
Original Article

Audit committee characteristics and earlier voluntary ethics disclosure among fraud and no-fraud firms

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ABSTRACT This paper empirically examines specific characteristics of an audit committee that could be associated with the likelihood of earlier voluntary ethics disclosure. The sample includes firms that were investigated by the Securities Exchange Commission for fraudulent financial reporting before the Sarbanes–Oxley Act’s ethics rule became effective, and their matched no-fraud firms. This study finds that the level of voluntary ethics disclosure was very low compared to the current mandatory disclosure. Results based on a logit regression analysis suggest that firms which made earlier voluntary ethics disclosure were likely to have a larger and more independent audit committee that met more often, and were less likely to engage in fraudulent financial reporting. These results should help policy-makers, investors and boards of directors focus on these audit committee characteristics, which could be crucial not only to ethics disclosure, but also to the ethical conduct of a firm. In particular, results regarding size and meeting frequency highlight how to further improve the effectiveness of an audit committee and the quality of an ethics code not only in the United States, but also in other countries. These characteristics may also indicate a firm’s propensity to make any voluntary disclosures, and may help to explain the differential quality of current mandatory ethics codes in the United States. Additionally, these results should be useful to global investors who desire to use corporate governance criteria for screening stock investments in countries where there are no ethics-code requirements.

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INTRODUCTION

Ethics disclosure has recently received much greater attention from the investing public and

regulators as a result of accounting debacles at prominent companies such as Enron and WorldCom. In particular, President Bush signed into law in July 2002 the Sarbanes–Oxley Act (SOX), which seeks to reduce the likelihood of fraudulent financial reporting by making public company CEOs and CFOs directly accountable for their organisations’ internal control and

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financial disclosures. Section 406 of the Act requires publicly traded companies to disclose whether they have adopted a code of ethics for senior financial executives and principal executive officers, and to have enforcement procedures for fiscal years ending after 15 July 2003. In response to the Securities Exchange Commission's (SEC's) request, the NYSE and the NASDAQ, in late 2003, issued new corporate governance rules that require their listed companies to adopt and disclose a code of business conduct and ethics for all employees including directors, officers and front-line workers.¹ Although no code of ethics can replace the thoughtful behaviour of ethical employees, such a code can focus the board and management on areas of ethical risk, help to foster a culture of honesty and accountability, improve the internal control environment and decrease the likelihood of fraudulent financial reporting. Before the mandates of the SOX and the NYSE, publicly traded companies were not required to make any disclosure regarding a code of ethics in any publicly available reports.

This study attempts to identify audit committee characteristics associated with earlier voluntary ethics disclosure among public companies that were investigated by the SEC for fraudulent financial reporting, and their matched no-fraud companies. The study emphasises the audit committee because most companies, including those in our sample, assign oversight responsibility for ethics to this committee. For example, the 2001 proxy statement of AT&T stated that one of its audit committee's primary responsibilities is to provide direction and oversight of the Business Ethics and Conduct function. Similarly, the proxy statement of Bear Stearns (2001), CVS (2000) and Texas Instrument (1997) stated that their audit committees have the responsibility to review compliance with the corporate code of ethics. It is, therefore, likely that an audit committee would be the one to initiate the adoption and voluntary disclosure of a code of ethics. This study focuses on fraud firms because their highly unethical reporting practices imply that they are less likely

than their matched no-fraud firms to adopt and disclose a code of ethics, probably because of the differences in their audit committee characteristics. If we do not find any significant differences in the audit-committee characteristics between these two contrasting groups of firms, we will probably not find differences among any other groups of firms.

To ensure that the ethics disclosure is voluntary, this study examines the disclosure in proxy statements and 10-K reports filed with the SEC *before* the SOX ethics rule became effective. For each pair of fraud and matched no-fraud firms, this study searched for the first year when these firms started to make voluntary ethics disclosure before 15 July 2003, the effective date of the ethics requirements of the SOX. The study then investigates which audit committee characteristics are associated with the likelihood that a firm would make voluntary ethics disclosure *earlier* than its matched firm.

Results based on a logit regression analysis indicate that earlier voluntary ethics disclosure was (1) positively associated with the independence, size and meeting frequency of an audit committee, and (2) negatively associated with fraudulent financial reporting. Although ethics disclosure is no longer voluntary, these results should help to direct regulators, investors and boards of directors (BOD) to place more emphasis on the audit committee characteristics that may be crucial not only to earlier ethics disclosure, but also to the actual ethical conduct of a firm. These characteristics could also help to explain the differential quality of current mandatory ethics disclosure in the United States, and may help investors and US regulators assess whether a firm would likely make additional disclosure beyond what is legally required. Regulators in countries where there is no ethics-disclosure requirement should be aware of the very low level of voluntary ethics disclosure documented here, and may want to incorporate this study's finding into their audit-committee guidelines for public companies. Additionally, the results should be useful to global investors who desire to use corporate

governance criteria for screening stock investments in countries where there are no mandates for ethics-code adoption, disclosure and enforcement.

The remainder of the paper is organised as follows. The next section discusses audit committee characteristics, and develops hypotheses concerning the relationship between these characteristics and earlier voluntary ethics disclosure. The subsequent sections describe sample selection and then discuss research design. The penultimate section reports results, and the final section presents conclusions and implications.

AUDIT COMMITTEE CHARACTERISTICS: DISCUSSION AND HYPOTHESES

It would be valuable to regulators, investors and BOD to know which corporate governance factors are crucial to the adoption, disclosure and perhaps the proper implementation and enforcement of ethics code. Marnburg (2000) posits that corporate codes of ethics serve to challenge individuals to ethical behaviour or to maintain an environment that fosters ethical behaviour. This implies that a company's ethics disclosure and ethical behaviour are likely determined by the 'tone at the top' set by the board of directors (BOD). A BOD committee, which typically has an oversight responsibility over ethics, is an audit committee. Generally, an audit committee is also the key contact authority in case of a major ethics violation. According to an in-depth report by *The Wall Street Journal* published in October 2002, WorldCom did not finally acknowledge, make public or address the fraud until its vice-president of internal audit, Cynthia Cooper, took damaging evidence to the company's audit committee. It is, therefore, highly plausible that this committee would be the one to initiate a voluntary adoption and a voluntary disclosure of a code of ethics. Seganish and Holter (2004) mentioned that most large, publicly traded firms did have a code of ethics before SOX, but the contents,

disclosure and enforcement procedures varied across firms. This implies that a firm that voluntarily adopted the code might not bother to enforce or disclose anything about the code owing to the lack of legal requirements and its relatively weak audit committee in terms of an ethics oversight. On the other hand, an ethically conscientious audit committee would be more vigilant in overseeing the firm's ethics compliance, and would likely ask the firm to make voluntary disclosure about its code of ethics. This study, therefore, argues that audit committees with different characteristics are associated with different levels of voluntary ethics disclosure. It examines the following seven factors, six of which are specific characteristics of an audit committee.

Audit committee independence

An independent committee member is someone who has no personal or financial relationships with the company and its top executives. Previous studies (Carcello and Neal, 2000, 2003; Klein, 2002; Abbott *et al*, 2004) have measured audit committee independence by using a ratio of outside independent directors to the total number of audit committee members. Carcello and Neal (2000, 2003) studied a sample of 217 manufacturing firms that experienced significant financial distress in 1994, and found that firms with a more independent audit committee were more likely to receive a going-concern audit report and less likely to change its auditors after receiving such a report than those with a less independent audit committee. These studies support the view that auditors are more able to perform their function ethically when the audited firm has a more independent audit committee. Klein (2002) and Bedard *et al* (2004) find a negative relationship between audit committee independence and aggressive earnings management. Abbott *et al* (2004) and Persons (2005) find a negative association between audit committee independence and the likelihood of financial reporting restatement and financial reporting fraud. These studies support the view that



an independent audit committee contributes positively to ethical financial reporting and effective oversight of ethics programmes.

Hypothesis 1: The independence of audit committee is positively related to earlier ethics disclosure.

Expertise of audit committee members

Felo *et al* (2003) find that the percentage of audit committee members with expertise in accounting or financial management is positively related to financial reporting quality after controlling for other corporate governance variables. Similarly, Bedard *et al* (2004) find that aggressive earnings management is negatively associated with the accounting/financial expertise of audit committee members. Abbott *et al* (2004) also document a negative relationship between the accounting/financial expertise of audit committee members and the occurrence of financial reporting restatements. DeZoort and Salterio (2001) provide experimental evidence that accounting/financial expertise was associated with a higher likelihood that the audit committee would support the auditor in an auditor–corporate management dispute. Defond *et al* (2005) find a positive market reaction to the appointment of accounting/financial experts to audit committees. These studies suggest that audit committee members' accounting/financial expertise is an important factor in constraining the propensity of managers to engage in unethical earnings management/manipulation. This is because independent members with accounting/financial expertise are more likely to detect improper business transactions, and may be more ethical in reporting them because they need to comply with their own professional codes of ethics to maintain their credentials (for example, certified public accountant (CPA) and certified financial analyst (CFA)). It is, therefore, expected that an audit committee with more accounting/financial experts will be able to perform their duties more ethically, and will likely induce the company to make earlier

ethics disclosure than an audit committee with fewer financial/accounting experts.

Hypothesis 2: The accounting/financial expertise of audit committee members is positively related to earlier ethics disclosure.

Audit committee meeting frequency in a year

Menon and Williams (1994) posit that meeting frequency is a signal of an audit committee's diligence and liability concern. Abbott *et al* (2003) find that firms with audit committees comprised solely of independent directors that meet at least four times annually have significantly smaller ratios of non-audit fees to audit fees. This finding suggests that independent audit committees that meet more often perceive a high level of non-audit fees as a compromise to the auditor independence, in line with the SOX, which prohibits an auditor from providing eight non-audit services to an auditing client. Abbott *et al* (2004) also find that firms with audit committee meeting at least four times annually have lower occurrence of financial reporting restatements. Additionally, Xie *et al* (2003) report that audit committee meeting frequency is associated with reduced levels of discretionary current accruals. These studies provide evidence in support of the view that an audit committee that meets more often is more effective in monitoring management and would likely request management to make earlier ethics disclosure.

Hypothesis 3: The meeting frequency of an audit committee is positively related to earlier ethics disclosure.

Audit committee size

The Blue Ribbon Committee (1999) indicates that, given the complex nature of accounting and financial matters, the audit committee merits significant director resources in terms of the number of directors in order to effectively fulfil its responsibilities. The benefit of a larger audit committee must, however, be weighed against the incremental cost of poorer

communication and decision-making associated with a larger group (Steiner, 1972; Hackman, 1990). On the other hand, one may argue that a larger audit committee is conducive to earlier ethics disclosure because there is a higher likelihood that a larger (rather than a smaller) audit committee will include some highly ethical member(s) who could persuade the committee and the board to recommend earlier ethics disclosure. The finding of Archambeault and DeZoort (2001) regarding a significantly negative relationship between audit committee size and suspicious auditor changes supports this argument for a larger audit committee.

Hypothesis 4: The size of an audit committee is positively related to earlier ethics disclosure.

Audit committee tenure

An independent audit committee member's lack of seniority on the board may have an adverse effect on his/her ability to scrutinise top management. In other words, more senior members on the audit committee are less susceptible to group pressures to conform and are more likely to raise concerns over unethical accounting practices. In addition, the longer tenure of independent audit committee members enables them to develop their monitoring competencies, and provides them with firm-specific expertise (Bedard *et al*, 2004). Therefore, they become more effective at overseeing the firm's financial reporting as their tenure increases. Beasley (1996) finds a negative relation between outside director tenure and the likelihood of financial statement fraud, suggesting that tenure increases the outside directors' ability to monitor management effectively for the prevention of financial statement fraud. Persons (2005) finds that fraud likelihood is lower when an audit committee has longer tenure. These studies imply that longer tenure of an audit committee contributes positively to monitoring effectiveness.

Hypothesis 5: The tenure of audit committee members is positively related to earlier ethics disclosure.

Directorship of audit committee members

Effective monitoring requires a commitment of time and effort. As the additional directorships on other firms' board increase, demands on the individual board member's time decrease the amount available for the director to effectively fulfil monitoring responsibilities at a particular firm (Morck *et al*, 1988). A survey of directors of Fortune 500 companies by Korn/Ferry International, 1998 finds that many directors believe that too many board assignments place excessive burden on a director because they dissipate their time and attention, thereby undermining their ability to monitor management. Ferris *et al* (2003) examine this 'busyness' concern using COMPUSTAT and Compact Disclosure firms, and find no evidence that multiple directorships adversely affect their responsibilities as directors. On the other hand, Beasley (1996) and Persons (2005) focus on fraud firms' directors, and report an opposite finding. Beasley (1996) finds that outside directors of fraud firms have a higher number of additional directorships than those of no-fraud firms. Specifically, Persons (2005) finds that independent audit committee members of fraud firms have a higher number of additional directorships than those of no-fraud firms. Because this study also focuses on fraud firms, it is, therefore, expected that the more additional directorships an audit committee member has, the less effective he/she will be, and the less likely it is that he/she will ask the firm to make earlier ethics disclosure.

Hypothesis 6: Additional directorships of audit committee members are negatively related to earlier ethics disclosure.

Incidence of fraudulent financial reporting

An incidence of fraudulent financial reporting is the best evidence not only of highly unethical conduct, but also of an outright violation of securities law. Such highly unethical conduct implies that these fraud firms' tone-at-the-top is ethically weak. That is, these firms' senior



executives and BOD did not value ethics, and therefore, might not have the code of ethics, or did not bother to disclose the code even though it might have such code. Myers (2003) points out that Enron had a rigorous code of ethics, yet it fell victim to unethical behaviour in part because its BODs twice voted to suspend the code to allow Enron's former chief financial officer, Andrew Fastow, to launch business activities that created, for him, a conflict of interest. This study, therefore, expects fraud firms to make voluntary ethics disclosure later than no-fraud firms.

Hypothesis 7: Fraudulent financial reporting is negatively related to earlier ethics disclosure.

SAMPLE SELECTION

Firms that engaged in fraudulent financial reporting were collected from Accounting and Auditing Enforcement Releases (AAERs) issued by the SEC from June 1999 to October 2003. A firm was included in a preliminary sample if the SEC accused the firm or its top executives of violating Rule 10(b)-5 of the 1934 Securities Exchange Act. Rule 10(b)-5 is an antifraud provision that requires the intent to deceive, manipulate or defraud. Feroz *et al*, 1991 point out that the SEC ranks and pursues targets according to the probability of success because the SEC has more targets than it can practically pursue and formal investigations are both costly and highly visible. Therefore, it is reasonable to assume that AAER firms knowingly or intentionally engage in fraud. The AAERs were read to identify the nature and the timing of fraudulent financial reporting. Fraud firms were included in a preliminary sample if they are publicly traded and have proxy statements in the SEC's online EDGAR database.

For each fraud firm, this study identified a potential control firm with the same stock exchange, the same industry (four-digit SIC code) and similar size (net sales closest to the fraud firm).² This potential control firm or its top executives were not accused by the SEC of violating Rule 10(b)-5 of the 1934 Securities

Exchange Act. It is important to match on the basis of stock exchange because different exchanges have different corporate governance requirements during the sample period (for example, NYSE had stricter governance requirements than AMEX and NASDAQ stock markets). Different industries can also have different audit committee features (for example, financial industries tend to have larger audit committee size). The match on size is based upon a concern that larger firms likely made voluntary ethics disclosure earlier than smaller firms. A potential control firm was included in a matched no-fraud firm sample if it is publicly traded and has proxy statements in the SEC's online EDGAR database.

For each pair of fraud firm and matched no-fraud firm, this study searched their proxy statements and 10-K reports for the first year of voluntary ethics disclosure. One of these two firms was designated as an 'earlier-ethics-disclosure' firm if its first ethics disclosure occurred earlier than the first ethics disclosure of the other firm and earlier than 15 July 2003, the effective date of the ethics requirements of the SOX. This study then used proxy statements in the earlier-ethics-disclosure year to collect the relevant audit committee data of both fraud and matched no-fraud firms in that pair. A pair of fraud and no-fraud firms was excluded from the sample if one of the following criteria was met: (1) both of them made the first ethics disclosure after 15 July 2003, (2) neither of them made ethics disclosure during their listing years ending before 15 July 2003 and (3) at least one of them did not file a proxy statement for the earlier-ethics-disclosure year.

The final sample includes 154 firms: 77 fraud firms and 77 no-fraud firms. These firms come from 59 different industries based on the four-digit SIC code. The industry with the highest concentration of firms is Services-Prepackaged Software (seven firms), followed by Computer Peripheral Equipment (five firms). These data seem to suggest that firms in computer industries are more likely to engage in fraudulent financial reporting. Most firms (98 out of 154)

are listed on the NASDAQ, with the remaining 48 firms listed on the NYSE and eight firms listed on the AMEX. The earlier-ethics-disclosure years span 1993 through 2003, with the highest number of 37 firms in 2001, followed by eight firms in 1998, six firms in 1997 and 2000, five firms in 1999 and 2002, four firms in 2003, three firms in 1996 and one firm in 1993, 1994 and 1995. In all, about 60 per cent of earlier-ethics-disclosure firms (or 46 out of 77 firms) made their first ethics disclosure in 2001, 2002 and 2003. The year 2001 was when regulatory scrutiny over Enron's accounting transactions became public, and the scandal was subsequently unearthed and widely publicised later that year. Such scrutiny and scandal likely served as a wake-up call to many firms to improve their financial reporting quality and corporate governance, including through initiation of ethics disclosure. The level of voluntary ethics disclosure among these 46 firms was, however, very low compared to the current mandatory disclosure.³ For later-ethics-disclosure firms, 23 out of 77 firms (30 per cent) waited until after 15 July 2003, the effective date of the SOX, to make an ethics disclosure. Another 22 firms (28.5 per cent), which stopped the listing of their securities before 15 July 2003, made no ethics disclosure during their listing years.

RESEARCH DESIGN

The research question is addressed using a logit cross-sectional regression analysis. Logit regression is appropriate for a study with a dependent variable that is either dichotomous or ordinal (Stone and Rasp, 1991). Below is the logit model.

$$\begin{aligned} \text{ETHICS} = & a + b_1\text{INDAUD} + b_2\text{AUDACC} \\ & + b_3\text{AUDMET} + b_4\text{AUDSIZE} \\ & + b_5\text{AUDTEN} + b_6\text{DIRSHIP} \\ & + b_7\text{FRAUD} \end{aligned} \quad (1)$$

ETHICS = 1 if a firm made earlier voluntary ethics disclosure and 0 otherwise.

INDAUD = Percentage of independent directors on an audit committee.

AUDACC = Percentage of independent audit committee members with accounting or financial expertise.⁴

AUDMET = Number of audit committee meetings in a year.

AUDSIZE = Number of audit committee members.

AUDTEN = Average tenure of independent audit committee members.

DIRSHIP = Average number of other directorships of independent audit committee members.

FRAUD = 1 for a fraud firm and 0 for a no-fraud firm.

INDAUD, AUDACC, AUDTEN, AUDSIZE and AUDMET are expected to have positive coefficients, whereas DIRSHIP and FRAUD are expected to have negative coefficients. Additionally, this study conducted a diagnostic test by estimating the model with an alternative measure of earlier ethics disclosure (ETHICS). Instead of assigning 1 to firms with earlier ethics disclosure, ETHICS represents the number of ethics-disclosure points. A firm with later ethics disclosure for each matched pair still has ETHICS equal to 0. For a firm with earlier ethics disclosure however, the more details on ethics disclosure it provided, the higher ethics-disclosure points it received. A firm may receive up to 18 points: one point for each 'Yes' answer to the following 18 aspects of ethics disclosure.⁵

- (1) Did a firm have a written code of business conduct and ethics?
- (2) Did it have a specific committee of the BODs that had an oversight responsibility related to ethics?
- (3) Did it have a corporate ethics or compliance officer?



- (4) Did it consider ethics in hiring a director or an executive?
- (5) Did it link an executive compensation to the ethical conduct of the firm?
- (6) Did it provide ethics training to employees or require employees to sign a letter acknowledging that the employees had read and would abide by its code of ethics?
- (7) To how many of the following 12 areas did its code of ethics apply?
- (a) Maintenance of accurate company records.
- (b) Communication with the public.
- (c) Conflict of interest between personal and professional relationships.
- (d) Treatment of confidential information.
- (e) Use of company assets.
- (f) Anti-nepotism.
- (g) Reporting of accounting complaints and illegal/unethical behaviour.
- (h) Compliance with applicable laws and regulations including discrimination, harassment, environment and human rights.
- (i) Commercial bribery.
- (j) Competition and fair dealing.
- (k) Insider trading of the firm's stock.⁶
- (l) Disciplinary action for violation of the code.

RESULTS

Table 1 presents logit regression results when earlier ethics disclosure is a dichotomous (0/1) variable for which 1 represents earlier disclosure.⁷ The results indicate FRAUD, AUDSIZE and INDAUD as statistically significant variables. As expected, FRAUD is negatively associated with earlier ethics disclosure, and the size and the independence of an audit committee are positively associated with earlier ethics disclosure. The FRAUD result indicates that fraud firms were less likely to make earlier ethics disclosure. Only 36.4 per cent (28 out of 77) of fraud firms made earlier ethics disclosure, compared to 63.4 per cent (49 out of 77) of matched no-fraud firms. Earlier-ethics-disclosure firms also had larger audit committees, with a mean of 3.584 compared to 2.922 of later-ethics-disclosure firms. This implies that it is more desirable to have an audit committee with *more than* three members rather than at least three mem-

Table 1: Logit regression results of audit committee characteristics and earlier ethics disclosure (dichotomous variable)

Variables	Expected sign	Est. coeff.	Std. error	Z-statistic	Prob.>Z
INDAUD	+	0.0259	0.0165	1.57	0.058*
AUDACC	+	-0.0092	0.0080	-1.15	0.251
AUDMET	+	0.0905	0.0986	0.92	0.180
AUDSIZE	?	0.6328	0.2067	3.06	0.002***
AUDTEN	+	-0.0515	0.0415	-1.24	0.215
DIRSHIP	—	-0.0981	0.1303	-0.75	0.226
FRAUD	—	-1.1470	0.3633	-3.16	0.001***
Wald chi-square		28.86			
Probability level		0.0002***			

There are 77 earlier-ethics-disclosure firms (1) and 77 later-ethics-disclosure firms (0).

INDAUD=Percentage of independent audit committee members. AUDACC=Percentage of independent audit committee members with accounting expertise. AUDMET=Number of audit committee meetings in a year. AUDSIZE=Number of audit committee members. AUDTEN=Average tenure of independent audit committee members. DIRSHIP=Average number of directorships of independent audit committee members. FRAUD=1 for a fraud firm and 0 for a no-fraud firm.

*, ***Statistically significant at $P < 0.10$ and $P < 0.01$, respectively.

bers per the NYSE and the NASDAQ requirement, and per the best-practice suggestion of both the Cadbury Committee (1992) and the National Association of Corporate Directors' Blue Ribbon Commission (2000). The smallest AUDSIZE of earlier-ethics-disclosure firms is two, versus zero (no audit committee) of later-ethics-disclosure firms. Earlier-ethics-disclosure firms were also likely to have more independent audit committees, with a mean of 98.38 per cent compared to 91.34 per cent of later-ethics-disclosure firms. This indicates that most firms had an independent audit committee even before the SOX.

Table 2 reports descriptive results of the diagnostic test, which uses ethics disclosure points to measure ETHICS (an ordinal variable). Panel a of Table 2 presents the number of earlier-ethics-disclosure firms that made certain types of ethics disclosure. Almost all earlier-ethics-disclosure firms (72 out of 77, or 93.5 per cent) disclosed that they had a written code of ethics. A high majority of firms (55 out of 77, or 71.4 per cent) indicated that they had a BOD committee with an oversight responsibility of ethics. Consistent with the earlier conjecture, such a committee is an audit committee for most firms (51 out of 55 firms, or 92.7 per cent). Two of the other four firms had a separate ethics committee, one of the four firms had a nominating and corporate governance committee, and the other firm had a directors' executive oversight committee. Seven out of 77 earlier-ethics-disclosure firms had an ethics/compliance officer, or specifically stated that they provided ethics training to employees. Only one firm explicitly stated that it considered ethics in hiring a director or an executive. None of these earlier-ethics-disclosure firms mentioned linking executive compensation to the ethical conduct of the firm. Out of the 12 ethics areas, the top four disclosures were compliance with laws (41 out of 77 firms, or 53.2 per cent), conflict of interest tying in with disciplinary action for violation of the code (11 out of 77, or 14.3 per cent) and maintenance of accurate records (8 out of 77, or 10.4 per cent).

These results suggest that although most firms revealed that they had a written code of ethics, most of them did not disclose details about the areas to which the ethics code applied.

Because the sample comprises 50 per cent fraud firms and 50 per cent no-fraud firms, panel b of Table 2 presents the level of earlier ethics disclosure (ethics-disclosure points) of fraud versus no-fraud firms. The highest ethics points earned were 15 out of 18 points by one no-fraud firm. The ethics points earned most often were three out of 18 points for nine fraud firms and 19 no-fraud firms, followed by two points for nine fraud firms and 12 no-fraud firms, one point for five fraud firms and seven no-fraud firms, and four points for two fraud firms and four no-fraud firms. Evidently, both groups of firms made a very low level of earlier voluntary ethics disclosure, although no-fraud firms seem to disclose slightly more ethics details than fraud firms. In all, 67 out of 77 earlier-ethics-disclosure firms (87 per cent) earned no more than four out of 18 ethics-disclosure points. This anemic voluntary disclosure level provides support for the current mandatory ethics-disclosure requirements. Consistent with Table 1 regression result concerning FRAUD, Table 2 shows that the majority (49 out of 77, or 63.6 per cent) of later-ethics-disclosure firms (with zero ethics-disclosure point) are fraud firms.

Table 3 reports statistical results of the diagnostic test using ordered logit regression, which has the ordinal dependent variable, ETHICS, with the value ranging from 0 (later ethics disclosure) to 15 (the highest disclosure per Table 2 results). The diversity of ethics disclosure details reported in Table 2 lends support to the use of the ordinal dependent variable and the ordered regression. Consistent with the earlier results in Table 1, which are based on a dichotomous (0/1) ETHICS, the results in Table 3 indicate FRAUD, INDAUD and AUDSIZE as statistically significant variables. These significant results suggest that firms provided more details in their earlier voluntary ethics disclosure if they were not involved in fraudulent financial



Table 2: (a) A number of firms that made certain types of earlier ethics disclosure; (b) a number of fraud and no-fraud firms with different levels of earlier ethics disclosure measured by ethics-disclosure points where 0 point means later disclosure

<i>Panel (a)</i>			
<i>Types of earlier ethics disclosure</i>	<i>Number of earlier-ethics disclosure firms</i>		
Have a written code of ethics	72		
Have a board of director committee overseeing ethics	55		
Have a corporate ethics/compliance officer	7		
Use ethics in hiring directors/executives	1		
Link executive compensation to ethics	0		
Ethics training/ethics acknowledgement	7		
<i>Ethics areas</i>			
Maintenance of accurate records	8		
Communication with the public	1		
Conflict of interest	11		
Treatment of confidential information	5		
Use of company assets	3		
Anti-nepotism	2		
Reporting of illegal/unethical conduct	6		
Compliance with laws and regulations	41		
Commercial bribery	7		
Competition and fair dealing	3		
Insider trading	7		
Disciplinary action for violation	11		
<i>Panel (b)</i>			
<i>Ethics-disclosure points</i>	<i>No-fraud firms</i>	<i>Fraud firms</i>	<i>Total firms</i>
0	28	49	77
1	7	5	12
2	12	9	21
3	19	9	28
4	4	2	6
5	3	0	3
6	0	1	1
7	2	0	2
8	0	0	0
9	0	0	0
10	0	1	1
11	0	0	0
12	1	0	1
13	0	1	1
14	0	0	0
15	1	0	1
Total	77	77	154

Table 3: Ordered logit regression results of audit committee characteristics and earlier ethics disclosure (ordinal variable)

<i>Variables</i>	<i>Expected sign</i>	<i>Est. coeff.</i>	<i>Std. error</i>	<i>Z-statistic</i>	<i>Prob. >Z</i>
INDAUD	+	0.0277	0.0143	1.94	0.026**
AUDACC	+	-0.0079	0.0081	-0.98	0.328
AUDMET	+	0.1879	0.1101	1.71	0.044**
AUDSIZE	?	0.3083	0.1483	2.08	0.038**
AUDTEN	+	-0.0744	0.0454	-1.64	0.101
DIRSHIP	—	-0.0905	0.1100	-0.82	0.205
FRAUD	—	-1.0876	0.3331	-3.27	0.0005***
Wald chi-square		27.92			
Probability level		0.0002***			

There are 77 earlier-ethics-disclosure firms and 77 later-ethics-disclosure firms. INDAUD=Percentage of independent audit committee members. AUDACC=Percentage of independent audit committee members with accounting expertise. AUDMET=Number of audit committee meetings in a year. AUDSIZE=Number of audit committee members. AUDTEN=Average tenure of independent audit committee members. DIRSHIP=Average number of directorships of independent audit committee members. FRAUD=1 for a fraud firm and 0 for a no-fraud firm.

** , ***Statistically significant at $P < 0.05$ and $P < 0.01$, respectively.

reporting, and had a more independent and a larger audit committee. Unlike the dichotomous regressions, the ordered-regression results indicate AUDMET as another statistically significant variable. That is, the more often an audit committee met, the more details a firm likely made in its earlier voluntary ethics disclosure. An audit committee of earlier-ethics-disclosure firms met more often (a median of four times) than later-ethics-disclosure firms (a median of three times). This seems to suggest that an audit committee should meet at least four times a year. In sum, the results support four (Hypotheses 1, 3, 4 and 7) out of the seven hypotheses.⁸

Two insignificant but noteworthy results in Tables 1 and 3 are AUDACC and DIRSHIP. AUDACC is not a significant variable because both groups of firms had an audit committee with a very low percentage of members with accounting/financial expertise (11.91 per cent for earlier-ethics-disclosure firms and 15.48 per cent for later-ethics-disclosure firms). Such low percentages provide support for the audit-committee-expertise requirement of the SOX. DIRSHIP is also insignificant because

both groups of firms had about the same low mean of less than two. This implies that the NYSE concern of an audit committee member serving on an audit committee of more than three public companies did not apply to the majority of this study's sample firms.

CONCLUSIONS AND IMPLICATIONS

This study investigates particular audit committee characteristics that could potentially be associated with earlier voluntary ethics disclosure among public companies that were investigated by the SEC for fraudulent financial reporting, and their matched no-fraud companies. The audit committee is the focus here because most companies assign oversight responsibility for ethics to this committee. It is, therefore, likely that this committee would be the one to initiate voluntary adoption and disclosure of the code of ethics. The study specifically selects fraudulent firms because their highly unethical reporting practices imply that they were less likely than their matched no-fraud firms to adopt and disclose a code of ethics, probably because of the differences in



their audit committee characteristics compared to matched no-fraud firms. To ensure that the ethics disclosure is voluntary, this study examines the disclosure in proxy statements and 10-K reports filed with the SEC *before* the SOX ethics rules became effective. For each pair of fraud and matched no-fraud firms, this study searched for the first year when these firms started to make voluntary ethics disclosure before 15 July 2003, the effective date of the Act's ethics requirements. The study then investigates the relationship between audit committee characteristics and the likelihood that a firm would make voluntary ethics disclosure *earlier* than its matched firm.

This study finds that earlier-ethics-disclosure firms made a very low level of voluntary ethics disclosure. Such a low level implies that most firms did not have strong ethics codes during the pre-SOX period. Therefore, this finding provides empirical support for the SOX ethics mandates. Results based on a logit regression analysis indicate three audit committee characteristics that have a significantly positive relationship with earlier voluntary ethics disclosure: (1) independence, (2) size and (3) meeting frequency. Audit committee accounting expertise, tenure and additional directorships are not significantly associated with earlier ethics disclosure. The significant result regarding audit committee independence highlights another positive effect of the committee independence, which provides further support for the SOX requirement that the audit committee must be completely independent of the management. The results for audit-committee size and meeting frequency suggest that a committee size of more than three directors and at least four meetings a year are conducive to earlier voluntary disclosure.

These findings have direct implications for BOD of US companies as well as US regulators and investors. BOD of US companies that aim to enhance the quality and effectiveness of their ethics codes may want to incorporate the significant results regarding audit-committee size and meeting frequency in the design and

operation of this committee. US regulators and investors may also use the results to help explain the differential quality of current mandatory ethics codes. An examination of post-SOX ethics codes suggests that some firms seem to have weak, though, compliant codes in order to reduce liability, whereas others have strong codes with thorough explanation and more detailed discussion of enforcement mechanisms. Some firms in this latter group also disclose supplemental information such as an ethics acknowledgement form to be signed by all employees to ensure that they have read and understood the code, and have agreed to abide by the code. Specifically, to make the SOX ethics requirement more effective and to improve the quality of ethics codes among US public companies, US regulators could provide a best-practice guideline regarding audit committee size of more than three directors and at least four meetings a year.

Because this study's sample came from the pre-SOX period when ethics disclosure was voluntary, its results also have direct implications for global investors and regulators in countries where there are no requirements for an ethics code and its disclosure. Regulators in these countries should be aware of the very low level of voluntary ethics disclosure documented here. If these regulators do not plan to require ethics disclosure, they may want to strongly encourage their public companies to have more than three audit-committee members and at least four audit-committee meetings per year in order to promote a higher level of voluntary disclosure. The results should also be useful to global investors who have used or planned to use corporate governance criteria to screen stock investments in countries where the adoption and the disclosure of an ethics code are still voluntary. In particular, investors such as CalPERS and TIAA-CREF, which have recently placed more emphasis on corporate governance, ethics, transparency and disclosures, may want to include the significant results of this study in their criteria for screening stock investments in such countries.⁹

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NOTES

- 1 The SEC currently allows three options for its registrants to make their code of ethics publicly available: (1) filing a copy of the code as part of the SEC Form 10-K or 20-F, (2) posting the code on the firms' website as well as stating in the annual report and Form 10-K or 20-F that the code of ethics is available on the website, and (3) stating in the annual report and Form 10-K or 20-F that a free copy of the code will be provided to any person upon request.
- 2 If there is no potential control firm with the closest net sales in the same four-digit SIC code industry, the search for such firm will be expanded to the three-digit SIC code and the two-digit SIC code, respectively.
- 3 In particular, 40 out of 46 firms (87 per cent) received no more than five out of 18 ethics-disclosure points, with the highest concentration of 21 firms receiving only three out of 18 points. A detailed discussion of the ethics-disclosure points is given in the Research Design section.
- 4 Similar to the SEC definition, this study defines directors with accounting or financial expertise as those with a CPA, CFA or experience in corporate financial management (for example, chief financial officer, treasurer, controller or vice-president – finance).
- 5 These 18 aspects are common ethics disclosure among public companies after the SOX and the NYSE ethics requirements became effective.
- 6 Insiders are major stockholders and all employees including directors and top executives. These individuals have access to inside non-public information that provides them an unfair advantage in terms of stock trading.

- 7 Correlations of the seven variables are relatively low, ranging from -0.175 (between AUDTEN and FRAUD) to 0.344 (between AUDSIZE and INDAUD). Such low correlations suggest that multi-collinearity problem is not a concern in the regression model.
- 8 This study also performed another diagnostic test by re-estimating the model with DIRSHIP as a dummy variable taking the value of 1 if DIRSHIP is more than three and 0 otherwise. This test addressed the NYSE's concern and requirement that the board of directors determines whether there is any impairment to the ability to serve if an audit committee member serves on an audit committee of more than three public companies. An example of such impairment is that the audit committee members may be too overly burdened to consider voluntary code-of-ethics adoption and disclosure. The re-estimation applies to both dichotomous and ordinal measures of ETHICS. Inferences based on results of this second diagnostic test (not reported here) are virtually the same as earlier inferences.
- 9 CalPERS is California Public Employees' Retirement System. TIAA-CREF is Teachers Insurance and Annuity Association-College Retirement Equities Fund.

REFERENCES

- Abbott, L.J., Parker, S. and Peters, G.F. (2004) Audit committee characteristics and restatements. *Auditing: A Journal of Practice and Theory* 23: 69–87.
- Abbott, L.J., Parker, S., Peters, G.F. and Raghunandan, K. (2003) The association between audit committee characteristics and audit fees. *Auditing: A Journal of Practice and Theory* 22: 17–28.
- Archambeault, D. and DeZoort, T. (2001) Auditor opinion shopping and the audit committee: An analysis of suspicious auditor switches. *International Journal of Auditing* 5: 33–52.
- Beasley, M.S. (1996) An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review* 71: 443–465.



- Bedard, J., Chtourou, S.M. and Courteau, L. (2004) The effect of audit committee expertise, independence and activity on aggressive earnings management. *Auditing: A Journal of Practice and Theory* 23: 13–35.
- Blue Ribbon Committee. (1999) Report and Recommendations of Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees. New York: New York Stock Exchange and National Association of Securities Dealers, available at <http://www.nyse.com>.
- Cadbury Committee. (1992) Report of the Committee on Financial Aspects of Corporate Governance. London, UK: Cadbury Committee.
- Carcello, J.V. and Neal, T.L. (2000) Audit committee composition and auditor reporting. *The Accounting Review* 75: 453–468.
- Carcello, J.V. and Neal, T.L. (2003) Audit committee characteristics and auditor dismissals following ‘new’ going-concern reports. *The Accounting Review* 78: 95–118.
- Defond, M.L., Hann, R.N. and Hu, X. (2005) Does the market value financial expertise on audit committees of boards of directors?. *Journal of Accounting Research* 43(2): 153–193.
- DeZoort, F.T. and Salterio, S. (2001) The effects of corporate governance experience and financial reporting and audit knowledge on audit committee members’ judgments. *Auditing: A Journal of Practice and Theory* 21: 31–48.
- Felo, A.J., Krishnamurthy, S. and Solieri, S.A. (2003) Audit Committee Characteristics and the Perceived Quality of Financial Reporting: An Empirical Analysis. Working Paper, Pennsylvania State University, State University of New York at Binghamton and University of Scranton.
- Feroz, H., Park, K. and Pastena, V. (1991) The financial and market effects of the SEC’s accounting and auditing enforcement releases. *Journal of Accounting Research* 29: 107–142.
- Ferris, S.P., Jagannathan, M. and Pritchard, A.C. (2003) Too busy to mind the business? Monitoring by directors with multiple board appointments. *Journal of Finance* 63: 1087–1111.
- Hackman, J.R. (1990) *Groups that Work*. San Francisco, CA: Jossey-Bass.
- Klein, A. (2002) Audit committee, board of director characteristics and earnings management. *Journal of Accounting & Economics* 33: 375–400.
- Korn/Ferry International. (1998) *25th Annual Board of Directors Study*. Los Angeles, CA: Korn/Ferry International.
- Marnburg, E. (2000) The behavioral effects of corporate ethical codes: Empirical finding and discussion. *Business Ethics: A European Review* 9(3): 200–210.
- Menon, K. and Williams, J.D. (1994) The use of audit committee for monitoring. *Journal of Accounting and Public Policy* 13: 121–139.
- Morck, R., Shleifer, A. and Vishny, R.W. (1988) Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics* 20: 293–315.
- Myers, R. (2003) Ensuring ethical effectiveness. *Journal of Accountancy* 195: 28–33.
- National Association of Corporate Directors (NACD). (2000) Report of the NACD Blue Ribbon Commission on Audit Committees: A Practical Guide. Washington, DC: The National Association of Corporate Directors and the Center for Board Leadership.
- Persons, O.S. (2005) Relation between the new corporate governance rules and the likelihood of financial statement fraud. *Review of Accounting and Finance* 4(2): 125–148.
- Seganish, W.M. and Holter, N. C. (2004) Complying with the Sarbanes–Oxley ethics requirements. *Internal Auditing* 19: 22–27.
- Steiner, I.D. (1972) *Group Process and Productivity*. New York: Academic Press.
- Stone, M. and Rasp, J. (1991) Tradeoffs in the choice between logit and OLS for accounting choice studies. *The Accounting Review* 66: 170–187.
- Xie, B., Davidson, W.N. and Dadalt, P.J. (2003) Earnings management and corporate governance: The roles of the board and the audit committee. *Journal of Corporate Finance* 9: 295–316.

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