23 July 2002

Mr Bob Charles MP
Chairman
Joint Committee of Public Accounts and Audit
Parliament House
CANBERRA ACT 2600

Dear Mr Charles

Inquiry into Auditor Independence

Thank for the opportunity to provide further information to the above inquiry, following the appearance of Mr Rob Wylie and myself at your committee hearings on 8 July in Sydney.

Your committee's hearings on 8 July sought further information in three areas:

- Quality and integrity processes within Deloitte Touche Tohmatsu;
- Capping of professional liability, and
- Research on the first two years of an auditor's role.

I will attempt to clarify these issues as follows:

Quality and integrity processes

Deloitte Touche Tohmatsu's quality and integrity processes are targeted at three fundamental requirements.

First, the quality of our work must meet the accounting profession's standards and our client's expectations. Second, the firm must be, and be seen to be, independent in the provision of our services. And finally, Deloitte's quality policies must be in accordance with those of our global firm.

A summary of Deloitte Touche Tohmatsu's Quality and Assurance policies is attached with this paper.

Capping of professional liability

Deloitte Touche Tohmatsu has recommended that the New South Wales legislation regarding capping of professional liability should be extended to other States, Territories and Federally.

This NSW legislation, the *Professional Standards Act 1994*, permits occupational associations to develop schemes to limit the liability of members. The schedule relating to accountants provides that, for any claim against a member over $500,000, liability is limited to 10 times the fee for the service up to a ceiling amount of $20 million.

We suggest that this cap would be appropriate for a national scheme.

Research on the first two years of an auditor's role

Finally, Mr Chairman, you sought additional information on US research cited by Mr Wylie, which revealed that the first two years of an audit were quite ineffective.

The Securities and Exchange Commission in the United States in recent times sought research regarding the relationship between audit tenure and audit failures. As a result, a study released in March 2002 provided some analysis on this issue.

The study, <u>Auditor tenure and audit reporting failures</u>, was undertaken by Marshall A Geiger and K Raghunandan, and published in *Auditing: A Journal of Practice & Theory*, for the American Accounting Association, (March 2002).

The authors used a multivariate analysis to test for the association between the type of audit opinion issued on the financial statements immediately prior to bankruptcy and the length of auditor tenure.

A copy of the research is attached for your reference, but I wish to draw your attention to the following key passages in the summary of the report:

"Our results indicate that there were significantly more audit reporting failures in the earlier years of the auditor/client relationship than when auditors had served these clients for longer tenures. The results do not support the arguments of those who propose mandatory auditor rotation and suggest that, contrary to the concerns expressed by the SEC, there is an inverse relationship between auditor tenure and audit reporting failures.

Others have noted that auditors may be influenced more by the management of a newly acquired client than for a client that has been audited for a longer period. Incumbent auditors earn quasi-rents due in part because of high start-up costs incurred by both the auditor and the client. Thus, the recently acquired quasi-rents of incumbency may make new auditors more vulnerable to threats of dismissal in the earlier years of the auditor/client relationship.

Our analysis, based on a sample of 117 companies entering bankruptcy during the period 1996-- 1998, suggests that auditors are less likely to modify their opinions for the financial statements immediately preceding bankruptcy during the initial years of engagement with a client. The results are consistent with the predictions of previous analytical models, but contrary to the concerns voiced by regulators and others about the positive association between auditor tenure and audit failures."

I hope you find this information useful to the committee’s inquiry.

Please do not hesitate to call me on (02) 9322 7370 should you require further information.

Yours sincerely

NICK HULLAH
Partner in Charge
Professional Standards Review
Enc:

DELOITTE TOUCHE TOHMATSU
QUALITY AND INTEGRITY ASSURANCE

Introduction

Deloitte Quality and Integrity processes are targeted at three fundamental requirements:

- The quality of our work must meet the accounting profession's standards and our clients' expectations.
- We must be, and be seen to be, independent in the provision of our services.
- The quality policies of our global firm

Employing appropriately qualified people, properly training and supervising them and providing them with appropriate technical and other resources, drive the quality of our work. Standardised documentation and methodologies are used. We monitor and enhance quality by extensive and regular review processes.

Our quality and integrity processes are documented in our detailed systems manuals and are a core component of staff education.

Quality standards and policies are in accordance with those mandated by Deloitte's global professional practice manual and the quality control standards of the Institute of Chartered Accountants in Australia and CPA Australia

Quality Control-Review Processes

Review processes fall into four categories:

- Client and engagement risk assessment
- Engagement team review
- Quality assurance review
- Compliance reviews

Client and engagement risk review

Before we will agree to work for a prospective client, or accept a new assignment from an existing client, we perform an evaluation of whether or not we should undertake the engagement. This evaluation encompasses the prospective client's reputation, financial standing and independence. Clients with whom we have an on-going relationship (such as audit clients) are subject to annual review which must be approved by at least 2 partners.

Engagement team review

All engagements generate working papers, which must be reviewed by a person more senior than the preparer. On a typical audit engagement all working papers are subject to primary review by the engagement manager and over-ride review by the engagement partner. Reviews are facilitated by use of standard audit working papers and programmes in our proprietary audit software, AS/2.

Our National Technical group provides assistance to engagement teams to help resolve complex issues and reviews all written accounting advice. The financial statements of all disclosing entities must be reviewed by this group prior to their signing.

Policies and procedures are incorporated in the firm's detailed audit approach manual. Reviews are evidenced by sign-off on working papers

Quality assurance review

A pre-signing quality assurance review must be performed on all documents which carry the firm's opinion. Whilst this has been the firm's policy for many years, we are moving to centralise this process to specially accredited reviewers within our Professional Standards Review Group.

Quality assurance reviews focus on the financial statements, the opinion and key working papers. Additional procedures are adopted depending on risk classification, nature of engagement or specialised knowledge requirements.

In circumstances of complexity or high risk, such as when it may be necessary to qualify or modify an audit opinion, there are established procedures for the National Technical group as well as special panels of partners to be established. Concurrence of these review panels is necessary prior to signing.

Compliance reviews

There are a number of processes to monitor compliance with our established quality processes:

- All Deloitte offices are subject to practice office review within a two-year cycle. These reviews are conducted by personnel from other offices in Australia and overseas and are administered by our National Risk Management Group.
- Like all members firms, we may be subject to quality review by a person nominated by the Institute of Chartered Accountants
- We perform regular client surveys to seek their input on the quality of our services.

Practice office reviews focus on quality and compliance with policies, laws, accounting and auditing standards and client service. Completed audit engagements are selected at random so as to cover all partners and directors who provide audit services and so as to cover a minimum of 15% of the recurring fees of the office under review

Integrity processes

Professional independence is a cornerstone of our business. Our advice and reports are sought and relied upon by the business community who rightly believe that our ethics are such that we would not allow personal gain to influence our opinion.

We have well documented global policies, which are supplemented by local policies so as to comply with Australian independence requirements. These policies are advised to staff upon employment and all staff are required to sign annual declarations of continued compliance.

Matters covered by the policies include prohibited financial interests in clients (including interests held by close relatives), potential personal conflicts of interest and engagements, such as valuations, which should be declined through potential conflict with attest engagements. We do not audit our own work.

The Institute of Chartered Accountants and CPA Australia have recently re-issued an updated Professional Independence Standard, F1. Whilst the mandatory application date of the standard is 31 December 2003, Deloitte is already substantially compliant and we are committed to early adoption of all its provisions. Our procedures and Independence Policy Manuals are framed to ensure compliance with this standard.

Auditor tenure and audit reporting failures
Marshall A Geiger; K Raghunandan

03/01/2002
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SUMMARY
Recently, the SEC has called for research regarding the relationship between **audit** tenure and **audit** failures. In this study, we address this issue by examining prior **audit** reports for a sample of companies entering into bankruptcy during the period 1996-1998. We use a multivariate analysis to test for the association between the type of **audit** opinion issued on the financial statements immediately prior to bankruptcy and the length of **auditor** tenure.
Our results indicate that there were significantly more **audit** reporting failures in the earlier years of the **auditor**/client relationship than when **auditors** had served these clients for longer tenures. The results do not support the arguments of those who propose mandatory **auditor rotation** and suggest that, contrary to the concerns expressed by the SEC, there is an inverse relationship between **auditor** tenure and **audit** reporting failures.
The objective of this paper is to examine the association between the duration of the **auditor**/ client relationship and **audit** reporting failures. Motivation for this study comes from (1) the SEC's interest in research on this issue (Turner and Godwin 1999, 295), and (2) the interest of regulators in many countries regarding mandatory **auditor rotation** and **auditor** independence. In this study, we examine prior **audit** reports for a sample of companies entering into bankruptcy during the period 1996-1998, and test for the association between the type of **audit** opinion issued on the financial statements immediately prior to bankruptcy and the length of **auditor** tenure.
The length of time an **audit** firm maintains a client has long been an issue of debate both in the U.S. and abroad (Mautz and Sharaf 1961; AICPA 1978; SEC 1994; Arrunada and Paz-Ares 1997). Requiring **audit** firms to periodically relinquish their clients has often been suggested as a way to enhance **auditor** independence and objectivity (cf., Wolf et al. 1999). Mandatory **auditor rotation** is or has been required by several countries, such as **Italy** and Spain, and is currently being contemplated by others (European Commission 1996; Petty and Cuganesan 1996; Vanasco 1996; Arrunada and Paz-Ares 1997). Mandatory **auditor rotation**, it is argued, puts **auditors** in a stronger position to resist management pressure and therefore allows **auditors** to exercise more objective professional judgment (Brody and Moscove 1998).
The proponents of mandatory **auditor rotation** have generally been concerned with a deterioration of **auditor** independence, and its effect on **audit** quality, as the length of **auditor** tenure increases. They argue that there is a tendency for **auditors**, over time, to gradually align with the wishes of management and thus not act completely independent.

Others have noted that **auditors** may be influenced more by the management of a newly acquired client than for a client that has been **audited** for a longer period. Incumbent **auditors** earn quasi-rents due in part because of high start-up costs incurred by both the **auditor** and the client. Thus, the recently acquired quasi-rents of incumbency may make new **auditors** more vulnerable to threats of dismissal in the earlier years of the **auditor**/client relationship. Additionally, **auditors** with short tenures may be concerned about reputation effects if they are perceived as being "fired" shortly after obtaining a new client. Absent information about the termination, and coupled with known incentives to keep clients, the market may interpret early separation as a problem with the **audit** firm, not the client. Further, prior analytical research is also consistent with the position that **auditor** independence may be threatened more during the initial years) of an **audit** engagement due to the temptation to appease new clients in an attempt to extend the quasi-rents of incumbency (Elitzur and Falk 1996).

Regulators in the U.S. have periodically raised the issue of a possible relationship between long **auditor** tenures and **audit** failures, along with the possibility of mandatory **rotation** (U.S. Senate 1977; AICPA 1978; Wall Street Journal 1991; SEC 1994). While there are many possible definitions of **audit** failure (e.g., restatements of reported financial information, not detecting material fraud, intentionally allowing management to manage earnings, etc), in this study we examine **auditor** reporting decisions on bankrupt clients. Specifically, we examine whether there exists a relationship between **auditor** tenure and **audit** "reporting failures" for bankrupt companies, where reporting failure is defined as a case where the bankrupt company did not receive a going-concern modified **audit** report from the **auditor** prior to bankruptcy. Current professional standards require **auditors** to assess the continued viability of their clients on each **audit** engagement. If this assessment, including an evaluation of management's plans and mitigating circumstances, leads the **auditor** to conclude that there exists substantial doubt about the continued viability of their client for the ensuing year (absent offsetting mitigating factors), then they must signal such doubt in their report (AICPA 1988).

Based on a literal interpretation of current **auditing** standards, an **auditor**'s failure to modify the **audit** report for a client that subsequently files for bankruptcy is not strictly considered an **audit** reporting failure, because **auditors** are not held to predict the future viability status of their clients. However, financial statement users and the public are likely to perceive a bankruptcy without a prior modification as an **audit** reporting failure, regardless of the technical reporting requirements (McKeown et al. 1991b; Chen and Church 1992; Summer 1998; Casterella et al. 1999).1 Many congressional hearings in recent years have focused on the issue of **audit** reporting for failed companies and the lack of prior warning from the **auditors** in their report. Continued legislative interest in this issue is also evidenced by the specific professional requirements related to going-concern reporting codified into law as part of the Private Securities Litigation Reform Act.

Our analysis, based on a sample of 117 companies entering bankruptcy during the period 1996-- 1998, suggests that **auditors** are less likely to modify their opinions for the financial statements immediately preceding bankruptcy during the initial years of engagement with a client. The results are consistent with the predictions of previous analytical models, but contrary to the concerns voiced by regulators and others about the positive association between **auditor** tenure and **audit** failures.

AUDITOR INDEPENDENCE AND **AUDIT** QUALITY

Robert Mednick, Chair of the American Institute of Certified Public Accountants (AICPA) Board of Directors has stated that "independence is the cornerstone of the accounting profession and one of its most precious assets" (Mednick 1997, 10). Similar acknowledgements to the importance of independence to the public accounting profession are reiterated time and again in the professional literature and by various oversight bodies (AICPA 1999; Levitt 2000; Public Oversight Board 1995, 1997). The Public Oversight Board's Panel on **Audit** Effectiveness (POB 2000, 109) notes that independence is "fundamental to the reliability of **auditor**'s reports."

The Panel further states that **auditor**'s reports would not be credible to investors, creditors, and regulators if the **auditor** were not believed to be independent. Truly independent **auditors** are able to provide the public with higher-quality **audits** due to the lack of "ties" with the **audited** client. This lack of association with the client enables **auditors** to exercise unfettered professional judgement when planning and conducting the **audit**, and reporting the results of their findings in their **audit** report. Thus, independent **auditors**, it is argued, would be more likely both to detect and report significant negative information related to their **audit** clients.

The POB's Advisory Panel on **Auditor** Independence (POB 1994) noted that the media, the public, and Congress view **audit** failures not only as the failure of **auditors** to detect material negative facts about a client, but also as a failure to report those negative findings and serve as an adequate early-warning device for the protection of investors and creditors. Thus, not signaling significant concerns regarding the ability of an **audit** client to continue as a going concern, prior to filing for bankruptcy, would likely be construed as an **audit** failure by those outside the accounting profession.

AUDITOR TENURE AND **AUDIT** QUALITY

Regulatory View

It has frequently been argued by regulators and others that lengthy **audit** tenures may lead to impaired **auditor** independence, which in turn reduces **audit** quality. The Metcalf Committee report (U.S. Senate 1976) on the state of the accounting profession suggested that mandatory **auditor rotation** is a way for the accounting profession to bolster their independence from clients. Specifically, the report asserted that:

Long association between a corporation and an accounting firm may lead to such close identification of the accounting firm with the interests of its client's management that truly independent action by the accounting firm becomes difficult. One alternative is mandatory change of accountants after a given period of years.... (U.S. Senate 1976, 21)

Mautz and Sharaf (1961), in their treatise on **auditing**, also note that long associations with the same client, although not of themselves detrimental, can lead to problems with independence. While they did not advocate mandatory **auditor rotation**, Mautz and Sharaf (1961, 208) suggested that "the greatest threat to his [the **auditor**'s] independence is a slow, gradual, almost casual erosion of his 'honest disinterestedness.'"

Both of these observations argue that **auditor** independence, and therefore **audit** quality, may become impaired as the **auditor**/client relationship lengthens. It is argued that the slow erosion of **auditor** independence would be minimized under a mandatory **rotation** regime where the length of time an **auditor** can have a particular client is limited to a fixed number of years. Proponents of tenure regulation argue that requiring **auditor rotation** would improve **audit** quality by periodically providing a new perspective and that **rotation** would reduce the client's ability to influence the **auditor** by limiting the value of incumbency (Copley and Doucet 1993; Petty and Cuganesan 1996; Brody and Moscove 1998).

Economic View

DeAngelo (1981) noted that incumbent **auditors** earn quasi-rents from maintaining existing clients due to the high initial start-up costs for **audits** of new clients (i.e., technological and knowledge advantages to incumbent **auditors**)2 and significant transaction costs incurred by the client when changing **auditors**. These expected future quasi-rents from continuing engagements induce **auditors** to engage in the competitive practice of "low-balling" (i.e., pricing the initial **audit** fee below the avoidable costs of the **audit**) in order to obtain the client. From this economic perspective, low--balling is a natural competitive response of **auditors** in order to obtain a new client and the rights to the future quasi-rents to be received from that client. Further, the actual practice of low-balling in the **audit** market has been well documented by prior empirical research (Simon and Francis 1988; Ettredge and Greenberg 1990; Deis and Giroux 1995).

To the extent **auditors** are interested in keeping their newly acquired **audit** clients long enough for the initial year's loss to be recouped through future quasi-rents, **auditor** independence may be significantly impaired in the earlier years of the **auditor**/client relationship. While the start-up costs incurred in the initial year are sunk costs, and hence should be irrelevant in the decision process, prior research in organization behavior (e.g., Staw 1976; Staw and Ross 1987; Kleinman and Palmon 2000) has documented that such costs are not ignored in decision making. Accordingly, **auditors** may be interested in keeping their newly acquired client long enough for the stream of quasi-rents to offset, at least, the initial start-up costs of the engagement. Thus, in the early years of the engagement the threat of dismissal from the client could significantly impair **auditors**' professional judgment and make it more likely that **auditors** may issue an unmodified **audit** report as opposed to a going-concern modified **audit** report for companies approaching bankruptcy.

This economic view argues that **auditor** independence and objectivity would be more severely impaired in the early years of **auditor** tenure. This view is also consistent with prior results from analytical research. Dye (1991) argues that low-balling encourages **auditors** to report more favorably on the financial condition of clients in an attempt to extend the ability of the **auditor** to exact quasirents from the client. Summer's (1998) analysis leads him to conclude that mandatory **rotation** of **auditors** could actually impair **auditor** independence rather than enhance it.

Consistent with these analyses, some have argued that long **auditor**/client relationships do not impair independence, but are actually beneficial. They argue that over the years an **auditor** develops an in-depth knowledge of the clients' business operations, processes, and systems, which is crucial in performing an effective **audit** (Petty and Cuganesan 1996; Bell et al. 1997). **Auditors** have also asserted that due to a lack of familiarity, more substandard **audits** are performed on newly acquired clients than on existing clients (AICPA 1978; Wall Street Journal 1991; Petty and Cuganesan 1996), raising questions regarding the advisability of mandatory **auditor rotation**.3 This assertion has been supported by the research of Palmrose (1986, 1991). In general, she has found that there is a greater chance of litigation against **auditors** for negligent **audits** in the early years of the engagement, in substantial part due to **auditors** lacking sufficient knowledge regarding the specific risks and problems associated with the newly acquired client.

Auditor Reporting Responsibility

The **audit** report is the final outcome of the **audit** process, and is the only external communication of what the **auditor** has done and concluded during the **audit**. The decision on what type of **audit** report to render to the client is the final cumulative **audit** decision, and is subject to a considerable amount of professional judgment and negotiation with the client. These reporting negotiations are particularly sensitive in the case of a distressed client that faces the possibility of receiving a going-concern modified **audit** report, especially since **audit** clients do not welcome the receipt of any **audit** opinion other than an unmodified report (Kida 1980; Mutchler 1984).

Notwithstanding the desires of the **audited** company, legislators have continually focused on instances of companies filing for bankruptcy shortly after receiving a standard unqualified **audit** report, and have criticized such instances as failures on the part of the public accounting profession (e.g., Ellingsen et al. 1989; Carmichael and Pany 1993). These widely held perceptions of **audit** reporting failures have prompted numerous congressional hearings about the public accounting profession and the profession's important role in warning the public of pending business failures (cf., U.S. House of Representatives 1985, 1990). Such a high level of scrutiny regarding **auditor** reporting on going concern, from Congress, the SEC, and the investing public, make **audit** reporting errors of particular interest as a perceived failure on the part of the **auditor**.

Since we examine **audit** reports and the length of **auditor** tenure for firms that went bankrupt, the ability to switch **auditors** and start a new tenure is also relevant. Many previous studies have examined **auditor** switching in general, and several have included **audit** report type as an explanatory variable (cf., DeFond 1992; Francis and Wilson 1988; Haskins and Williams 1990; Johnson and Lys 1990).

Menon and Swartz (1987) found that financially stressed firms were more likely to switch **auditors** than nonstressed firms. Subsequent research by Krishnan (1994), Krishnan and Stevens (1995), and Geiger et al. (1998) support this finding, but indicate that switching companies were no more likely to have their modified report removed than were similar firms that did not switch **auditors**. Collectively, this body of research suggests that companies are not generally successful in obtaining more lenient reporting treatment (i.e., getting rid of their going-concern modification) from their new **auditor**. However, while this body of literature examines **audit** reporting for newly acquired distressed clients, no prior research has specifically incorporated an **auditor** tenure variable in the analysis of **auditor** reporting.

Research Question

The preceding discussion suggests arguments along two opposite perspectives with respect to length of **auditor** tenure and **audit** reporting. The regulatory view suggests that long **auditor** tenures may be associated with a reduced likelihood of **auditor** reporting of client problems, while the economic view suggests that problems with **audit** reporting and independence may be more likely to arise in the earlier years of the **auditor**/client relationship. Ultimately, the association between **auditor** tenure and **auditor** reporting is an empirical question, as examined in the following research question:

RQ1: Is there an association between **auditor** tenure and **audit** reporting for bankrupt companies?

METHOD AND DATA

We examine **audit** reports for a sample of companies entering into bankruptcy during the years 1996-1998. As discussed earlier, although there are many possible definitions of **audit** failure, in this paper we focus on **audit** reporting. Specifically, we examine if the **audit** report on the financial statements immediately preceding bankruptcy has been modified for going-concern uncertainties.4 We use a multivariate logistic regression to control for variables associated with **auditor** reporting. The **audit** report immediately preceding bankruptcy is the dependent variable in our model and TENURE, the **auditor** tenure measure, is the variable of interest in this study.

Auditors do not generally issue going-concern modified **audit** opinions for nonstressed companies that suddenly fail (McKeown et al. 1991a). Hopwood et al. (1994, 412) suggested that "investigations of **auditors**' going-concern opinion decisions should be conducted on samples that have been partitioned into stressed and nonstressed categories" because "nonstressed, bankrupt companies are likely to have experienced management fraud leading to misstated financial statements." Consistent with Mutchler (1985) and Hopwood et al. (1994), we define a company as stressed if it exhibited at least one of the following financial stress signals: (1) negative working capital, (2) a loss from operations in any of the three years prior to bankruptcy, (3) negative retained earnings in any of the three years prior to bankruptcy, and (4) a bottom line loss in any of the three years prior to bankruptcy.

The control factors used in the multivariate logistic regression, based on prior research (McKeown et al. 1991a; Chen and Church 1992; Raghunandan and Rama 1995; Carcello et al. 1995), are company size (SIZE), financial stress (PROB), default status (DFT), and bankruptcy lag (LAG). Prior research suggests that there is (1) a positive association between the likelihood of a going-- concern modified **audit** opinion, and financial stress and default on debt obligations, and (2) a negative association between the likelihood of a going-concern modified **audit** opinion, and company size and bankruptcy lag. We measure client size (SIZE) using log of sales (in thousands of dollars),5 and financial stress (PROB) using the coefficients given in Hopwood et al. (1994).6 We classify a company as in default (DFT) if they are either in payment default or technical default of loan covenants. Bankruptcy lag (LAG) is the delay, in number of days, from the date of the **audit** report to the bankruptcy filing date.7

Of the nonregulated companies that filed for bankruptcy in the 1996-98 time period, we were able to obtain complete financial statement, **audit** report, and **auditor** tenure data for 121 companies.8 Using the criteria discussed earlier, 117 of the 121 companies were classified as stressed. Since the nonstressed sample has only four companies, we deleted these four companies from our analysis leaving us with a set of 117 stressed, bankrupt companies.9

RESULTS

Thirteen of the 117 companies (11 percent) involved first-year **audits** by the incumbent **auditor**; a total of 42 companies (36 percent) had incumbent **auditors** with three or fewer years with the client. The longest tenure was for 21 years, and a total of 40 companies (34 percent) had **auditors** with tenure greater than six years.

Table 1 provides descriptive data about the sample. A total of 59 companies (50 percent) had received a prior going-concern modified **audit** opinion. As seen in Panel B, only two of the ten correlations among the independent variables are statistically significant, and the highest magnitude of the correlations is only .21.

There were significant differences ($p < .01$) on all of the control variables when comparing the subsets of companies with and without a prior going-concern modified opinion. Companies receiving a going-concern modified report were smaller, had shorter bankruptcy lags, were in greater financial stress and more likely to be in default.

Results from the multivariate logistic regression are presented in Table 2. The overall model is significant (Chi-square = 60.92,5 d.f., $p < .0001$) and the coefficients for all the control factors are in the expected direction and are significant at $p < .01$. The coefficient for the TENURE variable is positive and significant ($p = .0292$), indicating that a going-concern modified **audit** report is less likely to be issued during the initial years of an **audit** engagement. This finding is consistent with the conclusions of prior analytical research (e.g., Dye 1991) and the economic view, but does not support the arguments espoused by proponents of the regulatory view in favor of **auditor rotation**.

Further Analyses

There may not be a monotonic relation between **auditor** tenure and **audit** reporting failures. In other words, the tenure effect may taper off after some time. To investigate this issue further, we use various cutoffs (more than two, three, four, five, and six years of **auditor** tenure) to partition the sample based on **auditor** tenure. The results of such dichotomous analyses indicate the tenure variable is consistently positive and significant, but the effect appears to taper off for periods greater than five years.

As noted before, approximately one-third of the sample company's **auditor** tenure was three years or less, while an additional third of the companies had **auditor** tenure of seven or more years. Hence, we also performed additional analyses by adding two indicator variables for tenure status-- TEN3 (1 if more than three years tenure, 0 if not) and TEN6 (1 if more than six years tenure, 0 if not). In such a regression, the TENS variable was statistically significant ($p < .05$), but the TEN6 variable was not significant ($p =. 75$), indicating that the tenure effect may be more pronounced in the earlier years and mitigate after six or more years.10 Overall, these results are consistent with the position that the threat to independence may be greatest within the first few years of an **auditor**/client relationship.11

SUMMARY AND CONCLUSIONS

The SEC has recently called for research on the association between **auditor** tenure and **audit** failures (Turner and Godwin 1999). Regulators and others in diverse countries have suggested that long **auditor** tenures may compromise **auditor** independence and be associated with increased likelihood of **audit** failures, and have proposed mandatory **auditor rotation** as one possible solution. In contrast, economic models suggest that **auditors** may be more likely to be less objective in the initial years of an **audit** engagement.

This study examined the association between **auditor** tenure and **audit** reporting failures. Our analysis of companies that filed for bankruptcy in the years 1996-1998 presents evidence that there is a positive association between **auditor** tenure and the likelihood of a bankrupt company having received a prior going-concern modified **audit** report. Thus, **audit** reporting failures were more likely to occur in the initial years of an **audit** engagement. Our results are consistent with the position that **auditors** may be more influenced by their newly obtained clients in the earlier years of the engagement and do not support the arguments of those who propose that **auditor rotation** be made mandatory. While we have not examined what would happen in an actual mandatory **auditor**-**rotation** regime, we do present evidence that long tenures, of themselves, are not associated with reporting failures and do not necessarily need to be shortened.

An alternative explanation for the results documented in this paper is that there may be a learning curve or "knowledge improvement" with a given client over time. This may lead to **auditors** becoming more knowledgeable with the specific client's operations and business processes, or more skeptical about management plans and other mitigating factors as their tenure with that client increases, which would lead to them being more likely to issue a going-concern modified **audit** opinion. While the explanation may be different, the implications remain the same-the results of this study do not support suggestions that (1) long **auditor** tenures may be associated with higher likelihood of **audit** reporting failures, and (2) mandatory **auditor rotation** is necessary to improve **audit** quality.

In this paper, we have focused only on **audit** reporting related to going-concern uncertainties and have examined only **audit** reporting failures and not other possible definitions of **audit** failure. For instance, Davis et al. (2000) examine the issue of earnings management as a result of discretionary accruals and, in contrast to the findings here, provide evidence that **auditor** tenure is associated with lower financial-reporting quality. Further, we have examined only one type of "reporting error"-- prior unmodified **audit** opinions for companies entering bankruptcy. It is also important to examine the association between **auditor** tenure and the other type of "reporting error" in a going-concern context (i.e., the subsequent viability status of a company receiving a going-concern modified **audit** opinion). A fruitful avenue for future research is to examine the impact of **auditor** tenure on other types of **audit** decisions, including those made during the planning and execution phases of an **audit**.

Marshall A. Geiger is an Associate Professor at the University of Richmond and K. Raghunandan is a Professor at Texas A & M International University.
Submitted: July 2000
Accepted: February 2001

We gratefully acknowledge useful comments received from Arnold M. Wright (editor), Professor McKeown, and three anonymous reviewers of this journal.
Footnotes:
1 It must be noted, however, that not every instance of a bankruptcy without a prior modified **audit** opinion can be construed as an **audit** failure. For example, strategic bankruptcies (to avoid litigation or contractual obligations) are sudden and not predictable, and would not be expected to be signaled by the **auditor** in a going-concern modified **audit** report. As discussed later, our study analyzes only cases where financial distress is present prior to bankruptcy.
2 Consistent with this argument, Palmrose (1989) found that actual **audit** hours declined as **audit** firm tenure increased.
3 Loebbecke et al. (1989), in a survey of 121 **audit** partners (who had knowledge of 354 actual irregularities), found that nearly a quarter of the irregularities occurred on new clients. Shockley (1981) surveyed **audit** partners, bank loan officers, and financial analysts and found no overall significant result for the relationship between length of **auditor** tenure and perception of **auditor** independence. However, he notes that roughly half of the individuals who considered the length of tenure to be significantly related to independence perceived it to improve over time, while the other half perceived it to erode over time. Thus, he concludes that his nonsignificant overall finding may be the product of significant offsetting results.
4 In this paper, we focus on type II errors (bankruptcies without a prior modified opinion) because this is the type of error that has received the most attention from the public, legislators, and the media. Alternatively, research could assess the association between **auditor** tenure and type I reporting errors (that is, companies that received a going-concern modified **audit** report but remained viable). Carcello and Neal (2000) examine companies in financial stress, but do not find a significant association between **auditor** tenure and type of **audit** opinion (i.e., going-concern modified or not modified). However, they do not examine either type I or type II errors and the association between such errors and **auditor** tenure.
5 Using log of total assets as an alternative measure of firm size does not substantively alter the results presented in the paper.
6 Jones (1987) notes that the predictive accuracy of many bankruptcy prediction models is substantively similar. We use the model from Hopwood et al. (1994) for the sake of continuity with the established tradition in research related to going-concern modified **audit** opinions.
We calculate PROB separately for stressed and nonstressed companies, as in Hopwood et al. (1994). Hopwood et al. (1994, Table 3) provides the coefficients for the various financial ratios, but the value of the intercepts given there are incorrect. As confirmed by Professor McKeown, the intercept for the stressed sample should be -7.322 (as opposed to 5.565), after

correcting for the error and adjusting for the differing sample proportions used in estimating the models.

As part of sensitivity tests, we also used the model from Zmijewski (1984) to calculate the probability of bankruptcy. As noted later, the results remain substantively similar when this alternative model is used.

7 Carmichael and Pany (1993) discuss issues related to the "15-month problem"-that is, companies filing for bankruptcy more than a year after the **audit** report date. We performed sensitivity analysis by deleting companies with bankruptcy lags more than one year, but the results from such analysis remained substantively similar and the tenure variable was significant at $p < .05$.

8 We were able to obtain complete relevant financial and **audit** report data for 171 companies that filed for bankruptcy during the 1996-98 period. We then eliminated 30 companies due to lack of **auditor** tenure data, and 20 companies in regulated industries (e.g., financial services, utilities, etc.) to arrive at our 121 sample companies.

9 We analyzed the industry composition of our sample using two-digit SIC codes. The 117 companies in our sample come from 40 different industries, and no industry had more than eight observations.

10 An observation with more than six years' tenure would have both variables (TEN3 and TEN6) coded as I in the analysis. Thus, to calculate the total effect, the effects from the coefficients of both variables have to be combined. The significance of TEN3 but not TEN6 indicates that there is a tapering off of the tenure effect in later years.

11 In order to ensure that our results are not driven by the specification of the variables used in the study, we performed several additional analyses. First, we used the raw number of years of **auditor** tenure, as well as the square root of tenure years (as opposed to log of tenure years) in the multivariate regression model presented in the paper. The results of these modified models indicate that the alternative measures of TENURE are significant at $p = .05$ or less, and results for all the other control variables are substantially the same as those presented in Table 2. Second, we defined DFT as financial (i.e., payment) default, instead of both financial and technical default. Results of this modified analysis is substantially the same as the results originally reported and the TENURE variable remains significant at $p = .0239$. Third, we added an **audit** reporting lag (i.e., time between the fiscal year end and the date of the **audit** report) variable to the model. The **audit** report lag variable was not significant in the expanded model and the TENURE variable remained significant at $p = .0307$.

As noted earlier, we also performed sensitivity analyses by using alternative measures for company size and financial stress. Specifically, we used the probability of bankruptcy measure based on Zmijewski's (1984) model, and used log of total assets as the size measure and obtained results consistent with those presented in the paper. Further, as part of our additional analyses, we used (1) a proxy for **auditor** type (BIG6 or other), (2) industry specialist (based on Hogan and Jeter [1999]), and (3) dummy variables for the years. The tenure variable continued to remain significant ($p < .05$) in all such regressions.

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