

An Empirical Analysis of Audit Committee Characteristics and Earnings Restatements

Abstract

This study investigates the impact of audit committee characteristics on the occurrence of earnings restatements. Our general finding is that a large audit committee increases the incidence of earnings restatements, while firms with longer tenure audit committee members, members holding more board seats, and firms with committee members holding more stocks reduce the probability of firms restating their earnings. Moreover, we document an increase in earnings restatements after the passage of the Sarbanes-Oxley (SOX). More importantly, we provide evidence that the SOX is positively related to an increase in voluntary restatements, but not related to those restatements forced by the SEC or external auditors. This could be explained by the improved internal control and corporate governance, achieving the targeted goal of the SOX. Overall, our study provides additional evidence of the important role of audit committee characteristics in improving the quality of financial statements.

Keywords: audit committee, financial restatements, SOX.

Introduction

Financial restatements typically occur when material misstatements, either caused by fraud or errors, are found in previously published financial reports. Comparing the data for companies that restated earnings during a period of 2002-2005 with the results of an earlier study between 1997 and 2002, the Government Accountability Office (GAO) found that the percentage of U.S. public companies announcing financial restatements doubled from 8 percent before Sarbanes-Oxley (SOX) to 16 percent afterwards (GAO-06-678 2006). Such a sharp increase in restatements has gained attention of both academic and practitioners. It has been argued that restatements are associated with negative market reactions (Callen, Livnat and Segal 2005; Akhigbe et al., 2005), such as a decrease of about 10% in a firm's market value (GAO 2002; Palmrose et al. 2004). Wilson (2008) also provided evidence of a short-term decline in the information content of earnings following restatements, but the long-term information loss was unwarranted. Most existing literature on financial restatement, however, have focused on the consequence of restatements, such as the impact of restatements on earnings management, CEO compensation and turnover, outside director turnover, and firm performance (Cheng 2008; Klein 2002, Srinivasan, 2005). This paper instead approaches the financial restatement from a different angle by examining the premise of restatement. Particularly, we examine the relationship between the board audit committee and earnings restatements, i.e., whether certain audit committee characteristics would change the likelihood of earnings restatements.

Assuring the quality of financial statements is one of the primary responsibilities of the board of directors. This task is often delegated to a sub-committee of the main board-the audit committee. A typical audit committee is in charge of overseeing a firm's financial reporting process, internal control structure, internal audit functions and external audit services. Arthur

Levitt, the former chairman of the Securities and Exchange Commission (SEC), explicitly stated that “Qualified, committed, independent, and tough-minded audit committees represent the most reliable guardians of the public interest” (Levitt, 1999). To strengthen the function of audit committees in safeguarding shareholder interests, a series of regulation have been passed over the years. For example, in 1999, the New York Stock Exchange (NYSE) and NASDAQ required listed companies maintaining an audit committee with at least three outside directors. Recently, the Sarbanes-Oxley Act of 2002 required audit committees being composed entirely of independent directors, including at least one financial expert. The subsequent SEC rules then specifically define the structure, composition, and responsibilities of audit committees. All these regulations suggest that audit committees may play a critical role in assisting public companies to identify, detect and avoid misstated financial statements. In particular, the significant changes in audit committee requirements after the enactment of SOX suggest it is worthwhile to investigate the impact of SOX on the effectiveness of audit committees in assuring the quality of financial statements.

Prior research on the association between restatements and the characteristics of audit committees is rather limited. One of the first studies in this area was that DeFond and Jiambalvo (1991), which examined 41 overstatements during a period of 1976-1987. They found those firms that overstated their earnings were less likely to have an audit committee. Recently Abbott, Parker and Peters (2004) used 88 restated financial statements during a period of 1991-1999 and found that audit committees comprised entirely of independent directors were negatively related to the occurrence of earnings restatements. They also documented that an audit committee that meets frequently and that with at least one financial expert was negatively associated with restatement. Further, using a sample of 409 restatements between 1997 to 2001, Srinivasan

(2005) reported that outside directors, especially audit committee members, were more likely to suffer a loss of board seats following a restatement and the likelihood of committee member departure increases with restatement severity.

This current research extends prior literature from the following aspects. First, this study used the latest restatement sample and so far the most comprehensive audit committee sample of SP 1500 firms during a period of 1998-2005 to investigate the relation between audit committee characteristics and earnings restatements. We hypothesize and find that firms with larger audit committee size are more likely to restate their financial statements, indicating a positive relationship between audit committee size and the incidence of restatements. Moreover, firms with longer tenure audit committee members, with members holding more board seats, and with committee members holding more stocks all exhibit a significant and negative association with the occurrence of earnings restatements. However, we fail to document a negative association between the presence of an all-independent audit committee and the likelihood of restatements. Instead we find that an auditor committee comprised of entirely independent directors is positively associated with the incidence of restatement, and particularly voluntary earnings restatement. Therefore, an audit committee with more independent directors involved is more likely to spot any misstated financial reports. Alternatively, the likelihood of the restatements prompted by external auditors and/or the SEC is not related to an audit committee with more independent directors. This fills a void in the literature.

More importantly, we examine whether the SOX has brought any substantial changes in the effectiveness of audit committees in overseeing financial statements. We find that the SOX Act of 2002 had a significant impact on the association between audit committee characteristics and the probability of earnings restatements. Particularly, the SOX Act is positively related to an

increase in the number of voluntary restatements prompted by company and its internal audit committee, but not related to forced restatements by the SEC or its external auditor. This could be explained by the different impacts of SOX on these two types of restatements. By demanding changes in the structure of audit committees, including an all independent committee with at least one financial expert, the SOX aims at restoring investors' confidence through rebuilding and strengthening transparency and accountability (Oxley 2007). Therefore, we predict and find that companies are more willing to restate their financial statements voluntarily instead of being forced by its external auditors or the SEC to reduce negative market reactions after the passage of the SOX. Our findings shed new light on the effectiveness of the SOX Act on the relation between audit committee characteristics and the incidence of earnings restatements.

The remainder of this study is organized as follows. Hypotheses are developed in Section II. Section III describes the sample selection procedure and research design. Section IV presents the analysis of empirical results and additional tests. Section V concludes and discusses the limitations of this research.

Hypotheses Development

The complexity of a firm's accounting and financial substances require audit committee members to invest substantial efforts. A small committee may not have enough resource and manpower to devote to such matters. As a result, all major exchanges including NYSE, AMEX, and NSDAQ, require audit committees to have at least three directors. Abbott et al. (2004) therefore suggest that an audit committee with at least three directors has better monitoring quality and is associated with a lower incidence of restatement. However, upon satisfying the minimum size requirement, a large committee may suffer from the free-rider problem, where

individual members may not exert enough efforts in the committee work. In contrast, a smaller team could often pursue their tasks more effectively. Yermack (1996), for example, found that a smaller board is associated with higher monitoring quality. He showed that firms with smaller boards were able to better discipline CEOs in case of poor performance, to grant executives a lower level of total compensation, and were also associated with higher market valuation. Similarly, we expect that the free-riding problem may hinder the effective functioning of a large audit committee to spot potential problems in financial statements. In addition, when the team size is large, an individual member may be more vulnerable to peer pressure and more subject to “group think” instead of challenging the status quo. In this case, members in a large audit committee may not be willing to question potential mistakes in the accounting report in the internal review process, which in turn may lead to a larger chance of restatement later on. Instead, a small team would facilitate better information exchange and discussion among the members, which may help the committee to identify potential errors in the financial reports and reduces the incidences of restatements. This leads to our first hypothesis:

H1: Firms having a large audit committee is associated with a higher incidence of earnings restatements.

Second, the effectiveness of the audit committee is also influenced by the composition of the committee. Previous literature has long suggested that if board or committee members are corporate executives, they tend to form a coalition with top management and are less likely to carefully safeguard shareholder interests (Anderson and Bizjak, 2003; Conyon and He, 2004). In addition, if board or committee members have business links or other contractual relationship

with the company, e.g., as the company's attorneys, accountants, or consultants, they may feel a strong sense of obligation toward top management, who they have to rely on to obtain and renew such contractual agreements (Core et al., 1999; Hermalin and Weisbach, 1991). As a result, these affiliated members may be more reluctant to challenge top management, and are less likely to spot potential mistakes in the financial reports. Section 301 of the SOX therefore explicitly requires that each member of the audit committee shall be independent and shall neither be affiliated with the company or its subsidiary, nor accept any consulting, advisory, or other compensatory fee from the company. As a result, we expect that firms having an audit committee comprised entirely of independent directors shall possess better quality to identify potential frauds in the financial statements and will subsequently reduce the chance of earnings restatements. Therefore, our second hypothesis is:

H2: Firms having an audit committee comprised entirely of independent directors are associated with a lower incidence of earnings restatements.

Third, the quality of the audit committees is not only dependent on the type of committee members but also on the knowledge and experiences of the members. A more experienced and knowledgeable audit committee member may spot mistakes in the financial reports more easily, and subsequently reduces the likelihood of earnings restatements. The experiences of an audit committee lie in two aspects: the firm specific experience and the general experience. A longer tenure within the firm enables board and committee members to gradually accumulate knowledge of the firm and better understand the firm's operations, internal process, and financial situations. As a result, these members are more likely to identify potential mistakes in the

financial statements and subsequently reduce the chance of restatements. In addition, committee members may also gain general knowledge of the industry and the business through sitting on boards of other firms. In particular, Srinivasan (2005) suggests that audit committee members suffer significant labour market penalties from financial reporting failure. Those audit committee members who are on a firm with earnings restatements are more likely to lose their board seats and less likely to obtain positions on other boards. As a result, the number of board seats that a committee member is holding could serve as a proximate for the quality of audit committees. Members holding more board seats possess better quality than those who do not. We therefore expect that firms with better quality audit committee members are associated with a lower incidence of earnings restatements:

H3: Firms having a longer tenure audit committee are associated with a lower incidence of earnings restatements.

H4: Firms having audit committee members with more board seats are associated with a lower incidence of earnings restatements.

Fourth, apart from committee members' experiences, the quality of the audit committee may also be affected by the committee members' personal interests. Jensen (1993) suggested that a large stockownership should provide directors a strong incentive to promote firm value because their own investment value is also highly affected. For example, Conyon and He (2004) found that compensation committee members with larger average shareholdings were able to design a better CEO compensation contract characterized as lower total compensation and equity higher incentives. By the same token, we expect that audit committee members with large shareholdings

may be more careful of overseeing a firm's financial reports, because any misstatements corrected later in the restatement process would be detrimental for the firm value and their personal economic interests as well (Callen et al. 2005; Palmrose et al. 2004). On the contrary, committee members whose stock ownership is negligible may have little motivation to exert efforts in carefully supervising the report quality, because reduction in firm value caused by misstatements may have very limited impact on their personal wealth. From this perspective, we expect that our fifth hypothesis:

H5: Firms having an audit committee with larger shareholdings are associated with a lower incidence of earnings restatements.

Finally, as we mentioned earlier, a dramatic increase in the number of financial restatements is observed after the passage of SOX (GAO 2006; McCollum 2008). Turner and Weirich (2006) suggest that the increase in restatements may be due to improved internal control mechanisms and investor confidence in the post-SOX period. One of the most important internal control mechanisms to enhance investor confidence is audit committees. The SOX Act of 2002 enacted some major requirements for audit committees. For example, it demands the audit committee to be composed entirely of independent directors, to have a financial expert representative, to be directly responsible for the appointment, compensation and oversight of external auditors' work. All these new rules prompt listed firms to change their audit committee structures accordingly and also largely strengthen the functions and authority of the committees (Braiotta and Zhou, 2006). We thus expect that audit committee characteristics would have different impacts on financial restatements before and after the SOX.

Generally, the restatements are characterized as irregularities that are either reported by company and its internal audit committee voluntarily or prompted by its external auditor or the SEC. Recent research has shown that the stocks of firms that were forced to restate by the SEC lost 9.3%, or more than twice the amount of voluntary restaters (-4.2%), in the immediate two-day window surrounding the announcement (Akhigbe et al., 2005). Hranaiova and Byers (2007) also documented that those restatements forced by the SEC or external auditors evoked larger negative market reactions than voluntary restatements. These results suggest that if restatement is unavoidable, audit committee members may prefer voluntary rather than forced restatements to reduce negative market responses. With increases in the responsibility of board of directors and audit committees in the post-SOX period, we predict that more companies would choose to restate their financial statements voluntarily instead of being forced by external auditors or the SEC to avoid larger penalties from the financial market. This leads to our next hypothesis:

H6: The SOX is associated with a higher incidence of voluntary restatements prompted by company and/or its audit committee.

Sample Selection

The audit committee and board data are collected from the Investor Responsibility Research Center (IRRC). The IRRC data provide detailed demographic and positional information for directors in S&P500, S&P MidCaps and S&P SmallCaps firms. An eight-year panel covering data from 1998-2005 is obtained. The restatement data are obtained from GAO (2006), including earnings restatements announced during a period of January 1997 to June 2006. According to the GAO, these restatements include only those due to an accounting

irregularity, which GAO (2002) defines as "...an instance in which a company restates its financial statements because they were not fairly presented in accordance with generally accepted accounting principles (GAAP). This would include material errors and fraud (GAO 2002, p2)." We obtained the accounting information from Compustat. The final sample includes 1257 firms and 7346 firm-year observations during 1998-2005.

Research Design

Test Variables

We use a dummy variable to capture earnings restatement, with one representing the occurrence of a restatement event and zero otherwise. A restatement is classified as voluntary if it is prompted by the company or jointly prompted by the company and auditor. A restatement is classified as forced if it is prompted by the auditor or SEC. Voluntary restatement is a dummy variable with one representing the occurrence of a voluntary restatement and zero representing no restatement. Similarly, forced restatement is also capture using a dummy variable with one measuring the occurrence of a forced restatement and zero representing no restatement.

Characteristics of the audit committees are measured as follows. First, the size of the audit committee is calculated as the total number of directors sitting on the audit committee. The independent director refers to the director who is neither current or former employee nor having contractual relationship with the company. The independent director ratio is calculated as the total number of independent directors on the audit committee divided by the committee size. The average committee tenure is calculated as the sum of all audit committee members' tenure divided by the committee size, where director tenure is measured as the number of years a director has served on the board. Average director board seats are calculated as the sum of each

committee member's total directorship divided by the committee size, where directorship is measured as the number of boards a director is sitting on. Average director shareholdings are calculated as the sum of all committee members' stockholdings divided by the committee size. Here the stockholdings refer to the percentage shareholdings relative to total shares outstanding.

Based on prior restatement literature, several control variables are also included in the logistic regression model. First, a firm's rate of growth can impair the ability of a firm's internal control structure and accounting information system to properly measure a firm's transactions (Beasley 1996). Growth rate is calculated as the average growth rate of total assets in the three years proceeding the restatement. A positive relation between growth rate and the incidence of earnings restatements is expected. Second, troubled firms with poor financial performance are more likely engaged in earnings management which may require subsequent financial restatements (Loebbecke et al. 1989). Thus, we predict a positive association between the probability of restatement and Loss dummy, which is set to one if the earnings per share in the previous year is negative and zero otherwise. Third, firm size and market-to-book value are controlled in the logistic regress of earnings restatements. Firm size is measured as total assets at the end of year t-1. Market to book ratio is calculated as total market value divided by total assets, which is lagged for one year as well. Lastly, we expect that the stringency of external regulation may affect the frequency of earnings restatements. SOX dummy is thus created with one indicating the year is after 2002, and zero otherwise.

Regression Models

We adapt the logistic regression model used in Abbott et al. (2004) to test the impact of audit committee characteristics on the incidence of earnings restatements. Restatement is defined as one if there is an earnings restatement and zero otherwise.

$$\text{Restatement} = \alpha_0 + \alpha_1 \text{AuditSize} + \alpha_2 \text{AuditIndependentDirectors} + \alpha_3 \text{AverageTenure} + \alpha_4 \text{AverageSeats} + \alpha_5 \text{AverageShareholdings} + \beta_1 \text{FirmSize} + \beta_2 \text{LossDummy} + \beta_3 \text{MarkettoBookRatio} + \beta_4 \text{Growth} + \beta_5 \text{SOXDummy} + \varepsilon$$

Where the variables are as described previously.

Results

Descriptive Statistics and Univariate Analysis

 Insert Table 1 here

Table 1 presents the correlation matrix of key dependent and independent variables. In our sample, 5.29% of firms experience an earnings restatement during the sample year. An average audit committee size is 3.74, and 72.67% of firms having an audit committee comprised of all independent directors. The audit committee has an average tenure of 9 years and an average audit committee member sit on 2 boards. Table 1 also suggests that audit committee size is positively associated with earnings restatements. Surprisingly, the audit committee with all independent directors is also positively related to earnings restatement. Audit committee tenure and board seats are both negatively related to the likelihood of restatements. There is also a negative relation between average committee shareholdings and earnings restatements.

Panel A of Table 2 documents major changes in the audit committee composition in the pre-SOX (1998-2002) and post-SOX periods (2003-2005). We find that after the enactment of SOX, the size of audit committee increases to 3.72 from a pre-SOX level of 3.57. In addition, the percentage of independent directors on the committee increases from 85.14% in and before 2002

to 94.02% after 2002. Before 2002, only 61.77% of firms having an audit committee comprised entirely of independent directors, while 81.66% of firms having an all independent audit committee after 2002. We also observe differences in committee members' tenure, shareholdings, and average directorship.

In addition, we also reports changes in earnings restatement in Panel B of Table 2. During our sample years, there are a total of 407 restatements events. We have 145 restatements in the pre-SOX period and 262 restatements post SOX, which documents an 81% increase in restatement events. GAO started to report initiators of these restatements starting from 2002. Within these 407 restatements events, we have data to classify 276 initiators of restatements. We notice that in year 2002 voluntary restatements account for 62% of the total restatement, while restatements forced by external auditors or the SEC account for the rest 38%. After 2002, voluntary restatements account for 71% and forced restatements account for only 29%. These numbers thus tell us that SOX has had a larger impact on voluntary restatements than forced restatements.

Insert Table 2 here

Empirical Results

Insert Table 3 here

Table 3 reports the logistic regression results for hypotheses 1-5. Panel A reports the reduced format model with only the control variables included and panel B adds all audit committee variables. From panel B of table 3, the coefficient on Audit Size is significant and

positive, which indicates that the size of the audit committee is positively related to earnings restatements, which supports Hypothesis 1. Surprisingly, the coefficient on All Independent Director is significantly positive, suggesting that firms with all independent directors on the audit committees are actually more likely to experience an earnings restatement, contradictory to our second hypothesis. This is partially consistent with Agarwal and Chadha's (2005) finding, no difference in the proportion of insiders compared with a matched sample in the relation between audit committee independence and the chance of restatements.

Moreover, the coefficients on Average audit tenure, Average board seats and Average stockholdings are significant and negative. It suggests that firms with longer tenure audit committee members, members holding more board seats, and firms with committee members holding more stocks are associated with a smaller likelihood of earnings restatements, supporting hypotheses 3, 4 and 5.

In addition, several control variables are also worth mentioning. Table 3 suggests that larger firms are more likely to experience earnings restatements, so do firms with negative earnings in the previous year and firms with larger growth rate. Table 3 also shows that SOX dummy has a significant positive influence on the likelihood of restatements, i.e., firms are more likely to restate their earnings after the enactment of SOX. This result is consistent with GAO's findings that there are more restatements in the post-SOX period.

Finally, to further investigate the issue of the SOX influence on the relation between audit committee characteristics and earnings restatements, we split our sample in two subsamples, representing the pre-SOX year (≤ 2002) and post-SOX period (> 2002) respectively, and report our results in Table 4. We also split our sample slightly differently by classifying pre-

SOX year as (<2002) and post-SOX period (>=2002). The results remain roughly the same in our untabulated table.

Insert Table 4 here

Panel A of the table 4 reports the impact of audit committee characteristics on earnings restatements before the SOX Act of 2002 and Panel B reports the impact after the SOX. Table 4 suggests that characteristics of audit committees rarely have any significant impact on the likelihood of earnings restatement in the pre-SOX period. Instead, we find significant negative relationship between member tenure, member board seats and restatement for the post-Sox era. These results suggest that audit committee characteristics are more likely to reduce the likelihood of restatement when external regulations are more stringent. That is to say, the effectiveness of an audit committee in improving the quality of financial reports is also affected by external regulations. A more restrictive regulation may impose more responsibilities on board and committee members. As a result, board members are more likely to work more vigilantly and better carry out their fiduciary duties to shareholders.

Insert Table 5 here

Table 5 reports the SOX impact on the relation between audit committee characteristics and voluntary restatements (panel A) and forced restatements (panel B). From table (5), we notice that SOX significantly increases the chances of voluntary restatements as we predicted in Hypothesis 6, while not such a relation is observed for forced restatements. In addition, we also notice audit committee characteristics have little impact on forced restatements, while we

document a significant negative relationship between committee board seats and voluntary restatements.

Additional Analysis

Since we fail to document a negative relationship between the presence of an all independent audit committee and the likelihood of restatements, we conduct an additional analysis by classifying two types (voluntary and forced) of restatements and test the hypotheses separately. In our untabulated results, we find that an auditor committee comprised of entirely independent directors is positively associated with the incidence of voluntary restatements, while no such connection is found with forced restatements. These results suggest that an audit committee with more independent directors involved is more likely to be involved in a voluntary restatement in the post-SOX period. This explains why we fail to support our second hypothesis.

Conclusions

This paper investigates the relationship between audit committee characteristics and earnings restatements. First, this study revisits this topic by focusing on the latest restated financial statements and so far the most comprehensive audit committee data during a period of 1998-2005 for SP 1500 firms. We find that firms with larger audit committees are more likely to restate their financial statements. Moreover, firms with longer tenure audit committee members, with members holding more board seats, and with members holding more stocks exhibit a significant and negative association with the occurrence of earnings restatements. However, as the level of audit independent directors increased, we fail to document a decline in the likelihood of earnings restatements. Instead we find that an auditor committee comprised of entirely

independent directors are positively associated with the incidence of voluntary restatements, but not with that of forced restatements. These results suggest that audit committee characteristics, particularly the auditor independence, may influence voluntary and forced disclosure in different ways.

Another main finding of this study highlights the salience of the SOX context in shaping the relationship between audit committee characteristics and the incidence of earnings restatements. We find that the SOX Act of 2002 significantly increase the likelihood of earnings restatements. In particular, the SOX Act is positively associated with the incidence of voluntary restatements, but not with forced restatements. Oxley (2007) argue that SOX aims at restoring investors' confidence by improving audit committee composition to rebuild and strengthen transparency. Therefore, it is more likely that audit committees would choose to restate their financial statements voluntarily in order to reduce negative market reactions if restatements are unavoidable. In addition, we find that the SOX influences the association between audit committee characteristics and the probability of earnings restatement. Some key audit committee characteristics such as committee members' tenure, experience, and quality only affect the incidence of restatements in the post SOX rather than pre SOX periods. These results thus support the argument that external regulations such as SOX help to improve the quality of internal corporate governance mechanisms.

As with other studies that examine the impact of audit committee characteristics/independence on earnings restatements, our paper is subject to some caveats. First, we did not control external auditors, such as separating the type of outside auditors into either name-brand or non-name-brand in our logistic regression, because Agarwal and Chadha (2005) find no association between name-brand auditors and the likelihood of fraud. In addition, we did not

control the meeting frequency of audit committees in our tests due to mixed prior findings. For example, Farber (2004) finds that audit committees with fraud firms meet less frequently than control firms whereas Beasley (1996) reports no such evidence. In addition, due to data limitation, we are not able to provide tests of voluntary and forced restatements for the pre-SOX periods in the current version of the paper, which would be conducted in a follow-up study. Lastly, the change in information quality may not be caused by the passage of SOX and related reforms, but by other contemporaneous changes in the economy. Therefore, some potential limitations in interpreting the results of this study should be noted. We believe it could be an empirical question for the future research.

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Table 1: Correlation Matrix for Key Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 Restatement dummy	0.05	0.22	1.00										
2 Audit size	3.74	1.17	0.01	1.00									
3 All Independent dir.	0.73	0.45	0.04	-0.09	1.00								
4 Ave. audit tenure	8.99	4.44	-0.04	0.03	-0.15	1.00							
5 Ave. board seats	1.94	0.82	-0.02	0.16	0.05	-0.13	1.00						
6 Ave. stockholdings	0.10	0.62	-0.03	-0.06	-0.14	0.05	-0.06	1.00					
7 Total assets	14.99	67.63	0.04	0.16	-0.01	-0.03	0.15	-0.03	1.00				
8 Loss dummy	0.11	0.32	0.07	-0.04	0.04	-0.02	0.02	-0.02	-0.05	1.00			
9 Market/book ratio	1.57	2.27	-0.04	-0.14	-0.05	-0.02	0.01	0.04	-0.09	-0.04	1.00		
10 Growth rate	17.52	42.34	0.00	-0.10	-0.03	-0.09	-0.02	0.05	-0.00	0.06	0.25	1.00	
11 SOX dummy	0.43	0.49	0.10	0.06	0.20	-0.02	-0.02	-0.09	0.03	0.06	-0.09	-0.11	1.00

Table 2: Comparison of Audit Committee Characteristics and Earnings Restatements Before and Post SOX

Panel A: Audit Committee Characteristics

Variables	Pooled Sample	Pre SOX (<=2002)	Post SOX (>2002)	P value
Audit Committee Size	3.61 (1.19)	3.57 (1.27)	3.72 (1.01)	0.00***
% with >=3 members	88.27% (0.32)	84.56% (0.36)	95.49% (0.21)	0.00***
% Independent directors on comm.	88.17% (0.20)	85.14% (0.22)	94.02% (0.14)	0.00***
% with all independent directors	68.55% (0.46)	61.77% (0.48)	81.66% (0.38)	0.00***
Ave. Tenure	8.80 (4.50)	8.87 (4.66)	8.67 (4.17)	0.01***
Ave. Share Holdings	0.19 (1.16)	0.27 (1.40)	0.04 (0.38)	0.00***
Ave. Directorship	1.89 (0.83)	1.89 (0.87)	1.86 (0.73)	0.01***

Panel B: Earnings Restatements

Variables	Pooled Sample	Pre SOX (<=2002)	Post SOX (>2002)	% increase
Restatements	407	145	262	81%
With Initiator data	276	39	237	
Voluntary restatement	195	24 (62%)	171 (71%)	9%
Forced restatement	81	15 (38%)	66 (29%)	-9%

*** indicates significant at the 0.01 level; ** significant at 0.05 level; * significant at 0.10 level.

Table 3: The Influence of Audit Committees on Earnings Restatements

Variables		Logistic Regression of Restatements	Logistic Regression of Restatements
Intercept		-3.31*** (-12.97)	-3.15*** (-8.05)
Audit size	+		0.08* (1.75)
All Independent dir.	-		0.24* (1.72)
Ave. audit tenure	-		-0.03** (-2.32)
Ave. board seats	-		-0.19*** (-2.70)
Ave. stockholdings	-		-0.53* (-1.69)
SOX Dummy	+	0.76*** (6.24)	0.68*** (5.41)
Control Variables			
Total assets	+	1.42*** (2.79)	1.60*** (2.99)
Loss dummy	+	0.87*** (6.17)	0.87*** (6.20)
Market/Book ratio	-	-0.07 (-0.95)	-0.06 (-0.91)
Growth rate	+	0.00* (1.90)	0.01** (2.26)
Exchange dummies		Yes	Yes
Industry dummies		Yes	Yes
Observations		7344	7344
Pseudo R Square		0.0469	0.0553

^a Z value reported in parentheses; * significant at 10%; ** significant at 5%; ***significant at 1%. All models include stock exchange and industry controls, which are not reported.

Table 4: The Influence of Audit Committees on Earnings Restatements: Pre and Post SOX

Variables	Pre SOX Logistic Regression of Restatements	Post SOX Logistic Regression of Restatements
Intercept	-3.71*** (-6.66)	-1.78*** (-3.68)
Audit size	0.04 (0.67)	0.09 (1.43)
All Independent dir.	0.18 (0.99)	0.25 (1.27)
Ave. audit tenure	-0.02 (-0.78)	-0.05** (-2.41)
Ave. board seats	-0.17 (-1.65)	-0.21** (-2.10)
Ave. stockholdings	-0.80 (-1.65)	-0.08 (-0.31)
Total assets	-0.38 (-0.04)	1.53*** (2.52)
Loss dummy	1.01*** (4.55)	0.78*** (4.24)
Market/book ratio	-0.01 (-0.20)	-0.25*** (-2.91)
Growth rate	0.00 (1.65)	0.01* (1.88)
Exchange dummies	Yes	Yes
Industry dummies	Yes	Yes
Observations	4188	3156
Pseudo R Square	0.0333	0.0544

^a Z value reported in parentheses; * significant at 10%; ** significant at 5%; ***significant at 1%. All models include stock exchange and industry controls, which are not reported.

Table 5: The Influence of SOX on Voluntary and Forced Restatements

Variables	Logistic Regression of Voluntary Restatements	Logistic Regression of Forced Restatements
Intercept	-2.49*** (-4.80)	-3.64*** (-4.74)
SOX Dummy	0.58*** (2.53)	0.42 (1.33)
Audit size	0.05 (0.77)	0.09 (0.94)
All Independent dir.	0.12 (0.62)	0.03 (0.08)
Ave. audit tenure	-0.03 (-1.32)	-0.03 (-1.19)
Ave. board seats	-0.24** (-2.21)	-0.03 (-0.19)
Ave. stockholdings	-0.02 (-0.09)	-0.15 (-0.38)
Total assets	1.47* (1.91)	1.33* (1.86)
Loss dummy	0.80*** (3.95)	1.25*** (4.34)
Market/book ratio	-0.28*** (-2.90)	-0.19 (-1.30)
Growth rate	0.01* (1.66)	0.01*** (2.70)
Exchange dummies	Yes	Yes
Industry dummies	Yes	Yes
Observations	3989	3880
Pseudo R Square	0.0630	0.0617

^a Z value reported in parentheses; * significant at 10%; ** significant at 5%; ***significant at 1%. All models include stock exchange and industry controls, which are not reported.