The current issue and full text archive of this journal is available at
www.emeraldinsight.com/0268-6902.htm

Restoring public confidence in capital markets through auditor rotation

Sandra K. Gates
Department of Business Administration, College of Business and Technology, University of Texas at Tyler, Tyler, Texas, USA
D. Jordan Lowe
School of Global Management and Leadership, Arizona State University, Glendale, Arizona, USA, and
Philip M.J. Reckers
School of Accountancy, Arizona State University, Tempe, Arizona, USA

Abstract

Purpose – To determine the effect of audit firm rotation and/or audit partner rotation on individuals' confidence in the quality of audited financial statements.

Design/methodology/approach – Two separate behavioral studies were conducted with participants from the business and legal community (MBA and law students). In each study, one-way analysis of variance was conducted using a between-subjects approach. The independent measure was auditor rotation; the dependent measure was participants' responses to questions regarding company earnings. Because an experimental approach was utilized, the stimulus materials excluded potentially relevant information for this task. In addition, the participants were not held accountable for their decisions, nor was there any explicit motivation provided. Future research could explore other richer more complex case scenarios that provides some explicit motivation for participants.

Findings – Results revealed that even in an environment of strong controls for corporate governance, audit firm rotation incrementally influenced individuals' confidence in financial statements. However, audit partner rotation did not have a similar effect.

Originality/value – Little if any research examines both audit firm rotation and audit partner rotation. This research fills this void by addressing both concepts. The results suggest that rotating the audit firm will, contrary to GAO assumptions, better advance the goal to enhance auditor independence and audit quality and to restore investor confidence in the capital markets.

Keywords Auditors, Corporate governance, Regulation, Laws and legislation

Paper type Research paper

Introduction

Relationships between auditors and their clients can create a closeness with management that may adversely affect the auditor's independence and reduce the reliability and quality of the audit. It is alleged that relationships that were "too close" have led to the external auditor's inability to scrutinize transactions and contributed to recent dramatic audit failures at several high-profile companies (e.g. Enron, WorldCom, Xerox, etc.) *The Wall Street Journal* characterized one of these arguably "too-close" relationships as follows: "Andersen auditors and consultants were given permanent office space at Enron. They shared in office birthdays, frequented

Managerial Auditing Journal
Vol. 22 No. 1, 2007
pp. 5-17
© Emerald Group Publishing Limited
0268-6902
DOI 10.1108/02686900710715611

lunchtime parties ... people just thought they were Enron employees" (Herrick and Barrionuevo, 2002).

In response to recent high-profile accounting scandals, the Sarbanes-Oxley Act of 2002 (SOX) (US House of Representatives, Committee on Financial Services, 2002) instituted a number of reforms with the stated objective of enhancing corporate governance and audit processes[1]. More specifically, the stated purpose of SOX is "to enhance auditor independence and audit quality and to restore investor confidence in the nation's markets" (GAO, 2003, p. 11). The SOX reforms include mandatory rotation of the lead and reviewing audit partners after they have provided audit services to a public company for five consecutive years. Mandatory audit firm rotation was discussed but not resolved as Congress directed the General Accounting Office (GAO) to study the issue further. The GAO (2003) issued its report concluding that the controversial issue of audit firm rotation (which is strongly opposed by the accounting profession and corporate management) might not be necessary. The report expressed guarded confidence in the long run adequacy of currently legislated reforms, "for enhancing auditor independence and audit quality."

Audit firms and corporate management successfully argued that auditor tenure does not affect the manner in which auditors deal with material financial reporting issues (GAO, 2003, p. 22). According to surveys conducted by the GAO, approximately 69 percent of the Tier 1 CPA firms (audit firms defined as having ten or more public clients) and 73 percent of the Fortune 1000 public companies surveyed did not believe long-term auditor relationships increase the risk of audit failures. However, the GAO has been criticized because it relied only on the counsel of the major public accounting firms and corporate industry CEOs. Further, the report indicated that a majority of corporate CEOs, while vigorously opposing mandatory periodic audit firm rotation, did concede that a majority of stockholders likely would have greater confidence in a system in which there was mandatory audit firm rotation.

This paper adds to the current literature by looking beyond the insiders (the auditors and CEOs) focused on by the GAO. We examine emerging views in both the legal environment and the business community. Because the arguments in favor of rotation are based upon questions of auditor independence and quality of audit, we examined responses to questions related to confidence in the quality of financial information in two separate settings. In each setting, the participants were provided with scenarios wherein strong corporate governance prevailed (i.e. all board members are independent, all audit committee members are independent, and all audit committee members are "financial experts"). This environment of strong corporate governance was adopted to create a strong test of the incremental effects from auditor rotation proposals. As such, the context arguably created a bias against finding any significant incremental differences in market confidence, and yet differences did indeed emerge. We found that individuals in two separate studies exhibited greater confidence that financial statements will be free of material misstatements under conditions of audit firm rotation as compared to either audit partner rotation or no rotation. The effects of audit partner rotation were minimal. The remainder of the paper is organized as follows. The next section discusses prior literature and develops our research questions. This is followed by an overview of our research methods and results from two studies. The final section discusses our conclusions and the limitations of this study.

Research question development

The audit process serves as a monitoring device that reduces managers' incentives to manipulate reported earnings (Wallace, 1981). For the audit to serve this function, the auditors need to maintain independence from their clients. DeAngelo (1981) suggests that a reasonable measure of independence is the likelihood that an auditor will discover a misstatement (a breach) and report the misstatement. In terms of audit quality, auditors lacking independence may be reluctant to report a discovered breach or they may apply less effort to discover one.

Audit firm tenure

The length of the auditor-client relationship has been suggested by many to affect auditor independence and the quality of auditing decisions (Dies and Giroux, 1992; Beck *et al.*, 1988). Mautz and Sharaf (1961) state that the greatest threat to auditors' independence is a "slow, gradual, almost casual erosion of his honest disinterestedness." Similarly in 1985, Congressman Shelby (1985) pointedly asked on the floor of the House of Representatives:

> How can an audit firm remain independent ... when it has established long-term personal and professional relationships with a company by auditing that company for many years, some 10, 20, or 30 years?

From an analytical perspective, DeAngelo (1981) suggests that incumbent auditors can earn quasi-rents[2] from maintaining existing clients due to high initial start-up costs for audits of new clients and due to significant transaction costs incurred by the client when a change in auditors occurs. Consistent with this analysis, Palmrose (1989) determined that audit hours decline as audit firm tenure increases. To motivate a company to make an auditor change, a potential successor auditor may decide to "low ball" first year audit fees; that is, bid fees lower than the expected marginal costs for initial engagements with clients (Dye, 1991; Dopuch *et al.*, 2001). Simon and Francis (1988) and Ettredge and Greenberg (1990) suggest that auditors "low-ball" the first-year bid to obtain the client, and therefore, hope to retain the client so as to recover those costs and to subsequently earn quasi-rents. The combination of:

- potentially earning long-term quasi-rents; and
- acquiring a client through low-balling may result in a situation in which auditor independence may be impaired due to a financial need to retain the client.

Thus, a client that wishes to misstate reported financial statements might persuade the auditor from reporting such misstatements by inferring that this action would result in auditor termination and loss of the quasi-rent annuities.

Audit firm and partner rotation

Prior research has suggested that mandatory rotation of audit firms may be an effective means to enhance auditor independence and objectivity (Winters, 1978; Kemp *et al.*, 1983; Wolf *et al.*, 1999). The rotation of audit firms may have the perceived effect of reducing the economic bond between the auditor and the client and lessen certain judgment biases (Smith and Kida, 1991; Tan, 1995). The idea is that auditors will have less incentive to seek future economic gain from a specific client and will, therefore,

be less likely to bias reports in favor of management as the auditors would know that their tenure and related revenues are for a limited term (Comunale and Sexton, 2005).

Research directly addressing the issue of audit firm and partner rotation has been limited, due to the combination of no regulatory requirement for rotation and few companies voluntarily establishing such a policy[3]. That is, we only have indirect evidence on whether rotation has a causal influence on audit quality. To overcome these inherent limitations, Dopuch *et al.* (2001) utilized a laboratory markets approach. Results from their experiment revealed that a rotation requirement decreased auditors' willingness to issue biased and misstated reports.

While mandatory audit firm rotation may prove to be an effective corporate governance measure, this concept has not been well received among the accounting profession. The profession has openly questioned whether the likely benefits of rotating audit firms outweigh the increased costs for the audit firm, the client and the public[4]. Large "start up costs" relating to the audit lead to a situation in which audit firm rotation may be both costly and risky in that errors may not be detected. Some evidence does exist that suggests that a positive relationship may exist between auditor tenure and audit quality. The accounting profession and corporate management have pointed to these studies with emphasis. A decade ago, Stice (1991) documented that for approximately 30 percent of companies in his litigation sample, auditor tenure was three years or less while this was the case for only 22 percent of the firms in his control sample of non-litigation companies. This suggests that auditor litigation occurs with new auditors as well as with continuing auditors, and potentially disproportionately. Similarly, Beasley *et al.* (2000) report that for 28 percent of their sample of SEC enforcement actions against auditors, the audit was an initial audit. Geiger and Raghunandan (2002) also report "audit failure" rates higher in the early years of the auditor-client relationship. Following a different approach, Myers *et al.* (2003) report that higher earnings quality (as measured by accruals) prevail in longer auditor tenure situations.

Experimental studies conducted in Singapore and Malaysia examined the relationship between rotation and perceptions of independence with mixed results. Goodwin and Seow (2002) examined audit rotation at the partner level and the impact on perceptions of auditors' independence using Singapore auditors and directors as participants. They reported that perceived auditor independence was not affected by audit partner rotation, but because both auditors and directors potentially had a biased self-interest in the study's outcome, the research is subject to the same criticisms launched at the GAO Report. An earlier study conducted by Teoh and Lim (1996) examined the same issue of independence but rotation was manipulated at the firm level. Malaysian accountants from both the public and private sector completed a mailed survey consisting of 35 scenarios involving corporate governance structures (audit firm tenure was one of five variables examined). This study reported that accountants did perceive a greater level of auditor independence when the company rotated the audit firm.

In summary, the controversy regarding the costs and benefits of audit firm and audit partner rotation persists. The differences in perspectives are exemplified in the GAO report that states that only 38 percent of CPA respondents versus 65 percent of the Fortune 1000 company respondents acknowledged that investor perceptions of auditor independence would increase under mandatory audit firm

rotation (GAO, 2003). The GAO has stated that further research is needed to determine the benefits of mandatory rotation because the benefits are harder to predict and quantify than the additional costs (GAO, 2003). Counteracting forces exist in that long-term relationships fostering quasi-rents may adversely affect auditor independence while short-term start-up costs during first year audits may be higher and lack of familiarity with the client may result in higher rates of "audit failure" during the first year of an audit relationship. The issue of whether the current reforms will achieve the desired outcome remains an open question. This leads to the following research questions:

RQ1. Does audit partner rotation provide greater confidence in company earnings than no rotation?

RQ2. Does audit firm rotation provide greater confidence in company earnings than no rotation?

RQ3. Does audit firm rotation provide greater confidence in company earnings than does audit partner rotation?

Method and results

To address the aforementioned research questions we conducted two studies with two sets of participants:

(1) second year Masters of Business (MBA) students; and

(2) third-year law students.

MBA students represent those trained in a business environment. These students will influence the business environment of the future and as managers they will interface with auditors and ultimately be responsible to stockholders. Law students will ultimately be involved in structuring corporate contractual relationships, litigating within the judicial process, and representing industry and the public. They will have the responsibility for interpreting laws, determining reasonable expectations of participants in capital and credit markets, and evaluating the conduct of auditors and corporate management[5].

Study one

Participants. Participants for the first study consisted of second year MBA students at a top ranked metropolitan university in the USA. One of the authors administered the case instrument to students during their regular class time. A total of 79 MBA students completed this task. These students had an average age of 28.3 years. Of these students, 53 percent were men; 68 percent had been a stockholder.

Task. MBA students were provided with case material describing a 25 year old publicly traded company along with a condensed income statement and balance sheet (Appendix 1). The case described several items related to corporate governance – board composition, management's incentive program, audit fees, audit and other services performed, and company policy regarding audit rotation. The experimental materials portrayed a company that had a control environment that more than meets the SOX requirements for corporate governance. The case instrument also indicated that the Board of Directors and the Audit Committee

were 100 percent independent and the members of the audit committee were financial experts.

Results. A one-way analysis of variance (ANOVA) was conducted to examine the aforementioned research questions. The independent measure was auditor rotation at three levels:

(1) no rotation (control group);
(2) audit partner rotation; and
(3) audit firm rotation.

The dependent measure was participants' responses to the question, "Please estimate a figure for Net Income below which you believe there is less than a 25 percent chance that Net Income will fall." A choice was made to use an indirect measure of the effect of auditor rotation for two reasons. First, in the current environment, we were concerned that a direct question framed as an assessment of auditor independence[6] might invoke demand effects and render the research transparent. Second, the purpose of proposed reforms ultimately is to enhance perceptions in the reliability of published corporate financial information. The reported net income for the current year was $3.9 million. Responses closer to that number were interpreted as exhibiting more confidence in the financial statements. Table I presents the ANOVA findings and related treatment means, standard deviations, and cell sizes.

The one-way ANOVA revealed significant rotation effects ($F = 3.45$; $p = 0.03$). Responses under conditions of firm rotation ($3.36 million) were significantly higher ($t = 2.26$; $p = 0.02$) than the no rotation condition ($2.38 million) and significantly higher ($t = 2.34$; $p = 0.02$) than the audit partner rotation condition ($2.37 million). These findings indicate that rotating the audit firm increases confidence in reported earnings compared to only rotating the audit partner (or no rotation), even under conditions of otherwise strong corporate governance. Results between the audit partner rotation and the no rotation conditions provide no significant differences. These results suggest that rotating the audit partner of the same firm does little if any to increase confidence in reported earnings.

Panel A: ANOVA model

Source of variation	*Sum of squares*	*Df*	*Mean square*	F	p-*value*
Net income	15.10	2	7.55	3.45	0.03
Error	153.01	70	2.19		
Corrected total	168.11	72			

Panel B: treatment means, (SD)

Outcome	N	*Mean* [a]	*SD*
No rotation	24	2.38	1.56
Audit partner rotation	27	2.37	0.84
Firm rotation	22	3.36	1.94

Notes: Dependent measure: please estimate a figure for net income below which you believe there is less than a 25 percent chance that net income will fall $ ____; [a]mean judgments are in millions of dollars

Table I.
MBA students net income

Study two

Participants. Third-year law students from another metropolitan university participated in the second study[7]. During their regular class time 92 law students completed this task. These students had an average age of 28.6 years. Of these students, 59 percent were men; 57 percent had been a stockholder. Participants did not differ significantly in age or stock ownership across participant groups. Law students, however, had a larger representation of females than did the MBA students. Regardless, demographic differences did not affect results in this study nor in Study one.

Task. Law students were given a case that described a manufacturing company that has been in business for 15 years (Appendix 2). The case included the following background information: industry growth, management's compensation scheme, audit and non-audit fees, audit opinion, number of board members, number of board meetings per year, number of audit committee members, number of audit committee meetings per year, and rotation status. Given that Study one resulted in no differences between no rotation and audit partner rotation, we chose to drop the no rotation condition from this study. Furthermore, the controversy that persists today is whether proposed audit firm rotation would incrementally contribute to market confidence beyond currently legislated audit partner rotation.

Results. We utilized a one-way ANOVA with rotation manipulated at two levels:

(1) audit partner rotation; and

(2) audit firm rotation.

Law students were likewise asked to respond to an indirect question regarding auditor independence. Again the question was framed with an intent to measure their confidence in the company's reported earnings. Law students were asked to respond to the following question, "How willing would you be to invest significant personal funds in this investment opportunity, assuming funds availability?" This dependent measure was assessed on a Likert scale with endpoints of 0 (Not willing at all) and 10 (Very willing). As shown in Table II, law students assessed that they would be significantly ($F = 3.78$; $p = 0.05$) more willing to invest personal funds under conditions of audit firm rotation (4.96) than under conditions of audit partner rotation (3.98). Although law students showed greater confidence in the reported earnings, their confidence levels still remained close to the scalar midpoint.

Panel A: ANOVA model

Source of variation	*Sum of squares*	*Df*	*Mean square*	F	p-*value*
Invest in funds	22.29	1	22.29	3.78	.05
Error	536.89	91	5.9		
Corrected total	559.18	92			

Panel B: treatment means, (SD)

Outcome	N	*Mean*	*SD*
Audit partner rotation	46	3.98	2.49
Firm rotation	47	4.96	2.37

Notes: Dependent measure: how willing would you be to invest significant personal funds, assuming funds availability?; Not willing at all 0 . . . 1 . . . 2 . . . 3 . . . 4 . . . 5 . . . 6 . . . 7 . . . 8 . . . 9 . . . 10 Very willing

Table II. Law students invest in funds

Discussion and conclusions

These studies were conducted to examine the effect of audit firm rotation and audit partner rotation on confidence in the quality of audited financial statements. The experiments were designed so that the companies had reform-compliant corporate governance structures in place. The current reforms of SOX and the GAO's decision to postpone mandatory audit firm rotation indicate that restructuring a firm to exhibit stronger corporate governance is sufficient to enhance investor confidence in reported earnings. However, the results of our studies find otherwise. Participants from two distinct disciplines converge in placing greater confidence in reported earnings under conditions of audit firm rotation. These results suggest that rotating the audit firm will, contrary to GAO assumptions, better advance the goal "to enhance auditor independence and audit quality and to restore investor confidence in the nation's markets" (GAO, 2003, p. 11).

The report by the GAO has expressed a level of uncertainty in the current reforms that organizations must undertake to improve their corporate governance structure. In order to provide a greater level of auditor independence and quality, the current reforms require a strong corporate governance structure and rotation of the lead audit partner after five years (but not audit firm rotation). We have demonstrated that in spite of strong corporate governance, rotating compared to not rotating the audit partner did not change the level of confidence in reported earnings. However, confidence did significantly increase with the rotation of the audit firm. These studies also provide evidence that knowledgeable members of the investing public have diminished confidence in reported earnings, in spite of using examples with reform-compliant audit committee and board of directors. MBA students' responses indicate that true income could dip nearly 40 percent under the worst condition and 18 percent under the best condition. Similarly, law students mean responses failed to reach even the scalar mid-point for an investment opportunity of significant merit if reported income numbers could be trusted.

Given the findings of this study, we question whether investor confidence has improved to the degree envisioned and desired by leaders of Congress. Thus, we suggest that further research is warranted. Other experimental methods should be used with other stakeholder groups in addressing one of the most important issues of our time. The reforms enacted in this short window of opportunity will likely be with us for years, to our benefit or regret.

Finally, the results presented in our study should be considered in light of certain limitations. First, because an experimental approach was utilized, the stimulus materials excluded potentially relevant information for this task. However, this was deemed necessary to keep the case to a reasonable length as well as to control for extraneous factors. Future research could explore other richer more complex case scenarios that could enhance task realism. Second, the participants were not held accountable for their decisions nor was there any explicit motivation provided. However, the researcher in attendance did not observe any problems with motivation as the participants appeared to approach the task in a professional manner. Third, the experimental materials were intended to provide measures related to independence in appearance (rather than independence in fact). Thus, our results only have implications for independence in appearance.

Notes

1. Prior research has found links between corporate governance activity and the quality of financial reporting (Beasley, 1996; Dechow *et al.*, 1996; Agrawal and Chadha, 2002).
2. In her economic approach, DeAngelo (1981) defines economic interest as a future "quasi-rent" stream in which quasi-rents represent the expected excess of future audit revenues over avoidable costs.
3. Some countries currently mandate audit firm rotation including Austria, Brazil, Italy, and Singapore.
4. Healey and Kim (2003) cite several reasons why the accounting profession is opposed to these measures: (1) increased cost, (2) diminished reporting quality, (3) more opportunity for error, and (4) diminished client familiarity.
5. Approximately two-thirds of the participants currently or previously owned stock; however, there was no significant association between stock ownership and judgment.
6. This research focuses on independence in appearance as opposed to independence in fact and, unless otherwise noted, the term "independence" should be considered as independence in appearance.
7. Study two was conducted at a different university than was Study one.

References

Agrawal, A. and Chadha, S. (2002), "Corporate governance and accounting scandals", working paper, University of Alabama, Tuscaloosa, AL.

Beasley, M. (1996), "An empirical analysis of the relation between the board of director composition and financial statement fraud", *The Accounting Review*, Vol. 71 No. 4, pp. 443-65.

Beasley, M., Carcello, J., Hermanson, D. and Lapides, P. (2000), "Fraudulent financial reporting: consideration of industry traits and corporate governance mechanisms", *Accounting Horizons*, Vol. 14 No. 4, pp. 441-54.

Beck, P., Frecka, T. and Solomon, I. (1988), "An empirical analysis of the relationship between MAS involvement and auditor tenure: implications for auditor independence", *Journal of Accounting Literature*, Vol. 7, pp. 65-84.

Comunale, C.L. and Sexton, T.R. (2005), "Mandatory auditor rotation and retention", *Managerial Auditing Journal*, Vol. 20 No. 3, pp. 235-48.

DeAngelo, L. (1981), "Auditor independence, 'low balling', and disclosure regulation", *Journal of Accounting & Economics*, Vol. 3 No. 2, pp. 113-27.

Dechow, P., Sloan, R. and Sweeney, A. (1996), "Causes and consequences of earnings manipulations: an analysis of firms subject to enforcement actions by the SEC", *Contemporary Accounting Research*, Vol. 13 No. 1, pp. 1-35.

Dies, D. and Giroux, G. (1992), "Determinants of audit quality in the public sector", *The Accounting Review*, Vol. 67 No. 3, pp. 462-79.

Dopuch, N., King, R.R. and Schwartz, R. (2001), "An experimental investigation of retention and rotation requirements", *Journal of Accounting Research*, Vol. 39 No. 1, pp. 93-117.

Dye, R.A. (1991), "Informationally motivated auditor replacement", *Journal of Accounting and Economics*, Vol. 14 No. 4, pp. 347-74.

Ettredge, M. and Greenberg, R. (1990), "Determinants of fee cutting on initial audit engagements", *Journal of Accounting Research*, Vol. 28 No. 1, pp. 198-210.

GAO (2003), *Public Accounting Firms: Required Study on Potential Effects of Mandatory Audit Firm Rotation*, GAO- 04-216, November, US General Accounting Office, Washington, DC.

Geiger, M. and Raghunandan, K. (2002), "Auditor tenure and audit reporting failures", *Auditing: A Journal of Practice & Theory*, Vol. 21 No. 1, pp. 67-78.

Goodwin, J. and Seow, J. (2002), "The influence of corporate governance mechanisms on the quality of financial reporting and auditing: perceptions of auditors and directors in Singapore", *Accounting and Finance*, Vol. 42 No. 3, pp. 195-223.

Healey, T.J. and Kim, Y. (2003), "The benefits of mandatory auditor rotation", *Regulation*, Vol. 26 No. 3, pp. 10-11.

Herrick, T. and Barrionuevo, A. (2002), "Were auditor and client too close knit?", *Wall Street Journal*, January 21, p. C1.

Kemp, R.S. Jr, Reckers, P.M.J. and Arrington, C.E. (1983), "Bank credibility: the need to rotate auditors", *Journal of Retail and Banking*, Spring, pp. 38-44.

Mautz, R. and Sharaf, H. (1961), *The Philosophy of Auditing*, American Accounting Association, Sarasota, FL.

Myers, J., Myers, L.A. and Omer, T.C. (2003), "Exploring the term of the auditor-client relationship and the quality of earnings: a case for mandatory auditor rotation?", *The Accounting Review*, Vol. 78 No. 3, pp. 779-99.

Palmrose, Z. (1989), "The relation of audit contract type to audit fees and audit hours", *The Accounting Review*, Vol. 64 No. 3, pp. 488-99.

Shelby, R. (1985) Hearings before the Subcommittee on Oversight and Investigations and the Committee on Energy and Commerce, 99th Congress, First Session, February 20 and March 6, United States House of Representatives, US Government Printing Office, Washington, DC.

Simon, D.T. and Francis, J.R. (1988), "The effects of auditor change on audit fees: tests of price cutting and price recovery", *The Accounting Review*, Vol. 63 No. 2, pp. 255-69.

Smith, J.F. and Kida, T. (1991), "Heuristics and biases: expertise and task realism in auditing", *Psychological Bulletin*, Vol. 109 No. 3, pp. 472-89.

Stice, J. (1991), "Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors", *The Accounting Review*, Vol. 66 No. 3, pp. 516-33.

Tan, H. (1995), "Effects of expectations, prior involvement, and review awareness on memory for audit evidence and judgment", *Journal of Accounting Research*, Vol. 33 No. 1, pp. 113-35.

Teoh, H. and Lim, C.C. (1996), "An empirical study of the effects of audit committees, disclosure of nonaudit fees, and other issues on audit independence: Malaysian evidence", *Journal of International Accounting, Auditing and Taxation*, Vol. 5 No. 2, pp. 231-48.

US House of Representatives, Committee on Financial Services (2002), *Sarbanes-Oxley Act of 2002 (SOX)*, Public Law No. 107-204, US Government Printing Office, Washington, DC.

Wallace, W. (1981), "Internal control reporting – 950 negative responses", *The CPA Journal*, Vol. 51 No. 1, pp. 33-8.

Winters, A.J. (1978), "Looking at the auditor rotation issue", *Management Accounting*, Vol. 57 No. 9, pp. 29-30.

Wolf, F.R., Tackett, A. and Claypool, G.A. (1999), "Auditor disaster futures: antidotes for the expectations gap?", *Managerial Accounting Journal*, Vol. 14 No. 9, pp. 468-78.

Appendix 1. MBA students

This case deals with the financial performance of Wilson Acoustics (Wilson), a 25 year-old company traded on NASDAQ. Wilson's principal activity is to manufacture and market audio systems for use in home audio and video entertainment systems, automotive audio systems and multimedia computer environments. Summarized financial data for 2002 follow (Table AI):

Background information

- Wilson hired Greenstreet & Co. CPAs, early in 1998 on the basis of a bid that was substantially below that of the current auditor. Greenstreet & Co. is a large international CPA firm with offices in most major cities in the world. Greenstreet & Co. conducted the external audit of Wilson and issued "clean" audit opinions for each year-1998, 1999, 2000, 2001. *A "clean" audit opinion provides reasonable assurance to the public, based on various audit tests and samples, that the annual financial statements released to the public are free of material misstatements and omissions and are in compliance with generally accepted accounting principles*.
- Management receives significant incentive stock options.
- The Wilson corporate Board of Directors is comprised of ten members, all of which are independent of current or past corporate management. The Chairman of the Board, William Adams, is independent. Five independent members make up a strong audit committee that more than meets NASDAQ's requirements; indeed most of its members have a degree of accounting or related financial management experience that surpasses exchange requirements.

Year 2002 information

- Although the slowdown in the US economy resulted in sales dropping to $85 million in 2002 (from $118 million in 2001), reported net income increased slightly to $3.91 million for 2002 (from $3.90 million in 2001). While sales were significantly lower than analysts and management had forecast, net income was in line with those forecasts and slightly exceeded 2001 net income.
- 2002's decreased demand has caused an increasing number of business failures within the industry.
- Fees for Non Audit Services performed by Greenstreet & Co. in 2002 amounted to $170,000, of which $150,000 was related to tax services. Audit fees for 2002 were $91,000.
- For 2002, Greenstreet & Co. conducted (a) an audit of the financial statements and (b) an internal control evaluation. The internal control evaluation was newly mandated by the Sarbanes-Oxley legislation following the collapse of Enron. Several notable instances of spectacular corporate collapse had been linked to financial reporting fraud permitted by weak internal control.

Income statement		Balance sheet	
Sales	$85,340,000	Accounts receivable	10,830,000
Cost of sales	59,140,000	Inventories	14,375,000
Net income	3,910,000	Plant and equipment	13,920,000

Table AI.

- Greenstreet & Co's audit staff issued both a "clean" financial statement opinion and a "clean" internal control evaluation opinion. Because the auditors believed that the financial statements followed generally accepted accounting principles, a "clean" financial statement opinion was issued. Because internal control was evaluated as effective, a "clean" internal control evaluation opinion was issued.
- Corporate policy is to retain its CPA firm for a maximum of five years. Accordingly, Wilson is in the process of engaging another CPA firm to perform next year's audit. Because many balances carry over from one year to the next, the current partners are well aware that partners from the replacement CPA firm will review in detail many of this year's working papers as a part of its 2003 audit.

Please estimate a figure for Net Income below which you believe there is less than a 25 percent chance that Net Income will fall $ ______________

Appendix 2. Law students

Cartesse Corporation manufactures a variety of hi-tech electronic sensing devices used in manufacturing, research and hospitals. The 15-year old NASDAQ firm is known for innovation (Table AII).

Other information	
Firm information and recent performance	High growth industry 15 Consecutive quarters of increased profit Stock market price multiple of 45 (market ave = 16)
Management	Lucrative bonuses tied to increased profit increase 35 percent of CEO's personal wealth held in Cartesse Stock
Corporate board of directors	
Chairman of board	William Clark, independent of management, I Former Fortune 500 CEO
Independent of management	12 of 12 members
No financial interest in Cartesse	12 of 12 members
Last reorganization	2002 (in response to Sarbanes-Oxley legislation)
Compensation	$155,000 (last raise (35 percent) in 2002)
Meetings per year	10
Audit sub-committee	
Chair	Glen Sanders, Former Illinois Attorney General
Independent of management	5 of 5 members
Members with financial expertise	5 of 5 members
Meetings per year	8
Auditor firm	
Audit fee	$1,300,000
Audit-related tax compliance services	200,000
Non-audit related tax planning services	1,700,000
Tenure as auditor	12 years
Rotation status	Continuing engagement of audit firm but Imminent mandatory rotation of partner in charge of audit in 2004
Audit opinion	Favorable (clean)
Report on internal controls	No deficiencies cited

Table AII.

How willing would you be to invest significant personal funds, assuming funds availability?
Not willing at all 0 . . . 1 . . . 2 . . . 3 . . . 4 . . . 5 . . . 6 . . . 7 . . . 8 . . . 9 . . . 10 Very willing

Corresponding author
D. Jordan Lowe can be contacted at: jordan.lowe@asu.edu

To purchase reprints of this article please e-mail: **reprints@emeraldinsight.com**
Or visit our web site for further details: **www.emeraldinsight.com/reprints**