Remarks on *Findings On The Effects Of Audit Firm Rotation On The Audit Process Under Varying Strengths Of Corporate Governance* (Arel, Brody and Pany)
Presented by Barbara Arel

Auditor independence, objectivity and professional skepticism are the cornerstones of the audit profession and efforts focused on enhancing them to increase audit quality and restore investor confidence in the capital markets need to continue. In order for the audit report to have credibility with investors, auditors need to be independent in both fact and appearance when providing audit services. Permitting an unlimited period of association between audit firms and clients represents a potential threat to independence.

Long periods of auditor tenure potentially may lead to a troublesome degree of closeness between auditors and management and auditor financial dependence on the client which threatens their ability to act independently during the audit. While mandatory audit firm rotation may not eliminate the auditor financial dependence upon clients, it is a movement in that direction. Research directly addressing the impact of audit firm rotation in the United States has been limited due to a combination of no regulatory requirement for rotation and a limited number of companies voluntarily establishing such a policy. To overcome these limitations, experimental research allows researchers to create an environment that can focus on a variable of interest such as the impact of mandatory rotation while holding other potential influencing factors constant or randomized. My coauthors Kurt Pany and Rich Brody and I (2006) conducted an experiment designed to directly examine the influence of audit firm rotation on auditor independence in fact. We asked 105 CPA firm employees to read a scenario describing a hypothetical audit client in which management refused to record a write down of inventory to market values that would reduce net income below that of any of the four preceding years. After reading the scenario, auditor participants' were asked to respond to the likelihood the audit report would be modified for the departure from GAAP. Our results show auditors in the rotation condition believed report modification was significantly more likely than did those in a situation that mirrors the current requirements, an expected continuing relationship with the client with enforced audit partner rotation.

Our research does not address disadvantages of required audit firm rotation such as those discussed at this meeting. Also, most of our respondents were not partners, the individuals who would be extremely involved with a situation such as that described in our case. Nonetheless, again, our results did reveal different anticipated reactions based on whether firm rotation was imminent. These results are consistent with a number of studies addressing this general area.[1]

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[1] For example, see Dopuch, King and Schwarz (2001); Hatfield, Jackson and Vandervelde (2011); Wang and Tuttle (2009) for papers that examine the influence of mandatory rotation on independence in fact and Gates, Lowe and Reckers (2007); Daniels and Booker (2006); Kaplan and Mauldin (2008) and Jennings, Pany and Reckers (2007) that examine the influence of mandatory rotation on independence in appearance as perceived by financial statement users.

References

Arel, B, R. Brody and K. Pany. 2006. Findings on the effects of audit firm rotation on the audit process under varying strengths of corporate governance. *Advances in Accounting.* 22: 1-27.

Dopuch, N., R.R. King and R. Schwartz. 2001. An experimental investigation of retention and rotation requirements. *Journal of Accounting Research* 39 (1): 93-117.

Wang, K.J., and B.M. Tuttle. 2009. The impact of auditor rotation on audit-client negotiation. *Accounting, Organizations and Society* 34 (February): 222-243.

Hatfield, R.C., S.B. Jackson, and S.D. Vandervelde. 2011. The effects of prior audit involvement and client pressure on proposed audit adjustments. *Behavioral Research in Accounting* 23 (2): 117-130.

Kaplan, S.E. and E.G. Mauldin. 2008. Auditor rotation and the appearance of independence: Evidence from non-professional investors. *Journal of Accounting and Public Policy* 27: 177-192.

Daniels, B.W and Q. Booker. 2009. Loan officers' reactions to audit rotation. *Journal of Behavioral Studies in Business*. 1: 1-13.

Gates, S. K., D.J. Lowe and P.M.J. Reckers. 2007. Restoring public confidence in capital markets through auditor rotation. *Managerial Auditing Journal* 22 (1): 5-17.

Jennings, M.M., K.J. Pany and P.M.J. Reckers. 2006. Strong corporate governance and audit firm rotation: Effects on judges' independence perceptions and litigation judgments. *Accounting Horizons* 20 (3): 253-270.

FINDINGS ON THE EFFECTS OF AUDIT FIRM ROTATION ON THE AUDIT PROCESS UNDER VARYING STRENGTHS OF CORPORATE GOVERNANCE

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ABSTRACT

While performing an annual audit of a client's financial statements, an audit firm's staff identified what seems to be a material misstatement. Two discussions with the client have led to an impasse in that the client refuses to record what the auditor regards as a necessary adjustment. Our experimental study analyzes whether the likelihood of public accountants modifying their audit report for this departure from generally accepted accounting principles is affected by whether audit firm rotation is about to occur (no rotation v. rotation) under each of the two levels of corporate governance (weak v. strong). Our subjects include 105 CPA firm employees and partners who have an average experience level slightly less than 14 years. Results suggest that auditors in the rotation condition are more likely to modify their audit report as contrasted to those in a situation in which a continuing relationship is expected.

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1. INTRODUCTION

This study provides evidence about the effects of audit firm rotation on the resolution of a difference of opinion between external auditors and management as to proper financial accounting. The evidence is from 105 CPA firm partners and employees who replied to an experimental instrument that systematically manipulates audit firm rotation (no rotation v. rotation) under two forms of corporate governance (weak v. strong).

Our research instrument first presents subjects with information indicating that the CPA firm's audit team has discovered a situation in which it believes that a journal entry that will decrease income needs to be recorded by the client. The instrument describes two meetings with the client, after each of which subjects are asked about the likelihood that they believe the client will record the entry. The purpose of obtaining these responses is to increase the tension in the situation relating to the experimental task, to increase realism, to involve the subjects and to obtain subjects' impressions on the likely effects of varying corporate governance on the client's decision to record the entry. Ultimately, management refuses to record the entry.[1] The instrument then requires subjects to estimate the likelihood with which their firm would modify the audit opinion.

Our findings indicate statistically significant differences in means for the likelihood of the firm appropriately modifying the audit opinion for the departure from generally accepted accounting principles, with a higher likelihood of audit report modification when there is audit firm rotation. More precisely, accountants in the rotation condition are more likely to issue a report modified for the departure from generally accepted accounting principles than accountants who believe that a possibility of retaining the client exists. The effect is largest for the situation in which corporate governance is weak.

The remainder of the paper is organized as follows. Section 2 presents background information on the area of audit firm rotation. Sections 3 and 4 develop our hypotheses and approach and Section 5 provides our research results. Finally, Section 6 presents a discussion of our results.

2. BACKGROUND

The study is motivated by the recent accounting problems and instances of alleged corporate fraud at many high-profile companies such as Enron, WorldCom, Tyco and HealthSouth that have led regulators to re-examine the relationships between management and audit firms in an attempt to strengthen the corporate governance process and thereby better protect shareholders' interests. This re-examination culminated in passage of the Sarbanes-Oxley Act of 2002 (Public Law 107–204, 2002) with its numerous modifications to corporate governance and requirements relating to external auditors. The changes relating to external audits seem to have in common a goal of increasing the quality of financial information, audit quality and the likelihood of auditor independence. The business press and regulators suggest that there is a link between auditor tenure and fraudulent financial reporting as long-term relationships between companies and their auditors create a troublesome degree of closeness between the auditor and management that adversely affects auditor independence, thereby reducing audit quality. When a contentious issue arises during the audit, auditors may experience a conflict of interest over identifying with the impact of the issue on the client and management and maintaining professional skepticism in accordance with the auditing standards.

Mandatory audit firm rotation has been suggested as a potential solution to help break the link and increase audit quality (e.g., Winters, 1976; Kemp, Reckers, & Arrington, 1983; Wolf, Tackett, & Claypool, 1999).[2] Indeed, Section 207 of the Sarbanes-Oxley Act of 2002 required the Comptroller General of the United States to conduct a study and review the potential effects of requiring the mandatory rotation of registered public accounting firms. In November 2003, the General Accounting Office (GAO) issued its report on auditor rotation and concluded that various provisions of the Sarbanes-Oxley Act were directed at enhancing auditor independence (especially provisions related to corporate audit committees) and that

> … more experience needs to be gained with the act's (other) requirements. Therefore, the most prudent course at this time is for the SEC and the PCAOB to monitor and evaluate the effectiveness of the act's (current) requirements to determine whether further revisions, including mandatory audit firm rotation, may be needed (GAO, 2003, p. 5).

In addition, the GAO recommended additional research to help better predict the benefits and future need for mandatory audit firm rotation (GAO, 2003, p. 47).

In the business press, *The Wall Street Journal* questioned the long-term relationship between Enron Corporation and Arthur Andersen, its auditor since its inception in the early 1980s

> Andersen auditors and consultants were given permanent office space at Enron headquarters here and dressed business-casual like their Enron colleagues. They shared in

> office birthdays, frequented lunchtime parties in a nearby park and weekend fund-raisers for charities. They even went on Enron employees' ski trips to Beaver Creek, Colo. "People just thought they were Enron employees," says Kevin Jolly, a former Enron employee who worked in the accounting department. "They walked and talked the same way .... It was like Arthur Andersen had people on the inside, ... the lines become very fuzzy." (Herrick & Barrionuevo, 2002).

The article also points out the significant number of ex-Andersen employees who had accepted subsequent employment with Enron. Questions as to the propriety of these relationships which develop due to long-term relationships are not new. For example, in 1985 Congressman Shelby asked "How can an auditing firm remain independent ... when it has established long-term personal and professional relationships with a company by auditing the same company for many years, some 10, 20 or 30 years?" (Shelby, 1985).

The impact of long-term relationships between auditors and clients on the audit process is not known. However, results of a GAO survey of CPA firms and Fortune 1000 public companies reveal that approximately 69% of the Tier 1 CPA firms (audit firms defined as having 10 or more public clients) and 73% of the Fortune 1000 public company respondents surveyed did not believe that long-term auditor relationships increase the risk of audit failures. Yet, 38% of those CPAs and 65% of the Fortune 1000 company respondents acknowledged that investor perceptions of auditor independence would increase under mandatory audit firm rotation. The report has been attacked, as it includes no survey results of investors or "the public" relating to rotation.[3]

In essence, the question we are asking is whether auditors will "stand up" to their clients in a situation in which the result may be loss of that client. This conflict of interest may impact the audit independence during the audit process and may be driven by the business goals of audit firms to maintain clients as sources of revenue. The PCAOB Chief Auditor Douglas Carmichael recently noted the importance of auditors following professional standards and not their own business goals

> Auditors should have the support of professional standards as well as their firms when they challenge clients on accounting issues. Too often, in the past, the challenges did not occur, because the auditor or the firm feared losing the client's business. (Colson, 2004).

Although mandatory rotation at some level would seem a "zero sum game" for auditing firms in that each rotation involves a successor firm replacing a predecessor firm, auditors find it a disagreeable proposition. Accountancy Age (2003) surveyed the top 30 British CPA firms (including the Big 4) and received the following results relating to a question as to whether audit firms should be subject to compulsory rotation:

No	20 firms (including all Big 4)
Yes	1 firm
No reply	9 firms

Consistently, the AICPA (1992, 2003) historically and currently opposes mandatory rotation, arguing that rotation will increase rather than decrease the number of audit failures. These arguments generally cite statistics indicating higher than average ''audit failure'' rates the first several years of an audit relationship with a client[4] and expected increases in audit costs.

Recognizing that corporate governance procedures may also be responsible for a number of the auditing and accounting problems, both the Sarbanes-Oxley Act and the major United States stock exchanges adopted stricter requirements for audit committee membership in the areas of independence, expertise and number of members while granting more authority to the audit committees in the audit process.[5] This enhanced audit committee authority includes the hiring and firing of the company's audit firm. These corporate governance procedures and requirements interact with the professional auditing standards in both the general areas of internal control (SAS No. 78 and 94, AICPA, 2004) and fraud (SAS No. 99, AICPA, 2004) and on communications between CPAs and the audit committee (SAS Nos. 60, 61, 78, 87, 89 and 90, AICPA, 2004). While the changes implement minimum levels of independent directors and financial expertise, some companies choose to strengthen their corporate governance structure beyond the minimum requirements by increasing the number of independent directors or the level of financial expertise on the audit committee (Shearman & Sterling, 2004). In particular, we believe that a strong audit committee's ability to make an independent decision on retaining the current audit firm is likely to lead to enhanced auditor independence. It is for this reason that we test audit firm rotation under both relatively weak and strong corporate governance environments. Both of the levels tested are currently acceptable under the Sarbanes-Oxley Act and requirements of the stock exchanges.

3. HYPOTHESES DEVELOPMENT

3.1. Audit Firm Rotation

Both prior analytical discussions and empirical research results are relevant to audit firm rotation. Analytical research suggests that auditors provide value to the capital market by serving an information role as well as providing compensation when they "fail" in providing that role.[6] Wallace (1981) discusses the manner in which the audit process may serve as a monitoring device that will reduce managers' incentives to manipulate reported earnings. DeAngelo (1981) and Watts and Zimmerman (1983) show that through verification of financial statement information, auditors may both discover and report breaches from proper accounting disclosure.

But the discovery of a misstatement measures quality in terms of an auditor's knowledge and ability; the reporting of the misstatement is dependent upon the auditor's incentives to disclose the breach. Watts and Zimmerman (1983) emphasize the need for auditor independence, and suggest that a reasonable measure of independence is the likelihood that an auditor will report any breach of the contract between the principal and agent involved in the financial reporting process. It is this measure that we use in our experiment. While we consider it a measure of independence, it is more directly a measure of subjects' beliefs as to the expected nature of the basic product of the audit, the audit report. The auditor has discovered a misstatement, and we solicit a reply as to the likelihood that the subject's firm would disclose this misstatement ("breach") in its audit report. This measure is also consistent with recent discussions of auditor reliability and independence presented by Taylor, DeZoort, Munn, and Thomas (2003) and Johnstone, Sutton, and Warfield (2001).

DeAngelo's (1981) analytical analysis suggests that incumbent auditors can earn quasi-rents (economic rents) 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, 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 "low-ball" first-year audit fees, that is bid fees lower than the expected marginal costs for initial engagements with clients (e.g., Dye, 1991; Dopuch, King, & Schwartz, 2001). Studies by Simon and Francis (1988) and Ettredge and Greenberg (1990) suggest that auditors have "low-balled" 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 the quasi-rents discussed by DeAngelo.

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 attempt to prevent an auditor from reporting such a misstatement by threatening to replace the auditors, and thereby eliminate the annuity-like stream of quasi-rents.[7] Indeed, Casterella, Knechel, and Walker (2001) examined a sample of firms that were subject to SEC enforcement actions in the period 1980–1991 and found that audit quality as measured by fraudulent financial reporting is lower as auditor tenure increases. Consistently, Dopuch et al. (2001), using a laboratory markets approach, find that a rotation requirement decreased auditor subjects' willingness to issue-biased reports.

The arguments in favor of audit firm rotation generally suggest that with rotation auditors will both appear more independent, and be more independent (Brody & Moscove, 1998; Wolf et al., 1999). This argument is not new in that more than 40 years ago Mautz and Sharaf (1961) warned auditors that

> The greatest threat to his independence is a slow, gradual, almost casual erosion of this honest disinterestedness .... the auditor in charge must constantly remind his assistants of the importance and operational meaning of independence. (p. 208)

Similarly, Bazerman, Loewenstein, and Moore (2002) more than 40 years later argue that auditor independence is impaired by an unconscious self-serving bias in auditor judgments driven by the auditors' incentive to satisfy clients – see Nelson (2003) and Moore, Loewenstein, Tanlu, and Bazerman (2003) for reviews of conflicts of interest research in auditing and in general. Mandatory audit firm rotation can help eliminate the unconscious self-serving bias in auditors to agree with the client by removing the incentive, quasi-rents, that cause the auditor's interest to align with the clients.

Those arguing against rotation have questioned whether the likely benefits of rotating audit firms outweigh the increased costs for the audit firm, client and public. Potential legal liability and a desire to maintain reputation with other clients help the auditor to remain independent. Also, high "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. Consistently, the Cohen Commission Report (AICPA, 1978) asserts that the benefits did not outweigh the costs and recommended no mandatory audit firm rotation. The GAO study (GAO, 2003) asserts that further analysis is needed to determine the benefits of mandatory rotation because the benefits are harder to predict and quantify than the additional costs. The combination of no regulatory requirement of audit firm rotation and few companies voluntarily establishing such a policy has made research directly addressing the issue of audit firm rotation difficult.[8] But, a number of studies report higher than normal early-year "audit failure rates" (e.g., Geiger & Raghunandan, 2002; St. Pierre & Anderson, 1984; Palmrose, 1986; Stice, 1991) and Carcello and Nagy (2004), using a sample of firms cited for fraudulent reporting from 1990 to 2001, found that fraudulent financial reporting is more likely to occur in the first three years of the auditor–client relationship and with no evidence that it is more likely given longer auditor tenure. Mansi et al. (2004) find that on an overall basis, investors in debt securities require somewhat lower rates of return as the length of tenure increases. Consistently, Myers, Myers, and Omer (2003a) and Myers, Myers, Palmrose, and Scholz (2003b) find higher earnings quality (as measured by accruals) in longer auditor tenure situations and that auditor tenure was not associated with an increase in subsequent restatements. Yet, despite these findings, one observes that the many corporate failures cited earlier in this paper in general have a pattern of long-term auditor tenure, generally accompanied by what in hindsight seems to be dramatically overstated earnings.

In summary, analytical analysis and arguments relevant to audit firm rotation have been presented and to a limited extent tested empirically. Counteracting forces exist in that long relationships fostering quasi-rents may adversely affect auditor independence, while limited knowledge obtained during first-year audits may result in higher rates of "audit failure" during the first year of an audit relationship. In this paper, we attempt to address the "independence" portion of the question by presenting a situation in which the auditors have identified a potential misstatement and reply as to the likely type of audit report their firm would issue.

3.2. Corporate Governance

Although the Sarbanes-Oxley Act and resulting changes in stock-exchange listing requirements include increased corporate governance standards for all registrants, a significant level of flexibility still exist in the manner in which such reforms are implemented. To illustrate, differences in the following areas are allowable:

- Leadership of the board and the proportion of independent directors on the Board.

- Level of financial expertise of members of the audit committee.
- Audit committee diligence.

Importantly, research such as that summarized below has shown that such differences are likely to affect the effectiveness of the corporate governance process.

3.2.1. Board Leadership and Proportion of Independent Directors

Prior research suggests that boards structured to be independent of the CEO are more effective in monitoring the corporate financial accounting process. Firms investigated for financial statement fraud have been found to be more likely to have a CEO that also serves as the chairman of the board of directors (Dechow, Sloan, & Sweeney, 1996) and a board composed of non-independent directors (Beasley, 1996; Dechow et al., 1996). Also, prior research has found a negative relationship between independent audit committee members and abnormal accruals, an indicator of earnings management (Klein, 2002; Bedard, Chtourou, & Courteau, 2004) and the occurrence of restatements (Abbott, Parker, & Peters, 2004). Using an experimental approach, Cohen and Hanno (2000) found that auditors' client-acceptance judgments and substantive testing judgments were more favorable when the board and audit committee were described as strong and independent of management than when they were described as weak and heavily reliant on management. For firms experiencing financial distress, Carcello and Neal (2000) found that the likelihood of an auditor issuing a going-concern report is inversely related to the percentage of affiliated directors on the audit committee. Recognizing that creditors rely on the integrity of financial reports, Andersen, Mansi, and Reeb (2004) found that the cost of debt is inversely related to board and audit committee independence.

3.2.2. Audit Committee Financial Expertise

Prior research has found a negative association between the financial expertise of audit committee members and aggressive earnings management practices (Bedard et al., 2004) and the occurrence of restatements (Abbott et al., 2004). Audit committee member's financial expertise (DeZoort, Hermanson, & Houston, 2003) and audit knowledge (DeZoort & Salterio, 2001) also increase the likelihood that the audit committee will support the auditor in a financial reporting dispute between the auditor and management. Related to this research, Ng and Tan (2003) provide evidence that the existence of either a strong audit committee to support the auditor's position or authoritative guidance for a conservative position decreases the likelihood that an auditor will allow aggressive financial reporting.

3.2.3. Audit Committee Diligence

While the requirements regarding audit committee members' independence and financial expertise are important in improving the capability of members to monitor the financial reporting process, the committee must also be diligent in performing its responsibilities to improve effectiveness. One proxy for audit committee diligence that prior research has examined is meeting frequency (DeZoort, Hermanson, Archambeault, & Reed, 2002). Using this proxy, Abbott et al. (2004) found a significant negative association between the activity level of audit committees and the occurrence of restatements. Utilizing market-based evidence, Andersen et al. (2004) found a negative relation between yield spreads and audit committee meeting frequency. Audit committee size has also been used in prior research as a proxy for audit committee diligence. Based on the belief that an audit committee should not be so large as to become unwieldy, but large enough to ensure effective monitoring (Bedard et al., 2004), the general recommendation is to limit the size of the committee to five (Andersen, 1998). Andersen et al. (2004) again provide market-based evidence that yield spreads are negatively related to audit committee size although no significant association was found between size and the occurrence of restatements (Abbott et al., 2004) or earnings management (Bedard et al., 2004). The results suggest that audit committees which meet more frequently and are more appropriate in size are more likely to be diligent in performing their duties as monitors of the financial reporting process.

In summary, research conducted on the changing requirements of corporate governance indicates that the new requirements for board and audit committee membership do have an impact on the financial reporting process. Prior research has shown a significant association between board and audit committee independence, financial expertise, audit committee diligence and financial reporting quality. In our study, we investigate the impact of these corporate governance items on audit quality as measured by the auditor judgments of the need for their audit firm to modify audit reports for an apparent departure from generally accepted accounting principles. For both practical reasons (e.g., the need to have a manageable number of forms of the questionnaire) and because our emphasis is on auditor rotation, as is discussed later in the paper, we consider only a relatively "weak" and a relatively "strong" level of corporate governance. We do not attempt to isolate the effects of financial board leadership, proportion of independent directors and audit committee expertise and diligence.

3.2.4. Hypotheses

This study addresses the effects of audit firm rotation and corporate governance on auditing quality. Our measure of audit quality is whether subjects believe their firm will modify the audit opinion if management does not record what the subject believes to be a necessary adjusting journal entry. Although not necessary for interpretation of the results consistent with the prior noted research, we consider our measure of audit quality to be a measure of audit firm independence. Fig. 1 illustrates the stages and the situation. This study emphasizes the bold sections of that figure. The italicized portion relates to communications with the audit committee. Although the timing on this communication is flexible in that SAS No. 90 (AICPA, 2004) suggests that it is not required prior to the issuance of the audit report, in a matter as significant as the one discussed in this case one might expect the audit committee to become involved after the CPA firm has decided that the matter is so important as to merit audit report modification. Our study addresses the auditors' judgments prior to this point in that subjects are asked for their reactions after management has decided not to record the entry. Related, SAS No. 90 requires presentation of information on the adjustment by the auditors to the audit committee regardless of whether the entry is recorded by the management.

If management does not record the adjustment, the situation described in our research instrument, the CPA firm is in a position in which issuance of a qualified or adverse audit opinion is ordinarily appropriate – regardless of

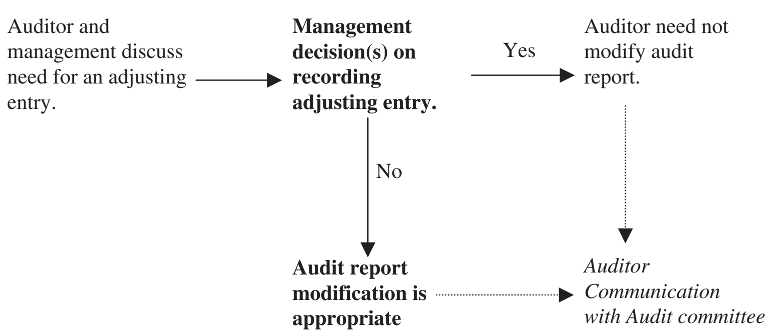

Fig. 1. Decision Steps.

audit firm rotation policy or level of corporate governance. The discovery of a misstatement measures quality in terms of the auditor's knowledge and ability; the reporting of the misstatement is dependent upon the auditor's incentives to disclose. In our study, the misstatement has been identified and correcting it or modifying the audit report for that misstatement is the issue.

We deal directly with the auditor's ordinary role in that the questions address whether the subject believes the audit firm will modify the audit report when such circumstances are encountered in his or her firm. Our measure of audit quality, report modification, addresses the fundamental notion of whether a proper audit report will be issued by the firm. As indicated earlier, although not entirely necessary, we interpret this concept as a measure of auditor independence consistent with previous research (e.g., DeAngelo, 1981; Watts & Zimmerman, 1983). Neither the corporate governance structure nor the rotation policy should affect overall responses to the need for report modification when auditors are independent. However, auditor independence may be impaired when an auditor faces a conflict between their professional responsibilities and their audit firm's business goals (i.e., to maintain the client's business in the following year).

Without a strong corporate governance structure or client audit firm rotation policy, this conflict may influence the auditor's report. The existence of a client audit firm rotation policy may reduce the quasi-rents related to the conflict of interest for the auditor, as the auditor's firm will not audit the client in the following year regardless of the outcome of the audit. This reduction in incentive to agree with the client will allow the auditor to report independently. It is the reporting in the audit report of a known departure from acceptable accounting principles, which our first hypothesis addresses

H1. Auditor beliefs as to whether the audit firm will modify the audit report to reflect an apparent departure from generally accepted accounting principles will be higher (lower) when the client has an audit firm rotation policy (no policy).

While our primary goal is to address auditor rotation, because we address it under two levels of corporate governance, our design allows us to measure whether auditor responses differ under these levels. Under the Sarbanes-Oxley Act, audit committees have the authority to hire and dismiss auditors. Yet, their decision will be made at least in part based on input from management. Also, if an auditor believes that the audit committee does not possess the knowledge necessary to understand and provide effective oversight of financial reporting matters, the auditor may not depend on support from the audit committee in the resolution of a financial reporting matter. Accordingly, we hypothesize

> **H2.** Auditor beliefs as to whether the audit firm will modify the audit report to reflect an apparent departure from generally accepted accounting principles will be higher (lower) when the client has strong (weak) corporate governance.

4. RESEARCH APPROACH

4.1. Subjects

Subjects were public accountants from a variety of accounting firms in the northeast section of the United States. Firms were contacted, and an administrator for each firm distributed and collected the research instruments.

Table 1 provides demographic information on the respondents. The auditors have on average 13.9 years of public accounting experience (standard

Table 1. Profile of Subjects ($n = 105$).

	Mean (Standard Deviation)
Age	39.3 (10.9)
Years of public accounting experience (total)	13.9 (10.4)
Percentage female	35.8
Percentage CPA	74.3
Position in firm (%)	
Staff	14.1
Senior	22.6
Supervisor	3.8
Manager	20.7
Partner	27.4
Owner	3.8
Other	7.6
Type of firm (%)	
One office	54.3
Multiple office	7.6
Regional	21.9
National	14.3
Big 4	1.9

deviation of 10.4 years). Also, approximately 74% of the subjects are certified public accountants. Approximately, 86% of the subjects report a position above staff level.

4.2. Research Task

Subjects were provided with experimental materials that depicted a hypothetical audit client. It included background information on the audit client such as a general description of the client's business and industry (audio systems manufacturer) and a statement that the company tended to follow "aggressive" accounting procedures that recognize income as early as possible. It also included background information detailing the relationship between the audit firm and the audit client. The subjects were told the CPA firm had audited the client for the last three years with "clean" opinions issued each year. Each subject was asked to assume the role of an audit team member. The materials describe the audit client as the largest client for this individual, although the fees represent only 2% of the total fees for the firm. The background information also included the primary manipulated independent variables – the level of corporate governance and audit firm rotation policy – in place at the audit client. Also included in the instrument was operating income information for the prior four years (audited) and the current year (unaudited), and a description of the problem-facing management in the current year.

The point of conflict in the case is related to the inventory valuation of certain audio equipment. The subjects were told that the impact of recording the write down of these items to market values below cost in the current year would reduce net income below that of any of the four preceding years and were asked whether they believed that the management would record the journal entry. This sort of entry was selected because there is some subjectivity here, although the auditor has a belief as to the least amount necessary as an adjustment, and because research indicates that attempts at earnings management often involve such subjective transactions (e.g., Nelson, Elliott, & Tarpley, 2002). Subjects were informed that management did not initially record or disclose the situation prior to the audit and is in disagreement with the audit team over the proper accounting procedure during audit fieldwork.

The portion of the case analyzed in detail in this paper[9] addresses subject responses to whether they believed that their firm would modify the audit opinion to reflect a departure from generally accepted accounting principles.

4.3. Independent Variables

Two variables in the case were manipulated to address the hypotheses: the level of audit firm rotation policy and corporate governance.

4.3.1. Audit Firm Rotation

This variable has two levels – no rotation v. rotation of the client next year to another audit firm according to company policy. Rotation in this study involves change to another CPA firm after a set period (four years),[10] as contrasted to a more limited form of rotation in which a continuing audit firm rotates top personnel on the engagement (the current requirement in the United States).

A firm rotation level requires consideration of both the fact that the company has such a policy, and the current year in the rotation cycle. For example, if a company rotates auditors every four years, the CPA firm involved could be in any one of the first through the fourth years of the relationship. One way of viewing this is that any year might be selected, as auditors must maintain independence for all years. Yet, to provide the strongest possible test, we tested the fourth year. That represents a situation in which the CPA firm will lose the client within the next year regardless of how the accounting matter is handled. Thus, the CPA firm has the least to lose as compared to the loss of the client in a preceding year. Following DeAngelo's analysis, no future quasi-rents remain. Also, the CPA firm personnel is well aware that the manner in which the accounting issue in this case is resolved will be obvious to the successor auditors who will be expected to review this year's audit documentation. This is all in contrast to the company with no rotation policy in which the CPA firm stands to lose an annuity for an indefinite time period into the future.

4.3.2. Corporate Governance

The other manipulated variable was the audit client's corporate governance level. While any number of variables within corporate governance might be manipulated, we selected combinations that comply with current corporate governance requirements (Securities and Exchange Commission, 2003), are realistic[11] and have been found to have an effect on the financial reporting process by prior research. The objective here was to enrich the study of audit firm rotation by considering two different, yet possible levels of corporate governance – one weak and one strong.

Consistent with the previously cited research, we manipulated the leadership of the board and the proportion of independent directors on the

	Strong	Weak
Board of Directors		
Size	15	15
Number Independent of Management	12	8
Chairman	Independent	Company Founder
Audit Committee		
Size	5	3
Members all independent?	Yes	Yes
Summary Description	Strong	Relatively weak,
Relationship to NASDAQ Stds.	More than meets	Technically meets
Meetings in 2002	6	2

Fig. 2. Details of Corporate Governance Manipulation.

Board, the level of financial expertise of members of the audit committee and audit committee diligence. Fig. 2 provides details of the corporate governance manipulation, which we summarize in this paper as strong v. weak corporate governance.

4.3.3. Manipulation Checks

Manipulation checks on both manipulated variables were included at the end of the task. The percentage of subjects that responded correctly to the question asking participants to identify the description of the type of audit committee present at the audit client was 91.1%. In response to the question of whether the audit firm anticipated a long relationship with the client or whether the client rotates its auditors, 97% of subjects responded correctly. Although results do not differ significantly with or without those who missed a manipulation check, we only included respondents who replied accurately to both manipulation checks. We also deleted 13 subjects that did not have any audit experience.

4.4. Dependent Variable

The dependent variable in the study is the response from the subjects as to the likelihood that their firm would modify the audit opinion to reflect a departure from GAAP (or resign from the engagement if such a report modification is not acceptable to the company) as a result of the situation in the case. A response scale with endpoints labeled "not at all likely" (0) and "extremely likely" (10) was used for this question. This variable directly mirrors the ultimate audit reporting decision made and as indicated earlier, we interpret this variable as a measure of auditor independence.

One may ask why subjects would not at all reply "10" or the likelihood the audit firm would modify the audit report is extremely likely. We have argued that fear of loss of the client is a major risk to the CPA firm and may result in a decrease in replies. A less sinister motivation might be to recognize that the adjustment is an "estimation transaction" that involves judgments and assumptions on which individuals may arrive at differing conclusions. Specifically, the background information states that

> … based on your work, you know that the items involved have been extremely slow moving, and that the $700,000 decrease in net income is a good guess of the minimum needed writedown.

Another reason that replies may be less than the maximum is that others in the firm who may become involved with the audit may consider the entry as unnecessary or overstated. Accordingly, our emphasis is on differences among the replies as opposed to the average response levels themselves.

4.5. Experimental Design and Data Analysis

Panel A of Fig. 3 summarizes the experimental design. Subjects were randomly assigned to one of the four forms of the questionnaire. A 2×2 between subjects design was used to test level of corporate governance (strong v. weak) and audit firm rotation (no rotation v. rotation).[12]

We used a between subjects design so as to make it impossible for subjects to identify the exact nature of the variables being manipulated (see Pany & Reckers, 1987 for more on this topic). Panel B of Fig. 3 summarizes the levels of the variables included in each of the forms of the questionnaire.

Analysis of variance (ANOVA) was used to assess the overall relationship between audit firm, corporate governance and the dependent variable, the likelihood of report modification.

5. RESULTS

The ANOVA results and group means relating to the likelihood of audit report modification are reported in Table 2. The means, reported in Panel B, show that the subjects were relatively confident in the likelihood that their firm would modify the report for the departure from generally accepted accounting principles. The existence of an audit firm rotation policy had a significant impact on the subject's assessment of the likelihood of an audit

Panel A
2 x 2 Anova

Independent Variables	Levels Tested	Type of Variable
Audit Firm Rotation	No v. Yes	Between subjects
Corporate Governance	Weak v. Strong	Between subjects

Panel B
Questionnaire Forms

Group Number		Audit Firm Rotation		Corporate Governance
1		No		Weak
2		Yes		Weak
3		No		Strong
4		Yes		Strong

Fig. 3. Experimental Design.

report modification by the firm. Subjects in the rotation condition reported a significantly higher likelihood of a report modification (mean of 7.39) than subjects in the no rotation condition (mean of 6.29). The results suggest that in a situation in which audit firm rotation is imminent, it is significantly more likely that a report modification will occur reporting a client's departure from generally accepted accounting principles.

While all means for auditor rotation are in the expected direction (that is rotation leads to higher replies), the difference in means for rotation under strong corporate governance is lower than what we had expected. Thus, in our study, the effect of rotation is strongest under weak corporate governance. Yet, the overall governance and governance/rotation interaction effects are insignificant. But, the results do not indicate a significant increase in the likelihood of reporting under strong corporate governance.

5.1. Ancillary Analysis

Our sample includes a diverse group of auditors that come from all levels of a CPA firm. Although we asked respondents to reply as to how likely it was

Table 2. Likelihood of Audit Report Modification.

	D.F.	Sums of Squares	Mean Square	F Value
Panel A: Analysis of Variance[a]				
Source				
Rotation[b]	1	25.63	25.63	4.30*
Corporate governance[c]	1	7.71	7.71	1.29
Rotation* corporate governance	1	13.18	13.18	2.21
Error	101	602.52	5.97	

Rotation	Corporate Governance		
	Weak	Strong	Mean
Panel B: Rotation and Corporate Governance Treatment Means (Standard Deviations)			
No rotation	6.22	6.38	6.29
	(2.85)	(2.48)	(2.66)
	$n = 30$	$n = 26$	$n = 56$
Rotation	7.93	6.67	7.39
	(1.92)	(2.37)	(2.20)
	$n = 28$	$n = 21$	$n = 49$
Mean	7.04	6.51	
	(2.58)	(2.41)	
	$n = 58$	$n = 47$	

*Significant at 0.02, one-tailed.
[a]Table presents statistical conclusions on subjects' views of the likelihood their audit firm would modify the audit report to reflect departure from GAAP. The response scale indicated "not at all likely" (0) to "extremely likely" (10).
[b]Client has an audit firm rotation policy or not.
[c]Corporate governance structure at the client is strong or weak.

that they believed that their firm would modify their audit report for the unresolved exception, the diversity of the subjects is potentially problematical since one would ordinarily expect decisions to be made by high-level employees and partners. Thus, approximately 1/2 of our subjects are replying as to how they believe these top-level personnel would resolve the issue. One may question whether lower-level employees have a valid basis for making such a judgment. We further analyzed our data to address this issue.

Our ancillary analysis on the audit quality results include considering the following measures of experience:

- Years experience (split at median of approximately 11 years);

- Level within the firm (managers, partners and owners v. others); and
- CPA (no v. yes).

We included an independent measure for each of the above variables in our analysis. In all cases, neither the main effect nor any of its interactions with the other independent measures (rotation and corporate governance) were significant. Thus, our significant results relating to auditor rotation remain when these variables are addressed as mentioned above.

Finally, we considered the effect of CPA firm size – that is, the respondents from the smallest firms might be expected to have few, if any, publicly traded clients. We compared (1) subjects in one office firms with those in the other firms and (2) subjects in one office firms plus firms with multiple offices within one state with subjects in the other firms. No significant differences in replies were identified, thus suggesting that CPA firm size did not systematically affect the results.

6. DISCUSSION

Before discussing any possible implications of our study, we acknowledge several of its primary limitations. First, our subjects are all from the northeastern part of the United States and may not be representative of CPAs throughout the country. Yet, we have no reason to believe that they systematically differ on the issues addressed in the study from other CPAs. A second limitation is that limited subject availability made it necessary that we were only able to test limited levels for both corporate governance and audit firm rotation; as such, our findings are restricted to these levels. Third, related to the second limitation, our auditor rotation manipulation only addressed the situation in which rotation was scheduled to occur in the following year; accordingly, the study does not directly address situations in which there is a rotation policy but rotation is not imminent. Indeed, several years prior to the scheduled rotation date, a client's threat to replace the auditor may be a very viable threat to auditor independence. Just as the "quasi-rents" described by DeAngelo (1981) occur with long auditor/client relationships of unspecified duration, some level of them would be expected to exist in the years prior to the final year of a required rotation relationship. But, extremely different audit pricing would be necessary in the rotation circumstance – periods from three to nine years have been recommended – to involve the level of quasi-rents that would be expected to exist in the current situation with its relatively low level of auditor change.[13]

Subject to the above limitations, our study's basic finding relating to auditor rotation is that subjects placed in an experimental situation with auditor rotation replied differently than those with a firm that hoped to continue the relationship. More specifically, when audit firm rotation was imminent, the mean likelihood of reporting the departure from generally accepted accounting principles exceeded that of subjects whose firm hoped to continue the relationship. If the likelihood of reporting a known departure from generally accepted accounting principles is accepted as a measure of auditor independence (e.g., DeAngelo, 1981; Dopuch et al., 2001; Watts & Zimmerman, 1983), our study finds a more independent audit firm, on average, when a required rotation will occur within the next year. Thus, in such a rotation circumstance, auditors may be freer of incentives to retain the client, and are therefore more independent in their assessments of the fairness of the financial statements. But, regardless of whether one accepts our dependent measure as a measure of independence, the statistically difference in replies between the rotation and non-rotation conditions remains.

May we generalize our findings further to address mandatory auditor rotation on a broader basis? This is a difficult question to answer since a widespread requirement of audit firm rotation is likely to lead to a variety of other changes. For example, the effects on the auditors of a much larger annual "supply" of possible new audit clients for the various CPA firms are not obvious. Would such an increase in potential clients lead to "marketing ability" becoming an even more important skill to CPAs, possibly at the cost of technical competence? Also, perhaps CPA firms would staff their audits differently toward the end of the rotation period in an effort to keep other audit clients early in the rotation cycle from "prematurely" rotating audit firms.

An argument against rotation has been what seem to be high early-year audit failure rates. If one accepts this premise, it would seem that a cost of audit firm rotation to investors would include a higher level of audit failures. However, an alternative possibility is that the increased number of first- and second-year audits resulting from audit firm rotation will lead to higher auditor skill level in these situations and a lower level of audit failure during early years. Also, a closer working relationship with the predecessor auditor than is now the case might be possible that would limit early-year audit failures. Uncertainties such as these make it seem that research will never fully answer the rotation question.

Despite the above uncertainties, we believe that our study's finding that auditor reporting behavior in today's environment was affected by a policy of required firm rotation should not be discounted. The General Accounting

Office (2003) suggested that further analysis is needed to consider possible benefits of mandatory rotation. That conclusion was based in part on their survey indicating that the great majority of CPA firm and Fortune 1000 respondents did not believe that long-term auditor relationships increase the risk of audit failures. In a sense, our findings are the opposite – in the situation in which a long-term relationship could be maintained (no rotation), our subjects in the aggregate reported that their firms would be less likely to modify their audit reports for a departure from generally accepted accounting principles as compared to the subjects in our rotation condition. Related, our findings using real-world accountants are consistent with those of the laboratory markets approach used by Dopuch et al. (2001). Thus, at least two studies, using different approaches and subjects, have now found that a rotation policy increases the likelihood of accurate reporting – at least as rotation becomes imminent. While the findings of the two studies certainly do not justify a decision on its own to require rotation, they do not lead to a conclusion that rotation is unnecessary.

NOTES

1. Data on replies to whether the subjects believed that management would record the journal entry is available from the authors. In brief, subjects believed it more likely that the entry was recorded under conditions of strong corporate governance. The existence of audit firm rotation did not affect replies.
2. We do not review the mass of independence research that is available in this paper. See the Ramsey Report (2001) for independence research. Although written for Australian governmental use, the Report provides an outstanding presentation of United States (and other) research.
3. Questions have been asked about the fairness of the GAO's study. Perhaps most extreme are comments of the Fulcrum Financial Group (2003, p. 3) who suggest that

> Not one scrap of new research or analysis of the pro-rotation position was included in the GAO's report .... With the extremely low turnover of audit relationships, no wonder the public accounting firms are slow to upset their relationship with management. This is especially true since the vast majority of audit partners serving the largest clients have only one client. If that one client is lost, the individual audit partner face likely employment termination because there is little chance of obtaining sufficient new work to replace the lost client. This places intense pressure on an individual audit partner whose entire livelihood depends on serving his only client.

Consistent with the above concerns, Jennings, Pany, and Reckers (2004) report that their sample of judges perceive that when audit firm rotation occurs (1) auditors are more likely to be independent; (2) financial statements more reliable; and (3) auditors should be less liable to plaintiffs when firm rotation is to occur, particularly in circumstances of strong corporate governance.

4. The AICPA (1992) cites such data. Consistently, the South African Institute of Chartered Accountants suggests that it normally takes between two and three years to fully understand the nuances of a complex audit (Report of the Joint Disciplinary Task Team, 2002, pp. 6–7).

5. Krishnamoorthy, Wright, and Cohen (2002) Krishnamoorthy et al. (2002) provide a discussion of the process involved, including the formation of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees. That committee's recommendations have subsequently been adopted by the major stock exchanges.

6. Dye (1993) and Mansi, Maxwell, and Miller (2004) present this as two separate roles, as it may indeed be seen. The later present both an analysis that attempts to separate the roles and an excellent review of related literature and difficulties with respect to such separation. Our analysis emphasizes the information role in that the CPA firm itself is held constant across the various cases.

7. Using an experimental economic design, Mayhew and Pike (2004) found that transferring the power to hire and fire the auditor from managers to investors significantly decreases the proportion of auditor independence violations.

8. Speaking as a corporate monitor in the WorldCom Case, Richard C. Breeden (2003) has proposed that the company, now known as MCI Inc., should regularly rotate its external auditors. Audit firm rotation is required to varying extents in Italy, Brazil, Bolivia, Ecuador and Paraguay, although only very limited information on its effectiveness is available – see Elorietta (2002) and Zea (2002).

9. See note 1 for other information obtained.

10. We selected the four-year period based on the recommended period by Ellen Seidman (2001), Director of the Office of Thrift Supervision, who suggested in her testimony before U.S. Senate Committee on Banking, Housing and Urban Affairs that audit firm rotation every three to four years was desirable in that it would allow a "fresh look" at the organization. Other periods (presumably longer) are certainly possible.

11. See Taub (2004) for a discussion of continuing differences in strength of corporate governance and audit committees.

12. The correlation analysis revealed potential covariates. ANCOVAs performed on the data including both the manipulated variables and potential covariates are similar to the ANOVA results. The results related to the hypotheses do not change with the inclusion of covariates.

13. The Fulcrum Financial Group (2003) observes that the current tenure of auditors among Fortune 1000 companies averages 22 years and would be much higher except for the demise of Andersen; the top 10% of these companies have had the same auditor for 50 years, with the average tenure of this group being 75 years.

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REFERENCES

Abbott, L. J., Parker, S., & Peters, G. F. (2004). Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory*, *23*, 69–87.

Accountancy Age. (2003). Thumbs down for audit firm rotation, *Accounting Age*, September 1, pp. 1–5.

American Institute of Certified Public Accountants (AICPA). (1978). *The commission on auditor's responsibilities: Report, conclusions and recommendations (Cohen Commission)*. New York: AICPA.

American Institute of Certified Public Accountants (AICPA). (1992). *SEC practice section. Statement of position regarding mandatory rotation of audit firms of publicly held companies*. New York: AICPA.

American Institute of Certified Public Accountants (AICPA). (2003). *How the Sarbanes-Oxley Act of 2002 impacts the accounting profession*. New York: AICPA.

American Institute of Certified Public Accountants (AICPA). (2004). *Professional standards*. New York: AICPA.

Andersen, A. (1998). *Global best practices for audit committees*. Chicago, IL: Arthur Andersen.

Andersen, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting reporting integrity and the cost of debt. *Journal of Accounting and Economics*, *37*, 315–342.

Bazerman, M. H., Loewenstein, G., & Moore, D. A. (2002). Why good accountants do bad audits. *Harvard Business Review*, *80*, 97–102.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, *71*, 443–466.

Bedard, J., Chtourou, S. M., & Courteau, L. (2004). The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice & Theory*, *23*, 13–35.

Breeden, R. C. (2003). *Restoring trust.* Report to the Honorable Jed S. Rakoff. The United States District Court, for the Southern District of New York on Corporate Governance for the Future of MCI, Inc., August, p. 117.

Brody, R. G., & Moscove, S. A. (1998). Mandatory audit firm rotation. *National Public Accountant*, *43.2*, 32–35.

Carcello, J. V., & Nagy, A. L. (2004). Audit firm tenure and fraudulent financial reporting. *Auditing: A Journal of Practice & Theory*, *23*, 55–69.

Carcello, J. V., & Neal, T. L. (2000). Audit committee composition and auditor reporting. *The Accounting Review*, *75*, 453–467.

Casterella, J., Knechel, W. R., & Walker, P. L. (2001). *The relationship of audit failures and mandatory audit firm rotation: Explanatory models and empirical evidence*. Working Paper. University of Florida.

Cohen, J., & Hanno, D. (2000). Auditor's consideration of corporate governance and management control philosophy in preplanning and planning judgments. *Auditing: A Journal of Practice & Theory*, *19*, 133–146.

Colson, R. H. (2004). Audit standards in transition: An interview with PCAOB Chief Auditor Douglas R. Carmichael. *The CPA Journal*, *74.9*, 20–26.

DeAngelo, L. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, *3*, 183–199.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, *13*, 1–36.

DeZoort, F. T., Hermanson, D. R., Archambeault, D. S., & Reed, S. A. (2002). Audit committee effectiveness: A synthesis of the empirical audit committee literature. *Journal of Accounting Literature*, *21*, 38–75.

DeZoort, F. T., Hermanson, D. R., & Houston, R. W. (2003). Audit committee support for auditors: The effects of materiality justification and accounting precision. *Journal of Accounting and Public Policy*, *22*, 175–199.

DeZoort, F. T., & Salterio, S. E. (2001). The effects of corporate governance experience and financial-reporting and audit knowledge on audit committee member's judgments. *Auditing: A Journal of Practice & Theory*, *20*, 31–47.

Dopuch, N., King, R. R., & Schwartz, R. (2001). An experimental investigation of retention and rotation requirements. *Journal of Accounting Research*, *39*, 93–117.

Dye, R. (1991). Informationally motivated auditor replacement. *Journal of Accounting and Economics*, *14*, 347–374.

Dye, R. (1993). Auditing standards, legal liability and auditor wealth. *Journal of Political Economy*, *101*, 877–914.

Elorietta, A. M. (2002). Disclosure and transparence accounting and auditing. Organization for Economic Co-operation and Development Third meeting of the Latin American Corporate Governance Roundtable, April 8–10, pp. 1–6.

Ettredge, M., & Greenberg, R. (1990). Determinants of fee cutting on initial audit engagements. *Journal of Accounting Research*, *28*, 198–210.

Fulcrum Financial Inquiry. (2003). GAO kills mandatory auditor rotation. http://www.fulcruminquiry.com/article68.htm

Geiger, M. A., & Raghunandan, K. (2002). Auditor tenure and audit reporting failures. *Auditing: A Journal of Practice & Theory*, *21*, 67–78.

General Accounting Office (GAO). (2003). Public accounting firms: Required study on the potential effects of mandatory audit firm rotation (GAO-04-216).

Herrick, T., & Barrionuevo, A. (2002). Were Enron and Andersen too close to allow the auditor to do its job? *Wall Street Journal*, January 21, pp.C1, C4.

Jennings, M. M., Pany, K., & Reckers, P. M. J. (2004). *Legislating auditor independence through corporate governance and audit firm rotation: Views of U.S. judges*. Working Paper. Arizona State University.

Johnstone, K. M., Sutton, M. H., & Warfield, T. D. (2001). Antecedents and consequences of independence risk: Framework for analysis. *Accounting Horizons*, *15*, 1–18.

Kemp, R. S., Jr., Reckers, P. M. J., & Arrington, C. E. (1983). Bank credibility: The need to rotate auditors. *Journal of Retail Banking*, *5*, 38–44.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, *33*, 375–400.

Krishnamoorthy, G., Wright, A. M., & Cohen, J. (2002). Auditors' views on audit committees and financial reporting quality. *The CPA Journal*, *72*, 56–66.

Mansi, S. A., Maxwell, W. F., & Miller, D. P. (2004). Does auditor quality and tenure matter to investors? Evidence from the bond market. *Journal of Accounting Research*, *42*, 755–793.

Mautz, R. K., & Sharaf, H. A. (1961). *The philosophy of auditing*. American Accounting Association Monograph No. 6. Sarasota, FL: American Accounting Association.

Mayhew, B. W., & Pike, J. E. (2004). Does investor selection of auditors enhance auditor independence? *The Accounting Review*, *79*, 797–822.

Moore, D. A., Loewenstein, G., Tanlu, L., & Bazerman, M. H. (2003). *Conflict of interest and the unconscious intrusion of bias.* Unpublished Working Paper.

Myers, J. N., Myers, L. A., & Omer, T. C. (2003a). Exploring the term of the auditor–client relationship and the quality of earnings: A case for mandatory audit firm rotation? *The Accounting Review*, *78*, 779–800.

Myers, J. N., Myers, L. A., Palmrose, Z. V., & Scholz, S. (2003b). *Mandatory auditor rotation: Evidence from restatements*. Working Paper. University of Illinois at Urbana-Champaign.

Nelson, M. W. (2003). *A review of empirical conflicts-of-interest research in auditing*. Working Paper written for NSF/CBI Conference on Conflicts of Interest.

Nelson, M. W., Elliott, J. A., & Tarpley, R. L. (2002). Evidence from auditors about managers' and auditors' earnings management decisions. *The Accounting Review*, *77*, 175–203.

Ng, T. B., & Tan, H. (2003). Effects of authoritative guidance availability and audit committee effectiveness on auditor's judgments in auditor–client negotiation context. *The Accounting Review*, *78*, 801–818.

Palmrose, Z.-V. (1986). Litigation and independent auditors: The role of business failures and management fraud. *Auditing: A Journal of Practice & Theory*, *6*, 90–103.

Palmrose, Z.-V. (1989). The relation of audit contract type to audit fees and hours. *The Accounting Review*, *64*, 488–499.

Pany, K., & Reckers, P. M. J. (1987). Within- vs. between-subjects experimental designs: A study of demand effects. *Auditing: A Journal of Practice & Theory*, *7*, 60–74.

Public Law 107-204. (2002). Public company accounting reform and investor protection act (Sarbanes-Oxley Act), , July 30, H.R. 3763.

Ramsey, I. (2001). Independence of Australian company auditors (Ramsey Report). Review of Current Australian Requirements and Proposals for reform to the Minister for Financial Services and Regulation, October.

Report of the Joint Disciplinary Task Team. (2002). The South African Institute of Chartered Accountants, May 8, pp. 16–17.

Securities and Exchange Commission. (2003, February 18). Standards Relating to Listed Company Audit Committees. 17 CFR Parts 228, 229, 240, 249, and 274. Release Nos. 33-8173; 34-47137; IC-25885; File No. S7-02-03.

Seidman, E. (2001, February 26). Prepared testimony for the U.S. Senate Committee on Banking, Housing, and Urban Affairs hearing on the failure of Superior Bank, FSB, Hinsdale, Illinois.

Shearman & Sterling. (2004). Corporate governance practices of the 1000 largest U.S. public companies. Found at http://www.shearman.com/cg_survey05/.

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. Untied States House of Representatives, Government Printing Office.

Simon, D. T., & Francis, J. R. (1988). The effects of auditor change on audit fees: Tests of price cutting and price recovery. *The Accounting Review*, *63*, 255–269.

St. Pierre, K., & Anderson, J. A. (1984). An analysis of the factors associated with lawsuits against public accountants. *The Accounting Review*, *59*, 242–263.

Stice, J. D. (1991). Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors. *The Accounting Review*, *66*, 516–533.

Taub, S. (2004). Best practices elude most audit committees: The corporate accounting watchdogs still wrangle with how best to install confidence. CEO.com, April 2, p. 1.

Taylor, M. H., DeZoort, F. T., Munn, E., & Thomas, M. W. (2003). A proposed framework emphasizing auditor reliability over auditor independence. *Accounting Horizons*, *17*, 257–266.

Wallace, W. A. (1981). The role of the audit in free and regulated markets. American Accounting Association. http://raw.rutgers.edu/raw/wallace/homepage.html

Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing and the theory of the firm: Some evidence. *Journal of Law and Economics*, *26*, 613–633.

Winters, A. J. (1976). Looking at the audit firm rotation issue. *Management Accounting*, *58*, 29–30.

Wolf, F. R., Tackett, J. A., & Claypool, G. A. (1999). Audit disaster futures: Antidotes for the expectations gap? *Managerial Auditing Journal*, *14*, 468–478.

Zea, A. (2002). Study backs fears over audit firm rotation. Accountancy Age.com, August 6, pp. 1–2.