

# AUDIT LITIGATION AND THE PRICING OF AUDIT SERVICES

*by*

**Teo Eu-Jin**

*and*

**Keith A. Houghton**

The University of Melbourne  
Victoria, 3010 Australia

Correspondence can be directed to:

Email: [k.houghton@ecomfac.unimelb.edu.au](mailto:k.houghton@ecomfac.unimelb.edu.au)

Fax: +61 3 9349 2397

November 2000

---

## Acknowledgements

This paper has benefited from the helpful advice and comments of Christine Jubb, Harold Luntz, Ian Malkin (all of The University of Melbourne), Daniel Stepniak (University of Western Australia), Keith Alfredson (Chair of the Australian Accounting Standards Board) and two anonymous referees for the 2001 American Accounting Association Mid-Year Conference.

# AUDIT LITIGATION AND THE PRICING OF AUDIT SERVICES

## ABSTRACT

This paper examines the impact of audit litigation on audit fees. It is argued that the reputation of an audit firm is correlated to the perceived audit quality provided. Audit quality is related positively to audit fees *ceteris paribus*, and audit litigation impacts on reputation negatively because it may be seen as an indicator of a lack of audit quality.

The negative association between audit litigation and audit fees suggested is argued to be exacerbated by, (1) locality; and (2) auditor industry specialization factors. It is argued that litigation against a national audit partnership concerning an audit carried out by a particular state office will have a more marked effect on local market fees than on the audit firm's fees nationally. Arguably, this is because of the presence of audit quality concerns perceived as specific possibly to that office in addition to any deficiencies suggested in (national) practice-wide policies or procedures. Also, auditors specialising in auditing entities in a particular industry and who are sued over such audits face decreases in audit fees greater than those confronting litigated non-specialists. Arguably, the litigation suggests that the auditor is incapable potentially of delivering reliably the higher level of audit quality expected of a specialist.

The general proposition, together with the two extensions involving locality and specialization, are tested using the population of writs issued between 1987 and 1999 alleging negligence over audit opinion dates from 1987 to 1994 in Australia. Audit fees for companies using litigated auditors and matched pair companies with non-litigated auditors are examined for each listed company from 1988 to 1995. Controlling for the effects of various audit fee influences documented in previous literature, it is observed that the litigated auditor companies' fees are significantly lower than those of their matched-pair non-litigated auditor counterparts. This result is more marked when locality and specialization factors are considered.

**Key Words:** Audit Litigation, Audit Fees, Market for Audit Services

**Data Availability:** The data used is from public sources identified in the paper

# AUDIT LITIGATION AND THE PRICING OF AUDIT SERVICES

## 1.0 INTRODUCTION AND MOTIVATION

Audit fee modelling and audit litigation studies are two distinct yet related research areas in auditing. Inquiry has isolated various factors observed to affect the level of audit fees paid. A different literature has identified certain antecedents to audit litigation, and some of the consequences of litigation and other reputation-reducing events for auditors. The research focus has been on the effect of such phenomena on an auditor's client base,<sup>1</sup> and their impact on the security prices of the auditor's clients.<sup>2</sup> The present study investigates whether a relationship exists between audit litigation against a given firm and audit fees charged to clients of the same firm.

This study links two lines of inquiry (audit fees and audit litigation). If audit litigation is identified as an omitted variable in an audit fee model, then including it would represent one more step in developing a fuller, more comprehensive model. In a similar vein, the study adds to the state of knowledge with respect to the effects of audit litigation (and other reputation-reducing events), because it examines whether or not there is an audit fee impact consequential to litigation. Either of these outcomes will contribute to the audit literature.

Prior studies suggest that audit quality perceived is related positively to audit fees; the greater the value auditees place on audits by apparently highly competent and independent auditors is reflected in the increased fees they pay to those auditors (see Simon and Francis, 1988; Craswell, Francis and Taylor, 1995). While positive aspects of competence and independence are well researched, the same is not true of negative aspects; that is, decreases in (real or perceived) competence or independence leading potentially to audit fee reductions. Yet there is no reason logically why both positive and negative influences should not affect fees. If auditees are willing to pay *more* to *competent, independent* auditors, should they not, conversely, be willing to pay *less* for the services of an auditor *whose competence or independence is perceived to be compromised*?<sup>3</sup> This study is one of the few that test this latter proposition,<sup>4</sup> which remains uninvestigated in the context of audit litigation.

## 2.0 PREVIOUS LITERATURE

The relevant literature falls mainly into two types, (1) the fee effects of reputation-reducing events other than litigation; and (2) the impact of litigation on areas of auditing other than audit fees. Davis and Simon (1992) researched whether auditors sanctioned by the US Securities and Exchange Commission (SEC) experienced a decline in fees. Firth (1990) studied whether criticism by the United Kingdom's Department of Trade had an effect similar, and looked at whether auditees switched away from firms criticised. Wilson and Grimlund (1990) investigated whether the SEC sanctions prompted auditor switching behaviour. The relationship between reputation-reducing events and auditor switching was tested in Firth (1990), noted above, and in an Australian setting by Zhivov, Jubb and Houghton (1995), who studied this in the context of audit litigation because regulatory action against auditors is rare in Australia. Other research dealing directly with litigation, such as that by Franz, Crawford and Johnson (1998), has been concerned with how the event affects auditees' share prices.

None of the litigation studies appears to appreciate *why* audit litigation may reflect on perceptions of compromised audit quality, and hence potentially audit fees and auditor reputation decreases. It is contended that failing to grasp this legal dimension has led to the acceptance of ideas that are not sound. This paper addresses this theoretical gap by linking legal concepts surrounding audit litigation to notions of audit quality. Arguably, this synthesis is overdue and is required for a more holistic understanding of the dynamics of audit litigation, a phenomenon sustained ultimately by interpretations of and a reliance procedurally on *legal* rules and principles.

One might argue that this study replicates essentially Firth (1990) and Davis and Simon (1992) in an Australian context by substituting audit litigation for Department of Trade and SEC sanctions respectively as the variable of interest. However, such a view is flawed both theoretically and methodologically. Private litigation in the courts is qualitatively different from executive action by public law bodies. Godfrey *et al* (1994) points out that regulators as rational *self*-interested utility maximisers are not motivated always by the *public* interest when exercising their powers democratically conferred. Pragmatically, this suggests that action by government agencies including corporate regulators against auditors may not be

driven necessarily by audit failures perceived, but potentially instead by the desire to raise public profile or justify existence on the public purse by being seen to be “doing something”.

In contrast, the high direct (and opportunity) costs of commencing and sustaining self-funded private litigation and the significant financial consequences of defeat (at least in some jurisdictions) suggest the presence of an arguable case of audit failure. This is because plaintiffs will not rationally commence actions unless they believe they have a reasonable chance of success (or settlement). Zhivov *et al* (1995) conclude therefore that “[b]etter as a market measure of problems associated with a particular audit is actual litigation undertaken against the auditor.” Private litigation thus is the reputation-reducing event preferable for investigating audit fee effects associated potentially with a perceived lack of audit quality, because any impact following this more likely would be linked to the latter.

Additionally, Davis and Simon (1992) drew their conclusions from testing survey data. Their fee information represented responses to Simon and Francis’ (1992) questionnaire concerning price-cutting in new audit engagements. This raises problems firstly because only a relatively small proportion of clients changes auditors in any particular year. Furthermore, various factors influence auditor switching and may have affected the companies in Francis and Simon’s study to a greater degree than others. All this suggests that the external validity of Davis and Simon’s (1992) study is questionable because their sample may not be representative of the population of auditees having auditors subject to reputation-reducing events.

Further, in terms of internal validity their research may suffer from bias toward finding lower fees for the auditees surveyed due to a social desirability bias against reporting increased fees following a switch, given that such an increase could make the change questionable from a stewardship perspective. Fee behavior for this group may not reflect how audit remuneration actually is affected by reputation-reducing events. This study uses Australian audit and other fee information, which is required to be publicly disclosed. By examining the issue in the setting of an audit market acknowledged to be competitive, it represents further a more powerful test of the fee impact of reputation-reducing events.<sup>5</sup>

The remainder of this paper is divided as follows. The next section sets out the various factors observed to influence audit fees, one of which is argued to be audit quality (as reflected in reputation). Then section that follows argues that audit litigation follows (and hence signals) unexpected decreases in audit quality perceived, which are inferable from the decline suggested in a litigated auditor's reputation. Also, we discuss but ultimately reject the competing view taken by the insurance hypothesis. Next is a section that makes the link theoretically between litigation, quality and fees. It argues that the decrease in perceived audit quality, which leads to audit litigation, should be accompanied by decreases in audit fees earned by the litigated auditor.

Then, the dimensions of this conceptual link are refined by further hypotheses developed to test the additional effects of auditor specialization and locality. Next these propositions are tested empirically in a section describing the data, research design and results obtained. The final section concludes by identifying policy implications of the study, along with weaknesses of the present study and opportunities for further research.

### **3.0 THEORY DEVELOPMENT**

#### **3.1 Explaining Audit Fees**

The traditional model developed initially by Simunic (1980) and refined by many researchers identifies many factors including auditee size, complexity and audit risk as relevant and demonstrates generally good explanatory power and robustness across different samples, time periods and countries as well as to sensitivity analysis for model mis-specification. Recent research suggests that an auditee's industry (Butterworth and Houghton, 1995), non-audit service purchases (Davis, Ricchiute and Trompeter, 1993) and financial condition (Palmrose, 1986) also may influence its audit fees. However, audit fee levels are not influenced by client characteristics alone. An auditor's size has been accepted as a reliable determinant (e.g. Simon and Francis, 1992) and auditor industry specialization (e.g. Craswell, Francis and Taylor, 1995).

## **3.2 Audit Quality**

Auditing is demanded because it lowers information risk. However, the extent to which auditing is effective at achieving this in individual circumstances depends in part on the quality of the particular audit. DeAngelo (1981) identifies auditor competence and independence as the two necessary conditions of audit quality.

However, the actual audit process is invisible to those who depend on its result. As rational self-interested utility maximisers themselves, auditors also may “cheat” on an audit by doing less work quantitatively or qualitatively than that which they have contracted implicitly or are required otherwise by law to perform. As Simunic and Stein (1986) point out, in respect of audit quality the latter is possible and the former is the case because “users are precluded from directly observing the performance of the audit.” Hence a suitable indicator of audit quality is needed. Research shows that both auditor size and industry expertise can lead to reputations for audit quality.

### **3.2 Linking Auditor Size, Industry Expertise and Reputation for Audit Quality to Audit Fees**

#### *3.2.1 Auditor Size, Audit Quality and Audit Fees*

An audit firm’s size is accepted as being associated with and representative of its audit quality. DeAngelo (1981) argues that *ceteris paribus* larger firms have more to lose from a lack of independence perceived than do smaller firms due to their more substantial client base, giving them the incentive to be relatively more independent. Simunic and Stein (1986) assert that larger firms are superior to smaller firms at detecting material misstatements and omissions because they invest in more of the staff and resources required for this task. However, delivering the audit service is not without cost.

It is observed by many researchers that larger firms in fact do charge higher audit fees than smaller ones. In fact, Craswell *et al*, (1995) argue that the increased fee to an extent incorporates actually a “quasi-rent” and represents an amount over and above the auditor’s

cost of performing the audit and its normal profit combined. It is said that management may be willing to bear the greater fee due to the auditor's higher reputation for audit quality.

### 3.2.2 *Auditor Industry Expertise, Audit Quality and Audit Fees*

The conclusion that (perceived) audit quality influences audit fees is reaffirmed by an auditor's industry expertise research and its audit fees (see Craswell *et al*, 1995). When auditors audit clients in industries in which they are seen to be a specialist, it is observed that they earn higher fees, controlling for other relevant influences.

### 3.2.3 *Auditor Reputations for Quality and Audit Fees*

Both auditor size and industry specialization have arguably an affect on audit quality. This suggests that, from an auditor characteristics' perspective, audit fees are influenced by audit quality considerations. However, as noted earlier, actual audit quality is not directly observable. Given this, there is a need for indicators of audit quality to proxy for its presence, absence and extent of quality or change in auditing. The preceding suggests that a reputation for audit quality may be inferred either from auditor size or specialist expertise, because these attributes are expected to be positively associated with competence, expertise and independence. Accordingly, changes in auditor size (or related measures such as industry market share) may be signals of change in audit quality levels albeit with some lag.

Management is likely to be aware of such signals, because the audit fee optimal depends on the audit quality that the auditor is capable of providing. It is arguable from the foregoing that when a particular auditor's level of quality is perceived to have decreased, management will not be willing to bear the previous level of audit fee but will seek a lower fee commensurate with the decline in perceived quality.<sup>6</sup> In periods of declining audit fees, fee reducing re-negotiations are feasible. It actually may be in the auditor's interest to accede to fee reduction requests in this scenario, if refusing means losing clients (see Firth, 1990). Zhivov *et al* (1995) demonstrate that reputation-reducing events may cause auditors to lose clients, while Firth (1990) and Wilson and Grimlund (1990) show that it becomes harder for auditors to attract new clients to replace those they have lost.

It was noted above that reputation-reducing events might theoretically take many forms. However, a form of event readily recognised as impacting adversely on an auditor's reputation is litigation.

### **3.3 Reputation Effects and the Audit Quality Signals Following Audit Litigation**

The impact of certain types of events adversely affecting an auditor's reputation is relatively well documented. Wilson and Grimlund (1990) and Firth (1990) show that government criticism of an auditor negatively affects the auditor's client base, and Davis and Simon (1992) suggest (but they do not find) that this also may have an adverse impact on its audit fees. According to Moreland (1995), the negative event results in clients' share prices exhibiting a lower association with their reported accounting earnings, compared to previously. Franz *et al* (1998) found a negative share price reaction to audit litigation for clients not involved in the litigation, while Zhivov *et al* (1995) document auditor switching by auditees following litigation. Where Australian auditors are concerned, examining the consequences of such litigation is the most appropriate way to determine how they are affected by reputation-reducing events which signal a decrease in audit quality. This is because *professional* discipline is relatively rare, carried out privately and almost always involves only *individual* partners not their firms. Litigation in this regard therefore "is one of the few observable components of lack of audit quality and arguably the most important and objective one" (Zhivov *et al*, 1995, p 5).

Litigation involves a perception of audit failure, namely a failure to detect or reveal adequately material misstatements or misrepresentations in the financial report (deferring for the moment discussion of the potentially confounding "deep pockets" syndrome). Allegations usually involve the assertion that the auditor accused failed to act as a *reasonable* auditor would, where on the balance of probabilities such behaviour would have prevented the audit failure arising. This accusation is damaging particularly because it suggests more than a "mere error of judgment", and concerns a failure to meet potentially the *minimum* standard of auditing conduct that society by its laws is willing to tolerate. In its form it involves a threshold much easier to satisfy (and hence much harder to breach) than the alternatives proposed by some (including an expectation to detect all fraud).

In short, the perception underlying a suit is that audit quality has been compromised. Because this view justifies an accusation of audit negligence, it is not surprising if this view itself is communicated to other interested parties by the allegations. This information transfer or signal is consistent with the argument by Zhivov *et al* (1995) that the reputation of an auditor declines following action in negligence against it, which the authors suggest explains client losses by the auditor. This decrease will be expected where the suit is reported in the financial or other press — what Palmrose (1991) labels “public information” sources. Such disclosure is damaging to auditor reputation, because the information is available to market participants for minimal search and other transaction costs, and wide coverage of the event means that it likely will reach the attention not only of agents but also of stakeholders.

Where there is negative disclosure, one potential auditee response is a switch away from the litigated auditor, presumably in order to obtain the level of audit quality sought (and perceived to have been delivered previously by the incumbent auditor) from another auditor. While switching away from auditors implicated in reputation-reducing events is documented by Firth (1990), Wilson and Grimlund (1990) and Zhivov *et al* (1995), no study reports a switch rate of 100%. Apparently, therefore, some clients remain with their litigated auditor despite the latter’s decrease in reputation from the audit failure alleged, itself occasioned by a decrease in audit quality perceived. Management might do so where stakeholders do not demand the same (high) level of financial report assurance that they required previously. It is also possible that the change in quality is a lesser cost than the cost of switching auditors.

However, auditees deciding to remain with a litigated auditor have incentive to seek a fee reduction. This is because it may no longer be cost-beneficial for fees to be maintained at prior levels in light of the decrease in audit quality perceived. Management might be discouraged from seeking this (similar) lower quality level from a new auditor at a similarly lower fee due to the switching costs involved, and because the incumbent auditor might have specialist industry expertise and/or auditee specialist expertise not called into question by the litigation. As discussed earlier, it is in the incumbent auditor’s interest to accede to fee reduction requests in the circumstances, because the reputation-reducing signal of litigation may make it harder for the auditor to attract new clients to replace those that it might lose by failing to agree to lower fees. A reduced audit fee following litigation therefore may be an equilibrium result of client demand shifts and supply pressures facing the auditor.

### 3.4 The Insurance Hypothesis

A view opposite to that noted above is taken by the insurance hypothesis. It is at odds with the theory developed above because it sees litigation as driven, not by *audit* failure, but by *business* failure. That is, the professionally indemnified auditor's "deep pockets" insure stakeholders against a complete loss in the event of an auditee's financial distress. Menon and Williams' (1994) observed decline in the security prices of auditees following their auditor's bankruptcy is said to support this contention; auditor bankruptcy meant that the "insurance" presumed to be available no longer existed.

Besides Menon and Williams' failure to dismiss a competing explanation,<sup>7</sup> this alternative theory may not stand up to scrutiny either theoretically or empirically. Simunic and Stein (1986) note that "such a role is dubious, since auditors are not strictly liable for losses to users; even under the most severe liability statutes, an auditor can invoke a "due diligence" defense. That loss alone does not support a claim for damages has been evident since *Re Kingston Cotton Mill (No 2)* — "fault", "wrongdoing" or "negligence" is required before the court will order compensation. This, by definition, is incompatible with an "insurance" function (and hence the "insurance hypothesis"), but is consistent with the perception of some degree of audit failure as underlying the litigation.

The presence of this perception preceding litigation is suggested further by the way courts have exercised their inherent discretionary power to award costs. When concluding its verdict, the court ordinarily orders the unsuccessful party to bear the *entire* cost of the litigation unless some substantial hardship or injustice would result. The substantial cost of judicial proceedings means that plaintiffs do not accept the risk in taking legal action unless they believe honestly and reasonably that they have a sound case, i.e. that audit failure is present. In a jurisdiction such as Australia where contingent lawyers' fees are not permitted to exist, this discourages frivolous lawsuits. Although pecuniary loss from auditee financial distress may be *necessary* to give the economic incentive to litigate, it arguably therefore is not a *sufficient* reason for the incidence of litigation. The financial consequences of losing and the rules of the litigation process require that there be a (perception of a) lack of audit

quality, in the form of (suspected) audit failure. Audit failure therefore is the way to get to the auditor's "deep pockets".

It is possible that auditing's "insurance" role is present in some jurisdictions (possibly in the US) but not in others (such as Australia). However, even in the US, evidence regarding the hypothesis is mixed. The study by Franz *et al* (1998) shows that share prices of companies engaging a litigated auditor decline relative to those of non-litigated auditor companies. The comparative company credibility loss suggested by this outcome is inconsistent with the result predicted by the "deep pockets" hypothesis, pursuant to which no such auditor reputation (flow-on) effect should be observed. Nevertheless, the characteristics of the jurisdictional system makes Australia a particularly useful site to undertake this research.

#### **4.0 HYPOTHESES DEVELOPMENT**

The theoretical framework developed so far may be stated simply: audit fees are related both to auditee and auditor characteristics including size and industry expertise. These latter attributes in turn are related at least in part to audit quality, affecting auditor competence and independence. Because these are both directly unobservable, size and industry expertise are used to represent a reputation for quality. Auditees derive greater benefits from the perceived increase in quality suggested by these attributes, and hence are willing to pay more for such auditors (see Craswell *et al*, 1995). Accordingly, there is a positive relationship between audit quality (as indicated by reputation) and audit fees.

Audit litigation is potentially driven by a perception of audit failure, that is a lack of audit quality, implying questionable competence and/or independence. As a public signal of this belief, litigation may lead to a decrease in the accused auditor's reputation. This gives rise to a negative relationship between litigation against an auditor and perceived audit quality. In turn, this leads to the presence of a negative association between the incidence of litigation reported against an auditor and the auditor's reputation, due to the unfavourable information signal from the allegations published.

It is theorised therefore that *ceteris paribus*, audit litigation affects audit fees adversely. Namely, it is hypothesised that:

H<sub>1</sub>: There is an inverse relationship between reported litigation against an auditor and the audit fees charged to that auditor's clients.

It is recognised that this relationship may not be contemporaneous, but the effect on fees may be lagged.

#### **4.2 Industry Specialization Effects**

As noted above, the literature reviewed reveals that industry specialist auditors receive fee premiums for such expertise. This higher fee follows the perceived increased audit quality which is explained by enhanced competence. Legally, auditors with special expertise in auditing particular industries will be required to perform such audits at a standard above that expected of auditors not having similar skill.<sup>8</sup> What precisely is required of the industry specialist auditor is determined by the degree of expertise the auditor represents itself to possess.<sup>9</sup>

The perception of enhanced skill and credibility which enables a specialist to earn higher fees than non-specialists *ceteris paribus* litigation concerning audits in these industries, may have a greater adverse impact on the specialist's reputation - reflecting an apparent lack of the quality expected from the audit firm in general, and potentially an impairment also in quality perceived as relevant to the industries. The reduction in specialist assurance suggested which supports an additional reputation loss is documented empirically by Franz *et al* (1998) who report a decrease in security prices following litigation against a specialist auditor, which is greater for auditees in specialised industries, compared to others. Considering the relationship developed above between audit quality (as indicated by reputation) and audit fees, it is hypothesised therefore that:

H<sub>2</sub>: There will be a greater decrease in client audit fees where an auditor is reported as being sued over an audit in an industry where it has specialist expertise *and* the clients operate in that industry, than where they operate in others.

### **4.3 Geographic Locality Effects**

It is argued that the negative impact of auditor reputation-reducing events is pronounced especially in the geographic locality to which the circumstances giving rise to the event relate. In a litigation context, Zhivov *et al* (1995) report that a national audit firm loses more clients in the State where it is sued than in other States. The reputation loss due to the litigation State suggested can be explained by two reasons. Firth (1990) observes that the particular individuals involved in the action (possibly) “will ... also work on *other* audits”. Also, publicity is likely to be more extensive in the litigation state, leading to a greater exposure locally, and hence awareness of the auditor’s alleged wrongdoing, than in other jurisdictions.

Accordingly, this specific personal and publicity dimension arguably will exacerbate in the litigation location (State) the negative impact of the action on the firm.

Bearing in mind the relationship between audit quality (as indicated by reputation) and audit fees developed above, it is hypothesised accordingly that:

- H<sub>3</sub>: There will be a greater decrease in client audit fees where an auditor is reported as being sued over an audit in the geographic locality (state) where the auditees are located, than other locations.

## **5.0 DATA, RESEARCH DESIGN AND TESTS**

### **5.1 Data**

#### *5.1.1 Audit Litigation*

Audit litigation is measured by reference to when the writ against the audit firm is issued. It is argued that is the point at which might unambiguously argue that the concerns over audit quality have culminated in an observable and substantial event. Publicly available sources of information were used to identify the presence of litigation. First, press reports were searched

for the period 1987 to 1999 and disclosed information on litigation relating to audits for the period 1987 to 1994; this allowed for a period five years after the balance date of the accounts to which the litigation related. This was done in an attempt to ensure the inclusion of all litigation for the relevant auditees.

Secondly, the Institute of Chartered Accountants in Australia and the Australian Society of Certified Practising Accountants' (now CPA Australia) membership directories covering the period, as well as the preceding six years, were examined to identify for each year the firms that could offer audit services. A search of these names was conducted in *The Australian Business Index (ABI)*. This service indexes the Australian financial and major metropolitan popular press. More general searches also were made under broad subject headings such as "Accountants", "Auditors" and "Litigation". Where an *ABI* entry suggested that an article might contain a litigation-relevant detail, it was consulted. Sources covered are listed in Table 1.

PLACE TABLE 1 HERE

The search revealed 42 cases for which all relevant information was available. This included: the year the writ was lodged; the auditee; the auditor(s) named; and the state office(s) of the auditor involved. These are listed in Table 2.<sup>10 11</sup>

PLACE TABLE 2 HERE

Third, court records in both New South Wales and Victoria were searched to determine if any cases of litigation were missed. While this process was subject to some degree of error no further cases were found.

### *5.1.2 Audit Fee and Other Variable Information*

Fee data and fee variable information then was obtained for 1988 to 1995. This one-year lag between litigation and the test for potential fee effects is justifiable practically and methodologically. Lecky (1992) provides some evidence that remuneration in Australian audit engagements is re-negotiated annually, unlike in the United States where fee

arrangements have apparently a longer life (see Davis and Simon, 1992). It is expected therefore that management wishing to put fee pressure on the auditor will take this annual opportunity to do so. A contemporaneous test for fee effects may report erroneously the absence of any impact. Lagging the litigation measure also arguably addresses a problem facing archival research: establishing the *direction* empirically of any association observed.

The study examines the audit fees of listed companies because this information is available readily and reliable, being required legally to be disclosed publicly with penalties for doing so inaccurately. Data on auditor clienteles, fees and fee variables observed represents that contained in *Who Audits Australia?* (Craswell, 1989-1996).

## **5.2 Research Design**

To test for any fee effect of litigation, a matched-pair sample was used. Audit fees for all Australian Stock Exchange companies engaging litigated auditors were compared with those of companies matched as discussed below.<sup>12</sup>

## **5.3 Control Variables**

### *5.3.1 Matching Criteria*

#### *5.3.1.1 Client Industry, Size and Auditor Tier.*

In order that the fee impact of litigation could be isolated and assessed accurately, the effects of certain known audit fee influences had to be controlled for. The companies were matched by industry as represented by their Australian Stock Exchange two-digit industry codes, in order to allow for the fee effects potentially of different possible audit work requirements, risk and effort across industries. Based on Simon and Francis' (1992) procedure, they then were matched by year and size in terms of sales and book value of total assets (allowing for differences of up to 10%). Because size is documented as being associated positively with audit fees for reasons of increasing audit effort, where available control companies selected were smaller than their litigated auditor counterparts to avoid bias favouring the hypotheses.

Auditees were also matched by auditor tier (Big 8 or 6 and non-Big 8 or 6), meaning litigated auditor companies were compared against companies engaging non-litigated auditors in the same auditor tier as the former. This aimed to control for the systematic difference in audit fees between tiers.

#### *5.3.1.2 Other Control Variables, NAS, Size.*

Non-audit service fees paid were not matched between test and control groups but were included in the regression on the final matched-pair sample because of their potential to affect audit fees. Certain variables (audit fees and total assets) were  $\log_{10}$  transformed in the regression because of the non-linear relationship observed in the interaction between the variables. In the model, each respectively is represented as *Fee*, *Assets* and *NAS*.

#### *5.3.2 Auditor Change, Industry Specialization and Client Risk*

Auditees switching to auditors litigated up to three years after the announcement of the litigation were excluded from the test and control groups. This controls for DeAngelo's (1981) argument that auditors fee-cut on new engagements to increase their chances of securing them, a view supported by Simon and Francis' (1990) finding that fees in the first three years of an engagement are lower significantly than those in years subsequent.

To minimise any bias toward finding the expected result, auditees engaging non-litigated specialist auditors were excluded from the potential control group, to avoid any difference in fee levels being explained by specialization, the rationale for specialization's fee effect being discussed above.

To further reduce any bias in favour of the hypotheses, auditees with a prior audit qualification also were not considered for the potential control group. Higher fees for such auditees might be due not to the absence of a litigated auditor but rather to the possibly "significant uncertainties which may result in future losses" as signalled by the qualification.

In all, the selection criteria employed suggest that any biases present will be against finding in favour of the hypotheses.

#### **5.4 The Effect of Litigation**

In the regression, the hypothesis variable (LIT) was coded 1 for each company in the test group (i.e. engaging an auditor against which litigation was reported in the previous year) and 0 for the control companies.<sup>13</sup> The rationale for this lagged measure was explained above.

The final fee regression for H<sub>1</sub> is therefore:

$$Fee_{10} = f (Assets_{10} + Sales_{10} \pm NAS_{10} - LIT)$$

#### **5.5 The Effect of Specialization and Locality**

The matching procedure used to test for specialization and locality is similar to that described above with some necessary modifications. In respect of specialist (H<sub>2</sub>), the test group of companies were those engaging auditors specialising in their industries that had been sued over audits in the industries, with the control comprised of companies in the same industries engaging non-specialist litigated auditors. Test companies were coded *SPEC* = 1, control companies *SPEC* = 0. Where litigation concerned unlisted auditees, news reports on the litigation were consulted to ascertain the nature of its operations in order to determine an Australian Stock Exchange industry category equivalent. The regression for this test is therefore:

$$Fee_{10} = f (Assets_{10} + Sales_{10} \pm NAS_{10} - SPEC)$$

For locality (H<sub>3</sub>), companies were matched additionally by audit firm and the test group comprised companies engaging the audit services of the auditor's State office named in the writ alleging negligence, while companies relying on the services of offices in other States comprised the control. The former were coded *STAT* = 1, the latter *STAT* = 0. The regression for H<sub>3</sub> therefore is:

$$Fee_{10} = f(Assets_{10} + Sales_{10} \pm NAS_{10} - STAT)$$

## 6.0 RESULTS

### 6.1 Final Sample

The matching procedure resulted generally in a sample of 334 companies representing a total of 668 paired observations. These are listed in Table 3. Table 4 shows the breakdown of companies by industry. All industries are covered and percentages are such that there is an over-representation of companies from particular industries.

PLACE TABLES 3 AND 4 HERE

### 6.2 The Effect of Litigation

#### 6.2.1 Univariate Test

Table 5 presents *t*-test results of the null hypothesis predicting no difference in audit fee between litigated and non-litigated auditor clients. The *t*-value of -6.24 is significant at the 1% level using a one-tailed test. This suggests that litigated auditors were paid markedly lower fees. To assess the effectiveness of the size control, *t*-values were calculated for *Sales* and *Assets* comparisons between the test and control group. Both were insignificant suggesting that the size matching was effective, and that differences in this do not explain inter-group audit fee differences.

PLACE TABLE 5 HERE

#### 6.2.2 Multivariate Tests

Table 6 displays results for the  $H_1$  audit fee regression model. The model is statistically significant and explains over two-thirds of the variance of audit fees in the sample. This is lower than some previous audit fee studies but this may be attributed to the model's omission and proxying of some fee-relevant variables that were controlled via the matching process.

Control variables *NAS*, *Assets* and *Sales* are significant at conventional levels, the last two explaining intra-group audit fee variations in the direction predicted (the *NAS* coefficient's sign suggests that non-audit service fees are related positively to audit fees). With a *t* value of -10.058, the hypothesis variable coefficient is negative and significant. The null hypothesis, that litigation does not affect subsequent year audit fees, is rejected.

PLACE TABLE 6 HERE

These pooled *t*-test and regression results were calculated on a yearly (from 1988 to 1995) basis, with the results reported in Appendix A. As expected, some decline in *t*-values and significance levels are detected. The results are consistent therefore with the theory that audit litigation affects lagged audit fees negatively. That is, fees are observed to decline systematically in the year following publicity surrounding litigation. We fail to reject  $H_1$ .<sup>14</sup>

## 6.2 The Effect of Specialization

Tables 8 and 9 report test results for the potentially differing fee impact of litigation on specialist and non-specialist auditors. The audit fee difference between the test and control group is negative but only at the 10% level under a one-tailed *t*-test (see Table 7). Size again does not differ significantly between the former and the latter and as with  $H_1$ , the regression model is significant as were all the control variables (see Table 8). *SPEC* is negative significantly at the 5% level, consistent with the expectations that specialist auditors sued over audits in an industry specialised in will experience greater fee reductions in that industry compared to non-specialists sued over similar audits. Hence we fail to reject  $H_2$ .

PLACE TABLES 7 AND 8 HERE

## 6.4 The Effect of Location

Tables 9 and 10 show the results of pooled tests for the location fee effects of litigation. Table 9 shows the audit fee difference between the test and control group as negative significantly at the 5% level with a one-tailed *t*-test. Table 10 reveals *STAT* to be significant negatively at the 1% level, with the model as a whole and its control variables significant.

The outcome for *STAT* is consistent with the argument that auditors will experience a greater negative fee effect in the location (state) where they are sued than in others. Accordingly, we fail to reject  $H_3$ .

PLACE TABLES 9 AND 10 HERE

The results for  $H_1$ ,  $H_2$  and  $H_3$  do not appear to be caused by extreme cases or observations that cause undue influence.<sup>15</sup> Nor is the fact that most litigation in Australia is against first tier auditors (Big 8 or 6) a material factor.<sup>16</sup>

## **8.0 SUMMARY AND CONCLUSION**

### **8.1 Summary**

The relationship existing between audit litigation and audit fees was acknowledged implicitly in the early theoretical literature of DeAngelo (1990, 1991), who recognised that:

If the auditor ‘cheats’ and is caught, he stands to lose ... both through termination by other clients and *through reduced fees from those that continue to retain him* [emphasis added].

This paper attempts to demonstrate that such an observation is correct. Both litigation and fees may be related to audit quality, which is represented by an auditor’s competence and independence. These attributes are reflected in an auditor’s reputation, and reputation decline has suggested following litigation against auditors. Specifically, audit quality (as indicated by reputation) is related positively to audit fees, and audit litigation impacts on reputation negatively because it reflects potentially a lack of audit quality. Further, it is argued that the negative association between litigation and fees suggested is exacerbated by locality and specialization factors

These propositions are consistent with the empirical findings of the study. In a size, industry, and auditor size matched-pair sample of auditees with litigated and non-litigated auditors, it is

found, that controlling generally for other fee-influences, fees paid by clients of the former are significantly lower than those paid by clients of the latter. This litigation effect was exacerbated by specialization and location factors observed from a similar testing procedure. Specialist auditors sued in relation to clients in their specialised industries earned lower fees statistically from auditees in that industry compared to litigated non-specialist auditors.

## **8.2 Limitations and Opportunities for Further Research**

This study has its weaknesses. The omission of some control variables due to their absence in the data sources used has limited the model's explanatory power. Further research incorporating these variables may be worthwhile, as would a study which included the financial distress variable shown (experimentally) by Pratt and Stice (1994) to be fee-relevant. Beatty (1993) notes the association apparently between financial distress and audit litigation, and it would be useful therefore also to identify any underlying linkage between distress, litigation and fees both theoretically and empirically. Beatty (1993) also reports that *expected* litigation negatively influences audit fees, and research into any threads common between this result and that of a fee decline following *actual* litigation observed would contribute to a more holistic understanding of the relationship between audit litigation and audit fees.

This study calls also for further research into the particular circumstances and specific conditions under which the insurance hypothesis may or may not hold. Although it may appear inconsistent with the theory developed in this paper and the observations of this and other litigation studies, case-study type research reveals that positions opposed theoretically may not always be mutually exclusive empirically. In particular, a more direct test of the insurance hypothesis than that used by Menon and Williams (1994) may be useful, which would involve firstly examining for a significant correlation between company collapses and litigation, but more importantly then establishing also a systematic association between litigation *and* payouts (whether through settlements or court-ordered damages).

Subsequent research also could replicate this study in the audit markets of other common law countries, to investigate its generalisability across jurisdictions. Using a different time period would reveal whether results observed are time-specific. Investigating the question of whether fee decreases differ systematically between individual firms litigated, even

accounting for specialization and State influences, represents a logical extension of this study. Auditor judgment research identifying particular behaviour which leads likely to litigation in an experimental setting would address the lack of knowledge in this regard and the absence of this research methodology in litigation studies, and money spent by firms to reduce such conduct would be worthwhile considering the fee impact that it may have.

The matched-pair sampling procedure used involves a trade-off between internal and external validity. It minimises the potential for Type II errors by increasing the likelihood of detecting any associations existing, but the non-random sample resulting means that the results are confined strictly to the data and do not necessarily represent the situation market-wide. That the conclusions may not hold for all listed auditees is possible because the need for matching meant that auditees were mainly around the average size for their industries. The frequent non-existence of matches for exceedingly large (and small) values meant that industry market leaders often were absent from the control group. Watts and Zimmerman (1986) suggest that the incremental information content in the accounting reports of such firms may not be high because they are exposed more to media analysis and analysts' forecasts. For the opposite reason, the financial statements of other (smaller) firms constitute a larger proportion of the set of information available on these firms. Because the market places increased emphasis on these accounting reports, the auditees sampled may have placed more importance on their perceived credibility and hence viewed any apparent reputation loss by the auditor verifying the statements more seriously than would the market leaders. In this regard therefore, the study is biased in favour of the hypotheses or at least toward finding effects more significant than might be the case for the population as a whole. As such, further research into the differential effect potentially of auditees' size and market share on audit fees following litigation against their auditors is required.

The association between fee-cutting and audit litigation due to the former's potential to compromise competence and independence was noted above. A study establishing whether there is a relationship significant statistically between "low balling" on initial engagements and litigation subsequent not only would add to knowledge on antecedents to audit litigation, but also would demonstrate that this practice may not pay because of lower fees potentially from other auditees as a result of the litigation it brings about.

Ultimately though, the key limitation of the study is that the archival methodology employed does not show strictly that litigation *causes* lower fees and that specialization and state influences *actually* exacerbate this effect. In particular, it does not show that any direct perception of audit quality compromised leading to a decline in reputation following litigation *in fact* is the explanation for the fee reductions occurring. Under the approach taken it can be said a negative association apparently exists systematically between each variable hypothesised and fees, and that this observation is consistent with theoretical predictions. However, given that the explanation for this result is taken from established theories on audit litigation and fees, an *inference* of causality may be drawn.

### **8.3 Implications**

Despite these limitations, it is argued that the study makes some contributions. Essentially, it indicates that audit fees of litigated auditors are lower than those of non-litigated auditors, even for auditees similar by size and industry auditor tier and controlling for certain other fee influences. Further this outcome is exacerbated by location and for specialist auditors sued in industries they specialised in. The implications of the negative litigation, state and specialization effects on fees suggested are noteworthy. Methodologically, they indicate that future audit fee studies may need to control for the litigation status of auditors, in order to avoid any potential confounding influences. Practically, Corbett (1994) observes that the impact of auditors' common law liabilities presently is disproportionate to the scope of their statutory duties under the law. Although arguing in terms of auditors having to bear (potentially) unlimited yet foreseeable economic losses of plaintiffs upon being found negligent, this also is the case if auditors are penalised by lower fees from clients upon the publicity of allegations, regardless of actual wrongdoing or otherwise ultimately. This study suggests a broader economic impact of litigation on auditors above and beyond direct damages pay-outs, legal fees and opportunity costs of defending claims: not only do auditors lose clients following the event (Zhivov *et al*, 1995), but those who remain do so on terms less economically favorable to the auditor. Not only does the fee base contract, but revenues from this depleted source decline as well.

This has troubling implications for auditor competence and independence. If fee cutting (to retain clients which otherwise might be lost) involves: (1) cutting back on audit work in

order still to retain prior profit levels; or (2) brings with it the reluctance to confront management over any impropriety, then such actions might have negative consequences. This may represent a vicious cycle if such behavior leads again to decreases in audit quality, the very outcome which prompted arguably litigation (and hence the decrease in fee) in the first place. The study indicates the importance of auditors not only delivering audit quality but being *seen* to be doing so. It suggests that auditees value audit quality highly, because they are willing to pay more for its perceived increase and less when it has declined.

Finally, the findings suggest that the profession's lobbying efforts for liability-capping, even if successful, will still leave open the potential for significant financial losses from litigation in the form of decreased revenues through the fees forgone potentially following the event. If safeguarding the firm's wealth is the aim, the emphasis should be on keeping cases out of court. Clearly the costs of litigation are multi-dimensional and substantial and go well beyond the doors of the courtroom.

## REFERENCES

“Austlii”, <http://www.austlii.edu.au>.

Australian Society of Certified Practising Accountants *Code of Professional Conduct*.

Beatty, R. 1993. “The Economic Determinants of Auditor Compensation in the Initial Public Offerings Market.” 31(2) *Journal of Accounting Research* 294.

Butterworth, S and K Houghton. 1995. “Auditor Switching: The Pricing of Audit Services”, 22(3) *Journal of Business Finance & Accounting* 323.

Chow, C. 1982. “The Demand for External Auditing: Size, Debt and Ownership Influences”, 57(2) *The Accounting Review* 272.

Corbett, A. 1994. “The Rationale for the Recovery of Economic Loss in Negligence and the Problem of Auditors’ Liability”, 19(4) *Melbourne University Law Review* 814.

Craswell, A. 1990-95. “Who Audits Australia”, University of Sydney.

Craswell, A., J. Francis and S. Taylor. 1995. “Auditor Brand Name Reputations and Industry Specializations”, 20 *Journal of Accounting and Economics* 297.

Craswell, A. and S. Taylor. 1991. “The Market Structure of Auditing in Australia: The Role of Industry Specialization”, 5 *Research in Accounting Regulation* 55.

Davidson, R. and D. Neu. 1993. “A Note on the Association Between Audit Firm Size and Audit Quality”, 9 *Contemporary Accounting Research* 479.

Davis, L., D. Ricchiute and G. Trompeter. 1993. “Audit Effort, Audit Fees, and the Provision of Nonaudit Services to Audit Clients”, 68(1) *The Accounting Review* 135.

Davis, L. and D. Simon. 1992. “The Impact of SEC Disciplinary Actions on Audit Fees”, 11 *Auditing: A Journal of Practice & Theory* 58.

DeAngelo, L. 1986. “Accounting Numbers as Market Substitutes: A Study of Management Buyouts of Public Stockholders”, 61 *The Accounting Review* 400.

DeAngelo, L. 1981a. “Auditor Independence, “Low Balling”, and Disclosure Regulation”, 3 *Journal of Accounting and Economics* 113.

DeAngelo, L. 1981b. “Auditor Size and Audit Quality”, 3 *Journal of Accounting and Economics* 183.

DeAngelo, L. 1988. “Managerial Competition, Information Costs and Corporate Governance: The Use of Accounting Performance Measures”, 10 *Journal of Accounting and Economics* 3.

Ettredge, M. and R. Green. 1990. “Determinants of Fee Cutting on Initial Audit Engagements”, 28 *Journal of Accounting Research* 198.

- Firth, M. 1990. "Auditor Reputation: The Impact of Critical Reports Issued by Government Inspectors", 21(3) *Rand Journal of Economics* 374.
- Francis, J. and D. Stokes. 1986. "Audit Prices, Product Differentiation, and Scale Economies: Further Evidence from the Australian Market", 24 *Journal of Accounting Research* 383.
- Franz, S., D. Crawford and E. Johnson. 1998. "The Impact of Litigation Against an Audit Firm on the Market Value of Non-Litigating Clients".
- Gerrard, I., K. Houghton and D Woodliff, 'Audit Fees: The Effects of Auditee, Auditor and Industry Differences' (1993) 8(7) *Managerial Auditing Journal*.
- Godfrey, J., A. Hodgson, S. Holmes and U. Kam. 1994. *Accounting Theory*, Wiley, Brisbane. (2nd ed).
- Kinney Jr, W. and D. Martin. 1994. "Does Auditing Reduce Bias in Financial Reporting? A Review of Audit-Related Adjustment Studies" 13 *Auditing: A Journal of Practice & Theory* 149.
- Lecky, S. 1992. "Hard Times for Auditors", *The Sydney Morning Herald* (Sydney), 6 July, 21.
- Maher, M., P. Tiessen, R. Colson and A. Broman. 1992. "Competition and Audit Fees", 67 *The Accounting Review*, 199-211.
- Matthews, R., C. Jubb and K. Houghton. 1997. "The Premium for Specialization: Does It Exist for Non-Big 6 Audit Firms?", (Working Paper, Department of Accounting and Finance, The University of Melbourne).
- Menon, K. and D. Williams. 1991. "Auditor Credibility and Initial Public Offerings", 66 *The Accounting Review* 313.
- Menon, K. and D. Williams. 1994. "The Insurance Hypothesis and Market Prices" 69(2) *The Accounting Review* 327.
- Moreland, K. 1995. "Criticisms of Auditors and the Association Between Earnings and Returns of Client Firms", 14(1) *Auditing: A Journal of Practice & Theory* 94.
- National Economic Research Associates. 1992. *Competition in European Accounting*.
- Palmrose, Z. 1991. "An Analysis of Auditor Litigation Disclosures", 10 *Auditing: A Journal of Practice & Theory* 54.
- Palmrose, Z. 1991. "Trials of Legal Disputes Involving Independent Auditors: Some Empirical Evidence", 29 *Journal of Accounting Research* 149.

- Palmrose, Z. 1988. "An Analysis of Auditor Litigation and Audit Service Quality", 63(1) *The Accounting Review* 55.
- Palmrose, Z. 1987. "Litigation and Independent Auditors: The Role of Business Failure and Management Fraud", 6 *Auditing: A Journal of Practice and Theory* 90.
- Palmrose, Z. 1986. "Audit Fees and Auditor Size: Further Evidence", (6) 24 *Journal of Accounting Research* 97.
- Palmrose, Z. 1986. "The Effect of Nonaudit Services on the Pricing of Audit Services: Further Evidence", 24 *Journal of Accounting Research* 405.
- Palmrose, Z. 1984. "The Demand for Differentiated Audit Services in an Agency-Cost Setting: An Empirical Examination", (Paper presented at the 5th Auditing Research Symposium, Campaign).
- Pratt, J. and J. Stice. 1994. "The Effects of Client Characteristics on Auditor Litigation Risk Judgments, Required Audit Evidence, and Recommended Audit Fees", 69(4) *The Accounting Review* 639.
- Simon, D. and J. Francis 1988. "The Effects of Auditor Change on Audit Fees: Tests of Price Cutting and Price Recovery", 63(2) *The Accounting Review* 255.
- Simunic, D. 1984. "Auditing, Consulting and Auditor Independence", 22 *Journal of Accounting Research* 679.
- Simunic, D. 1980. "The Pricing of Audit Services: Theory and Evidence", 6 *Journal of Accounting Research* 329.
- Simunic, D. and M. Stein. 1986. "On the Economics of Product Differentiation in Auditing", (Paper presented at the 7th Touche Ross Auditing Symposium, University of Kansas).
- Simunic, D. and M. Stein 1987. "Product Differentiation in Auditing: Auditor Choice in the Market for Unseasoned New Issues", (Working Paper, Canadian Certified General Accountants' Research Foundation, Vancouver).
- Smith, C. and R. Watts. 1982. "Incentive and Tax Effects on Executive Compensation Plans", 7 *Australian Journal of Management* 139.
- Trade Practices Commission. 1992. *Study of the Professions: Accountancy — Final Report*.
- Waller, L. and C. Williams. 1997. *Criminal Law: Text and Cases* (8th ed).
- Watts, R. and J. Zimmerman. 1983. "Agency Problems, Auditing and the Theory of the Firm: Some Evidence", 26 *Journal of Law and Economics* 613.
- Watts, R. and J. Zimmerman. 1986. *Positive Accounting Theory*.

Wilson Jr, T. and R. Grimlund. 1990. "An Examination of the Importance of an Auditor's Reputation", 9(2) *Auditing: A Journal of Practice & Theory* 43.

Zhivov, F., C. Jubb and K. Houghton. 1995. "Auditor Litigation: Reputation and Auditor Switching Effects", (Working Paper No 95-08, Department of Accounting and Finance, The University of Melbourne).

**Table 1.**

**Public Information Sources Covered**

<i>Australian Accountant</i>	<i>National Australia Bank Quarterly</i>
<i>Australian Business</i>	<i>Summary</i>
<i>Australian Business Monthly</i>	<i>Personal Investment</i>
<i>Australian Investment</i>	<i>Quadrant</i>
<i>Australian Property News</i>	<i>Reserve Bank Bulletin</i>
<i>Australian Society</i>	<i>Shares</i>
<i>Australian Super Review</i>	<i>Stock Exchange Journal</i>
<i>Business Council Bulletin</i>	<i>The Advertiser</i>
<i>Business Review Weekly</i>	<i>The Age</i>
<i>Business Sydney</i>	<i>The Australian</i>
<i>Business Queensland</i>	<i>The Australian Financial Review</i>
<i>Charter</i>	<i>The Australian Magazine</i>
<i>Choice</i>	<i>The Bulletin</i>
<i>Commonwealth Bank Economic</i>	<i>The Courier-Mail</i>
<i>Newsletter</i>	<i>The Herald-Sun</i>
<i>Consuming Interest</i>	<i>The Independent</i>
<i>Cover Note</i>	<i>The Insurance Broker</i>
<i>CPA News</i>	<i>The Mercury</i>
<i>Daily Commercial News</i>	<i>The Rationalist</i>
<i>Decisions</i>	<i>The Sun-Herald</i>
<i>Earnings Power</i>	<i>The Sunday Age</i>
<i>Financial Forum</i>	<i>The Sunday Herald-Sun</i>
<i>Good Weekend</i>	<i>The Sunday Telegraph</i>
<i>Institute of Public Affairs Review</i>	<i>The Sydney Morning Herald</i>
<i>Journal of the Securities Institute of</i>	<i>The West Australian</i>
<i>Australia</i>	<i>Time Australia</i>
<i>Money Management</i>	<i>Today's Computers</i>

**Table 2.****Litigation Against Auditors Reported 1987–1994**

<b>Year</b>	<b>Auditee</b>	<b>Industry</b>	<b>Auditor(s)</b>	<b>State</b>	<b>\$m</b>
1987	BGJ Holdings Pty Ltd	Miscellaneous Industrials	Touche Ross	Vic	4.5
1987	Challenge Engineering	Engineering	Nelson Wheeler	WA	0.1
1987	Excel Finance Corporation	Banking and Finance	Nelson Wheeler	SA	0.175
1987	Venture Holidays Group	Miscellaneous Services	Touche Ross	Vic	4.4
1988	AWA Ltd	Miscellaneous Industrials	Deloitte Haskins & Sells	NSW	50
1988	Teachers Credit Society	Banking and Finance	Mann Judd	WA	62.5
1988	York Castle Hotel	Miscellaneous Services	Nelson Wheeler	WA	6
1989	Bishopsgate Insurance Australia	Insurance	Touche Ross	Vic	0.5
1989	Columbia Coffee and Tea Pty Ltd	Retail	BDO Nelson Parkhill	NSW	4
1989	Consolidated Health Care Group	Miscellaneous Services	Price Waterhouse	SA	105
1989	Pro Image Studios	Miscellaneous Services	Palmer and Partners	Vic	15
1989	Spedley Securities	Investment and Financial Services	Priestly & Morris	NSW	320
1990	Equiticorp Tasman Ltd	Entrepreneurial Investors	Deloitte Haskins & Sells	NSW	**
1990	Kia Ora Gold Corporation	Mining — Gold	Arthur Young KPMG Peat Marwick Nelson Wheeler	NSW	175
1990	National Safety Council of Australia	—	Horwath & Horwath	Vic	263
1990	Qintex Ltd	Media	Duesburys	Qld	**
1990	Rothwells Merchant Bank	Banking and Finance	KPMG Peat Marwick	WA	40
1991	AIMS Pty Ltd	Miscellaneous Industrials	Nelson Wheeler	WA	0.15
1991	Bart Cummings	Media	Coopers & Lybrand KPMG Peat Marwick	NSW	8
1991	Beneficial Finance Corporation	Banking and Finance	Price Waterhouse	SA	1100
1991	Budget Group	Miscellaneous Industrials	Coopers & Lybrand	NSW	17
1991	Estate Mortgage Trusts	Property Trusts	Priestly & Morris Tyshing Price & Co Financial Services	Vic	640
1991	Greenhill Companies	Miscellaneous Industrials	Coopers & Lybrand	NSW	7.4
1991	Occidental and Regal Life Insurance	Insurance	Deloitte Ross Tohmatsu	Vic	132
1991	Ray White Property Group	Developers and Contractors	Coopers & Lybrand	Qld	**
1991	Swan Building Society	Banking and Finance	KPMG Peat Marwick	WA	20

<b>Year</b>	<b>Auditee</b>	<b>Industry</b>	<b>Auditor(s)</b>	<b>State</b>	<b>\$m</b>
1992	Independent Resources Ltd	Mining — Gold	Deloitte Touche Tohmatsu	SA	12
1992	Linter Group Ltd	Diversified Industrials	Price Waterhouse	Vic	320
1992	Pyramid Building Society	Banking and Finance	Day Neilson Jenkins & Johns	Vic	900
1992	State Bank of Victoria	Banking and Finance	Ernst & Young KPMG Peat Marwick	Vic	900
1992	Tricontinental Corporation Ltd	Banking and Finance	KPMG Peat Marwick	Vic	1100
1992	Western United Ltd	Investment and Financial Services	Nelson Wheeler	WA	100
1993	Budget Rent-A-Car Australia Pty Ltd	Transport	Coopers & Lybrand	Qld	**
1993	Deposit & Investment Company Ltd	Investment and Financial Services	KPMG Peat Marwick	NSW	73
1993	Excel Finance Corporation	Banking and Finance	KPMG Peat Marwick	SA	**
1993	Farrow Finance	Banking and Finance	Coopers & Lybrand Price Waterhouse Day Neilson Jenkins & Johns	Vic	20
1993	Geneva Finance Ltd	Banking and Finance	Horwath & Horwath	WA	35
1993	Westmex Ltd	Entrepreneurial Investors	Grant Thornton Thompson Douglass Butterell	NSW	**
1994	Adelaide Steamship Company Ltd	Entrepreneurial Investors	Deloitte Touche Tohmatsu	NSW	340
1994	Bond Corporation Holdings Ltd	Entrepreneurial Investors	Arthur Andersen & Company	SA	500
1994	Elders IXL	Alcohol and Tobacco	Price Waterhouse	Vic	118.5
1994	State Bank of South Australia	Banking and Finance	KPMG Peat Marwick Price Waterhouse	SA	4000

\*\* Unspecified quantum of damages claimed, or amount not reported

Sources: See Table 1.

**Table 3.**  
**Companies Included in the Sample**

Adelaide Brighton Cement	Blackmores	Denehurst
Adelaide Capital Corporation	Blakistons	Deutsche Bank Australia
Adroyal Group	Bligh Oil & Minerals	Desane Group Holdings
Adtrans Group	Bligh Ventures	Devex
Advance PF	Boral	Dioro Exploration
Agen	Breakwater IS TR	Diversified United Investments
Alamain Investments	Brick Security Industrials TR	Dochlyn
Alcan Australia	Buderim Ginger	Dollar Sweets Holdings
Allgas Energy	Burmine	Drillsearch
Alpha Healthcare	Burns Philp & Company	Eagle Bay Resources
Amalgamated Holdings	Byron Holdings	East Coast Minerals
Amcor	Campbell Group	Eastmet
American Corporate	Carlton Investments	Eltin
Amskan	Carnavon Petroleum	Embelton
Anglo Australian Resources	Carpenter Pacific Resources	Emperor Mines
AP Eagers	Carrington Cotton	ENT
ARB Corporation	Centtamin	Equity Executives & Agency
Arboyne	Central Equity	ERG Australia
Argo Investments	Central Norseman Gold	Esperance Minerals
Arnotts	Central Pacific Minerals	Evans Deakin Industries
Asarco Australia	Central West Media	Excalibur
ASC	Centurion Industries	FAI Insurance
Aspermont	Challenger International	Faulding F H & Company
Asset Backed Securities	Chalmers	First Australia Resources
Associated Diaries	Champion Compressors	Five Arrows Australia
Atlantic	Charter Cruise Air	Fleetwood Corporation
Atlas Steel	Circadian Technologies	Fosters Brewing Group
Australian Assets Corporation	Cities of Australia PT	Fraser Range Granite
Australian Authorised Investments	Cityview Investments	Futuris Corporation
Australian Chemical Holdings	Claremont Petroleum	Gainsborough Homeware Industries
Australian Diamond Exploration	Clelands Entertainment	Garratts
Australian Foundation Investment Company	Climax Mining	Gemstone Corporation of Australia
Australian Pacific Technologies	Club Crocodile Holdings	General Investments Australia
Australian Rural Group	Cluff Resources Pacific	GEM PT
Australian United Gold	Clutha	Gibson Chemical Industries
Australian United Holdings	Clyde	Giralia Resources
Australian United Investments	Coal & Allied Industries	Glengarry Resources
Austin Oil	Coldstream Wine	Gold Mines of Kalgoorlie
Austpac Gold	Collings	Golden Plateau
Austram Corporation	Collins Motor Corporation	Golden Shamrock Mines
Austrim	Colonial Mutual AP	Goodman Fielder
Bains Harding	Compass Resources TR	Great North Mining
Ballarat Brewing Company	Computer Resources TR	Greenchip Investments
Ballarat Goldfields	Cons Rutile	Greenvale Mining
Bank of America Australia	Coolawin Resources	GUD Holdings
Bank of Queensland	Cortecs International	Gunns Kiln Timber Industries
Bankers' Trust Australian Equity	Country Road	Gwalia Constructions
Bankers' Trust Global Asset Management	Crane GE Holdings	Harringtons
Barrack Industries	Crystal Mining	Harris Keith & Company
Barron Films	Cudgen RZ	Helm Corporation
Bastion Corporation	Cultus Petroleum	Helmsman Group
Beach Petroleum	Dalrymple Resources	Hill Industrial
Bendigo Mining	Dapoli Corporation	Howard Financial Holdings
Bennett & Fisher	Darling Downs TV	Howard Smith
Berklee	Darowa Corporation	Hoyts Entertainment
Beyond International	Dart Corporation	Hudson Conway
Biota Holdings	Datacraft	Hunter Resources
Biotech International	Defiance Mining	Hydromet
Biron Corporation	Delta Corporation	IMDEX
	Delta Gold	Industrial Investments
	DEM	Institute of Drug Technology

ISR Holdings	PA PT	Sumich Group
Jeffries Industrial	Pacific Dunlop	Sunraysia TV
Jennings Group	Pacific Mining	Sunvest Corporation
Jerrabomberra Estates	Palmer Tube Mills	Tandou
Julia Mines	Parbury	Target Resources
Just Australia China Holdings	Parmelia Resources	Tasmania Mines
Kalamazoo Holdings	Pasminc	Tassal
Kalgoorlie Resources	Payce Construction	Techniche
Kern PF	Pelsart Resources	Tectonic Resources
Keycorp	Penfold WC	Telecasters North Queensland
Kingsgate Consolidated	Perilya Mines	Templeton Global Fund
Kitchener Mining	Perpetual Trustees Australia	Tennyson Holdings
Lachlan Resources	Perseverance Corporation	TNT
Lanes	Petroleum Securities	Trafalgar Properties
Leighton Holdings	Petroz	Treloar Entertainment
Lend Lease Corporation	PIMA Mining	Triako Resources
Lennard Oil	Pioneer International	Triarc Corporation
Loscam	Plenty River Mining	Triden Corporation
MacMahon Holdings	Poseidon Gold	Triton Resources
Manettas	Platinum Search	Troy Resources
McPherson	Power Brewing	Tyco Investments Australia
Markwell Pacific	Precious Metals	Tyndall Australia
Mayne Nickless	Premier Investments	Villa World
McLeod MS Holdings	Prima	Village Roadshow
Medical Research Institute	Primac Holdings	Vision Systems
Memtec	Prime Finance	Wakefield Investments Australia
Merlind	Prime TV	Watkins Pacific
Metal Man	QBE Insurance	WBCM Consultants
Midwest Radio	QCT Resources	Wesfarmers
Mildara Blass	QDL	Wesgo
Mineral Commodities	QIW	Western Capital
Mineral Estates	QUF Industries	Westfield Holdings
Minerals Mining & Metal	Rancoo	Westralian Resources
Minproc Holdings	Renak Holdings	Windsor Resources
Money Mining	Renison Goldfields	Xenolith Gold
Montague Gold	Richardson Pacific	Yardarino Mining
Morning Star Holdings	Ridley Corporation	
Mount Carrington Mines	Rural Press	
Mount Leyshon Gold Mines	South Australian Brewing Holdings	
Murchison Holdings	Samic	
National Can Industries	Satrecol Australia	
Nautronix	Savage Resources	
New Privater Holdings	SBS Rural	
Newcrest Mining	Schaffer Corporation	
Newhaven Park Stud	Scitec Communication Systems	
Newmex Exploration	Scott Corporation	
Nilsen Oliver J	Sedimentary Holdings	
Normandy Poseidon	Segenhoe	
North BH Peko	Shared Investments	
Northern Rivers Hotel	Sime Darby Australia	
Oakbridge	Sonodyne International	
Ocean Resources	Southern Cross	
Oil Company of Australia	Spicers Paper	
Oldfields Holdings	Spotless Group	
Olympus Resources	Stanilite Pacific	
Orbital Engine Corporation	Stockland Tyre Group	
Oresearch	Stokes Australasia	
Orion Resources	Structural Systems	

**Table 4.****Companies in the Sample Classified by Industry  
(Test Companies)**

<b>Australian Stock Exchange Two-Digit Industry Code</b>	<b>Industry</b>	<b>Number of Companies</b>	<b>Percentage (%)</b>
01	Mining - Gold	50	14.97
02	Mining - Other Metals	26	7.78
03	Solid Fuels	6	1.80
04	Oil and Gas	14	4.20
05	Diversified Resources	2	0.60
06	Developers and Contractors	12	3.59
07	Building Materials	10	2.99
08	Alcohol and Tobacco	4	1.20
09	Food and Household Goods	14	4.19
10	Chemicals	2	0.60
11	Engineering	16	4.79
12	Paper and Packaging	4	1.20
13	Retail	6	1.80
14	Transport	10	2.99
15	Media	12	3.59
16	Banking	2	0.60
17	Insurance	2	0.60
18	Entrepreneurial Investors	2	0.60
19	Investment and Financial Services	60	17.96
20	Property Trusts	6	1.80
21	Miscellaneous Services	22	6.59
22	Miscellaneous Industrials	42	12.57
23	Diversified Industrial	10	2.99
	<b>Total</b>	334	100.00

**Table 5.**

**H<sub>1</sub>: *t*-Tests of Mean Differences Between Groups (Litigation / No Litigation) (Pooled)**

<b>Variable</b>	<b>LIT 1</b>	<b>LIT 0</b>	<b>Mean Difference</b>	<b><i>t</i>-Value</b>	<b>Significance</b>
<i>Fee</i> (\$)	38 583	83 236	(44 653)	-6.24	0.000 (1 tail)
<i>Sales</i> (\$)	56 402 887	52 573 449	3 829 438	0.37	0.712 (2 tail)
<i>Assets</i> (\$)	87 827 704	79 562 807	8 264 833	0.39	0.699 (2 tail)

**Levene Values**

<i>Fee</i>	57.743	(0.000)
<i>Sales</i>	0.356	(0.551)
<i>Assets</i>	0.602	(0.438)

**Table 6.**

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression: Audit Fees as Explained by Litigation and Control Variables (Pooled across All Years)**

<b>Variable</b>	<b>Sign</b>	<b>Coefficient</b>	<b><i>t</i>-Value</b>	<b>Significance</b>	<b>Tolerance</b>	<b>VIF</b>
<i>LIT</i>	—	0.1962	-10.058	0.0000	0.9712	1.030
<i>NAS</i> <sub>10</sub>	+	0.3464	19.968	0.0000	0.7149	1.399
<i>Sales</i> <sub>10</sub>	+	0.1449	10.143	0.0000	0.3569	2.802
<i>Assets</i> <sub>10</sub>	+	0.1442	6.780	0.0000	0.3547	2.819
<i>Constant</i>	+	0.0106	0.182	0.8557	—	—

<b>Adjusted R-Square</b>	66.22%
<b><i>F</i></b>	521.3456
<b>Significance</b>	0.0000
<b>Durbin-Watson</b>	1.3587

**Table 7.**

**H<sub>2</sub>: *t*-Tests of Mean Differences Between Litigation against Specialist Auditor and Control Groups (Pooled)**

<b>Variable</b>	<b>Mean Difference (<i>SPEC 1</i> — <i>SPEC 0</i>)</b>	<b><i>t</i>-Value</b>	<b>Significance</b>
<i>Fee</i> (\$)	(311,805)	-2.09	0.076 (1 tail)
<i>Sales</i> (\$)	74,293,268	0.22	0.823 (2 tail)
<i>Assets</i> (\$)	177,308,683	0.04	0.966 (2 tail)

**Levene Values**    *Fee* 8.954 (0.003)    *Sales* 2.851 (0.093)    *Assets* 0.006 (0.939)

**Table 8.**

**H<sub>2</sub>: Ordinary Least-Squares Multiple Regression: Audit Fees as Explained by Litigation against a Specialist Auditor and Control Variables (Pooled)**

<b>Variable</b>	<b>Sign</b>	<b>Coefficient</b>	<b><i>t</i>-Value</b>	<b>Significance</b>	<b>Tolerance</b>	<b>VIF</b>
<i>SPEC</i>	—	0.1663	-2.251	0.0257	0.9502	1.052
<i>NAS</i> <sub>10</sub>	+	0.4223	6.669	0.0000	0.2932	3.411
<i>Sales</i> <sub>10</sub>	+	0.0112	2.084	0.0388	0.2645	3.781
<i>Assets</i> <sub>10</sub>	+	0.1105	2.950	0.0037	0.4918	2.033
<i>Constant</i>	+	0.6939	4.110	0.0001	—	—

**Adjusted R-Square**    69.32%  
***F***    93.06784  
**Significance**    0.0000

**Durbin-Watson**    2.08943

**Table 9.**

**H<sub>3</sub>: *t*-Tests of Mean Differences Between Litigation within Local State and Elsewhere Groups (Pooled)**

<b>Variable</b>	<b>Mean Difference (<i>STAT 1</i> — <i>STAT 0</i>)</b>	<b><i>t</i>-Value</b>	<b>Significance</b>
<i>Fee</i> (\$)	(64,146)	-2.27	0.048 (1 tail)
<i>Sales</i> (\$)	16,191,833	0.24	0.807 (2 tail)
<i>Assets</i> (\$)	3,474,792	0.08	0.934 (2 tail)

**Levene Values**    *Fee* 7.123 (0.008)    *Sales* 3.394 (0.066)    *Assets* 0.011 (0.934)

**Table 10.**

**H<sub>3</sub>: Ordinary Least-Squares Multiple Regression: Audit Fees as explained by Litigation located within Local State / Elsewhere and Control Variables (Pooled)**

<b>Variable</b>	<b>Expected Sign</b>	<b>Coefficient</b>	<b><i>t</i>-Value</b>	<b>Significance</b>	<b>Tolerance</b>	<b>VIF</b>
<i>STAT</i>	—	0.2516	-9.742	0.0000	0.9731	1.028
<i>NAS</i> <sub>10</sub>	+	0.2061	11.694	0.0000	0.6330	1.580
<i>Sales</i> <sub>10</sub>	+	0.0977	7.734	0.0000	0.5070	1.973
<i>Assets</i> <sub>10</sub>	+	0.3188	14.679	0.0000	0.4574	2.186
<i>Constant</i>	—	0.3045	-4.284	0.0000	—	—

**Adjusted R-Square**    82.27%  
***F***    445.27170  
**Significance**    0.0000

**Durbin-Watson**    1.57786

## Appendix A.

### H<sub>1</sub>: *t*-Tests of Mean Differences Between Groups (Litigation / No Litigation) and Ordinary Least-Squares Multiple Regression: Audit Fees as Explained By Litigation and Control Variables (by Year)

1988

#### H<sub>1</sub>: *t*-Tests of Mean Differences Between Groups

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	<i>t</i> -value	Significance
<i>Fee</i> (\$)	(91,795)	-3.54	0.002 (1 tail)
<i>Sales</i> (\$)	418,795	0.02	0.982 (2 tail)
<i>Assets</i> (\$)	2,726,667	0.24	0.811 (2 tail)

Levene Values    *Fee* 31.354 (0.000)    *Sales* 0.081 (0.776)    *Assets* 0.439 (0.509)

#### H<sub>1</sub>: Ordinary Least-Squares Multiple Regression

Variable	Sign	Coefficient	<i>t</i> -Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.4692	-7.329	0.0000	0.9419	1.062
<i>NAS</i> <sub>10</sub>	+	0.1556	2.431	0.0166	0.7224	1.384
<i>Sales</i> <sub>10</sub>	+	0.2902	4.179	0.0001	0.2720	3.677
<i>Assets</i> <sub>10</sub>	+	0.3508	3.927	0.0001	0.3240	3.087
<i>Constant</i>	—	1.0084	-4.508	0.0000	—	—

Adjusted R-Square    71.79%  
*F*    77.9801  
Significance    0.0000

1989

#### H<sub>1</sub>: *t*-Tests of Mean Differences Between Groups

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	<i>t</i> -value	Significance
<i>Fee</i> (\$)	(47,368)	-2.65	0.018 (1 tail)
<i>Sales</i> (\$)	2,181,529	0.08	0.933 (2 tail)
<i>Assets</i> (\$)	1,597,290	0.16	0.871 (2 tail)

Levene Values    *Fee* 8.725 (0.004)    *Sales* 0.041 (0.839)    *Assets* 0.083 (0.774)

#### H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results

Variable	Sign	Coefficient	<i>t</i> -Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.1708	-3.169	0.0021	0.8848	1.130
<i>NAS</i> <sub>10</sub>	+	0.1328	2.638	0.0097	0.6637	1.507
<i>Sales</i> <sub>10</sub>	+	0.2386	5.051	0.0000	0.3399	2.942
<i>Assets</i> <sub>10</sub>	+	0.1900	3.347	0.0012	0.3500	3.347
<i>Constant</i>	—	0.2346	-1.551	0.1242	—	—

Adjusted R-Square    71.92%  
*F*    65.0194  
Significance    0.0000

1990

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(35,139)	-2.69	0.016 (1 tail)
<i>Sales</i> (\$)	33,083	0.01	0.995 (2 tail)
<i>Assets</i> (\$)	346,278	0.05	0.962 (2 tail)

**Levene Values**     *Fee* 10.333 (0.002)     *Sales* 8.340 (0.004)     *Assets* 5.532 (0.062)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.2624	-4.951	0.0000	0.8805	1.136
<i>NAS</i> <sub>10</sub>	+	0.2663	5.221	0.0000	0.6818	1.467
<i>Sales</i> <sub>10</sub>	+	0.1291	4.026	0.0001	0.4513	2.261
<i>Assets</i> <sub>10</sub>	+	0.1994	3.130	0.0023	0.3911	2.557
<i>Constant</i>	—	0.0170	-0.101	0.9200	—	—

**Adjusted R-Square**     68.72%  
**F**     58.65604  
**Significance**     0.0000

1991

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(143,830)	-2.32	0.044 (1 tail)
<i>Sales</i> (\$)	8,967,359	0.17	0.868 (2 tail)
<i>Assets</i> (\$)	2,166,547	0.05	0.958 (2 tail)

**Levene Values**     *Fee* 10.951 (0.001)     *Sales* 0.103 (0.749)     *Assets* 0.012 (0.914)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.3890	-2.547	0.0124	0.8991	1.112
<i>NAS</i> <sub>10</sub>	+	0.3851	5.068	0.0000	0.1963	5.094
<i>Sales</i> <sub>10</sub>	+	0.0680	10.996	0.0000	0.3499	2.858
<i>Assets</i> <sub>10</sub>	+	0.0312	2.966	0.0038	0.1561	6.407
<i>Constant</i>	+	0.4310	5.995	0.0000	—	—

**Adjusted R-Square**     82.97%  
**F**     127.64534  
**Significance**     0.0000

1992

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(10,929)	-2.29	0.048 (1 tail)
<i>Sales</i> (\$)	681,268	0.07	0.941 (2 tail)
<i>Assets</i> (\$)	1,953,518	0.25	0.806 (2 tail)

Levene Values    *Fee* 4.053 (0.047)    *Sales* 0.001 (0.976)    *Assets* 0.209 (0.649)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.1664	-3.998	0.0001	0.9912	1.009
<i>NAS</i> <sub>10</sub>	+	0.1473	3.690	0.0004	0.7267	1.370
<i>Sales</i> <sub>10</sub>	+	0.1641	5.575	0.0000	0.5340	1.873
<i>Assets</i> <sub>10</sub>	+	0.0991	2.005	0.0475	0.5067	1.973
<i>Constant</i>	+	0.3290	2.211	0.0292	—	—

Adjusted R-Square    60.60%  
*F*    43.67423  
 Significance    0.0000

1993

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(27,844)	-2.33	0.042 (1 tail)
<i>Sales</i> (\$)	392,817	0.02	0.987 (2 tail)
<i>Assets</i> (\$)	12,028,321	0.11	0.914 (2 tail)

Levene Values    *Fee* 9.557 (0.002)    *Sales* 0.662 (0.431)    *Assets* 0.183 (0.669)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.1752	-5.171	0.0000	0.9801	1.020
<i>NAS</i> <sub>10</sub>	+	0.1536	5.932	0.0000	0.7314	1.367
<i>Sales</i> <sub>10</sub>	+	0.1456	6.692	0.0000	0.4220	2.370
<i>Assets</i> <sub>10</sub>	+	0.2832	8.497	0.0000	0.4107	2.435
<i>Constant</i>	—	0.3806	-3.882	0.0001	—	—

Adjusted R-Square    76.79%  
*F*    180.44108  
 Significance    0.0000

1994

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(28,594)	-2.22	0.054 (1 tail)
<i>Sales</i> (\$)	2,623,317	0.07	0.946 (2 tail)
<i>Assets</i> (\$)	64,829	0.00	0.999 (2 tail)

**Levene Values**     *Fee* 3.755 (0.054)     *Sales* 0.419 (0.518)     *Assets* 0.549 (0.460)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.2240	-7.083	0.0000	0.9430	1.060
<i>NAS</i> <sub>10</sub>	+	0.1539	5.839	0.0000	0.5899	1.695
<i>Sales</i> <sub>10</sub>	+	0.0905	4.053	0.0001	0.3372	2.966
<i>Assets</i> <sub>10</sub>	+	0.3045	7.808	0.0000	0.3062	3.265
<i>Constant</i>	—	0.2325	-2.108	0.0360	—	—

**Adjusted R-Square**     74.65%  
**F**     181.35942  
**Significance**     0.0000

1995

**H<sub>1</sub>: t-Tests of Mean Differences Between Groups**

Variable	Mean Difference ( <i>LIT 1</i> — <i>LIT 0</i> )	t-value	Significance
<i>Fee</i> (\$)	(23,102)	-2.34	0.040 (1 tail)
<i>Sales</i> (\$)	525,575	0.02	0.981 (2 tail)
<i>Assets</i> (\$)	10,540,118	0.22	0.829 (2 tail)

**Levene Values**     *Fee* 7.163 (0.008)     *Sales* 0.055 (0.815)     *Assets* 0.377 (0.540)

**H<sub>1</sub>: Ordinary Least-Squares Multiple Regression Results**

Variable	Sign	Coefficient	t-Value	Significance	Tolerance	VIF
<i>LIT</i>	—	0.0936	-2.986	0.0031	0.9879	1.012
<i>NAS</i> <sub>10</sub>	+	0.1693	6.746	0.0000	0.6232	1.605
<i>Sales</i> <sub>10</sub>	+	0.2146	9.625	0.0000	0.3300	3.030
<i>Assets</i> <sub>10</sub>	+	0.0848	2.590	0.0102	0.3655	2.736
<i>Constant</i>	+	0.2259	2.334	0.0204	—	—

**Adjusted R-Square**     73.82%  
**F**     177.89501  
**Significance**     0.0000

## ENDNOTES

---

- <sup>1</sup> See for example, Wilson and Grimlund (1990); Zhivov, Jubb and Houghton (1995); and Firth (1990).
- <sup>2</sup> See for example, Moreland (1995); Franz, Crawford and Johnson (1997); and Firth (1990).
- <sup>3</sup> This is analogous to the argument that an increase apparently in an auditor's reputation attracts clients, while a decrease in reputation perceived conversely makes it harder for the auditor to retain existing clients and attract new ones. On the former point, see for example, Simunic and Stein (1986). On the latter point, see Wilson and Grimlund (1990); Zhivov, Jubb and Houghton (1995); Firth (1990); and Davis and Simon (1992).
- <sup>4</sup> Davis and Simon (1995) and Firth (1990) being two that are noteworthy.
- <sup>5</sup> See Trade Practices Commission, *Study of the Professions: Accountancy - Final Report* (1992).
- <sup>6</sup> Alternatively, they may seek to substitute an alternative supplier.
- <sup>7</sup> Namely that the share price revision observed resulted from investors perceiving a depression in the future cash flows expected from the companies affected, due to their uncertain situation from having to reorganise their business affairs and in particular from the costs of having to find new auditors.
- <sup>8</sup> See for example, *Whiteoak* (1988) 4 BCC 122; and *AWA* (1992) 7 ACSR 759.
- <sup>9</sup> See especially *Cook v Cook* (1986) 162 CLR 376 ('Cook'); and *Rogers* (1992) 175 CLR 479. See generally *Whiteoak* (1988) 4 BCC 122; *AWA* (1992) 7 ACSR 759.
- <sup>10</sup> Because of the data's secondary nature, appropriate efforts were made to verify its completeness and accuracy. The list was checked against cases: (1) in the library of a major Australian law firm (Arthur Robinson & Hedderwicks); and (2) in specialised legal information sources "Austlii" and *Butterworths Unreported Judgments* CD-Rom. Finally, indexes of specific practitioner law reports as well as those for each Australian State and Territory over the relevant years were perused. No additional cases relevant were identified.
- <sup>11</sup> Although all cases involved civil allegations of negligence, searches also were conducted for news reports of statutory actions against auditors possible under section 52 of the *Trade Practices Act 1974* (Cth) and the various State and Territory *Fair Trading Acts* for alleged "misleading or deceptive conduct". No additional cases were located regarding this potentially alternative signal of decreased audit quality perceived. The same outcome followed searches for reported actions by the Crown against auditors for alleged criminal conspiracy in respect of audits.
- <sup>12</sup> This methodology was employed in place of a regression on the population of companies for the following reasons. A preliminary examination revealed presence of the hypothesis variable to be rare relative to the frequency of existing fee variables, this attributable generally to the scarcity empirically of audit litigation data points noted above. Davis and Simon (1990) caution that at such low levels the danger exists that any fee effects potentially might not be detected, because "swamping" of the hypothesis variable by other variables might obscure its impact.
- <sup>13</sup> Using a dichotomous litigation variable when Zhivov et al, 1995) found significant results with a continuous measure in the form of the amount of damages claimed requires justification. It is submitted that this approach is correct theoretically because the latter captures the effect perceived of the audit failure alleged on the plaintiff, whereas it is the former which really relates

---

to the actual apparent presence or absence of audit failure. By definition, audit failure perceived centres around non-discovery or disclosure apparently of material misstatements or misrepresentations, judged objectively from the perspective of financial statement users. Damages however are influenced largely by subjective claimant financial characteristics independent of the degree of audit failure — compensation is awarded to put the particular plaintiff into the position that he, she or it would have been in had the audit failure not occurred, considering all of his, her or its individual circumstances.

- <sup>14</sup> The regression was re-run on the test group using a continuous litigation measure. Even after log10 and square-root transformations, no significance was observed. The same was true following categorisation of cases as “serious” (more than \$50 000 000 claimed) and “non-serious” (all other amounts) under Zhivov et al (1995) approach. This is despite the fact that there almost were equal numbers of both during the period studied. It suggests that the quantum of damages claimed did not influence to what extent fees decreased between auditors litigated. This could be explained by the fact that most of the litigation that received publicity was large and may have been beyond the threshold where an effect might be predicted.
- <sup>15</sup> Additional tests were run to check the robustness of the results. Outliers were identified by calculating Mahalanobis and Cook’s distances and leverage values, but extreme observations when present were not driving results because significance levels of variables affected did not exceed conventional thresholds even after these were excluded. Variance inflation factor, tolerance figures and Eigenvalues did not suggest problematic multicollinearity between explanatory variables. Regression assumptions of residuals distributed normally with constant variance were not revealed to be violated, following the latter’s examination. The outcomes of these tests suggest therefore that results observed are not “due to model misspecification or sample peculiarities.”
- <sup>16</sup> Unlike some other jurisdictions, most litigation against auditors in Australia is against first tier audit firms (Big 8, 6 or 5) (see Table 2). Thus, because of the relatively low incidence of litigation observed against second tier auditors in the total group of suits, a separate pooled *t*-test and regression was run using only these cases and their matches for  $H_1$ .