (i.e., enforcement actions and restatements) can be categorized into two types. One stream of literature focuses on identifying factors leading to GAAP violation. For example, some prior studies focus on some variables calculated from financial statements to detect GAAP violators (e.g., Beneish 1994, 1997

7) The FSS takes enforcement actions against management, audit firms, and Certified Public Accountants (CPAs).

; Choi and Chae 2003 ; Kim and Hwang 2007). On the other hand, other prior studies focus on the motivations for earnings management and governance—related factors to find the existence of earnings management (e.g., Teoh et al. 1998a, 1998b ; Sweeney 1994 ; Dechow et al. 1996).

The other stream of literature focuses on the effects of the disclosure of GAAP violation on capital markets and/or GAAP violators. For example, prior research shows that stock market reacts significantly and negatively to the announcement of GAAP violation (e.g., Dechow et al. 1996 ; Palmrose et al. 2004 ; Hribar and Jenkins 2004). For the reactions of GAAP violators, empirical findings show that firms change their governance and investment after detection of their GAAP violation (e.g., Farber 2005 ; Chen and Farber 2008 ; McNichols and Stubben 2008 ; Kedia and Philippon 2009).

A. Financial statements variables and detecting GAAP violation

The prior literature focusing on financial characteristics compares the financial statement variables of GAAP violators and control firms to identify the financial factors leading to earnings management. It is because financial characteristics are supposed to represent firm's underlying economic performance and condition, which cause motivations for earnings management.

Beneish (1994) uses financial statement variables to capture the preconditions that may prompt firms to engage in earnings management. He estimates a model for detecting earnings manipulator by using a sample of manipulators and industry—matched firms. The evidence indicates that the probability of manipulation increases with unusual increases in receivables, deteriorating gross margins, decreasing asset quality (the ratio of non—current assets other than property plant and equipment to total assets), sales growth, and increasing accruals. Choi and Paek (1998) focus on two kinds of financial variables : the financial characteristics the FSS uses to select candidate firms for audit review and discretionary accruals. By matching GAAP violators and control firms, they find that the probability of manipulation increase with financing cost, adjustment on prior period error, and the magnitude of discretionary accruals. Park (1999) use both financial and non—financial characteristics such as time listed and audit firms' characteristics. He finds that leverage, discretionary accruals, and ongoing audit periods are related to the probability of GAAP violation. Choi and Chae (2003) select a lot of financial variables (38 variables) used in previous literature to avoid discretion in choosing variables. They find that GAAP violators are firms with low performance, low cash flows, and weak capital structure. Kim and Hwang (2007) identify several financial variables to detect fraudulent financial reporting and classify them into two groups, causing and reflecting variables. In addition, they develop exchange—specific prediction

models for KSE-listed and KSQ-listed firms and analyze the differences among the prediction models. Their findings report that change in ROA, leverage index, current ratio, financial charge ratio, firm size, accrual changes, the ratio of inventory to sales, asset quality index, and adjustment on prior period error are useful for distinguishing GAAP violators from non-violators.

B. Motivations for earnings management

Prior literature examines various alternative hypotheses about why firms manipulate earnings because the incentives to manipulate earnings arise in a number of contexts. For example, Teoh et al (1998a, 1998b) provide evidence on earnings management in the context of equity offerings. They find that the firms report income-increasing unexpected accruals around the time of the public security issuance. In contrast, DeFond and Jambalvo (1994) and Sweeney (1994) examine earnings management in the context of a debt covenant violation. In addition, there is an emerging line of academic literature that examines the link between stock-based compensation and aggressive financial reporting. Jensen (2005) suggests that stock-based compensation, especially option-based compensation, is at the root of the damaging effects of aggressive accounting because it encourages managers to increase short-term stock prices. Cheng and Warfield (2005) find that CEOs with high equity incentives are more likely to meet (or beat) analyst forecasts. In addition, Burns and Kedia (2006) find that incentives to misreport earnings increases with the sensitivity of CEO's option holdings to both stock price and volatility.

In sum, motivations for earnings management in prior studies are related to the intention to influence the terms of compensation, debt contracts, and equity prices. However, to date, the empirical findings are mixed. For example, while Dechow et al. (1996) find that the desire to raise external financing at low cost and to avoid debt covenant restrictions are important motivations for earnings manipulation, Beneish (1999) finds that managers' desire to sell their equity contingent wealth at higher prices is a motivation for earnings overstatement by using Accounting and Auditing Enforcement Release (AAER).

C. Governance structure

One stream of the accounting literature related to financial misreporting examines the association of governance mechanisms and the likelihood of fraud (Dechow et al. 1996 ; Beasley 1996). Dechow et al. (1996) find that firms committing financial reporting fraud are more likely to have a board of directors dominated by insiders and are less likely to have an audit committee.

However, they do not find that the use of a Big 6 audit firm significantly influences the likelihood of fraud.

Beasley (1996) finds that the inclusion of larger proportions of outside members on the board of directors significantly reduces the likelihood of financial reporting fraud, but does not find significant evidence that fraud firms' audit committees meet less frequently.

D. The detection of GAAP violation and capital market responses

According to prior research, the announcement of financial misreporting has significant consequences on the price of securities, investors' expectations, and firms' policies. For example, Dechow et al. (1996) find that stock prices decline 9% on the day of announcement of enforcement action by the Securities and Exchange Commission (SEC). Palmrose et al. (2004) document a -9.2% abnormal stock returns over a 2-day event window around restatement announcements. Hribar and Jenkins (2004) document that cost of equity capital increases by average 7 and 19% depending on the model used in the month immediately following a restatement. In Korea, Sohn and Park (1998) also find negative abnormal returns when GAAP violations are disclosed in stock market.

For the quality of financial reporting, Anderson and Yohn (2002) and Wu (2002) analyze the stock market's response to earnings following restatements and find that the response to earnings is dampened in the short-term. In addition, Wilson (2008) and Lee (2009) investigate whether the decline in the information content of earnings is long-lasting by using quarterly data. They find that although the information content of earnings declines following restatements, the loss is temporary. Contrary to Wilson (2008) and Lee (2009), by using annual data, Kim et al. (2007) provide evidence that investors do not put much trust in the earnings credibility of financial information after detection of GAAP violation. Their finding indicates that the response to earnings is dampened in the long-term.

Overall, prior literature documents that the disclosure of GAAP violation increases the uncertainty about reported financial information. However, extant literature almost exclusively focuses on equity market and short-term responses. For the reactions of debt holders, there is no study except for Graham et al. (2008). They provide evidence on the increase in cost of debt by investigating contracting terms of bank debt following financial restatement.

E. The effect of enforcement actions on GAAP violators

There are few studies that examine firms' responses to the fraud detection. Even though the

accounting information system keeps track of the results of the business activities such as financing, investing, and operating, the focus of prior studies examining the effect of GAAP violations is not on the business activities but on the governance mechanism. For example, some studies investigate the association of fraud detection and subsequent turnover in senior managers or directors, which are parts of governance mechanism (e.g., Beneish 1999 ; Agrawal et al. 1999). On the other hand, Farber (2005) examines whether there is an association between the detection of financial reporting fraud and subsequent improvements in the quality of governance mechanisms, which is a comprehensive set of governance variables. His evidence shows that fraud firms change governance characteristics after fraud detection. The characteristics become similar to the control firms after three years from the fraud detection year, indicating that fraud firms take actions to improve their governance.

In recent years, several studies begin to address the economic consequences of earnings management and/or fraud detection from the perspective of business activities. Cheng and Farber (2008) investigate whether firms that experience earnings restatements re—contract with their CEOs to reduce their option—based compensation and if so, whether this leads to improved firm performance by a decrease in the riskiness of investments. They find that the proportion of CEOs' compensation in the form of options declines significantly and subsequent operating performance is improved as a result of decrease in the riskiness of investments.

McNichols and Stubben (2008) examine whether firms manipulating their reported financial results make suboptimal investment decisions. They find that firms that manipulate their earnings overinvest substantially during the misreporting period. They also find that following the misreporting period, these firms no longer overinvest, consistent with corrected information leading to more efficient levels. Their findings suggest that earnings management, which is largely viewed as targeting parties external to the firm, can also influence internal decisions.

Kedia and Philippon (2009) argue that earnings management and fraudulent accounting have important economic consequences. They empirically test the predictions by comparing the dynamics of hiring and investment for restating firms around the restated period. Their findings indicate that during periods of suspicious accounting, firms hire and invest excessively and that when the misreporting is detected, firms shed labor and capital and productivity improves.

Regarding the change in firms' reporting quality, there is little research while this issue is most closely related to enforcement actions. Kim et al. (2007) investigate whether the magnitudes of discretionary accruals are different before and after the FSS' enforcement actions. Their findings show that the magnitude of discretionary accruals do not decrease even after enforcement actions, indicating that the FSS' enforcement actions do not have a significant impact on improving the

accounting quality of firms.

III. Sample selection and description

The FSS takes enforcement actions against firms and others involved in GAAP violations such as audit firms, managers, and CPAs. In addition, the FSS discloses some serious and important cases to the public.⁸⁾ Therefore, we use the sample of firms disclosed by the FSS to identify GAAP violators. Consistent with prior research (Beasley 1996 ; Bonner et al. 1998 ; Farber 2005), this sample is likely to include the most egregious cases of GAAP violations and thus provides a powerful setting to examine the effects of the enforcement actions. However, the use of this sample has limitations. That is, while this increases the power of tests, the results of this study are not likely to be generalizable to the entire population of firms manipulating their financial statements.

〈Table 1〉 Sample Selection

Panel A : Sample selection procedure		
Total reports of enforcements actions issued between 2001 and 2008		360
Less :		
Firms not listed on KIS-Value II database	39	
Firms detected more than once	25	
Financial institutions	38	
Enforcement actions related to quarterly (semi-annual) reports	4	
Final sample		254
Panel B : Sample firms by exchange listing		
KSE-listed firms	69	(27%)
KSQ-listed firms	94	(37%)
Unlisted firms	91	(36%)
Total firms	254	(100%)

8) The Chairman of FSS has published details of the violations and the measure taken through the internet homepage from 2001 because of the amendment of regulation on October 17, 2001. However, after the amendment on June 29, 2006, SFC has published only severe enforcement actions. Therefore, my sample is not representative of all the enforcement actions by the FSS. Refer to article 59 (Publication of Violation) of Regulation on External Audit and Accounting.

<Table 1> Sample Selection (Continued)

Panel C : Sample firms by enforcement year					
	KSE—listed firms	KSQ—listed firms	Unlisted firms	Total	
2001		9 (10%)		9	(4%)
2002	22 (32%)	9 (10%)	18 (20%)	49	(19%)
2003	6 (9%)	6 (6%)	24 (26%)	36	(14%)
2004	13 (19%)	23 (24%)	25 (27%)	61	(24%)
2005	16 (23%)	15 (16%)	8 (9%)	39	(15%)
2006	6 (9%)	11 (12%)	11 (12%)	28	(11%)
2007	4 (6%)	13 (14%)	3 (3%)	20	(8%)
2008	2 (3%)	8 (9%)	2 (2%)	12	(5%)
Total	69 (100%)	94 (100%)	91 (100%)	254	(100%)
Panel D : Number of GAAP violations by fiscal year					
	KSE—listed firms	KSQ—listed firms	Unlisted firms	Total	
1993	2	—	—	2	
1994	3	—	2	5	
1995	6	—	3	9	
1996	6	—	3	9	
1997	5	—	3	8	
1998	4	—	3	7	
1999	22	4	6	32	
2000	28	28	22	78	
2001	16	18	25	59	
2002	20	33	26	79	
2003	18	18	12	48	
2004	5	18	13	36	
2005	4	15	4	23	
2006	4	11	2	17	
2007	—	5	—	5	
Total	143	150	124	417	

The sample—selection procedures used are summarized in Panel A of Table 1. We begin with a total sample of 360 reports of enforcement actions issued between 2001 and 2008. The sample size is reduced by 39 cases where they are not available on KIS—Value II database which provides financial statement variables. We also eliminate 25 firms that are detected more than once to focus on the initial effect of enforcement actions. In addition, we remove firms in financial industry to keep the comparability of financial statements variables. Another 4 firms are excluded because their financial statements are not audited. This results in a final sample of 254 firms. Panel B shows sample composition by exchange listing, where 69 firms (27%) are listed on KSE, 94 firms (37%) are listed on KSQ, and 91 firms (36%) are unlisted.

Table 1, also lists the number of enforcement actions and GAAP violations by year and frequencies across listing status. Panel C shows that total enforcement actions peak in 2004 and decline in recent years.⁹⁾ Panel B summarizes the number of GAAP violations (firm—year). The number of violations is larger than the number of enforcement actions because GAAP violations, in general, persist more than a year.¹⁰⁾ Panel D also shows that most of GAAP violations occurred in early 2000s. The KSQ—listed firms' GAAP violations do not begin until 1999 because KSQ—listed firms began to be traded and audited since 1996 and 1998, respectively.

〈Table 2〉 Descriptive statistics on earnings manipulation

	Unit	KSE—listed firms	KSQ—listed firms	Unlisted firms
Detection period	Months	24 (16)	17 (15)	20 (18)
Age	Years	34 (33)	12 (11)	15 (13)
Manipulation period	Years	2 (2)	1.6 (1)	1.4 (1)
Manipulation amount	Million ₩	80,422 (13,624)	4,869 (971)	9,532 (270)
Manipulation %	%	13 (6)	15 (3)	5 (1)

9) However, this decline in enforcement actions in my data is due to the change in publication policy. From 2006, the FSS began to selectively publicize the report of enforcement actions, which are supposed to be serious.

10) In general, earnings management is committed by using accruals. Therefore, accrual reversal is also considered as misreporting.

- 1) Median is in parenthesis
- 2) Detection period is the length of time over which the last GAAP violation is detected and enforcement actions are issued.
- 3) Age is the length of time from foundation year to the first GAAP violation year.
- 4) Manipulation period is the length of time over which the GAAP violations persist.
- 5) Manipulation amount is the cumulative amount of managed earnings for manipulation period.
- 6) Manipulation % is the proportion of cumulative managed earnings to total assets for the year-end prior to the first year of the manipulation period.

Table 2 summarizes the period and the magnitude of GAAP violation. It shows that it takes about 24 (17) months to detect KSE (KSQ)–listed firms’ GAAP violations and the manipulation period of KSE–listed firms are longer than those of KSQ–listed and unlisted firms. It also shows that the magnitude of earnings manipulation of KSE–listed firms are much larger than other firms. However, when considering the firm size (total assets), KSQ–listed firms are identified as more serious earnings manipulators than other firms. On average, KSQ–listed firms overstate by 15% of total assets.

Table 3 lists the types and amounts of the alleged earnings manipulation reported in the report of enforcement actions. We categorize the detailed accounts into 17 types which are suggested by the FSS, instead of using arbitrary classification. Consistent with prior studies (e.g., Dechow et al. 1996 ; Kim et al. 2007), Panel A indicates that the primary reason for GAAP violation is to overstate earnings by overstating revenue or understating cost of goods sold. It also shows that the behavior of GAAP violation is similar across subsamples. It is somewhat surprising that the number of and the percentage of GAAP violation due to footnote omission are relatively large in this sample.

Panel B of Table 3 summarizes the monetary effect of earnings manipulation across subsamples. Contrary to the low frequency documented in Panel A, type 13 (misstatement difficult to classify) shows the largest amount of monetary effect in Panel B. This is because in a few cases, the FSS does not clearly provide detailed accounts, especially, involving large amount of earnings management. For KSE–listed firms, besides overstating revenue, over-valuation of marketable securities is important type of earnings manipulation. KSQ–listed firms show different characteristics compared to KSE–listed firm. Misstatements related to inventories, development cost, and allowance for doubtful receivables are relatively significant for KSQ–listed firms relative to KSE–listed firms. In addition, there is no case related to non-current assets. In sum, KSQ–listed firms’ GAAP violations are more closely related working capital accounts relative to KSE–listed firms.

〈Table 3〉 Classification of GAAP violations

Panel A. Frequencies and percentage						
Type	Classification	KSE-listed firms		KSQ-listed firms		Unlisted firms
		Freq.	(%)	Freq.	(%)	Freq. (%)
A1	Misstatement of account receivables and/or revenues	27	(14)	41	(17)	18 (12)
A2	Misstatement of inventory and/or cost of goods sold	27	(14)	37	(15)	17 (11)
A3	Overstatement of non-current assets	5	(3)	2	(1)	2 (1)
A4	Overstatement related to development costs	1	(1)	7	(3)	4 (3)
A5	Overstatement related to other assets	9	(5)	22	(9)	16 (10)
A6	Omissions of borrowings	11	(6)	11	(4)	4 (3)
A7	Understatement related to accrued expenses or other liabilities	10	(5)	8	(3)	2 (1)
A8	Understatement of provision for severance benefits	3	(2)	2	(1)	— (0)
A9	Understatement of allowance for doubtful receivables	6	(3)	2	(1)	2 (1)
A10	Understatement related to loss on valuation of assets	2	(1)	1	(0)	2 (1)
A11	Understatement related to loss on valuation of marketable securities or investment securities	14	(7)	15	(6)	7 (5)
A12	Misstatement of capitalization of financial expenses	—	(0)	—	(0)	— (0)
A13	Other misstatements which are difficult to classify but affecting profits (losses) and equity value	18	(10)	8	(3)	9 (6)
B	Misstatement of both assets and liabilities or	4	(2)	9	(4)	6 (4)
	Misstatement of both sales and cost of goods sold					
C	Omission of footnotes	32	(17)	40	(16)	49 (32)
D	misclassification of accounts	10	(5)	7	(3)	8 (5)
E	Violations of regulations not related to accounting standards	10	(5)	34	(14)	8 (5)
Total		189	(100)	246	(100)	154 (100)

<Table 3> Classification of GAAP violations (Continued)

Panel B. Amounts		Classification	KSE-listed firms		KSQ-listed firms		Unlisted firms	
Type			bill. #	(%)	bill. #	(%)	bill. #	(%)
A1	Misstatement of account receivables and/or revenues		1,167	(18.3)	99	(21.0)	70	(8.2)
A2	Misstatement of inventory and/or cost of goods sold		219	(3.4)	44	(9.4)	13	(-1.5)
A3	Overstatement of non-current assets		352	(5.5)	—	(0.0)	139	(16.2)
A4	Overstatement related to development costs		—	(0.0)	12	(2.6)	2	(0.3)
A5	Overstatement related to other assets		7	(0.1)	24	(5.1)	26	(3.1)
A6	Omissions of borrowings		439	(6.9)	16	(3.5)	1	(0.1)
A7	Understatement related to accrued expenses or other liabilities		9	(0.1)	2	(0.5)	2	(0.3)
A8	Understatement of provision for severance benefits		16	(0.3)	1	(0.1)	—	(0.0)
A9	Understatement of allowance for doubtful receivables		62	(1.0)	14	(2.9)	6	(0.7)
A10	Understatement related to loss on valuation of assets		48	(0.8)	4	(0.8)	3	(0.4)
A11	Understatement related to loss on valuation of marketable securities or investment securities		875	(13.7)	33	(7.1)	29	(3.3)
A12	Misstatement of capitalization of financial expenses		—	(0.0)	—	(0.0)	—	(0.0)
A13	Other misstatements which are difficult to classify but affecting profits (losses) and equity value		3,170	(49.8)	221	(47.0)	592	(69.0)
Total			6,365	(100)	471	(100)	858	(100)

Type A The cases that the amount of net income and shareholder's equity are affected

Type B The cases that the amount of net income and shareholder's equity are not affected

Type C The cases related to footnotes

Type D The cases that it is difficult to classify into other type and do not affect the amount of net income

Type E The obstruction of external audit, violation of regulations, and so on.

Table 4 reports the detailed enforcement actions against firms, audit firms, and CPAs. Panel A of Table 4 summarizes the enforcement actions against GAAP violating firms. These enforcement actions are not mutually exclusive, but enforced simultaneously. Panel A shows that the most frequently used enforcement action is auditor assignment. Of the firms in the KSE (KSQ, unlisted) sample, 68 percent (87 percent, 44 percent) of firms are assigned auditor by the FSS, indicating that the FSS mainly attributes the GAAP violations to failure in external auditing. It is most prominent for KSQ-listed firms. For KSE sample, recommendation of management resignation and restriction on security issuance are second and third most frequent enforcement actions, respectively. For KSQ sample, fines and recommendation of management resignation are frequently enforced except for auditor assignment. On the other hand, for unlisted firms, caution is the most frequently enforcement action, indicating that enforcement action against unlisted firms are not severe compared to listed firms.

〈Table 4〉 The list of enforcement actions

Panel A. Frequency of the enforcement actions against companies				
Enforcement actions	KSE-listed firms	KSQ-listed firms	Unlisted firms	
	Freq. (%)	Freq. (%)	Freq.	(%)
Restriction on security issuance	28 (41)	31 (33)	21	(23)
Fines	15 (22)	43 (46)	2	(2)
Recommendation of responsible management resignation	29 (42)	39 (41)	13	(14)
Auditor assignment	47 (68)	82 (87)	40	(44)
Indictment	13 (19)	20 (21)	8	(9)
Notice to prosecutor	6 (9)	20 (21)	4	(4)
Request for investigation	— (0)	1 (1)	—	(0)
Request for correction	27 (39)	28 (30)	17	(19)
Warning	10 (14)	13 (14)	19	(21)
Caution	15 (22)	9 (10)	46	(51)
Sample firms	69 (100)	94 (100)	91	(100)

〈Table 4〉 The list of enforcement actions (Continued)

Panel B. Frequency of the enforcement actions against Audit firms			
Enforcement actions	KSE—listed firms	KSQ—listed firms	Unlisted firms
	Freq. (%)	Freq. (%)	Freq. (%)
Fines	2 (3)	1 (1)	— (0)
Funds for damage compensation	29 (42)	37 (39)	14 (15)
Restriction on audit for specific firms	31 (45)	43 (46)	15 (16)
Penalty points	34 (49)	36 (38)	33 (36)
Warning	1 (1)	— (0)	— (0)
Caution	1 (1)	— (0)	2 (2)
Sample firms	69 (100)	94 (100)	91 (100)
Panel C. Frequency of the enforcement actions against CPAs			
Enforcement actions	KSE—listed firms	KSQ—listed firms	Unlisted firms
	Freq. (%)	Freq. (%)	Freq. (%)
Recommendation of cancelation of registration	1 (1)	— (0)	— (0)
Recommendation of suspension of a CPA' function	8 (12)	11 (12)	4 (4)
Notice to prosecutor	— (0)	1 (1)	— (0)
Restriction on audit scope	15 (22)	10 (11)	4 (4)
Restriction on audit for specific firms	32 (46)	38 (40)	14 (15)
Disciplinary job training	32 (46)	40 (43)	16 (18)
Warning	21 (30)	28 (30)	12 (13)
Caution	27 (39)	31 (33)	41 (45)
Sample firms	69 (100)	94 (100)	91 (100)

Panel B and C of Table 4 summarize the enforcement actions against audit firms and CPAs. Against audit firms (Panel B), two types of enforcement actions are frequently used. First, monetary penalty is enforced by imposing additional funds for damage compensation. Second, audit service related penalties are enforced by directly restricting audit services for specific firms or by indirectly imposing penalty points which are used as a criterion for auditor assignment in the future. Against individual CPAs (Panel C), disciplinary job training and restriction on auditing for specific firms are primarily enforced. For unlisted firms, caution is the most frequently used

action.

Table 5 provides the severity of some enforcement actions which are in the form of continuous variable, not dummy variable. Panel A of Table 5 shows that the period of restriction on security issuance is less than 1 year (about 6 months). It also shows that the mean period of auditor assignment is about 2 years and that enforcement actions are severer against KSE-listed firms. Panel B and C confirm this evidence. Audit firms (CPAs) auditing KSE-listed firms are penalized more severely.

〈Table 5〉 The severity of enforcement actions

Panel A. Against firms				
	Unit	KSE-listed firms	KSQ-listed firms	Unlisted firms
Restriction on security issuance	Years	0.63	0.45	0.50
Fines	Million ₩	613	283	260
Auditor assignment	Years	2.32	2.13	1.73
Panel B. Against audit firms				
	Unit	KSE-listed firms	KSQ-listed firms	Unlisted firms
Fines	Million ₩	545	50	0
Funds for damage compensation	%	32.93	20.95	20.71
Restriction on audit for specific firms	Years	2.29	1.63	1.53
Penalty points	Points	36.76	14.24	19.72
Panel C. Against CPAs				
	Unit	KSE-listed firms	KSQ-listed firms	Unlisted firms
Recommendation of suspension of a CPA's function	Years	0.83	0.42	0.84
Restriction on audit scope	Years	1.0	1.0	1.0
Restriction on audit for specific firms	Years	2	1.76	1.57
Disciplinary training	Hours	9.38	6.60	6.50

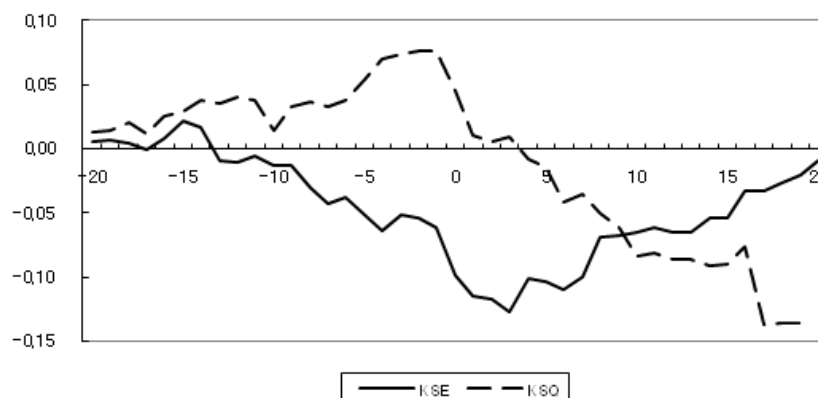
IV. Empirical results

1. Short-term effects of enforcement action

In this section, we analyze the capital market's responses to the announcement of enforcement actions across firm's listing status. We use the issue data of enforcement actions as proxy of the announcement date of GAAP violations.

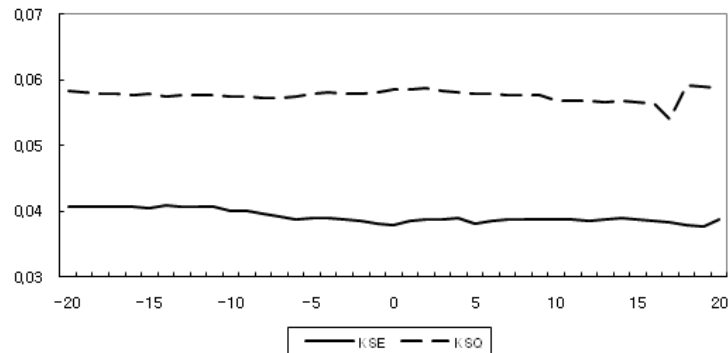
Figure 1 shows the average abnormal stock returns for 40 days surrounding the announcement date of GAAP violations. Return data is obtained from Korea Capital Market Institute (KCMI) database. Of the sample firms, 69 firms are listed on KSE and 94 firms are listed on KSQ. Consistent with prior research (Feroz et al. 1999 ; Dechow et al. 1996 ; Sohn and Park 1998 ; Hribar and Jenkins 2004), the figure indicates that on day 0, stock prices declines significantly (about 7 percent points for KSQ firms and four percent points for KSE firms). The decline in stock returns suggests that firm value is significantly influenced by the announcements of GAAP violation. The large, negative stock price reaction suggests that managers are initially successful at increasing their firms' perceived values through the use of earnings manipulation. However, the capital market responses are different across listing status. While the KSE-listed firms' returns recover very soon after announcement, the KSQ-listed firms' returns keep declining. The different behaviors of capital markets across listing status suggest that the costs imposed on the GAAP violators by capital markets would be different and that the potential consequences of enforcement actions could be different according to exchange listing.

〈Figure 1〉 Cumulative abnormal returns before and after announcement date



* Stock returns are adjusted using the equally-weighted-with-dividends-index.

〈Figure 2〉 Credit spread before and after announcement date



* Credit spread is yield-to-maturity of a corporate bond minus that of a treasury bond

Figure 2 shows the average credit spreads of bonds. We collect data on bonds from KIS Bond database.¹¹⁾ Credit spread is defined as the difference in yield-to-maturity (YTM), which is revaluated on daily basis, between a corporate bond and a treasury bond with the closet maturity. In contrast to stock returns, while credit spreads gradually decrease surrounding the announcement date, the trends are not significant for each subsample. There are some potential possibility for this findings. First, the price of bond is, in general, estimated by formula, not actual trading. Thus, YTM obtained from KIS bond database might be noisy. Second, debt market participants may not consider the GAAP violation as critical because they may believe it is only disclosure issue, not related to firm's fundamental ability to repay debt. Third, this findings may be due to the fact that bonds might be secured by collateral. Fourth, it might be due to the restriction on trading in the short-term in the bond market.

2. Economic consequences of enforcement action

A. Variable Definition

Prior research suggests that some financial variables are useful to detect earnings management (Beneish 1994 ; Choi and Paek 1998 ; Choi and Chae 2003 ; Kim and Hwang 2007). This approach is based on the implicit assumption that underlying performance and financial condition of firms can be revealed through financial variables. Therefore, financial variables are expected

11) KIS Bond is a database provided by a subsidiary of Korean Information Service (KIS), the largest credit rating agency in Korea.

to be associated with the economic consequences of enforcement actions on the detected firms.¹²⁾

We select various financial variables analyzed in prior studies to capture the effect of economic activities. First, to proxy for performance, we choose three variables showing firm's performance (hereafter, performance variables), Return on Assets (ROA), Operating Cash flows (OCF), and Free Cash Flows (FCF). Although prior studies suggest that low performance is a key factor to earnings manipulation (e.g., Rho and Bae 2004), it is not obvious that there is direct relation between enforcement actions and subsequent operating performance. As a related study, Cheng and Farber (2008) suggest that a decrease in option-based compensation reduces CEOs' incentives to take excessively risky investments, resulting in improved profitability.

We also select other financial ratio variables which are expected to represent firm's financial status. For working capital which proxies for short-term investment, we choose three variables (hereafter, working capital variables), the ratio of account receivables (AR), ratio of inventories (INV), and ratio of account payables (AP) out of total assets. We expect firms to reduce their working capital after enforcement actions because they need cash to buy inventories or pay back their short-term liability. This expectation is based on the assumption that external funding or credit become difficult after enforcement actions.

In addition, as proxies for leverage, we choose three variables (hereafter, leverage variables), which are the ratio of current assets to current liability (CA/CL), the ratio of current liability to total assets (CL), and the ratio of total debt to total assets (Lev). CA/CL is expected to decline because working capital is expected to decline as mentioned above. CL is expected to increase because it would be difficult to borrow through long-term liability. These prediction is based on the assumption that enforcement actions lower investors and creditors' confidence in credibility of firm. However, the impact of enforcement actions on the leverage (Lev) is ambiguous. If the motivations for earnings management is related to debt contract, the leverage is expected to decline because creditors would not extend maturity or urge repayment. On the contrary, if it becomes more difficult to raise external financing from stock market, the leverage would increase.

Prior studies focusing on the relation between earnings management and resource allocation suggest that the investment decisions are also related to earnings management (McNichols and

12) To test this issue, we rely on assumption that detected firm's accounting quality is improved after enforcement actions enough, even though not perfectly improved, to incorporate the influences of its business activities, such as operation, investment, and financing. We believe this assumption is reasonable, since the SFC has ex post factor management principle (Regulation, Article 64). For example, the SFC may order the violators to report what they have performed in relation to the imposed penalties as a result of audit supervision in order to confirm their performance.

Stubben 2008 ; Cheng and Farber 2008 ; Kedia and Philippon 2009). McNichols and Stubben (2008) provide that earnings management affects resource allocation by examining the capital expenditure decisions of firms alleged to have violated manipulated earnings. In contrast, Chen and Farber(2008) and Kedia and Philippon (2009) argue that the risky—and/or over—investment lead to earnings management and that the inefficient investment declines after GAAP violations are detected. Following prior literature, we select four variables to proxy for the level of investment (hereafter, investment variables). For fixed asset investment, we use the non—current assets (Tangibles) and capital expenditure (CAPEX) out of total assets. Tangibles is stock variable obtained from balance sheet statement, while CAPEX is flow variable obtained from cash flow statement. Tangibles is also used to proxy for asset quality (Beneish 1994, 1997). In addition, we obtain the data on the total expenditure on research and development (R&D) from TS2000 database, which provides footnote information of annual report. This is because it is difficult to figure out the capitalized R&D in financial statements. Finally, following Kedia and Philippon (2009), we use the number of employee (Employee) as a general proxy for the level of investment. Following prior literature, we expect investment to decrease after enforcement actions.

Empirical evidence indicates that weak governance is associated with financial reporting fraud (Dechow et al. 1996 ; Beasley 1996). On the other hand, Farber (2005) provide evidence that firms caught committing fraud would take actions with respect to their governance mechanism. Therefore, we select three variables related to corporate governance(hereafter, governance variables) to examine the effect of enforcement actions on governance. First, we use Big4 dummy variable (Bigs) because the quality of audit is expected to influentially affect the quality of financial reporting. In addition, the most frequently used enforcement action by the FSS is the assignment of auditor. We also use the percentage of shareholdings by institutional investors (Inst_own) and analyst following (Analyst) because they are used as proxies for informed investors (Farber 2005). In general, institutional investors are supposed to have governance role (e.g., Bhojraj and Sengupta 2003) and analysts play market monitoring role (e.g., Dechow et al. 1996).

〈Table 6〉 Definitions of variables

ROA	= Net income scaled by lagged total assets.
OCF	= Operating cash flows scaled by lagged total assets.
FCF	= Free cash flows (=after-tax net interest + change in financial assets-change in financial liabilities + Net income-change in equity capital) scaled by lagged total assets.
AR	= Account receivable scaled by lagged total assets.
INV	= Inventories scaled by lagged total assets.
AP	= Account payable scaled by lagged total assets.
CA/CL	= Current assets divide by current liabilities.
CL	= Current liabilities scaled by lagged total assets.
Lev	= Total debt scaled by total assets.
Tangibles	= Tangible assets scaled by lagged total assets.
CAPEX	= Capital expenditure scaled by lagged total assets.
R&D	= total research and development amount scaled by lagged revenues.
Employee	= The number of employees.
Bigs	= A dummy variable is coded 1 if the auditor is from a Big 4 accounting firm, 0 otherwise.
Inst_own	= The proportion of shareholdings owned by institutional investors such as financial institutions, securities companies, and insurance companies.
Analyst	= the number of forecasts issued for t+1 earnings per share at t.
Tacc	= Total accruals (=earnings - operating cash flows).
DA	= estimated discretionary accruals via modified Jones model in Dechow et al. (1995).
Adj_DA	= Performance adjusted discretionary accruals via performance matched modified Jones model in Kothari et al. (2005).
Ind_adj_DA	= DA minus industry median of DA, which is suggested in Kasznik (1999).
FE	= Forecast error, which is the absolute value of difference between actual earnings per share and forecasted earnings per share, divided by lagged stock price.
FD	= Forecast dispersion, which is the standard deviation of analysts' forecast divided by absolute value of mean forecast as in Dechow et al. (1996).
TV	= Stock trading volume in a year.
CS	= Credit spreads, which is the difference in yield-to-maturity (YTM), which is revaluated on daily basis, between a corporate bond and a treasury bond with the closet maturity.
MAT	= Bond maturity.
Rating	= Bond rating score. We assigned rating score. AAA is 7, AA+(AA, AA-) is 6, A+(A, A-) is 5, BBB+(BBB, BBB-) is 4, BB+(BB, BB-) is 3, B+(B, B-) is 2, and the others are 1 as in Ashbaugh-Skaife et al. (2006)

It seems obvious that the GAAP violation conceptually implies low earnings quality.¹³⁾ Dechow et al.(1996) empirically show that both total accruals and estimated discretionary accruals gradually increase as the alleged year of earnings manipulation approaches, and then experience a sharp decline after the detection of fraud. In addition, prior studies focusing on detecting earnings management consider discretionary accruals as important explanatory variables (Choi and Paek 1998 ; Choi and Choe 2003 ; Kim and Hwang 2007). For example, Kim and Hwang (2007) explicitly classify accruals-related variables into the group of variables reflecting fraudulent reporting. In addition, Kim et al. (2007) empirically test whether the magnitude of discretionary accruals of the FSS sanctioned firms decreases after the FSS audit review are disclosed.¹⁴⁾ Following this stream of literature, we select four variables related to accruals (hereafter, accruals variables). Specifically, we use total accruals (Tacc) and three estimated discretionary accruals ; DA, which is estimated via modified Jones (1991) model suggested in Dechow et al. (1995), Adj_DA, which is estimated via performance-matched modified Jones model suggested in Kothari et al. (2005) and Ind_adj_DA, which is estimated by the method of Kasznik (1999).

Once the GAAP violation is detected and disclosed to the market, it is expected that various capital market participants revise their prior beliefs. Empirical findings consistently show significantly negative returns on the date of announcement. Dechow et al. (1996) interpret the negative returns as reflecting increase in the cost of equity capital and employ analyst following to proxy for the cost of equity capital. They also investigate the extent of uncertainty and disparity of beliefs among investors by using the dispersion of analysts' forecasts of annual earnings. We choose four variables related to stock market response to enforcement actions. They are analyst forecast error (FE), analyst forecast dispersion (FD), and Trading volume (TV).¹⁵⁾

While stock market responses are frequently investigated in prior literature, there is, to date, little research that addresses the debt market responses to earnings management. Debt financing is an important source of long-term capital (Bhojraj and Sengupta 2003 ; Ball et al. 2008). Furthermore, cost of debt is closely related to earnings attributes and auditor characteristics (Ahmed et al. 2002 ; Francis et al. 2005 ; Mansi et al. 2004 ; Pittman and Fortin 2004). In addition, credit ratings are affected by corporate governance (Bhojraj and Sengupta 2003 ;

13) As in Lo (2008), GAAP violator's earnings have low quality. However, the lack of earnings management is not sufficient to guarantee to the high quality of earnings.

14) They interpret the finding as evidence that FSS audit review does not have a substantial impact on enhancing the credibility of financial statements.

15) The data on analyst forecast are obtained from FnGuide database. Trading volume is obtained from KIS -Value II.

Ashbaugh—skaife et al. 2006). However, to my knowledge, there is no prior study investigating the effect of the detection of earnings management on debt market except for Graham et al. (2008). Therefore, we use credit spreads (CS), bond maturity (MAT), and credit rating (CR) to investigate the effect of enforcement actions on debt market.

Table 6 summarizes the definitions of variables used in the analysis.

B. Results of empirical tests

Table 7 provides descriptive statistics of the financial variables and other variables used in the analyses.¹⁶⁾ The mean (median) of ROA is -0.07 (0.00), indicating that the sample firms' performance is very poor. Other performance variables (OCF, FCF) also show negative mean values. The mean (median) of tangibles is 0.27 (0.22), indicating that investment in non—current asset is low. Other proxies for investment activities (CAPEX, R&D) are 8%, 4% of total assets, respectively. The indicator variable, Bigs, have a mean value of 0.44 , indicating 44% of sample firms are audited by Big 4 auditors. It is lower than the comparable percentage reported in prior studies.¹⁷⁾ The number of firm—year observations for institutional ownership (Inst_own) and analyst forecasts (Analyst) are very small. The small number of observations that have non—zero value for analyst forecast indicates that the sample firms are not frequently monitored by analysts.

〈Table 7〉 Descriptive statistics

Variables	Unit	N	Mean	Median	Std	Min	Max
ROA	Ratio	1,001	-0.07	0.00	0.23	-0.99	0.99
OCF	Ratio	1,035	-0.04	0.00	0.18	-0.98	0.72
FCF	Ratio	1,007	-0.10	-0.04	0.25	-0.99	0.82
AR	Ratio	1,042	0.17	0.13	0.14	0.00	0.89
INV	Ratio	1,041	0.13	0.09	0.12	0.00	0.86
AP	Ratio	1,042	0.10	0.06	0.11	0.00	0.97
CA/CL	Ratio	1,046	1.79	1.25	2.12	0.00	28.37
CL	Ratio	1,023	0.41	0.39	0.20	0.00	0.99
Lev	Ratio	964	0.60	0.63	0.22	0.00	0.99

16) For financial ratio variables, we winsorize each of the variables at the -1 or $+1$ to eliminate the effects of outliers.

17) For example, Dechow et al. (1996) report that 59% of SEC sample firms use Big 6 audit firms. Farber (2005) document that 75% of fraud firms retain a Big 4 auditing.

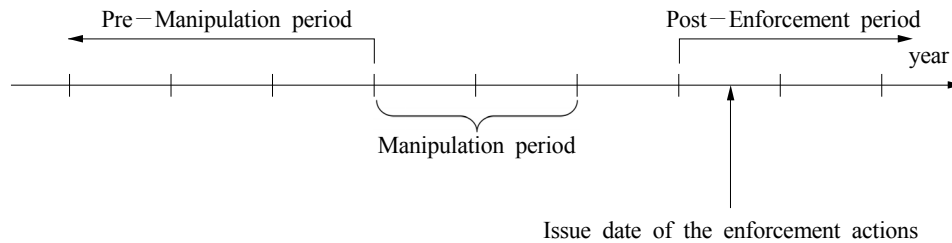
〈Table 7〉 Descriptive statistics (Continued)

Variables	Unit	N	Mean	Median	Std	Min	Max
Tangibles	Ratio	1,040	0.27	0.22	0.21	0.00	0.97
CAPEX	Ratio	1,042	0.08	0.04	0.10	0.00	0.98
R&D	Ratio	1,041	0.04	0.00	0.08	0.00	0.99
Employee	Number	1,041	1,239	153	4,058	5	33,005
Bigs	Dummy	1,050	0.44	0.00	0.50	0.00	1.00
Inst_own	%	582	8.82	3.50	12.42	0.00	79.80
Analyst	Number	272	52	14	90	1	541
Tacc	Ratio	1018	-0.05	-0.03	0.22	-0.97	0.88
DA	Ratio	928	-0.00	0.00	0.19	-0.89	1.05
Adj_DA	Ratio	928	0.02	0.00	0.15	-0.48	0.92
Ind_adj_DA	Ratio	928	0.03	0.00	0.16	-0.44	1.00

ROA = Net income scaled by lagged total assets ; *OCF* = Operating cash flows scaled by lagged total assets ; *FCF* = Free cash flows scaled by lagged total assets ; *AR* = Account receivable scaled by lagged total assets ; *INV* = Inventories scaled by lagged total assets ; *AP* = Account payable scaled by lagged total assets ; *CA/CL* = Current assets divide by current liabilities ; *CL* = Current liabilities scaled by lagged total assets ; *Lev* = Total debt scaled by total assets ; *Tangibles* = Tangible assets scaled by lagged total assets ; *CAPEX* = Capital expenditure scaled by lagged total assets ; *R&D* = total research and development amount scaled by lagged revenues ; *Employee* = The number of employees ; *Bigs* = A dummy variable is coded 1 if the auditor is from a Big 4 accounting firm, 0 otherwise ; *Inst_own* = The proportion of shareholdings owned by institutional investors such as financial institutions, securities companies, and insurance companies ; *Analyst* = the number of forecasts issued for t+1 earnings per share at t ; *Tacc* = Total accruals (=earnings - operating cash flows) ; *DA* = estimated discretionary accruals via modified Jones model in Dechow et al. (1995) ; *Adj_DA* = Performance adjusted discretionary accruals via performance matched modified Jones model in Kothari et al. (2005) ; *Ind_adj_DA* = DA minus industry median of DA.

Figure 3 provides a general description of the chronology of events for 254 firms. The manipulation period is identified in each report of enforcement actions. This is the period over which the FSS alleges that the firm violated GAAP. The pre-manipulation period is non-violation period because the FSS investigates and does not find any misstatement over the period. The post-enforcement period consists of the fiscal years after the enforcement actions are issued and disclosed to the public.

〈Figure 3〉 Chronology of events for a typical firm subject to an enforcement action



To test the economic consequences of enforcement action, we focus on comparing year 0 and year +1 because the effect of GAAP violation is most prominent in year 0 and the impact of enforcement action is most significant in the year of enforcement. In contrast, in testing the effect of GAAP violation, we focus on comparing year -1 and year 0 following prior research (e.g., Dechow et al. 1996). Because year -1 means the year immediately before manipulation period, the difference between year -1 and year 0 indicates the impact of GAAP violation. Thus, most prior studies focus on financial variables for the year-end prior to the first year of the manipulation, period, year -1, to select control firms (e.g., Dechow et al. 1996 ; Farber 2005).

(1) Performance, working capital, leverage variables

Table 8 presents mean statistics through event time. Means of financial performance variables are presented in Panel A. Working capital ratios and leverage variables are presented in Panel B and C of Table 8, respectively. In Panel A, all performance variables for KSE-listed firms do not significantly change, but KSQ-listed firms show significant declines in all variables in year +1 and year +2 and increases in year +3.

In sum, the effect of enforcement action seems more significant for performance of KSQ-listed firms. This inference is confirmed by statistical test in Panel A of Table 8. ROA significantly decreases in year 0 and +1.

Panel B shows that all the working capital variables show similar patterns. They show large declines in all variables for KSQ-listed firm but steady trends in KSE-listed firm. This evidence may imply that main impact of enforcement action on KSQ-listed firms is accomplished by the change in working capital. For example, this is because KSQ-listed firms sell receivables and/or inventories and pay back payables quickly after enforcement actions. Panel B of Table 8 provides evidence that the decreases in AR and INV are statistically significant in year +1.

Panel C provides evidence that the current ratio (CA/CL) and the ratio of current liability (CL) of KSQ firms are higher than those of KSE-listed firms. This is consistent with the evidence in Panel B. In contrast, the ratio of current liability of KSE-listed firms decrease after enforcement action and the decrease is significant in year +1. Regarding Lev (total debt to total assets), while KSE firms show steady trend, KSQ-listed firms show sudden increase in year +1.

〈Table 8〉 Financial characteristics

		Year relative to enforcement actions announcement							(year 0)– (year –1)	(year +1)– (year 0)
		–3	–2	–1	0	+1	+2	+3	Diff (t–stat)	Diff (t–stat)
Panel A. Performance										
<i>ROA</i>	KSE	0.29	–0.03	0.01	–0.04	–0.05	–0.08	–0.05	–0.05 (–1.41)	–0.01 (–0.26)
	KSQ	0.04	–0.02	–0.02	–0.15	–0.49	–0.29	–0.26	–0.13 (–2.21)	–0.34 (–3.30)
<i>OCF</i>	KSE	–0.02	–0.04	0.02	–0.04	–0.01	–0.06	0.02	–0.06 (–1.78)	0.03 (1.10)
	KSQ	0.02	0.01	–0.06	–0.12	–0.21	–0.26	–0.14	–0.06 (–1.29)	–0.09 (–1.57)
<i>FCF</i>	KSE	0.04	–0.19	–0.13	–0.08	–0.06	–0.01	–0.08	0.05 (0.77)	0.02 (0.18)
	KSQ	–0.32	–0.19	–0.33	–0.50	–0.60	–1.17	–0.54	–0.17 (–1.56)	–0.10 (–0.34)
Panel B. Working capital										
<i>AR</i>	KSE	0.18	0.20	0.17	0.18	0.11	0.14	0.14	0.01 (0.46)	–0.07 (–2.78)
	KSQ	0.36	0.32	0.35	0.30	0.18	0.16	0.18	–0.05 (–0.95)	–0.12 (–3.16)
<i>INV</i>	KSE	0.16	0.15	0.14	0.14	0.09	0.10	0.11	0.00 (0.03)	–0.05 (–2.78)
	KSQ	0.27	0.21	0.27	0.20	0.13	0.11	0.13	–0.07 (1.01)	–0.07 (2.00)
<i>AP</i>	KSE	0.11	0.10	0.09	0.10	0.08	0.08	0.09	0.01 (0.70)	–0.02 (1.62)
	KSQ	0.25	0.18	0.22	0.17	0.12	0.12	0.11	–0.05 (–0.87)	–0.05 (1.89)
Panel C. Leverage										
<i>CA/CL</i>	KSE	1.32	1.35	1.37	1.45	1.32	1.25	1.17	0.08 (0.36)	–0.13 (–0.52)
	KSQ	2.05	2.52	2.58	2.44	1.85	1.59	1.75	–0.14 (–0.36)	–0.59 (–1.47)
<i>CL</i>	KSE	0.49	0.57	0.47	0.44	0.36	0.43	0.45	–0.03 (–0.61)	–0.08 (–2.37)
	KSQ	0.61	0.55	0.57	0.56	0.56	0.68	0.54	–0.01 (–0.17)	0.00 (0.00)
<i>Lev</i>	KSE	0.76	0.74	0.66	0.64	0.70	0.69	0.72	–0.02 (–0.41)	0.06 (1.23)
	KSQ	0.57	0.57	0.53	0.52	0.98	0.74	0.74	–0.01 (–0.12)	0.46 (2.35)

Variables are defined in Table 6. If the difference is significant at or less than the 5 percent level, it is shown in bold.

(2) Investment variables

Panel A of Table 9 provides tests of change in investment using four proxies. Tangibles and Employee are stock variables, so they involve cumulative effect of the change of investments. Therefore, we focus on CAPEX and R&D, which are flow variables, to analyze the effect of enforcement actions. In addition, while KSE-listed firms' investment activities are very stable, KSQ-listed firms' investment activities are very volatile. Therefore, only KSQ-listed firms reveal significant changes. In year +1, CAPEX and R&D of KSQ-listed firms decrease significantly. These findings indicate that KSQ-listed firms overinvest and/or involve in risky investment projects before enforcement actions. In addition, it might be the main reason for earnings management.

(3) Governance variables

Panel B of Table 9 presents the trends of governance variables before and after enforcement actions. As reported in Table 7, the average percentage of Big 4 auditors in the FSS sample is 44%. This percentage is low compared to the findings in prior studies. Farber (2005) document that 75% of fraud firms retain a Big 4 auditors compared to 85% for control firms. Dechow et al. (1996) report that 59% of SEC sample firms use Big 6 audit firms. Panel B shows that this low percentage of Big 4 auditors is attributable to KSQ-listed firms whose use of Big 4 audit firms is about 32 percent. Panel B shows that Bigs of KSE-listed firms decreases before GAAP violation and increases after enforcement actions while Bigs of KSQ-listed firms keep decreasing from year -2. However, this decreasing trend is not statistically significant.

Panel B also reports that there is difference in institutional investors' shareholdings (Inst_own) between KSE-listed and KSQ-listed firms. However, the data on institutional shareholdings have limitation to analyze in this study because KIS value II database provides data only up to 2003.

Panel B documents that analyst following (Analyst) significantly increases after enforcement actions are made public. This finding are contrast to Dechow et al. (1996) and Farber (2005). Dechow et al. (1996) provide evidence that the number of analysts following the firms subject to the AAER declines in the median number from year -1 to year +1. In addition, Farber (2005) finds that analyst following is not affected by the changes in governance after fraud detection. The different finding in this study might be due to the difference in definition of analyst following because we measure analyst following as the number of EPS forecasts. Therefore, if one analyst revises his/her prior forecast frequently after enforcement actions due to increase in uncertainty, my findings can be alternatively interpreted.

〈Table 9〉 Responses of variables

Panel A : Inventment variables										
		Year relative to enforcement actions announcement							(year 0)– (year –1)	(year 1)– (year 0)
		–3	–2	–1	0	+1	+2	+3	Diff (t–stat)	Diff (t–stat)
<i>Tangibles</i>	KSE	0.41	0.41	0.39	0.34	0.32	0.35	0.36	–0.05 (–1.13)	–0.02 (–0.43)
	KSQ	0.34	0.28	0.27	0.24	0.24	0.45	0.23	–0.03 (–0.76)	0.00 (0.16)
<i>CAPEX</i>	KSE	0.09	0.09	0.07	0.05	0.04	0.05	0.07	–0.02 (–0.70)	–0.01 (–1.24)
	KSQ	0.19	0.14	0.20	0.17	0.11	0.32	0.09	–0.03 (–0.60)	–0.06 (–2.14)
<i>R&D</i>	KSE	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.00 (1.31)	0.00 (0.13)
	KSQ	0.04	0.04	0.05	0.05	0.02	0.03	0.02	0.00 (0.49)	–0.03 (–3.29)
<i>Employee</i>	KSE	2,913	2,966	2,684	2,251	2,162	2,315	2,535	–433 (–0.45)	–89 (–0.10)
	KSQ	212	209	197	214	222	230	262	17 (0.19)	8 (0.08)
Panel B : Governance variables										
		Year relative to enforcement actions announcement							(year 0)– (year –1)	(year +1)– (year 0)
		–3	–2	–1	0	+1	+2	+3	Diff (t–stat)	Diff (t–stat)
<i>Bigs</i>	KSE	0.58	0.57	0.52	0.59	0.60	0.61	0.67	0.07 (0.85)	0.01 (0.07)
	KSQ	0.33	0.38	0.37	0.36	0.33	0.27	0.25	–0.01 (–0.05)	–0.03 (–0.45)
<i>Inst_own</i>	KSE	15.66	13.36	10.46	12.90	13.96	13.10	20.70	2.44 (0.92)	1.06 (0.28)
	KSQ	4.90	3.87	4.23	3.73	2.88	4.88	1.78	–0.50 (–0.42)	–0.85 (–0.76)
<i>Analyst</i>	KSE	6	26	37	30	120	138	151	–7 (–0.27)	90 (2.99)
	KSQ	22	18	14	17	34	19	28	3 (0.43)	17 (1.84)
Panel C : Accruals variables										
		Year relative to enforcement actions announcement							(year 0)– (year –1)	(year +1)– (year 0)
		–3	–2	–1	0	+1	+2	+3	Diff (t–stat)	Diff (t–stat)
<i>Tacc</i>	KSE	0.34	0.00	–0.01	–0.00	–0.05	–0.02	–0.05	0.01 (0.12)	–0.05 (–1.08)
	KSQ	0.03	0.00	0.04	–0.03	–0.27	–0.03	–0.16	–0.07 (–1.05)	–0.24 (–2.81)
<i>DA</i>	KSE	0.02	0.04	0.01	0.01	–0.03	0.02	0.02	0.00 (0.04)	–0.04 (–1.15)
	KSQ	0.05	0.01	0.00	–0.02	–0.10	–0.10	–0.09	–0.02 (–0.51)	–0.08 (–1.64)
<i>Adj_DA</i>	KSE	0.02	0.05	0.03	0.01	–0.01	0.01	0.01	–0.02 (–0.44)	–0.02 (–0.75)
	KSQ	0.05	0.03	0.01	0.01	0.01	–0.00	0.02	0.00 (0.07)	0.00 (0.13)
<i>Ind_adj DA</i>	KSE	0.03	0.06	0.02	0.03	–0.01	0.02	0.02	0.01 (0.08)	–0.04 (–1.04)
	KSQ	0.06	0.04	0.04	0.06	0.07	0.02	0.06	0.02 (0.51)	0.01 (0.37)

Variables are defined in Table 6. If the difference is significant at or less than the 5 percent level, it is shown in bold.

(4) Accruals variables

The purpose of post-audit review is to enhance the quality of accounting information by preventing accounting irregularities in ex ante basis. However, in ex post basis, if the enforcement actions are effective, the quality of accounting (the magnitude of earnings management) should be improved (decreased) through auditor changes, improvement in governance, and/or CEO changes. While the improvement of accounting quality is an ultimate issue to practitioners, regulators, and researchers, there is little research on this issue. Kim et al. (2007) compare the magnitude of discretionary accruals before and after audit review, but fail to find statistically significant difference. Following Kim et al. (2007), we analyze the discretionary accruals effect after enforcement action. More importantly, we use three proxies for the magnitude of earnings management because the ability of accrual models to isolate the discretionary component in accruals is under criticism (McNichols 2000).

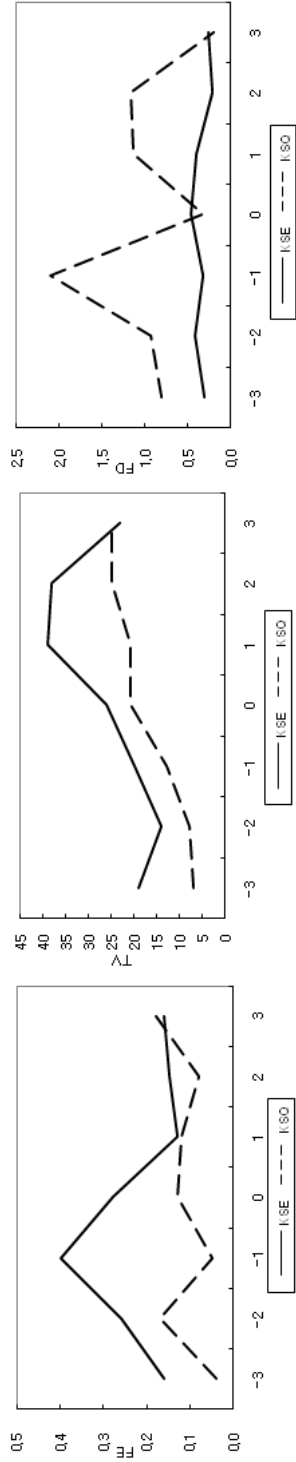
<Table 10> Market responses

		Year relative to enforcement actions announcement							(year 0)– (year –1)	(year +1)– (year 0)
		–3	–2	–1	0	+1	+2	+3	Diff	(t–stat)
Panel A. stock market										
<i>FE</i>	KSE	0.16	0.26	0.40	0.28	0.13	0.15	0.16	–0.12 (	–0.69) –0.12 (
	KSQ	0.04	0.17	0.05	0.13	0.12	0.08	0.18	0.08 (	0.85) –0.01 (
<i>FD</i>	KSE	0.30	0.41	0.32	0.46	0.39	0.21	0.25	0.14 (	0.85) –0.07 (
	KSQ	0.81	0.93	2.10	0.32	1.14	1.16	0.20	–1.78 (	–0.96) 0.82 (
<i>TV*</i>	KSE	19	14	20	26	39	38	23	6 (	0.78) 13 (
	KSQ	7	8	13	21	21	25	25	8 (	1.70) 0 (
Panel B. Bond Market										
<i>CS</i>	KSE	0.05	0.05	0.07	0.12	0.04	0.03	0.02	0.05 (	24.35) –0.08 (
	KSQ	0.04	0.05	0.09	0.10	0.06	0.07	0.06	0.01 (	1.96) –0.04 (
<i>MAT</i>	KSE	2.41	2.24	1.81	1.77	2.40	2.67	2.98	–0.04 (	–2.78) 0.63 (
	KSQ	2.38	2.46	2.50	2.25	2.20	2.16	2.61	–0.25 (	–16.65) –0.05 (
<i>Rating</i>	KSE	3.56	3.52	3.49	3.47	3.90	4.18	4.36	–0.02 (	–0.21) 0.43 (
	KSQ	3.45	2.67	2.55	2.61	2.18	1.95	2.07	0.06 (	0.29) –0.43 (

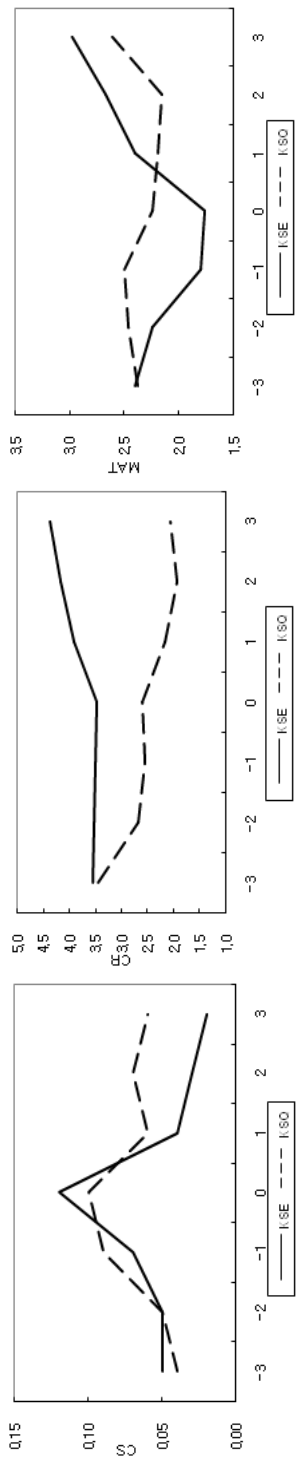
* Trading volume (TV) is on the million of share's basis. Variables are defined in Table 6. If the difference is significant at or less than the 5 percent level

<Figure 4> Plots of capital market behaviors

Panel A. Stock market participants



Panel B. Debt market participants



Panel C of Table 9 reports the changes in accrual variables over time. As shown in Dechow et al. (1996), total accruals (Tacc) of KSQ-listed firms show statistically significant decline in year +1. This finding is due to reversal of prior accrual overstatements. To capture the magnitude of intentional earnings management, we analyze three measures of discretionary accruals suggested in prior studies ; DA (suggested in Jones (1991)), Adj_DA (suggested in Kothari et al. (2005)), and Ind_adj_DA (suggested in Kasznik (1999)).

While Panel C does not provide significant difference in discretionary accruals for all measure. For KSQ-listed firms, there are no consistent results among different measures. For example, DA is decreasing, Adj_DA is steady, but Ind_adj_DA is increasing after enforcement actions.

(5) Capital market responses

Table 10 reports the market responses over time. Panel A of Table 10 shows that analyst forecast errors (FE) of KSE-listed firms are larger than those of KSQ-listed firms. In addition, it shows that both forecast errors decrease after enforcement actions while they are not statistically significant. For forecast dispersion (FD), which is a proxy for uncertainty, Panel A of Figure 4 presents that KSQ-listed firms show higher uncertainty than that of KSE-listed firms. While the decrease in FD in year 0 is interesting, it is not easy to figure out the reason. For the trading volume of stocks, Panel A of Figure 4 shows that trading volume of both subsamples are increasing both before and after enforcement actions.

Panel B of Table 10 provides debt market behaviors before and after enforcement actions. For KSE-listed firms, it shows that credit spread (CS) significantly increase in year 0, indicating debt market also respond to GAAP violation. In addition, CS significantly decreases when the GAAP violations are detected and disclosed. It is difficult to interpret this decrease in credit risk. On the other hand, bond maturity (MAT) shows opposite patterns compared to CS. Panel B of figure 4 shows that bond maturity of both subsamples significantly decreases in year 0 and KSE-listed firms' bond maturity significantly increases after detection of fraud. Panel B of figure 4 also shows consistent evidence for credit rating (CR). Credit rating of KSE-listed firms is upgraded after fraud detection while KSQ-listed firms are downgraded.

V. Conclusion

This study provides a comprehensive analysis of financial misreporting investigated and disclosed by the FSS. While prior literature on enforcement actions focuses on KSE-listed firms or all publicly traded firms, this paper separates the FSS sample into three groups (KSE-listed, KSQ-listed, and unlisted firms) according to firm's listing status and analyzes each group regarding the details of GAAP violations and enforcement actions.

This study extends prior literature by considering debt market responses to enforcement actions. In addition, this paper investigates economic consequences of enforcement actions from the long-term perspective by using various variables.

The review of enforcement actions shows that the characteristics of GAAP violations and enforcement actions are different across subsamples. Especially, KSQ-listed firms are unique. They are smaller and younger than unlisted firms and serious GAAP violators in terms of the number of and the magnitude of GAAP violations. In addition, auditor assignment is the most frequently used action, especially for KSQ-listed firms. Other enforcement actions (restriction on security issuance and fines) against firms do not seem different across subsample.

Empirical tests show that the effects of enforcement actions are different across listing status. In particular, KSQ-listed firms show more sensitive reactions to the enforcement actions than KSE-listed firms in most of analyses (short-term stock market reactions, firm performance, working capital, leverage, investment, discretionary accruals, forecast dispersion, bond maturity, and credit rating).

This paper has several contributions to the literature on post-audit review. First, this study investigates the details of GAAP violations and the effects of enforcement actions across listing status. Second, this paper provides a comprehensive understanding of the economic consequences of enforcement actions by analyzing from a variety of perspectives (e.g., performance, investment, governance). Third, this study suggests that debt-holders have a different perspective from shareholders to the accounting enforcement actions. My findings indicate that bondholders of KSE-listed firms response favorably to the enforcement actions.

Findings in this paper can suggest potential avenues for future research. For example, the difference in response to enforcement action between shareholders and bondholders is worthy of future research. We also believe the findings in this paper are useful to investors, stock exchange, external auditors, and regulators.

However, my research design has limitations. First, this paper focuses on one-year impact in

analyzing the effects of enforcement actions. Second, this study does not statistical tests of difference in effects between KSE-listed and KSQ-listed firms. Third, this paper's analyses lack of controlling for other factors potentially affecting the results.

References

- Ahmed, A. S., B. K. Billings, R. M. Morton, and M. Stanford-Harris. 2002. The role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividend policy and in reducing debt costs. *The Accounting Review* 77 (4) : 867-890.
- Agrawal, A., J. F. Jaffe, and J. M. Karpoff. 1999. Management turnover and governance changes following the revelation of fraud. *Journal of Law and Economics* 42 (April) : 309-342.
- Anderson, K., and T. Yohn. 2002. The effect of 10K restatements on firm value, information asymmetries, and investors' reliance on earnings. Working Paper, Georgetown University.
- Ashbaugh-Skaife, H., D. W. Collins, and R. LaFond. 2006. The effects of corporate governance on firms credit ratings. *Journal of Accounting and Economics* 42 (1-2) : 203-243.
- Ball, R., A. Robin, and G. Sadka. 2008. Is financial reporting shaped by equity markets or by debt markets? An international study of timeliness and conservatism. *Review of Accounting Studies* 13 (2-3) : 168-205.
- Beasley, M. S. 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review* 71 (4) : 443-465.
- Beneish, M. D. 1994. The detection of earnings manipulation, Working Paper. Duke University, Durham, NC.
- Beneish, M. D. 1997. Detecting GAAP violation : Implications for assessing earnings management among firms with extreme financial performance. *Journal of Accounting and Public Policy* 16 : 271-309.
- Beneish, M. D. 1999. Incentives and penalties related to earnings mover. *Journal of Accounting and Public Policy* 16 : 271-309.
- Bhojraj, S., and P. Sengupta. 2003. Effect of corporate governance on bond ratings and yields : The role of institutional investors and outside directors. *Journal of Business* 76 (3) : 455-475.
- Bonner, S. E., Z-V. Palmrose, and S. M. Young. 1998. Fraud type and auditor litigation : An analysis of SEC accounting and auditing enforcement releases. *Accounting Review* 73 (4) : 503-532.
- Burns, N., and S. Kedia. 2006. The impact of performance-based compensation on misreporting. *Journal of Financial Economics* 79 (1) : 35-67.
- Chen, Q., and D. B. Farber. 2008. Earnings restatements, change in CEO compensation, and firm performance. *The Accounting Review* 83 (5) : 1217-1250.
- Cheng, Q., and T. Warfield. 2005. Equity incentives and earnings management. *The Accounting Review* 80 (2) : 441-476.
- Choi, K., and S. Paek. 1998. An empirical analysis of the earnings manipulation by the firms detected in audit review. *Korean Accounting Review* 23 (2) : 133-161.

- Choi, K., and K. Choe. 2003. An analysis of the corporate characteristics of companies reporting aggressive accounting. *Korean Accounting Review* 28 (2) : 211–243.
- Dechow, P. M., and D. J. Skinner. 2000. Earnings management : Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons* 14 (2) : 235–250.
- Dechow, P. M., R. G. Sloan, and A. P. Sweeney. 1995. Detecting earnings management. *Accounting Review* 70 (2) : 193–225.
- Dechow, P. M., R. G. Sloan, and A. P. Sweeney. 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.
- DeFond, M. L., and J. Jiambalvo. 1994. Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics* 17 (1–2) : 145–176.
- Farber, D. B. 2005. Restoring trust after fraud : Does corporate governance matter? *The Accounting Review* 80 (2) : 539–561.
- Feroz, E. H., K. Park, and V. S. Pastena. 1991. The financial and market effects of the SEC's accounting and auditing enforcement releases. *Journal of Accounting Research* 29 (Supplement) : 107–142.
- Francis, J., R. LaFond, P. Olsson, and K. Schipper. 2005. The market pricing of accrual quality. *Journal of Accounting and Economics* 39 (2) : 295–327.
- Graham, J. R., S. Li, and J. Qiu. 2008. Corporate misreporting and bank loan contracting. *Journal of Financial Economics* 89 (1) : 44–61.
- Healy, P. M., and J. M. Wahlen. 1999. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons* 13 (4) : 365–383.
- Hribar, P., and N. T. Jenkins. 2004. The effect of accounting restatements on earnings revisions and the estimated cost of capital. *Review of Accounting Studies* 9 (2) : 337–356.
- Jensen, M. 2005. Agency costs of overvalued equity. *Financial Management* 34 : 5–19.
- Jones, J. J. 1991. Earnings management during import relief investigations. *Journal of Accounting Research* 29 (2) : 193–228.
- Kasznik, R. 1999. On the association between voluntary disclosure and earnings management. *Journal of Accounting Research* 37 (1) : 57–82.
- Kedia, S., and T. Philippon. 2007. The economics of fraudulent account. *The Reviews of Financial Studies* 22 (6) : 2169–2199.
- Kim, M., and M–H. Hwang. 2007. The detection of GAAP violation. *Korean Accounting Journal* 16 (3) : 1–34.
- Kim, S–H., N–J. Lee, and J–W. Lee. 2007. Earnings management and market responses of the FSS sanctioned firms before and after the audit review. *Accounting & Auditing Research* 46 : 309–339.

- Kothari, S. P., A. J. Leone, and C. E. Wasley. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39 (1) : 163 – 197.
- Lee, E. 2009. Accounting fraud and long – term market reaction. *Accounting & Auditing Research* 50 : 207 – 240.
- Lo, K. 2008. Earnings management and earnings quality. *Journal of Accounting and Economics* 45 (2 – 3) : 350 – 357.
- Mansi, S. A., W. F. Maxwell, and D. P. Miller. 2004. Does auditor quality and tenure matter to investors? Evidence from bond market. *Journal of Accounting Research* 42 (4) : 755 – 793.
- McNichols, M. 2000. Research design issues in earnings management studies. *Journal of Accounting and Public Policy* 19 (4 – 5) : 313 – 345.
- McNichols, M. F., and S. R. Stubben. 2008. Does earnings management affect firms’ investment decisions? *The Accounting Review* 83 (6) : 1571 – 1603.
- Palmrose, Z – V., V. J. Richardson, and S. Scholz. 2004. Determinants of market reactions to restatement announcements. *Journal of Accounting and Economics* 37 (1) : 59 – 89.
- Park, J. 1999. The prediction of detection in audit review using the characteristics of auditee and auditor. *Korean Accounting Review* 24 (1) : 1 – 32.
- Pittman, J. A., and S. Fortin. 2004. Auditor choice and the cost of debt capital for newly public firms. *Journal of Accounting and Economics* 37 (1) : 113 – 136.
- Rho, J. H., and G.. S. Bae. 2004. An analysis of accounting failures and recommendations for improvement : Business, accounting, audit, and regulatory environment. *Korean Accounting Journal* 13 (2) : 155 – 180.
- Schipper, K. 1989. Commentary on earnings management. *Accounting Horizons* 3 (4) : 91 – 102.
- Sohn, S., and J. Park. 1998. The current state of audit review and the information effect. *Korean Accounting Review* 23 (2) : 107 – 131.
- Sweeney, A. P. 1994. Debt – covenant violations and managers’ accounting responses. *Journal of Accounting and Economics* 17 (3) : 281 – 308.
- Teoh, S. H., I. Welch, and T. J. Wong. 1998a. Earnings management and the underperformance of seasoned equity offerings. *Journal of Financial Economics* 50 (1) : 63 – 99.
- Teoh, S. H., I. Welch, and T. J. Wong. 1998b. Earnings management and the long – term market performance of initial public offerings. *Journal of Finance* 53 (6) : 1935 – 1974.
- Wilson, W. M. 2008. An empirical analysis of the decline in the information content of earnings following restatements. *The Accounting Review* 83 (2) : 519 – 548.
- Wu, M. 2002. Earnings restatements : A capital market perspective. Ph.D. dissertation, New York University.

회계감리지적의 경제적 효과

박경호** · 노희천***

<요 약>

본 연구는 금융감독원의 감리조사 후 회계기준 위반 사실이 적발되고 그 사실이 공시된 경우에 발생하는 효과에 대한 포괄적인 분석을 제공한다. 즉, 이 연구는 기업회계기준 위반 기업에 대한 회계감리조치의 경제적 효과 존재여부를 조사하였다. 이와 같은 연구주제를 선택한 이유는 금융감독원의 회계감리조치가 기업과 자본시장에 대해 장기적인 효과가 있는지, 효과가 있다면 그 효과는 기업의 상장시장간에 차이가 있는지를 이해하기 위해서이다. 이 연구에서는 감리지적의 경제적 효과를 조사하기 위하여 다양한 변수들을 사용하였고, 특히 부채시장과 관련된 변수들도 이용하였다. 또한 상장회사들을 코스피 시장에 상장된 회사와 코스닥 시장에 상장된 회사로 구분하여 각각의 경우를 구분하여 감리지적의 효과를 분석하였다. 이는 두 시장에 상장된 기업들은 기업규모, 수익성, 그리고 투자자들의 행태가 다를 것으로 예상되기 때문이다. 실증분석 결과, 회계감리지적 효과는 기업에 상장한 자본시장에 따라 다르게 나타나는 것이 발견되었다. 즉, 대부분의 분석(단기적 주식시장 반응, 기업 성과, 운전자본, 레버리지, 투자활동, 재량적 발생액, 이익예측의 분산, 사채의 만기, 신용등급)에서 회계감리지적의 효과는 코스닥 시장에 상장된 기업의 경우가 코스피 시장에 상장된 기업에 비해 큰 것으로 나타났다. 또한 감리지적에 대한 부채시장 참여자(회사채 투자자, 신용평가기관)들의 반응은 주식시장 참여자(재무분석가)들의 반응과 달랐고, 이 또한 기업의 상장시장에 따라 다르게 나타났다. 이와 같은 연구결과들은 기업회계기준 위반의 동기와 효과를 이해하는데 있어서 코스닥 시장에 상장된 기업들을 코스피 시장에 상장된 기업들과 구분하여 이해하는 것이 중요하다는 것을 의미한다.

<주제어> 기업회계기준 위반, 회계감리지적, 경제적 효과, 자금조달 의사결정, 상장시장

* 숭실대학교 회계학과, atoz9@ssu.ac.kr, 02-820-7258, 주저자

** 숭실대학교 회계학과, rhc0401@ssu.ac.kr, 02-820-0541, 교신저자