Part II. Auditor independence

Chapter 6. Conflicts of interest in auditing: are they conducive to corruption?[1]

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Abstract

This chapter will examine and discuss the question whether conflicts of interest in the accountancy and auditing profession are conducive to corruption. In undertaking this enquiry, I will first define what a conflict of interest is and under what type of circumstances and conditions it can arise. The types of circumstances and conditions in which a conflict of interest arises will be illustrated through an examination and discussion of the financial collapse of Enron. In the second part of the chapter I will offer a conceptual account of corruption through an examination of its key features; features that are normally, if not always, present in typical cases of corruption. Through the use of this conceptual account of corruption, I will demonstrate how conflicts of interest in auditing and accounting, as illustrated by the case of Enron, can potentially lead to and result in corruption. Finally, I will discuss ways by which conflicts of interest can be dealt with. Ultimately, the best ethical and governance policy for dealing with conflicts of interest in auditing is to avoid them altogether, as mere disclosure does not eliminate a conflict of interest and its continuing presence thus remains a potential risk that might contribute to corruption.

Introduction

One of the most important facilitators of corruption is conflict of interest. A conflict of interest occurs when a person or group's self-regarding interest comes into conflict with their fiduciary duties, or when a person or group has two fiduciary roles and the duties of one compete with the duties of the other. For example, if a member of the Tax Office decided to adjudicate his own tax return, he would have a conflict between his personal self-interest and his fiduciary duty. Again, if an accountant happened also to be the manager of a football club,

[1]Some of the material in this paper has appeared previously in a different context and format in Miller, S., Roberts, P. and Spence, E. 2005, *Corruption and Anti-Corruption: An Applied Philosophical Approach*, Prentice Hall, Englewood Cliffs, NJ.

and as an accountant he was asked to audit the club's financial statements, he would have a conflict of interest.

Conflicts of interest are conducive to corruption in a variety of ways, depending on the nature of the role of the person or group that has the conflict of interest. For example, a magistrate or police officer with a conflict of interest may fail to apply the law impartially, or a businessman who is a member of a local government body might vote to award himself a contract.

Conflicts of interest can be hard to determine, and sometimes an apparent conflict of interest might turn out on closer inspection to be more of an instance of role ambiguity or confusion rather than a genuine conflict of interest. However, because appearances of impropriety can be harmful to reputations and to trust, it is important to clarify and resolve apparent conflicts of interest as well as to avoid real ones. It is also important to ensure that the precise nature and boundaries of fiduciary and other roles are clearly delineated and rendered perspicuous. For if this is not done, role confusion can arise, and with it the possibility of intended or unintended conflicts of interest.

What is a conflict of interest?

Before we proceed further, let us first determine what a conflict of interest is.

According to the 'standard view' (Davis 1998, p. 590):

> A conflict of interest is a situation in which some person *P* (whether an individual or corporate body) has a conflict of interest. *P* has a conflict of interest if and only if (1) *P* is in a relationship with another requiring *P* to exercise judgement in the other's behalf and (2) *P* has a (special) interest tending to interfere with the proper exercise of judgement in that relationship. The crucial terms in this definition are 'relationship', 'judgement', 'interest' and 'proper exercise'.

The 'relationship' required must be fiduciary; that is, it must involve one person trusting (or at least being entitled to trust) another to exercise judgment in his service. 'Judg(e)ment' is the ability to make certain kinds of decisions that require knowledge or skill correctly and reliably. 'Interest' is any influence, loyalty, concern, emotion or other feature of a situation tending to make P's judgment (in that situation) less reliable than it would normally be. 'Proper exercise' of judgment is normally a question of social fact and includes what people ordinarily expect, what P or the group P belongs to invite others to expect, and what various laws, professional codes or other regulations require (Davis 1998, p. 590).

What is generally wrong with a conflict of interest is that it renders one's judgment less reliable than it normally should be and results in a failure or abuse of a fiduciary duty.

Types of conflicts of interest

Generally, a conflict of interest can arise in at least one of two ways:

1. One has a self-regarding interest that is in conflict, or at least potentially so, with one's fiduciary duty, having the tendency to interfere with the proper exercise of one's judgment with regard to that duty.
2. One has two potentially competing fiduciary duties or roles that are in conflict with each other, or at least potentially so, having the tendency to interfere with the proper exercise of one's judgment with regard to one or the other of the two competing duties or roles so that one is not able to properly exercise both.

So, for example, there is a clear conflict of interest in the case of an accountant who is also the manager of a football club and audits the financial statements of his club. For his special interest in the club as manager would have a tendency to make his judgment as auditor less reliable than what it ordinarily should be, because it would be less objective and independent than what would normally be expected of a disinterested auditor. The conflict of interest arises as a direct result of the conflict between the two competing roles in which the football club accountant-cum-manager is engaged, such that it has a tendency to interfere with one or the other of those two competing roles and the respective fiduciary duties associated with each.

Crucially, for the purpose of this chapter, conflicts of interest are conducive to corruption. So, for example, a police officer who also moonlights for a security firm faces a conflict of interest when called upon to investigate criminal allegations against the manager of the security firm. The police officer's personal interest in keeping his additional job conflicts with the requirements of his role as a police officer, and may interfere with the proper exercise of his judgment in fulfilling his fiduciary duty of upholding the law. Again, a judge who presides over a criminal trial which involves his daughter as defendant in a rape case has a conflict of interest. Notice that the police officer in the first case, and the judge in the second, may not in fact necessarily be acting corruptly; each may well intend to do his duty – by investigating the criminal allegation thoroughly (in the case of the police officer) or conducting the trial fairly (in the case of the judge). However, in each case the conflict of interest remains, and therefore there is a real or apparent inability to properly discharge their role requirements.

The above examples illustrate that although a conflict of interest might not in the first instance necessarily involve or result in corruption, it can nevertheless

provide the conditions which might facilitate corruption. Thus, it is better for all concerned if the conflict of interest is avoided; for example, another judge with no familial connections to the defendant is appointed to the trial. In cases in which the conflict of interest is not too severe and is not avoidable, it may be possible for the person with the conflict of interest to carry on, if the conflict is disclosed and managed in an apparent and accountable way.

In sum, many conflicts of interest involve a conflict between one's self-interest and the requirements of the role one occupies. Others involve a conflict between two different roles one occupies. Still others involve a role confusion which serves to mask a conflict of interest.

Conflicts of interest involving self-interest are reasonably obvious, but what of role conflicts? By way of illustration, consider the fact that some professions or occupations or businesses impose a restriction under which one could not be, for example, both judge and advocate, or editor and manager of advertising revenue of a newspaper, or cashier and accounts payable/receivable manager of a large corporation. Underlying this institutional division of potentially conflicting roles is the principle of the division and separation of responsibilities, so that the proper exercise of one's judgment cannot be adversely affected by allowing one to occupy two potentially conflicting roles or functions. The role conflicts primarily involve a conflict between two roles, offices or institutions. Traditionally, a Western democratic state is divided into distinct institutional 'estates' – for example, the government and the judiciary – whose functions are by design supposed to remain separate and independent, at least in theory. The separateness and independence of these institutions from one another is designed to ensure the division of power, and also to ensure that potentially harmful conflicts of interest are avoided.

Conflicts of interest in the accounting and auditing profession

Let us now examine the different types of conflicts of interest that may and do arise in the accounting and auditing profession through an examination of the Enron case. As indicated earlier, conflicts of interest may involve a conflict between one's self-interest and the requirements of the role one occupies, or a conflict between two different roles one occupies, or further, they may involve a role confusion which serves to mask a conflict of interest. In order to place the auditors' conflict of interest involved in the Enron case within a practical and professional context, it is important to provide in outline the general financial climate that was prevalent within Enron prior to its collapse. It was indeed this general financial climate which contributed to and precipitated the fall of Enron and it auditors, Arthur Andersen.

The chief financial officer (CFO)

The CFO traditionally is the executive officer within an organisation entrusted with enuring that the company operates with financial discipline and propriety and not excess and impropriety. However, in a business environment where investors are expecting and demanding ever-increasing earnings every financial quarter, CFOs come under constant pressure to 'cook the books' and make them look better than they are (Lindorff 2002, p. 2). This places CFOs in two potentially conflicting roles; the traditional role of policing the integrity and accuracy of the accounts and financial statements of a company, and the contemporary 'role' of making sure that the quarterly earnings of the company look the best that they can, even at times assisting this outcome by recourse to some 'creative' accounting. This conflict of roles creates, in turn, a conflict of interest that has the tendency, at least potentially, of interfering with the proper exercise of the CFO's fiduciary duty of ensuring the integrity and accuracy of the company's financial statements – a duty entrusted to them by the board of directors and the shareholders of the company, as well as prospective investors who require true and fair financial statements on which to base their informed investment decisions.

Andrew Fastow's dual role as both CFO of Enron and manager of the Special Purpose Entities (SPEs) involved a serious conflict of interest, one which Fastow, as the company's financial watch-dog in his role of CFO, should have avoided. Andrew Fastow joined Enron in 1990 as a banking expert and quickly rose to power to become CFO, which, after Ken Lay and Jeffrey Skilling's positions as Chairman and CEO respectively, was the third most influential position within Enron. At the daily financial operational level, it was perhaps the most influential, which might help explain why Fastow, who masterminded a web of very complex off balance sheet partnership arrangements (the SPEs) that had the effect of hiding debt and inflating earnings, is considered to be one of the primary architects behind Enron's spectacular collapse.

Special Purpose Entities, which were Fastow's specialty, were initially introduced by banks and law firms as 'structured finance', complex financial deals intended to enable companies to generate tax deductions and move assets off a company's books (Behr & Witt 2002). With names such as Cactus[2], Braveheart, Whitewing, JEDI, Chewco, LJM 1 and 2 (the initials standing for Fastow's wife Lea and his two children) and Raptors, Enron used SPEs for various purposes. The primary purpose was for financing new projects in Enron's ever-expanding trading business – which continually needed new injections of cash funds to sustain the expansion – as well as providing insurance-hedging for those projects whilst

[2]Not a name that Fastow would have chosen if the SPE was launched in Australia, due to the adverse connotations of the term 'cactus' in the Australian vernacular, as used in the phrase 'It's cactus!', meaning that something has flopped or gone belly-up, or it's gone bad and is no good.

managing, sometimes legally but mostly illegally, to keep debt related to them off its balance sheet and taking up earnings relating to those projects in its income statements. For his role in those SPEs, Andrew Fastow reportedly made more than $45 million (all amounts in US dollars). In the wake of the revelations concerning Fastow's key role in the Enron SPEs, especially Chewco and the LJMs, and just one month prior to Enron's final collapse and bankruptcy on 2 December 2001, the company was forced to restate its earnings from 1997 through to 2002, which required a $1.2 billion equity write-down.

Chewco alone accounted for the inflation of earnings by $405 million from 1997 through to 2000, which Enron was not entitled to have on its books, and the concealment of a $600 million-debt which, by contrast, Enron was required to show on its books. Named after Chewbacca, the character from *Star Wars*, Chewco was set up to buy out the share of equity of the California Public Employees' Retirement System (Calpers) in JEDI 1 (another Enron SPE alluding to *Star Wars*).

The main problem with Chewco, it seems, was that Enron did not meet the 3% investment rule, which required that at least 3% of equity in the SPE be held by an independent investor not associated with the company. Because this rule was not met in the case of Chewco, Enron was not legally allowed to keep the SPE off its balance sheet.

Given the complexity of the Enron SPEs – and the complexity seems now to have been intended as a deliberate ploy to obfuscate and render opaque the real purpose to outsiders – it is difficult to explain in great detail their intricate financial mechanisms. However, by focusing on one of the SPEs, LJM, which together with Chewco proved to be the catalyst that brought down the Enron empire, this much seems clear: whilst Chewco was at the periphery of financial impropriety, LJM proved to be its very nucleus.[3]

LJM and its successor LJM 2 were set up to finance an array of deals. The original LJM was set up to finance the Rhythms deal in March 1998, a deal that saw Enron invest $10 million for a block of shares in Rhythms NetConnections, a high-speed Internet service provider. As is usual with dot.com companies, Rhythms went public (in April 1999) and its shares climbed rapidly, making Enron's investment worth $300 million. Because Enron's accounting rules required the company to mark the shares to market on a daily basis – 'mark-to-market' – it meant that Enron had already booked $290 million in profits on the transaction. Concerned, however, that the profit might be reduced or turn to a loss in the future – which would require Enron to take into account substantial losses – the company had to cover for that contingency. Not allowed to sell the

[3]My account of the LJM SPEs refers primarily to the account given of those deals in Fusaro, P. C. and Miller, R. M. 2002, *What Went Wrong with Enron*, John Wiley & Sons, Hoboken, NJ, pp. 132-5.

shares for several months, until the end of 1999, Enron wanted to get insurance against a fall in the value of those shares. Traditionally, the way to acquire insurance is through the purchase of a 'put option'. A put option locks in a specific sale price for the shares for the life of the option. So, for example, with Rhythms trading at $65 per share, Enron might have wanted to purchase a put option until it could sell them at the end of 1999 at a lock-in price of $60. The option would not cover the first $5 of loss, but it would cover any remaining loss that might arise dollar for dollar.

The problem for Enron, however, was that its block of shares in Rhythms was so large, and the company so risky, that no one would be willing to provide insurance at a price that Enron considered reasonable. Fastow's solution was to create a company he would manage that used Enron stock as its capital to sell the insurance on Rhythms stock to Enron. Essentially, this amounted to Enron insuring itself! If the insurance was never needed, no one would be the wiser, and Fastow and his partners in the scheme, who were chosen from among his subordinates within the company, could pocket most of the premium that Enron paid, making them quite wealthy. If the Rhythms stock fell dramatically, then the Enron stock that hedged the company would cover the losses. However, if both Rhythms and Enron stocks suffered a significant fall, the company would go broke unless someone bailed it out. However, because Enron was in effect insuring itself, there really was no insurance.

What defies understanding was that such a scheme passed Enron's board, its auditors Arthur Andersen, and its law firm Vinson and Elkins. According to the Powers Report[4], the Enron board approved a waiver of its code of ethics to allow Fastow to set up LJM, which covered the Rhythms deal. As we shall see, it wouldn't be the first time that the ethics of the company and its corporate governance regulations were compromised by Fastow's SPEs. Though committed to ethics on the surface, Enron's cut-throat corporate culture was not designed to allow ethical niceties and sensibilities to get in the way of its trading and financial activities. The cultural ethos at Enron, from the employees to the executives, had a lot more to do with profits – the more the better – and the share value of Enron stock – the higher the better – and very little to do with ethics. The profit incentives at Enron that ruled supreme, and which favoured self-interest gain above all, could not allow ethical considerations to take hold. It was only as a result of people killing the goose that laid the golden eggs, even if those eggs were made of paper, that those both within and outside Enron started taking ethics more seriously.

[4]The Powers Report was a 218-page report on Enron's SPEs prepared by the Powers Committee. The committee was formed by Enron's board of directors at the same time that Fastow was fired from Enron. Its mission was to investigate Fastow's dealings. William Powers, the dean of the University of the Texas Law School, led the committee. Powers was recruited as a board member in October 2001 to give Enron and the committee much needed credibility.

The sequel to LJM, LJM 2, took Fastow's ingenuity in coming up with ever more complex and ethically and legally dubious SPEs to new heights. Whilst LJM 1 was used to provide a faulty hedge in a profitable investment in the Rhythms deal, the deals which LJM 2 helped finance, and which were named 'Raptors' after the cunning dinosaurs in the film *Jurassic Park*, were used to hide the losses of unprofitable projects. In total, LJM 2 was used to conceal $1.1 billion of Enron losses. Fastow's secret profit from LJM 1 and the Rhythms deal alone was a staggering $22 million – from a $1 million investment in little less than a year! When such profits are to be had, with the incentives for fraud and corruption existing under such favourable conditions as secrecy, power and greed that feeds self-interest to the detriment of the interest of others, as well as a total disregard for fiduciary duty abetted by a corporate culture that encourages greed and the pursuit of self-regarding gain, it's no wonder that corruption was allowed to thrive within Enron. Add to that an array of conflicts of interest involving Enron's board of directors, its executive officers like Fastow and Skilling, its auditors and lawyers, the media, the investment banks, and generally the ethos of generating and claiming ever new profits for the company by Enron's trading whiz kids always seeking to increase their yearly profit-linked bonuses, and what emerges is a case of corruption waiting to happen. That it happened is not surprising, given that all the usual conditions and causes for corruption were present within the Enron organisation. What is, however, surprising is that it took so long, and required the collapse of the seventh-largest company in the United States, to uncover it.

When Jeffrey McMahon, the company's treasurer, complained to Skilling about the conflict of interest regarding Fastow and his management of the SPEs, he was at first confronted by Fastow (who was told of the complaint by Skilling) and a week later was transferred to another part of the company and replaced by Ben F. Glisan, a close aid and associate of Fastow. It seems that if you can't get rid of a conflict of interest, the next best thing is to get rid of those that issue warnings and complain about it!

The dealmakers

The practice of Enron's in-house dealmakers, or 'developers', of launching new deals irrespective of the risks involved, so they could immediately claim huge profits for the company and collect lucrative bonuses for themselves whilst postponing the problems for later, may be viewed as involving another conflict of interest. Their interest in earning immediate big bonuses for themselves through risky deals was potentially in conflict with their fiduciary duty of enhancing the earnings of the company in the long term, not simply by means of quick paper profits but in real terms. This may have had the tendency to interfere

with the proper exercise of their judgment concerning the prudence and financial viability of those deals with regard to the company's long-term interests.

The auditors

In so far as the role of an auditor is potentially in conflict with the role of a financial adviser, when one accountant performs both roles for the same client there is a conflict of interest. Thus we have potential conflicts of interest in accounting firms that perform audits for the companies for which they also provide lucrative financial consultancy and other financial management services. Here the latter role has a tendency to curtail the auditor's independence, and can thus potentially interfere with the proper exercise of an auditor's fiduciary duty of ensuring that a company's financial accounts present a true and fair view of the company's operations. The role of Arthur Andersen in Enron's collapse is a case in point, and crucially highlights this conflict as potentially conducive to corporate corruption.

In 2000, General Electric paid KPMG $23.9 million for audit work and $79.7 million for consultancy work. Similarly, J. P. Morgan Chase paid PricewaterhouseCoopers $21.3 million in audit fees, but $84.2 million for other management services including consultancy. These examples inevitably invite the question as to whether the 'independent auditor' might only be an illusion (Drummond 2002, p. 6).

The ethically problematic nature of the practice of providing both consultancy and auditing services for clients by accountancy firms, as exemplified in the Enron case, also illustrates an important conceptual distinction between *external instrumentalism* on the one hand, and *internal instrumentalism* on the other. According to Alan Gewirth (1986, p. 295):

> In an external instrumentalism, the means or instrument is external to the end, in that it need not have any of the distinctive characteristics of the end. In internal instrumentalism, on the other hand, the means or instrument is internal to the end: it is instrumental to the end not only causally but also conceptually in that its features are also constitutive of the end. It serves as an instrument to the end by enforcing, reinstating, or in some other way bringing about a certain result, while at the same time it embodies distinctive characteristics of the result.

As an example of the two types of instrumentalism, Gewirth refers to a university lecture. If the lecture is given simply for the purpose of earning money, then the lecture, as a means or instrument, is external to the end of spreading enlightenment or understanding on the lectured topic, which are conceptually distinct from financial gain. By contrast, in the case of a lecture given for the purpose of spreading enlightenment and understanding on the lectured topic, the lecture,

as means or instrument, is internal to the end: both the means and the end of lecturing conform to the same intellectual criteria of spreading enlightenment or improving understanding of the subject matter.

In the case of the practice of providing both consultancy and auditing services (for easy reference I will refer to this practice as 'conauditing'), there is a conflict between the dictates of internal instrumentalism and those of external instrumentalism. In the case of auditing, the purpose is to provide independent public assurance, by way of the certification offered in the auditors' report, that the financial statements of a corporate entity, whether private or public, present a true and fair view – one that can be relied upon with regard to accuracy and completeness by all relevant stakeholders. As such, both the means and the end of providing that type of independent public assurance must conform to the same conceptual and professional criteria of providing reliable certification as to the true and fair view of a corporate entity's financial statements. By contrast, the primary purpose of offering accounting and consultancy services to a corporation is to provide the corporation with the best financial planning, so as to facilitate the successful application and implementation of financial accounting practices and policies for maximising the corporation's profits and assets and minimising its losses and liabilities. Moreover, such financial consultancy is designed to enable the corporation to present its financial statements in the best light possible within the law so as to enhance its market profile, thus rendering it attractive to prospective investors. As such, the strategies of financial consultancy are external to the concern of ensuring that the corporation's financial statements are true and fair – not merely from the corporation's internal subjective perspective, but equally from the independent external and objective perspective of all relevant stakeholders. As the case of Enron illustrates, creative accounting policies employed to make the accounts look good, even when conforming to corporate law, need not reflect a true and fair view, especially as regards the interests of the shareholders – prospective investors as well as other relevant stakeholders that have an interest that the information provided in a corporation's financial statements is actually, and not merely cosmetically, true and fair.

Conauditing practices seek to have it both ways: with regard to auditing they conform to a principle of internal instrumentalism, but with regard to consultancy they conform to a principle of external instrumentalism that seems to be inherently incompatible with the internal instrumental auditing function of providing public assurance that a corporation's accounts are true and fair.

Conflicts of interest and corruption

What is wrong with conflicts of interest?

In the first place, what is generally morally wrong with conflicts of interest? There are at least three reasons why conflicts of interest may be considered morally wrong:[5]

1. A person, P, involved in a conflict of interest may be negligent in allowing himself to get involved in the conflict, and also negligent in not responding to it. For in so far as P is unaware of the conflict of interest in which he is involved, he has failed to exercise proper duty of care and judgment for the benefit of those to whom he owes a fiduciary duty, and thus he has acted negligently, which is morally wrong.
2. If those to whom P owes a fiduciary duty are unaware of the conflict of interest in which P is involved and P knows this (or at least should know it), and does not reveal the conflict to them, then he has acted deceptively, and deception for one's self-gain at the expense of others is morally wrong.
3. Notwithstanding that P has disclosed his conflict of interest, the conflict of interest still remains, if not as a moral problem then at least as a technical problem which can still be ethically problematic if it harms the reputation of P's profession or institution. This goes to show that the best remedy for resolving conflicts of interest is to avoid them in the first place whenever possible.

With regard to corruption, it is the conflicts of interest in the second category of moral wrongness that is relevant, as it is the only one of the three categories that involves deception or the intention to deceive, which together with concealment is usually, if not always, one of the characterising features of corruption. Negligence in responding to conflicts of interest or disclosure of them that results in harm to one's profession or institution would still count as morally wrong, but not as a moral wrong that qualifies as corruption due to the absence of deception and concealment.

In so far as corruption is morally wrong, conflicts of interest which facilitate or result in corruption are also morally wrong. And to the extent that they do actually or potentially contribute to corruption, they should be avoided. How do they in fact facilitate corruption? Before we attempt to address that question, let us first briefly determine what corruption is.

[5]For what is wrong with conflict of interest, see Davis (1998), p. 590. To the extent that conflict of *interests* usually also involve conflict of interest, the same reasons regarding the moral wrongness of conflict of interest apply also to conflict of interests.

What is corruption?

Let me say at the outset that, although related, corruption and immorality are not the same thing. Though corruption is always immoral, not all immoral acts qualify as corruption. Though immoral, the actions of a house burglar or bank robber, for example, are not what we would normally describe as corrupt. The missing condition is a socially, professionally or institutionally pre-established fiduciary relationship of trust between the corrupt person or group and the person or group who are harmed in some way by the corrupt person or group's actions. The reason why house burglars or bank robbers, though typically deemed immoral, are not deemed corrupt is because there is an absence of a prior fiduciary relationship of trust between the burglar or bank robber on the one hand, and those who are harmed by their actions on the other; namely, the householders or the banks and their customers. By contrast, typical cases of corruption, and its sub-species fraud, involve a breach of a socially, professionally or institutionally pre-established fiduciary relationship of trust between the corrupt agents and their victims. The addition of the condition of a fiduciary duty is in keeping with one of the traditional dictionary definitions of corruption; namely, 'the changing from the naturally sound condition' or 'the turning from a sound into an unsound impure condition' or ' the perversion of anything from an original state of purity'.[6] The fiduciary relationship can be articulated in political, professional, social or familial, or corporate terms.

Typical cases of corruption will normally involve the abuse of a socially, professionally or institutionally pre-established fiduciary duty of trust for self-interest, that may involve individual or group interest under concealment and the absence of transparency that is conducive to an absence of accountability.

How are conflicts of interest conducive to corruption?

First and most obviously, conflicts of interest involving a conflict between self-interest and the requirements of one's role can lead to one pursuing one's self-interest at the expense of the role requirements. So these sorts of conflicts of interest are a direct threat to the proper performance of institutional and professional roles.

Role conflicts can lead to corruption when the conflicts interfere and subvert or pervert the proper function of a process, profession, practice or institution. Crucially, cases of corruption will usually and typically involve a conflict of interest, especially those that involve role conflicts, though a conflict of interest of itself would not necessarily amount to corruption, as some other key features of corruption might be absent. So, for example, a police officer who accepts a

[6]See the *Shorter Oxford Dictionary* (1973).

bribe to drop a criminal charge is corrupt and his corruption involves a conflict of interest; his interest in money conflicts with his duty as a police officer to uphold the law. However, a judge who merely presides over a rape trial which involves his daughter as defendant has a conflict of interest, though the judge is not acting corruptly if his intention is to conduct the trial fairly. His problem won't be one of corrupt activity, but simply a case of a perceived and real inability to properly exercise his judgment as a judge impartially. He would, on the other hand, be acting corruptly if he arranged to have false evidence presented against the person charged with his daughter's rape so as to secure a guilty verdict and the suspect's imprisonment. Thus, in the former case, mentioned earlier in this chapter, of the judge who merely presides over a trial that involves his daughter, and which he intends to conduct fairly and impartially, there is a conflict of interest but no corruption. In the latter case, however, there is both corruption and a conflict of interest. Moreover, the conflict of interest has facilitated the corrupt activity of the judge in allowing him the opportunity to exercise his power to secretly engineer false evidence against the accused for the sole purpose of securing a guilty verdict and the suspect's punishment. In the latter case but not the former, some of the key characterising features of corruption, such as the abuse of public office for self-interest under concealment and lack of transparency, are present. Therefore, although a conflict of interest is necessary for corruption, it is not sufficient.

The above example illustrates that although a conflict of interest might not in the first instance necessarily involve, or result in, corruption, it can nevertheless provide the conditions, and perhaps one of the necessary conditions, which might facilitate corruption. Thus, it is better for all concerned if the conflict of interest is avoided (another judge with no familial connections to the defendant is appointed to the trial), or if that is not possible (the defendant's father is the only judge in town), the conflict is disclosed and managed in an apparent and accountable way where strict procedures of due course are followed and recorded throughout the trial.

In the case of Enron, for example, the potentially conflicting roles and interests of Arthur Andersen, in their dual capacity as both financial consultants and auditors of the company, may have created the conditions that facilitated the corrupt activities of which Enron now stands accused. That is, the conflict between Arthur Andersen's dual role as auditors and financial consultants may have been a major contributing factor in their failure to exercise proper diligence and care in auditing Enron's financial statements. This was a care which Arthur Andersen owed to Enron's shareholders, which included a large number of the company's employees, a stakeholding group to whom Arthur Andersen owed a fiduciary duty in their capacity as auditors. That fiduciary duty was, however, undermined by their role as financial consultants of Enron. By virtue of that

role, Arthur Andersen owed a fiduciary duty to Enron's management, which undermined their role as independent auditors and made them complicit, by association if not by direct involvement, in dubious accounting practices that had the effect of concealing debt and inflating earnings. If the Arthur Andersen auditors knew of those accounting practices (or should have known about them) and did not inform those to whom they owed a fiduciary duty – that is, all the Enron shareholders, and not just the company directors who held large numbers of Enron shares – then they were responsible for deception, by omission if not commission, and thus responsible for the corrupt activities of which Enron stands accused.

Deception or the intention to deceive is crucial in determining the level of moral responsibility of the Arthur Andersen auditors in relation to Enron's corrupt activities. It is hard to imagine that the level of corruption at Enron would not have been known to the auditors and that their moral failure was merely one of negligence. However, whether it turns out to be complicity in corruption or mere negligence of care, the role of the Arthur Andersen auditors with regard to Enron highlights one of the core problems concerning conflicts of interest: role conflicts that involve a conflict of interest relating to outcomes concerning stakeholder groups, to whom one has conflicting fiduciary duties, can potentially facilitate or result in corruption.

In sum, in their role as auditors Arthur Andersen may have participated in, or at least tolerated, the concealment and later destruction of evidence that revealed deceptive and misleading accounting practices and policies in the financial reporting of Enron's accounts which no doubt contributed to the corruption within the company, and thus are indirectly if not directly partly responsible for the corrupt accounting practices within Enron.

How to deal with conflicts of interest

Avoidance

The most obvious way to deal with conflicts of interest that actually or potentially facilitate or result in corruption is to avoid them whenever possible.

Potential role conflicts can best be avoided through a strict division of duties and responsibilities that does not allow one of the opposing roles to exert undue influence over the other. For example, the division of accounting responsibilities between the cashiering and banking functions on the one hand, and the accounts payable and receivable functions on the other hand, reduces the risk of a conflict of interest between those two functions that may otherwise facilitate potential corruption.

A further way of reducing conflicts of interest arising from conflicting role obligations is to institute a strict division and separation of roles between members

of professions or other institutions that owe fiduciary duties to different groups of stakeholders with potentially conflicting interests. For example, in the case of accountants, conflicts of interest can best be avoided through the strict division and separation of the auditing and financial consultancy functions within an accounting firm. However, this control may not be adequate to avoid conflicts of interest in situations, as the ones at present, where fees from financial consultancy services far exceed auditing fees. One possible solution to this problem is to increase audit fees substantially to at least match those from financial consultancy services, or, if that is not possible, require accounting firms to choose to undertake one but not both of the two potentially conflicting roles. Under this envisaged scheme, accounting firms that specialise in auditing would be precluded from acting as financial consultants to their clients, or alternatively, from auditing the accounts of their financial consultancy clients. The problem, of course, with either suggestion is that they might not prove to be feasible or practical for implementation.

The overall problem with this type of conflict of interest is that sometimes either the role or the stakeholding groups to whom one has fiduciary duties are not clearly defined or delineated. This allows the ambiguity of roles and fiduciary duties to render this type of conflict of interest opaque, if not entirely concealed. In the case of auditors, to whom do they owe their primary fiduciary duty? If it is to the majority of the shareholders, then their role as financial consultants to a client, as in the case of Arthur Andersen and Enron, can compromise that role and might, under certain circumstances, lead to corruption – to the overall detriment of the shareholders.

Disclosure

It may not, however, always be possible to avoid conflicts of interest, so the next best solution is to disclose them. One of the main conditions conducive to corruption is concealment or secrecy, which enables the agency of the corrupt person or group to remain undetected, thus allowing the corrupt person or group to engage in corruption with impunity and without fear of retribution. Accordingly, disclosure of conflicts of interest, if exercised stringently and properly, can be an effective control measure against corruption by eliminating or at least reducing one of its contributing factors, namely concealment or secrecy.

Apparent conflicts of interest can be as ethically problematic as actual conflicts of interest, because of their tendency to mislead people and create in their minds uncertainty concerning the reliability and integrity of the judgment of those from whom they have a legitimate expectation of a fiduciary duty of trust. The best way to avoid such apparent conflicts of interest is by disclosing sufficient information to demonstrate that there are no actual or potential conflicts of interest.

This is important because a suspicion of corruption regarding a person or institution created by merely apparent conflicts of interest can be as damaging to public confidence in that person or institution as actual or potential conflicts of interest. It is precisely for this reason that transparency as an anti-corruption measure is important, not only as a way of preventing corruption through eliminating or reducing one of its key contributing conditions – namely, concealment or secrecy – but also for preserving and maintaining public confidence in persons, professions, practices, processes and public institutions by eliminating or at least reducing the appearance of conflicts of interest.

Conclusion

Are conflicts of interest in auditing conducive to corruption? In so far as the role of auditor is potentially in conflict with the role of financial adviser when the same person performs both roles for a client, there is a conflict of interest. Thus we have conflicts of interest in accounting firms that perform audits for the companies for which they also provide lucrative financial consultancy and other financial management services. Here the latter role has a tendency to curtail or diminish the auditor's independence, and can thus potentially interfere with the proper exercise of an auditor's fiduciary duty of ensuring that a company's financial statements present a true and fair view of the company's operations. The role of Arthur Andersen in Enron's collapse is a case in point, showing how conflicts of interest in auditing can contribute to and result in corruption. Conflicts of interest in auditing should thus be avoided wherever possible, as their mere disclosure does not remove the conflict of interest and hence does not remove its capacity to cause corruption, as in the Enron case.

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Chapter 7. Attachments between directors and auditors: do they affect engagement tenure?

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Abstract

Auditors and directors may develop personal attachments over time based on trust and familiarity, and these personal ties seem important for the maintenance of long-term auditor-client relationships. This study examines the tenure of the audit engagement in the presence of these links, which is expected to be longer than auditor-client relationships not so linked. Results indicate director-auditor links are positively associated with auditor tenure and the retention of auditors beyond the critical four-year period identified by Levinthal and Fichman (1988).

Introduction and motivation

It has been argued that auditing is a service that is difficult to evaluate without being experienced, since its quality is not easily discernible (Pennings, Lee & van Witteloostuijn 1998; Craswell & Francis 1999). In such a circumstance, relationships between individuals are likely to influence the decision to select, or continue, relationships with service providers (Koreto & Harding 1996).

The impact of personal connections in exchange relationships has been well-established (e.g., Pfeffer 1994), and these ties have been examined in the context of auditing service provision. One of these studies, Davison, Stening and Wai (1984), investigates the impact of personal attachments (captured by interlocking directorates)[1] on choice of auditor. Davison, Stening and Wai report a positive and significant association between the number of director interlocks attributable to a company and the probability that the interlocked companies are audited by the same public accounting firm. Jubb (2000), employing a more robust and

[1]The terms 'interlocking directorate', 'interlocking directorship', 'multiple directorship' and the more generic term 'interlocks' are used interchangeably throughout this chapter to describe the phenomenon of a director sitting on the board of directors of more than one company.

detailed empirical analysis, finds results consistent with those of Davison, Stening and Wai.

The primary purpose of this study is to investigate the association of director-auditor links with auditor tenure. That is, where companies with interlocking directors are audited by the same public accounting firm, it is expected that the tenure of that auditor is significantly longer than for that in respect of companies not so linked.

A secondary purpose of this study is to investigate whether the personal attachments measured by director-auditor links are associated with mitigation of the pressure for an auditor switch during the critical initial four-year period found by Levinthal and Fichman (1988).

The next section examines the relevant literature surrounding the relationship between interlocking directorates and the selection and retention of auditors.

Previous literature

For some time the incidence of interlocking directorates has been acknowledged and studied (for example, Dooley 1969; Allen 1974; Alexander, Murray & Houghton 1994) and explanations have been offered for this phenomenon (Mizruchi 1996; Allen 1974). One of the main reasons suggested for the existence of interlocking directorates is that these associations reflect corporate strategies to reduce or control important sources of uncertainty in companies' environments (Allen 1974; Schoorman, Bazerman & Atkin 1981). In addition, interlocking is seen as a means of exchange of information and expertise between companies. It is therefore surprising that more research has not been focussed on the relationship between interlocking directorates and the selection and retention of auditors, especially since auditing is a relatively complex service performed in an uncertain environment (Crosby, Evans & Cowles 1990).

As noted earlier, the primary paper addressing this issue thus far is by Davison, Stening and Wai (1984), who provide evidence that the presence of interlocking directorates is important to the choice of auditor, creating significant links between directors and auditors. Another study, Seabright, Levinthal and Fichman (1992), investigated the effect of attachment of individuals primarily responsible for the auditor-client exchange on the likelihood of auditor switching. The study showed that while changes in resource requirements (of the client) and resource provisions (of the auditor) increased the likelihood of an auditor switch, the development of attachments between boundary spanners[2] attenuated this effect on auditor change. Seabright, Levinthal and Fichman suggest that the auditor-

[2]Boundary spanners are defined by Seabright, Levinthal and Fichman (1992, p. 124) as 'organisational members whose role requires both intra- and inter-organizational relationships'.

client relationship relies largely on personal knowledge and trust, and that these act as disincentives for clients to change auditors.

This current study provides a more direct and arguably more meaningful measure[3] of the impact of personal attachments on exchange relationships than that employed by other researchers, especially Seabright, Levinthal and Fichman, who operationalised their individual or personal attachment variables through tenure of company officers (that is, CEO, CFO, etc.). Those authors noted that there might be other consequential attachments within a larger network of relationships in which an auditor and client are involved (Seabright, Levinthal & Fichman 1992, p. 155). The current study responds to this call by using director-auditor links as a measure of personal attachment in testing an hypothesised association between director-auditor links and auditor tenure. As such, it is related to studies examining board and board committee composition and audit-related phenomena (e.g., Beasley 1996; Carcello & Neal 2000).

It can be argued that factors increasing the likelihood of a company changing its auditor (see, for instance, Williams 1988) can be seen also as factors reducing the likelihood of continued tenure. While this is true, such an 'auditor change' approach risks ignoring variables impacting specifically on the length of auditor tenure rather than on auditor change. Further, examination of the determinants of tenure length may be as important, if not more so, than the determinants of auditor change to accounting firms and to concerns over corporate governance. Both the US Sarbanes-Oxley Act 2002 and Australia's proposed reforms discussed in the Corporate Law Economic Reform Program (CLERP 9) address partner rotation rather than firm rotation, but the issue of firm rotation has received much public comment in the aftermath of Enron and WorldCom in the United States and HIH in Australia. As much as it may be useful to explain why auditor-client relationships end, an indication as to what might make them last is arguably of greater practical significance to firms engaged in these relationships.

Additionally, this study potentially informs the debate concerning mandatory auditor rotation. Concerns have been raised about the impact on audit quality and auditor independence when auditor tenure is for particularly short or long periods (e.g., Geiger & Raghunandan 2002; Latham, Jacobs & Roush 1998; Raghunathan, Lewis & Evans III 1994; Aldhizer III & Lampe 1997) because of the impact on familiarity with the client. While audit quality is not specifically tested in the context of this study, any association between director-auditor links and longer auditor tenure may accentuate concerns over auditor independence, an issue of major concern to the accounting and auditing professions and those who regulate them (e.g., Levitt 1998). In fact, auditing standards and ethics

[3]Other researchers, such as Seabright, Levinthal and Fichman (1992), use proxies for personal attachment such as tenure of office holders.

statements, regardless of the jurisdiction in which they are based, generally include commentary on tenure length.

Where an interlocking director comes into contact with the same auditor across other companies on whose boards (s)he sits, and auditor tenure is relatively long, the potential impact on auditor independence is unclear. Longer tenure has been criticised in its own right as potentially reducing independence (Raghunathan, Lewis & Evans III 1994; Aldhizer & Lampe 1997). Interlocking directorates (regardless of their links with auditors) have also attracted criticism.[4] It is therefore likely that any significant positive association between director-auditor links and auditor tenure will heighten concerns with respect to auditor independence. The aim of this chapter is to investigate whether such a positive association exists.

The remainder of this chapter is presented as follows. The next section discusses the prior literature and develops the hypotheses to be tested. The variables selected for the testing of the hypotheses and their measurement are discussed, and an outline of the research design and sample data is then provided. Finally, the results are presented and discussed, and limitations and opportunities for future research are outlined.

Literature review and hypotheses development

Interlocking directorates

An interlocking directorate[5] arises when a director sits on two or more company boards.[6] Many explanations have been offered for the existence of interlocking directorates, covering a range of theoretical prescriptions. These perspectives have included transaction costs (Williamson 1991), agency theory (Eisenhardt 1989) and class theories (Koenig & Gogel 1981). However, the most relevant explanation for their existence, in terms of the context relevant to this study, is that they serve to reduce or control uncertainty in business environments (Allen 1974; Schoorman, Bazerman & Atkin 1981; Mizruchi 1996). Allen (1974, p. 395) specifies three main ways in which interlocking directorates attempt to reduce environmental uncertainty. These are (1) by the exchange of information and expertise between companies, (2) by providing a stable means of communication and liaison between companies, and (3) by advising management concerning the relationship of the company to its external environment. However, when interlocking directors are systematically associated with a common auditor across

[4]For instance, Judge Louis Brandeis in the United States was once quoted as labelling interlocking directorates 'the root of many evils'. He claimed that they 'tend(s) to the suppression of competition' and that they violated the fundamental law that 'no man can serve two masters' (Carroll, Stening & Stening 1990, p. 290).

[5]In Australia, a legal limit on the number of directorships that can be held does not exist, nor does any formal mechanism to suggest limits (Alexander, Murray & Houghton 1994). Alexander, Murray and Houghton observe that the concentration of multiple directorships increased between 1986 and 1991.

[6]'Board' here includes alternate directors.

their various board holdings, it is not clear that benefits exist for all stakeholders. The objectivity of the auditor may be compromised if the relationship is 'too cosy', and/or if the loss of several rather than a single client is the feared consequence of the auditor remaining non-compliant with the auditee's preferred reporting.

Interlocking directorates and auditors

Unlike other products or services, the quality of an audit is not readily discernible. It cannot be judged from the outside and must be experienced to be evaluated (Pennings, Lee & van Witteloostuijn 1998; Craswell & Francis 1999). Interlocking directors holding multiple board positions are in one of the best positions to judge the relative quality of audits due to their experience with various service providers. Their experience gives them the ability to advise on, and perhaps contribute to, selection of the most appropriate auditor for companies on whose boards they sit. Sharing this knowledge with boards of other companies on which they sit reduces the costs of evaluating the strengths and weaknesses of potential auditors.

Zajac (1988) indicates that multiple directorships allow directors to view a panorama of their companies' environments within which to monitor and control uncertainties. Sharing this outlook with auditors, who may be knowledgeable about their clients' business environments, creates synergies that potentially enable difficulties to be overcome more smoothly.

In the accounting literature, little attention has been paid to the relationship between interlocking directors and auditors. From the research that does exist, it appears that there is a tendency for interlocking directors to employ the same auditor across the group of companies through which they are interlocked (Davison, Stening & Wai 1984; Jubb 2000).

Auditor tenure

Director-auditor links and tenure

Many factors have been found to influence the length of auditor tenure. However, the focus of this section is the expected positive association of the hypothesis variable – director-auditor links – with auditor tenure.

As noted, director-auditor links develop, in part, due to the building of attachments and personal ties between directors (in their roles as boundary spanners) and auditors. Literature in the field of management and marketing would suggest that the development of personal ties is important to the development and continuance of corporate relationships. De Ruyter and Wetzels (1999) found that trust and pleasant business partnerships increase the commitment of clients to the relationship and their intention to continue it. Similarly, numerous researchers

have concluded that the choice of continuing business relationships depends on the trust that emerges between organisations due to repeated personal attachments and ties (e.g., Cook 1977; Levinthal & Fichman 1988; Gulati 1995).

With respect to the impact of personal ties on auditor tenure specifically, Seabright, Levinthal and Fichman (1992) examined the effect of personal attachments on the dissolution of the auditor-client relationship. They found that attachments between client and auditor organisations occur mainly at the individual level, and their findings suggest that while other factors may act as pressures for auditor change, it is personal attachments that attenuate the impact of these influences and are critical to the maintenance of the relationship.

Relationships generated in the presence of director-auditor links are argued to allow the development of mutual dependence due to the greater stability of the alliance. This dependence relies on trust as an integral ingredient in the relationship. Therefore, it is posited that the trust and dependence manifested in the auditor-client relationship will be influential in client decisions to retain the auditor, and that the development of personal ties or attachments over time resulting from director-auditor links will be positively associated with auditor tenure.

> *H_1 A positive association exists between director-auditor links and auditor tenure.*

The results of Levinthal and Fichman (1988) provide the basis for the second hypothesis. Those authors found that the likelihood of auditor change increased up to the fourth year of tenure before reducing. They posited that since the client receives feedback about the desirability of the auditor-client attachment only on an annual basis, it might take a number of years (up to four) for initial favourable beliefs to change sufficiently for the attachment to be ended. Given this result, Hypothesis 2 examines the impact of director-auditor links on the realisation of auditor tenure surrounding what appears to be the critical four-year period. That is, it is hypothesised that personal attachments between directors and auditors will ameliorate the pressure for an auditor switch within the first four years of auditor tenure.

> *H_2 There is a positive association between director-auditor links and the retention of the auditor for the critical[7] four-year period and longer but not for a lesser period.*

[7] As found by Levinthal and Fichman (1988).

Selection and measurement of variables

Dependent variables

Auditor tenure is the dependent variable for the testing of Hypotheses 1 and 2. However, a different measure of tenure is employed in each as appropriate. For Hypothesis 1, a continuous (but capped) measure of tenure is used (AUDTEN). Auditor tenure can, and often does, last for many years. Given the findings of Levinthal and Fichman (1988), that the majority of auditor switches occur in the first four years of the auditor-client relationship, the limit on tenure should be greater than four years but short enough to maximise company survival over the examined period. In this study, auditor tenure is measured continuously and is censored at seven years.[8] While accepting the survivorship bias that any censoring of tenure may induce[9], a trade-off must be made between the logistics of data collection and adequately capturing the length of auditor engagement of the companies in the sample.[10]

For Hypothesis 2, which involves examination of auditor tenure surrounding the critical four-year period in the auditor-client relationship, a dichotomous variable is used to represent periods either side of the four-year period. As discussed earlier, Levinthal and Fichman (1988) found that the likelihood of auditor switching increases up to the fourth year of auditor tenure, where it peaks before declining. Therefore, the dependent variable for Hypothesis 2, a categorical measure of auditor tenure (CATTEN), takes the value 1 if the tenure of the incumbent auditor is greater than four years and 0 otherwise.

Independent variables

Hypothesis variable

Director-auditor links (ALOCKYRS)

The preceding discussion indicates the rationale behind the presence of director-auditor links as the hypothesis variable. This variable represents the cumulative total of director-auditor links per company observation over the measurement period, which commences in 1995 and is traced retrospectively for seven years inclusive. That is, ALOCKYRS measures the total number of years that an observed company's interlocking directors have had a personal attachment link with a particular audit firm. This is appropriate given that the hypothesis is concerned with personal attachment links over the observed length of auditor tenure. Furthermore, it is likely to be the endurance of these director-auditor

[8]Levinthal and Fichman (1988) also left- and right-censor (at 0 and at 13 years respectively) auditor tenure in their study on interorganisational attachments.
[9]Nevertheless, not censoring auditor tenure is likely to induce a larger survivorship bias.
[10]The variable auditor tenure in itself (whether censored or not) creates a bias, given that if a client ceases to exist it is not possible for an auditor to be engaged.

links that will most affect auditor tenure, not the occurrence of a link at any particular point in time.

Director-auditor links are measured over their existence and capped at seven years. ALOCKYRS is measured as the total number of director-auditor links for each focal or observed company (regardless of the number of directors interlocking with another company) for each given year, summed over the seven-year period.[11]

Table 7.1 provides an example of the calculation of ALOCKYRS and is based on a hypothetical sample of three companies over three years. ALYRS represents the number of total director-auditor links for any given year which, when summed across the potential seven-year period, gives ALOCKYRS. The measurement of this variable over a potential seven-year period is consistent with the measurement of auditor tenure, the dependent variable.

Table 7.1. Example of measurement of ALOCKYRS

Co. no.	Year 1			Year 2			Year 3			ALOCKYRS
	Directors	Auditor	ALYRS	Directors	Auditor	ALYRS	Directors	Auditor	ALYRS	
1[a]	A, B, C	Y	3	A, B, C	Y	3	A, B, C	X	1	7
2[b]	B, C, D, E	Y	3	A, C, D, E	Y	4	A, C, D, E	Y	0	7
3[c]	E, F, G, A	Y	2	E, F, G, A	Y	3	E, F, G, A	X	1	6

Explanation:

[a]Co. 1 ALOCKYRS = (Yr 1 ALYRS) + (Yr 2 ALYRS) + (Yr 3 ALYRS) = (Co. 2 Dir's B + C; Co. 3 Dir A) + (Co. 2 Dir's A + C; Co. 3 Dir A) + (Co. 3 Dir A) = 3 + 3 + 1 = 7

[b]Co. 2 ALOCKYRS = (Co. 1 Dir's B + C; Co. 3 Dir E) + (Co. 1 Dir's A + C; Co. 3 Dir's A + E) + (Nil) = 3 + 4 + 0 = 7

[c]Co. 3 ALOCKYRS = (Co. 1 Dir A; Co. 2 Dir E) + (Co. 1 Dir A; Co. 2 Dir's E + A) + (Co. 1 Dir A) = 2 + 3 + 1 = 6

For a director-auditor link (ALYRS) to be included in the calculation of ALOCKYRS, two conditions must be met. Firstly, a given director must sit on at least one board amongst the sample companies other than that of the observed or focal company, and secondly, the observed and 'other' company/ies must engage the same auditor. Note that failure to meet the second condition reveals why, in the above example, there are no director-auditor links (ALYRS) for Company 2 in Year 3. Although some Company 2 directors sit on other sample company boards, Company 2 does not share the same auditor in Year 3 as either Company 1 or Company 3.

[11]Or as long as the company has survived within those seven years.

Working through the calculation for Company 1 in Table 7.1 provides the following; Year 1 ALYRS are equal to 3, and Year 2 ALYRS are also equal to 3. However, because of the change in auditor, Year 3 ALYRS equals only 1, giving a total of 7 ALOCKYRS.

Control variables

The control variables used in the testing of Hypotheses 1 and 2 are based primarily on those used in prior research that has examined auditor tenure or auditor switching. Table 7.2 provides a summary of the relevant auditor tenure and change studies that have influenced the models used in the current study. The study by Seabright, Levinthal and Fichman (1992) is the source of the majority of variables. The variables used in a number of auditor change models (e.g., Haskins & Williams 1990; Levinthal & Fichman 1988) are relevant also because of the aforementioned link between auditor tenure and change.

Table 7.2. Summary of auditor tenure and auditor change models used in prior literature

Study	Dependent variable	Independent variables	Significant variables
Chow and Rice (1982)	Auditor change (dichotomous) $R^2 = 0.104$	• Qualified opinion (dichotomous) • Management change (dichotomous) • Merger between companies (dichotomous) • New financing arrangements (dichotomous) • Other (dichotomous)	• Qualified opinion (+ve)

Levinthal and Fichman (1988)	Auditor change hazard rate	• Client size (assets)
		• Complexity
		  • inventories to assets
		  • receivables to assets
		• Qualified opinion (dichotomous)
		• Segmented sales
		• Foreign activities (dichotomous)
			• Client size (−ve)
			• Inventories to total assets (−ve)
			• Qualified opinion (+ve)

Seabright, Levinthal and Fichman (1988)	Auditor change (dichotomous) $U^2 = 0.24$	• Auditor tenure • Financial health • Resource requirement of client • Change in auditor market share • Age • Qualified opinion • Age • Big Eight • Industry specialist • Individual attachments	• Retained earnings to assets (−ve) • Earnings to assets (−ve) • Equity to liabilities (+ve) • Sales to assets (+ve) • Big Eight (−ve) • Tenure of CFO (−ve) • Tenure of audit committee (−ve)
Haskins and Williams (1990)	Auditor change (dichotomous)	• Financial distress • Client size (sales) • Qualified opinion (dichotomous) • Change in ownership • IPO (dichotomous) • Client growth • Perceived Big Eight expensiveness • Industry specialist • Auditor litigation • Fees per partner	• Industry specialist • Financial distress[6] • Client size[6] • Client growth[6]

Study	Dependent variable	Independent variables	Significant variables

Raghunathan, Lewis and Evans III (1994)	Problem audits (dichotomous)
	pseudo R^2 = 0.36
		• Auditor tenure (dichotomous)
		  • 1 year
		  • 2-5 years
		  • > 5 years
		• Client fees (both audit and NAS)
		• Management controlled (dichotomous)
		• Financial health
			• Auditor tenure
			  • 1 year (+ve)
			  • > 5 years (+ve)
			• Client fees (+ve)
			• Financial health (+ve)

Krishnan and Krishnan (1997)	Auditor resignation (1) v. auditor dismissal (0) (dichotomous)
	pseudo R^2 = 0.208
		• Probability of bankruptcy
		• Auditor change due to:
		  • reportable event (dichotomous)
		  • disagreement (dichotomous)
		• Total accruals to assets
		• Growth in sales from prior year
		• Probability of acquisition
		• Auditor tenure (> 3 yrs prior to switch – dichotomous)
		• Client sales/total sales of all clients of the auditor
		• Modified audit opinion (dichotomous)
		• Modification for going concern (dichotomous)
		• Modification for other material concerns (dichotomous)
		• Client size
		• Variance of client abnormal returns
			• Probability of bankruptcy (+ve)
			• Auditor change due to:
			  • reportable event (+ve)
			  • disagreement (+ve)
			• Auditor tenure (–ve)
			• Client sales/total sales of all clients of the auditor (–ve)

Latham, Jacobs and Roush (1998)	Appropriateness of audit opinion pseudo R^2 = 0.51	• Auditor tenure • Loss status (dichotomous) • Risk (debt/assets)	• Auditor tenure (+ve) • Loss status (+ve)
Walker, Casterella and Moet (1998)	Auditor changes with audit failures (dichotomous) Model Chi-square = 21.943 Sig. = 0.0005	• Fraud • Industry specialist • Complexity • Distress	• Fraud (+ve) • Industry specialist (+ve) • Complexity (+ve)
Geiger and Raghunandan (2002)	Going concern opinion prior to bankruptcy pseudo R^2 = 0.33	• Size (log sales) • Probability of bankruptcy (Hopwood et al. 1994) • Default (dichotomous) • Number days between audit report and bankruptcy • Auditor tenure (log)	• Size (log sales) (–ve) • Probability of bankruptcy (Hopwood et al. 1994) (+ve) • Default (dichotomous) (+ve) • Number days between audit report and bankruptcy (–ve) • Auditor tenure (log) (+ve)

Auditee Characteristics

Complexity (COMPL)

Simunic's (1980) work indicates that providing assurance on financial statements is more demanding where an audit is more complex. Further, auditees are more likely to choose the auditor most capable of dealing with such complexities. The inclusion of complexity recognises the positive significance of this variable found by Walker, Casterella and Moet (1998).

Consistent with Simunic (1980), and Walker, Casterella and Moet (1998), complexity is measured as the proportion of inventory and receivables to total assets, given that both studies find these areas to add to the complexity of an audit.

Distress (DISTRESS)

Previous studies have identified the importance of financial distress for the likelihood that a company will change auditor (for example, Schwartz & Menon 1985; Haskins & Williams 1990). In addition, distressed companies are more likely to be associated with damage to the reputation of auditors in the event of litigation (Krishnan & Krishnan 1997), and shareholders of distressed companies are likely to seek compensation for losses in the event of failure (Menon & Williams 1994). For these reasons, auditors may be less likely to retain such clients (DeFond, Ettredge & Smith 1997; Krishnan & Krishnan 1997).

Distress is measured using re-estimated parameters of Altman's (1968) model (the original model has been used in prior literature, e.g. Seabright, Levinthal & Fichman 1992; Schwartz & Menon 1985). This revised model[12] was re-estimated by Constable and Woodliff (1994) based on Australian company data and was found to improve the original model's predictive ability.

Risk (RISK)

Similar to distress, risk (in the context important to this study) is a measure of the attractiveness of a client to an auditor. Highly leveraged companies have a greater chance of failure than do those with less debt. Since auditors are perceived to have 'deep pockets' (Wallace 1987), the stakeholders of failed companies (such as shareholders or creditors) may seek compensation from the auditor for losses incurred. This acts as a disincentive to auditors for continuance of the auditor-client relationship and is predicted to result in lower auditor tenure.

Risk is measured as the proportion of debt to total equity. While other factors may influence the risk of a company, leverage has the advantage of explanatory power and parsimony.

Qualified opinion (PRIORQUAL)

Chow and Rice (1982), and Schwartz and Menon (1985), found that clients in receipt of a qualified audit opinion in the prior year have a higher tendency to switch auditor. This may be because the directors seek to engage an auditor whose views are more in line with those of management. These new auditors are therefore assumed less likely to qualify.

[12] Altman's z-score, re-estimated by Constable and Woodliff (1994), is calculated as:

$$Z = -0.939 + 1.688\ WC/TA + 0.465\ RE/TA + 0.102\ EBIT/TA + 0.013\ MVE/TL + 1.010\ S/TA$$

where WC/TA = working capital/total assets, RE/TA = retained earnings/total assets, EBIT/TA = earnings before interest and tax/total assets, MVE/TL = market value of equity/total debt, and S/TA = sales/total assets.

A dichotomous (dummy) variable is used to operationalise a qualified opinion, coded 1 if the audit report of a company was qualified in the prior year, and 0 otherwise.

Auditee age (AGE)

Auditor tenure may depend on the longevity of companies in the sample. If an audit client has been in existence only for a limited period, it would follow that the tenure of its auditor cannot exceed the client's age (although it may be less than this). Further, older companies have had the time, and therefore the opportunity, to build personal attachments of the nature tested by the hypothesis variable in this study. Thus, the age of the client is predicted to positively influence auditor tenure and needs to be controlled for.

Age is measured continuously as the number of years a company has been listed on the Australian Stock Exchange (ASX).

Audit fee (AUDFEE)

Audit fees that are perceived to be excessively high have been found to influence auditor change (Haskins & Williams 1990; Eichenseher & Shields 1983; Shockley & Holt 1983). Thus, the higher the audit fee, *ceteris paribus*, the lower the expected tenure.

Audit fees are measured as the dollar amount paid to the principal auditor only for the auditing of a client's financial statements as disclosed in the company's annual report.

Auditee growth (GROWTH)

The resource requirements of a company change throughout its existence. Thus, growth may influence the decision to change auditor due to a difference between current resource requirements of clients and the ability of an audit firm to provide these resources (Seabright, Levinthal & Fichman 1992). Indeed, Haskins and Williams (1990) found growth to be a significant determinant of auditor change. Consequently, auditor tenure is expected to be lower for companies experiencing growth.

Consistent with previous studies (for instance, Haskins & Williams 1990), growth is operationalised as the percentage change in revenue from the prior year.

Director tenure (DIRTEN)

This study proposes that directors may gain a familiarity with, and attachment to, an auditor over time. Furthermore, Seabright, Levinthal and Fichman (1992) found the tenure of the CFO and audit committee members are negatively associated with auditor changes. Thus, auditor tenure is predicted to increase with

the average tenure of directors on a company's board, given that longer director tenure provides a greater time frame for an attachment to develop.

Director tenure is measured as the average number of years' tenure (capped at seven years) for a focal company's board members.

Non-audit services purchased (NAS)

Beck, Frecka and Solomon (1988) report that companies that purchase high levels of recurring NAS from their auditor tend to have longer auditor tenure. In an Australian context, Butterworth and Houghton (1995) report findings consistent with this result. NAS is measured as the remuneration paid to a company's principal auditor for non-audit services as disclosed in the company's annual report.

Auditee size (SIZE)

Prior research by De Angelo (1981) found that as the size of clients increases, they are more likely to select larger auditors. Thus, it is expected that as the auditee size increases, companies will tend to select Big Six (now Big Five) auditors. Additionally, Levinthal and Fichman (1988) found that auditor size is highly significant in explaining the expected duration of the auditor-client relationship.

Consistent with prior research (e.g., Francis & Wilson 1988; Levinthal & Fichman 1988), client size is measured as total assets.

Auditor characteristics

Big Six (BIG6)

The size of audit firms has been shown to have a systematic effect on the duration of the auditor-client relationship. For instance, prior research (Levinthal & Fichman 1988) has shown that client relations with Big Eight (Big Six in this sample) firms are likely to last longer than those with non-Big Eight (non-Big Six) auditors.

BIG6 is captured by a dichotomous variable taking the value 1 if a company's auditor is a member of the Big Six, and 0 otherwise.[13]

Industry specialist (SPECAUD)

The existence of an industry premium specialist has been shown to result in fee premia attributed to the expertise and quality that such an auditor exhibits (Craswell, Francis & Taylor 1995; DeFond, Francis & Wong 2000). Further, research by Haskins and Williams (1990) indicates that auditor switches can be

[13]Where audit firms have merged during the period examined, as long as a company audited by one of the separate firms stays with the merged audit firm, tenure is taken as continuous, consistent with Levinthal and Fichman (1988).

explained partly by clients preferring to choose a specialist auditor. Thus, auditor tenure for industry specialists is likely to be longer than that for non-specialists.

An industry specialist auditor is deemed to exist if at least one audit firm within an industry receives at least 15% of the total industry audit fees.[14] Consistent with Craswell and Taylor (1991), and Craswell, Francis and Taylor (1995), at least 30 companies must exist in an industry for a specialist to be deemed to exist. Auditor specialisation is measured in the prior year, because the decision to retain or change auditor may depend, in part, on a company's perception of which audit firm(s) is a specialist auditor in its market. If an auditor meets the aforementioned criteria in the prior year, the dichotomous variable is coded 1, and 0 if it does not.

Therefore, the model to be tested takes the following form:

$$\text{Auditor tenure} = \alpha + \beta_1 ALOCKYRS_t + \beta_2 COMPL_t - \beta_3 DISTRESS_t - \beta_4 RISK_t - \beta_5 PRIORQUAL_{t-1} + \beta_6 AGE_t - \beta_7 AUDFEE_t - \beta_8 GROWTH_{(t-1)-t} + \beta_9 DIRTEN_t + \beta_{10} NAS_t + \beta_{11} SIZE_t + \beta_{12} BIG6_t + \beta_{13} SPECAUD_{t-1} + \varepsilon$$

The variable definitions and their expected direction are summarised in Table 7.3.

Table 7.3. Variable measures

Dependent variable	Pred. dir.	Operationalisation
AUDTEN		The number of years of the auditor's incumbency from a base year for $company_i$ up to a maximum of seven years.
or		
CATTEN		Dichotomous variable taking value 1 if the number of years of the auditor's incumbency is greater than 4, 0 otherwise.
Independent variables		
ALOCKYRS	+	The total number of director-auditor links for $company_i$ in a given year summed over a potential seven-year period.
DIRTEN	+	The number of years' tenure (capped at seven years) of all board members, averaged, for each $company_i$.
COMPL	+	The proportion of inventories and receivables to total assets.
DISTRESS	–	A continuous z-score measure (Constable & Woodliff 1994) of auditee's financial health in the current year.
RISK	–	The proportion of debt to equity.
PRIORQUAL	–	A dichotomous variable taking the value 1 if $auditee_i$'s financial report is qualified in the prior year, 0 otherwise.
AGE	+	The number of years (rounded to the nearest whole year) since $company_i$ listed on the ASX.
AUDFEE	–	The dollar amount of audit fees received by the incumbent auditor for auditing the accounts of $company_i$.
NAS	+	The dollar amount of NAS earned by the incumbent auditor in the current year.

[14]Craswell and Taylor (1991) classified a specialist as an auditor in receipt of 10% of the national audit fees for that ASX two-digit industry. However, this chapter uses 15% of total fees to account for the influence of the reduction from the Big Eight to the Big Six.

SIZE	+	The total assets of company$_i$ in the current year.
BIG6	+	A dichotomous variable taking the value 1 if company$_i$'s incumbent auditor is a Big Six firm, 0 otherwise.
SPECAUD	+	A dichotomous variable taking the value 1 if company$_i$'s auditor receives at least 15% of the total industry audit fees and at least 30 companies exist in that client's ASX (2-digit) industry code.
GROWTH	–	The percentage change in auditee$_i$'s sales since the prior year.

Methodology

Hypothesis 1

Hypothesis 1 examines the association of director-auditor links with auditor tenure (measured continuously). Rather than using an ordinary least squares (OLS) regression, multivariate Tobit analysis is used due to the censoring of auditor tenure.

Hypothesis 2

Hypothesis 2 examines the potential impact of director-auditor links in influencing the extension of auditor tenure past the four-year barrier argued to be critical by Levinthal and Fichman (1988). Given that the dependent variable for the testing of this hypothesis is dichotomous, logistic regression is used.

Sample and data

The same sample companies are used for the testing of both hypotheses. The sampling frame consists of the top 242 companies by total assets listed on the ASX in the year 1995, and meeting the required data considerations. Hence, variables measured at t-1 relate to 1994. To be included, companies had to be audited by a single (3 deletions) private-sector auditor (2 deletions) and have been listed for at least two years (16 deletions). In addition, only companies with financial statements denominated in Australian dollars (19 deletions) and all data (2 deletions) were included. The final sample size was set at the largest 200 companies meeting all the data requirements. To achieve this, the largest 242 companies by total assets in 1995 were the initial starting point. Table 7.4 explains the sample size at each step of determining the presence of the requisite data.

Table 7.4. Sample criteria

Criterion (base year 1995)	Deletions	Balance
Largest companies by total assets		242
Must have one auditor only	3	239
Financial statements denominated in AUD$	19	220
Private-sector auditor	2	218
Must be listed at least two years	16	202
Other	2	200

It was necessary to delete companies with more than one auditor (2 deletions) because of the inherent difficulty this would cause in the calculation of auditor tenure and ALOCKYRS. Similarly, the inclusion of companies listed for at least two years enabled the collection of prior year data for the growth, auditor industry specialist and qualification variables. The 'other' category consists of companies for which not all data was currently available.

The data was hand-collected from a variety of sources including *Who Audits Australia?* (Craswell 1996), the *Australian Financial Review Shareholder* handbook, *Jobson's Year Book of Australian Listed Companies* (1989-96), *Jobson's Year Book of Mining Companies* (1989-96), the *Australian Stock Exchange Datadisc*, the *Australian Graduate School of Management (AGSM) Annual Report Microfiche File* and *Connect4*.

Results

Hypothesis 1

Univariate results

Hypothesis 1 examines the association of director-auditor links with auditor tenure measured continuously over a maximum seven-year period up to 1995 inclusive, left-censored at two years and right-censored at seven years. The descriptives reported in Table 7.5 show that the mean tenure for all companies in the sample is 5.4 years. This indicates that the average company observation has an audit relationship that has lasted for more than five years.

Table 7.5. Descriptive statistics

	OVERALL SAMPLE N = 200				AUDITOR TENURE > 4 YRS N = 134				AUDITOR TENURE ≤ 4 YRS N = 66					
Variable	Max.	Min.	Mean	Std dev.	Max.	Min.	Mean	Std dev.	Max.	Min.	Mean	Std dev.	t-test or Chi square	p-value
TENURE	7	1	5.435	2.092										
ALOCKYRS	68	0	9.190	14.606	68.000	0.000	11.948	16.732	38.000	0.000	3.591	5.727	5.197	0.000
DIRTEN (YRS)	7	1	3.838	1.278	7.000	1.938	4.324	1.046	6.286	1.000	2.851	1.133	8.864	0.000
COMPL (%)	0.85	0	0.221	0.199	0.841	0.001	0.239	0.204	0.848	0.000	0.185	0.186	1.890	0.061
DISTRESS (z-score)	3.68	−3.59	0.036	0.916	2.141	−3.589	0.059	0.821	3.676	−2.198	−0.010	1.090	0.454	0.651
RISK (debt/equity)	2.6	0.02	0.478	0.292	2.599	0.015	0.489	0.307	1.150	0.021	0.455	0.257	0.810	0.419
PRIORQUAL(0/1)	1	0	0.035	0.184	1.000	0.000	0.045	0.208	1.000	0.000	0.015	0.123	1.149	0.284
AGE (YRS)	92	2	20.920	20.324	92.000	4.000	25.306	20.520	71.000	2.000	12.015	16.818	4.877	0.000
AUDFEE ($'000)	5542	3	507.20	836.326	5542.000	10.000	657.231	977.232	1233.000	3.00	202.576	216.097	5.251	0.000
NAS ($'000)	6,356.00	0	419.25	811.027	6356.000	0.000	537.828	946.862	1443.000	0.000	178.485	302.409	3.563	0.001
SIZE ($m)	147.077	0.159	3.035	13.391	147.077	0.159	4.041	16.206	17.578	0.160	0.993	2.300	4.051	0.000
BIG6 (0/1)	1	0	0.885	0.320	1.000	0.000	0.910	0.287	1.000	0.000	0.833	0.376	2.584	0.108
SPECAUD (0/1)	1	0	0.175	0.381	1.000	0.000	0.201	0.403	1.000	0.000	0.121	0.329	1.974	0.160
GROWTH (% change)	1349.490	−91.85	41.766	127.952	1349.490	−91.850	32.503	132.057	610.140	−38.390	60.573	117.916	−2.751	0.007

The majority of companies (59.5%) exhibit auditor tenure of at least seven years. This is interesting, given the findings of Levinthal and Fichman (1988) that auditor switches are most likely to occur in the first four years of the auditor-client relationship. These findings suggest two possible alternatives. Firstly, average auditor tenure[15] (since the study by Levinthal and Fichman) has tended to increase. Alternatively, given that Big Six auditors generally have longer tenure than non-Big Six auditors (Fichman & Levinthal 1991), the incidence of auditor switching among the largest 200 companies (which tend to be audited by Big Six) may be so low as to have no significant impact on average auditor tenure. The latter explanation appears most pertinent, given that auditor switching in Australia is relatively rare in any given year.[16]

The descriptive statistics for the overall sample (Table 7.5) show that the mean number of director-auditor links (ALOCKYRS) is 9.19, with a maximum of 68. This indicates that on average, over the seven-year measurement period, there are 9.19 links created where the directors of a sample company encounter the same auditor at other companies where they have board membership. The mean number of years that the sample companies have been listed on the ASX (AGE) is 21, indicating that on average the companies are well-established. This is to be expected since the sample is comprised of large, and generally stable, companies. In addition, the mean tenure of directors on the sample companies' boards (DIRTEN) indicates that on average directors in the sample were on those boards for almost four years.

In terms of financial characteristics, the mean level of leverage (RISK), 0.478, suggests that on average the companies in this sample do not have overly high debt-to-equity ratios. The mean distress score is 0.036, indicating that the sample companies have relatively sound financial health. The dichotomous variables show that on average only 3.5% of companies were issued a qualified opinion in the prior year (which is expected, given that the sample includes large companies), 89% of companies are audited by a Big Six auditor, and 18% of companies engage a specialist Big Six auditor.

The Pearson's correlation matrix is reported in Table 7.6. Only two instances exist where independent variables have correlations over 0.5 (LOGFEES has a 0.555 correlation with LOGNAS and a 0.729 correlation with LOGSIZE).

[15]While Levinthal and Fichman (1988) did not report the average duration of auditor tenure in the descriptive statistics for their study, their finding that most auditor switches occur in the first four years of tenure indicates that average tenure in their sample was less than in the current study.
[16]In 1995, the switching rate was 6.5% of all listed companies and in 1994 6.3% (Craswell 1996).

Table 7.6. Pearson correlation coefficient matrix (N = 200)

	AUD-TEN	ALOCKYRS	DIRTEN	COMPL	DISTR	RISK	PRIOR-QUAL	AGE	BIG6	SPEC-AUD	LOG-NAS	LOG-FEES	LOG-SIZE
AUDTEN	1.000												
ALOCKYRS	0.275^{**}	1.000											
DIRTEN	0.551^{**}	0.138	1.000										
COMPL	0.107	0.042^{*}	0.155^{*}	1.000									
DISTRESS	0.024	−0.100	0.111	0.473^{**}	1.000								
RISK	0.067	0.036	0.007	0.423^{**}	0.055	1.000							
PRIORQUAL	0.091	0.007	0.020	−0.009	−0.111	0.196^{**}	1.000						
AGE	0.334^{**}	0.193^{**}	0.250^{**}	0.139^{*}	0.263^{**}	0.086	0.242^{**}	1.000					
BIG6	0.105	0.083	−0.080	0.038	0.052	−0.021	-0.187^{**}	−0.114	1.000				
SPECAUD	0.074	0.100	0.083	0.050	0.113	0.017	−0.088	0.102	0.166^{*}	1.000			
LOGNAS	0.254^{**}	0.113	0.082	0.259^{**}	0.137	0.154^{*}	−0.011	0.205^{**}	0.242^{**}	0.095	1.000		
LOGFEES	0.355^{**}	0.304^{**}	0.190^{**}	0.329^{**}	0.160^{*}	0.330^{**}	0.066	0.314^{**}	0.143^{*}	0.060	0.555^{**}	1.000	
LOGSIZE	0.257^{**}	0.339^{**}	0.050	0.097	-0.203^{**}	0.293^{**}	0.134	0.187^{**}	0.121	−0.111	0.359^{**}	0.729^{**}	1.000
LOGGROWTH	-0.205^{**}	-0.051	−0.059	−0.056	−0.002	−0.075	−0.054	−0.104	−0.067	−0.099	−0.100	−0.068	−0.116

** Correlation is significant at the 0.01 level (2-tailed). Refer to Table 7.3 for variable definitions.
*Correlation is significant at the 0.05 level (2-tailed).

Multivariate results

The multivariate results for testing Hypothesis 1 are shown in Table 7.7. The model is significant with an adjusted R^2 of 43%. Robust analysis that applies the Huber-White technique is used, since testing reveals the presence of hetereoscedasticity. [17] These results show that six of the 13 independent variables are significant with respect to auditor tenure.[18] The coefficient of the hypothesis variable, ALOCKYRS, is positive and highly significant (p-value = 0.005 (one-tailed)), indicating that director-auditor links are significantly associated with the length of auditor tenure. This finding supports the results of Seabright, Levinthal and Fichman (1992), who found that personal attachments between those integral for the auditor-client relationship decreased the likelihood of auditor switching.

Table 7.7. Hypothesis 1 – Auditor tenure as a continuous measure Tobit regression (dependent variable = AUDTEN)

Variable	Pred. dir.	Coefficient	S.E.	z-Statistic	Prob.
ALOCKYRS	+	0.076	0.030	2.578	**0.010**
DIRTEN	+	1.543	0.247	6.256	**0.000**
BIG6	+	1.767	0.860	2.054	**0.040**
AGE	+	0.032	0.018	1.761	**0.078**
LOGGROWTH	–	−1.086	0.522	−2.083	**0.037**
LOGFEES	–	2.048	1.028	1.993	**0.046**
RISK	–	0.171	1.093	0.156	0.876
COMPL	+	−1.398	1.865	−0.750	0.454
DISTRESS	–	−0.409	0.384	−1.066	0.286
PRIORQUAL	–	2.130	2.150	0.991	0.322
SPECAUD	+	−0.543	0.809	−0.671	0.502
LOGSIZE	+	−0.839	0.887	−0.946	0.344
LOGNAS	+	0.569	0.391	1.457	0.145
Constant		3.158	4.938	0.640	0.522
N R^2 Adjusted R^2	200 0.4716 0.4316				

Refer to Table 7.3 for variable definitions.

A number of control variables were also significantly associated with auditor tenure (AUDTEN). Director tenure (DIRTEN) (p-value = 0.000 (one-tailed)) is highly significant in the direction hypothesised, suggesting that the average tenure of directors on the board is positively associated with auditor tenure. The number of years since listing (AGE) is also significant (p-value = 0.039 (one-

[17]Pre-testing for multicollinearity was also performed under OLS assumptions. Again, although this is not the optimal method of analysis, the available statistical packages are limited in testing for violation of Tobit estimates. Variance Inflation Factors (VIF) indicate multicollinearity is not a significant problem using OLS.
[18]Further testing for outliers indicated that none were present.

tailed)) and positive as hypothesised, as is BIG6 (p-value = 0.020 (one-tailed)), while LOGGROWTH is significantly negatively associated with auditor tenure (p-value = 0.019 (one-tailed)). The significance of LOGGROWTH further supports the hypothesis and findings of Seabright, Levinthal and Fichman (1992), that changes in resource requirements of clients increase the likelihood of auditor switches.

The other control variable significant in the model is LOGFEES (p-value = 0.023 (one-tailed)), although in the opposite direction to that hypothesised. The results indicate that audit fees are positively associated with auditor tenure, suggesting that fee expensiveness is not associated with auditor change. This is consistent with Simon and Francis (1988), who found that any lowballing is fully recouped within four years. In addition, given that larger audit firms predominate in the sample and are generally considered to provide a higher quality audit (De Angelo 1981), presumably companies are willing to pay a premium (Craswell, Francis & Taylor 1995; DeFond, Francis & Wong 2000). The positive direction of this variable therefore seems to reflect the hypothesised positive, significant relationship between BIG6 and auditor tenure.[19]

Interestingly, RISK, DISTRESS and complexity (COMPL) are all insignificant, suggesting that the financial health of clients, and difficulty of the audit task, do not significantly influence auditor tenure. However, given that the sample consists of large companies tending to be well-established, there is likely to be little variation in these variables. Qualification in the prior year (PRIORQUAL) is insignificant in this study. Levinthal and Fichman (1988) suggest that where relationships have survived for several years, there is likely to be less conflict between client and auditor, and hence a low frequency of qualified opinions. Given that the companies in this sample predominantly have incumbent auditors with at least seven years' tenure and are healthy financially, a low incidence of qualified opinions may be expected.

The significance of the hypothesis variable, director-auditor links (ALOCKYRS), provides strong support for Hypothesis 1.

Hypothesis 2

Univariate results

The explanatory variables used in the estimation of Hypothesis 1 are included also for the testing of Hypothesis 2.[20] However, a categorical measure of auditor tenure is used to test Hypothesis 2, which proposes a positive association between

[19]Given its multicollinearity with LOGNAS, LOGFEES was omitted from the model. Interestingly, this resulted in LOGNAS becoming highly significant (p = 0.007 (one-tailed)), also in the opposite direction to that hypothesised. The removal of LOGFEES or LOGNAS (given correlation with LOGSIZE) had no impact on the significance of LOGSIZE.

[20]As for the Tobit case, the transforming of some of the variables improved the normality of the disturbances under a logistic regression in pre-testing.

director-auditor links and the retention of the auditor for more than the critical four-year period noted by Levinthal and Fichman (1988). Based on the findings of Levinthal and Fichman, the dependent variable takes the value 1 if auditor tenure is greater than four years and 0 if tenure is less than, or equal to, four years. Of the observations, 67% exhibit auditor tenure longer than four years.

The descriptive statistics in Table 7.5 show that the mean level of director-auditor links is greater for companies where the incumbent auditor has tenure for more than four years as opposed to less than, or equal to, four years. This trend is evident for most of the explanatory variables in Table 7.5. Companies with auditors exhibiting more than four years' tenure tend to have longer director tenure, are more complex and riskier, have higher fees, and are more likely to be audited by a specialist auditor than those companies where the auditor does not have tenure greater than four years. The only exception is company growth, which suggests companies whose auditors have less than, or equal to, four years' tenure (61%) grow more quickly than those companies whose auditors have greater than four years' tenure (33%).

The univariate results are presented in Table 7.5. The independent samples t-tests for the continuous variables (Table 7.5, Panel A) indicate that most of the means in the two groups (tenure greater than four years and tenure less than, or equal to, four years) are significantly different from each other (two-tailed test). The only exceptions are complexity (COMPL), DISTRESS and RISK, where the means for the two groups are insignificantly different from each other. The significant result for ALOCKYRS ($p = 0.000$ (two-tailed)) indicates that the mean incidence of director-auditor links is greater for those company observations with auditor tenure longer than four years on a univariate basis.

Univariate Chi-square tests conducted on the categorical variables (Table 7.5, Panel B) suggest that there is no significant difference in the incidence of prior year audit qualifications ($p = 0.284$), BIG6 ($p = 0.108$) or use of a specialist auditor (SPECAUD; $p = 0.160$) between the two tenure groups.

Multivariate results

Table 7.8 (Panel A) presents the results of the logistic regression. Overall, the model is significant, with a Chi-square statistic of 102.138 ($p = 0.000$), and has a McFadden-R^2 of 0.413. The Hosmer and Lemeshow 'goodness of fit' test calculates a Chi-square value of 6.859 ($p = 0.552$), indicating that the model provides a good fit. Furthermore, the classification table, another indicator of the goodness of fit comparing predictions to the observed outcomes (Table 7.8, Panel B), shows that the model overall correctly predicts 83% of the observed cases. No other studies of auditor tenure known to the author have published this information.

Consequently, these results are difficult to compare.[21] However, the findings indicate that approximately 35% of the time the model predicts auditor tenure greater than four years when it is less than, or equal to, four years (Type II errors). Furthermore, approximately 9% of the time the model predicts that tenure is less than, or equal to, four years when it is actually greater than four years (Type I errors).

Regulators and professional bodies are likely to be more concerned with longer auditor tenure in the presence of links between directors and auditors. Hence, regulators are likely to be interested in a model that more accurately predicts tenure greater than four years than tenure less than, or equal to, four years. While overall predictive accuracy is important, this implies that a model that minimises Type I errors would be of more value than a model minimising Type II errors.

Table 7.8. Hypothesis 2 – Logistic regression (dependent variable = CATTEN) (N = 200)

	Panel A				**Panel B**				**Panel C**			
Variable	**Coef.**	**S. E.**	**Wald**	**Prob. (2-tail)**	**Coef.**	**S. E.**	**Wald**	**Prob. (2-tail)**	**Coef.**	**S. E.**	**Wald**	**Prob. (2-tail)**
	CATTEN coded 1 if tenure > 3 Years				**CATTEN coded 1 if tenure > 4 Years**				**CATTEN coded 1 if tenure > 5 Years**			
ALOCKYRS	0.046	0.032	1.417	0.156	0.049	0.025	3.880	**0.049**	0.052	0.022	2.375	**0.018**
DIRTEN	1.452	0.268	5.424	**0.000**	1.262	0.234	29.070	**0.000**	0.884	0.191	4.634	**0.000**
BIG6	1.329	0.715	1.859	**0.063**	1.203	0.675	3.172	**0.075**	1.359	0.635	2.139	**0.032**
AGE	0.002	0.015	0.125	0.901	0.016	0.014	1.438	0.230	0.025	0.013	1.983	**0.047**
LOGGROWTH	–0.315	0.378	–0.833	0.405	–0.327	0.383	0.729	0.393	–1.115	0.550	–2.028	**0.043**
LOGFEES	0.601	0.892	0.674	0.500	0.152	0.761	0.040	0.842	0.668	0.666	1.002	0.316
RISK	–0.413	0.780	–0.530	0.596	–0.160	0.759	0.045	0.833	0.032	0.737	0.043	0.966
COMPL	0.328	1.839	0.178	0.858	0.765	1.630	0.220	0.639	0.021	1.334	0.016	0.987
DISTRESS	–0.211	0.346	–0.610	0.542	–0.260	0.333	0.610	0.435	–0.406	0.313	–1.298	0.194
PRIORQUAL	0.791	1.723	0.459	0.646	1.044	1.522	0.471	0.493	0.920	1.384	0.664	0.507
SPECAUD	–0.151	0.659	–0.229	0.819	0.200	0.611	0.107	0.743	–0.151	0.557	–0.272	0.786
LOGSIZE	0.789	0.834	0.945	0.344	0.520	0.722	0.519	0.471	–0.381	0.611	–0.623	0.533
LOGNAS	0.098	0.344	0.286	0.775	0.390	0.296	1.742	0.187	0.363	0.272	1.333	0.182
Constant	–9.764	4.826	–2.023	0.043	–5.785	4.175	1.920	0.166	0.406	3.937	0.103	0.918
$Chi^2(13)$	94.110				102.14				94.770			
p-value	0.000				–75.766539				0.000			
Log likelihood	–65.413				0.000				–85.426			
Pseudo R^2	41.84				40.26				35.68%			
Classification Accuracy	Tenure < 4 years 66%				Tenure < 4 years 65%				Tenure < 4 years 68%			
	Tenure > 4 years 94%				Tenure > 4 years 91%				Tenure > 4 years 86%			
	Overall 87%				Overall 83%				Overall 80%			

[21]Nevertheless, this outcome compares favourably with other studies, such as the auditor change model estimated by Williams (1988), which correctly predicted 66.13% of switches.

Dependent variable: CATTEN = A dichotomous variable taking the value 1 if auditor tenure > 3, 4, 5 years in Panels A, B and C respectively, 0 otherwise. Refer to Table 7.3 for variable definitions.

The hypothesis variable, ALOCKYRS, is positive and significant (p = 0.025 (one-tailed)), as hypothesised. This supports Hypothesis 2, which predicts that director-auditor links are positively associated with auditor tenure greater than four years. As distinct from the interpretation of the findings for Hypothesis 1, the results of Hypothesis 2 suggest that director-auditor links may alleviate the pressure for an auditor switch within the critical first four years of auditor tenure (when an auditor switch is most likely; see Levinthal & Fichman 1988).

Two control variables are also significantly positively associated with auditor tenure over four years in duration. Director tenure (DIRTEN) is highly significant (p = 0.000 (one-tailed)), as is BIG6 (p-value = 0.038 (one-tailed)). No other independent variables are found significant in this logistic regression. Many control variables important to a continuous measure of tenure are not associated with this dichotomous measure, which partitions the sample according to whether or not auditor tenure lasts beyond the critical four-year stage.

Discussion and conclusions

The purpose of this chapter is to investigate the impact of director-auditor links (a personal attachment where interlocking directors engage the same audit firm across their company directorships) on auditor tenure. Motivation is provided not only by the paucity of empirical analysis in the auditing literature on the relationship between interlocking directorates and auditors, but also by potential policy implications of any findings for the debate surrounding mandatory auditor rotation.

The results provide support for the findings of Seabright, Levinthal and Fichman (1992) that personal attachments between directors and auditors diminish the pressure for auditor switches, considering the significant, positive relationship between director-auditor links (ALOCKYRS) and auditor tenure. The results also suggest that director-auditor links facilitate continuance of the relationship beyond the first four years of tenure. This four-year period was demonstrated by Levinthal and Fichman (1988) to be important to the likelihood of auditor switching.

The findings may also inform the debate over mandatory auditor rotation. For example, the existence of director-auditor links in an environment of longer auditor tenure could arguably appear to be an example of the nurturing of 'close personal or professional relationships with clients' by auditors proscribed under the auditing standards and codes of professional conduct in many jurisdictions.

The results show that over half of the largest 200 Australian listed companies in the sample engaged the same auditor for at least the last seven years prior to and including 1995. However, this study does not investigate whether the same engagement partner was present in each of the years of incumbency. Nevertheless, the pressure for mandatory auditor rotation, on the grounds of ensuring actual or perceived independence, may gain momentum if auditor tenure is accompanied by director-auditor links. As noted earlier, longer auditor tenure has been criticised for impairing independence regardless of any attachments between directors and audit firms. Such attachments may heighten these independence concerns.

This study is further motivated by the implications it may have for public accounting firms. As mentioned earlier, many studies have focussed on the determinants of auditor change as opposed to auditor tenure. This study could provide guidance to accounting firms by indicating some of the factors that are associated with longer auditor tenure. Nevertheless, this guidance should be acknowledged with regard to the possible independence concerns noted above.

While the findings of this research do have some interesting policy implications, they must be considered in the light of the limitations of the study. Given that the study includes data on only the largest 200 Australian listed companies, it is questionable whether the results generalise to the population of Australian companies (including smaller and private companies). In addition, the strict criteria for the inclusion of companies in the sample may detract from the study's generalisability. Nevertheless, the sample used here is comparable to that used by Davison, Stening and Wai (1984) and Jubb (2000). The capping of auditor tenure also creates a limitation in this chapter. However, a measure of tenure over longer periods is accompanied by non-trivial survivorship bias issues.

Even capping tenure at seven years, the study may suffer from survivorship bias because some of the companies included in the sample may not have existed for the seven-year measurement period. However, the inclusion of the variable AGE attempts to control for this potential limitation.

This study also assumes that ALOCKYRS captures accurately the explanatory power of personal attachments. However, other types of personal attachment may exist that are not captured by director-auditor links (for instance, managerial links with auditors). In addition, the effect of partner turnover, and its potential impact on auditor tenure due to the loss of personal attachment, is not considered. This study also assumes that where an audit firm merger occurs, auditor tenure is continuous if a client of either of the two firms continues to engage the merged audit firm. As noted earlier, companies choosing to measure an end to the auditor-client relationship due to a merger between audit firms may confound the study's results.

Nevertheless, the findings also provide interesting avenues for future research. This study raises the potential concern over auditor independence when director-auditor links and long auditor tenure occur concurrently. Future studies could investigate the impact of auditor-director links, in conjunction with longer auditor tenure, on audit quality as measured by, for instance, litigation against auditor. The impact on tenure of director-auditor links and other types of relationships (e.g., at the audit partner level) could be investigated over longer periods. Researching the impact of changes in the number of links or participants to the links in their association with auditor changes might be of benefit to the auditor change literature. Finally, examining whether the purchase of non-audit services from the incumbent auditor is contingent on the relationship between director-auditor links and tenure might add insight to the independence debate in the context of joint provision of services.

Auditors, audit firms, regulators, professional accounting bodies and purchasers of assurance services are likely to find the results of this study useful in informing the debate over both auditor independence, when audit firms are associated repetitively with directors, and rotation of auditors.

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Chapter 8. Where were the gatekeepers? Corporate collapses and the role of accountants

Barry J Cooper

Abstract

While it is generally acknowledged that the key to the recent spate of corporate collapses lies in the lack of effective corporate governance, there are a number of other factors that need to be considered in understanding this phenomenon. These include the new age of materialism that developed during the 1990s and the consequent corporate and investor greed, which contributed to the spiral that led to the demise of corporations such as Enron, WorldCom, HIH, One.Tel and the global accounting firm Arthur Andersen. Compounding these developments in the corporate environment was the behaviour of the traditional gatekeepers, including accountants in particular, who betrayed the public trust. The accounting profession is now paying the price, with increased government regulation and a credibility crisis that will take many years to resolve.

A fairytale

> The day Arthur Andersen loses the public trust is the day we go out of business.
> *Steve Samek, Country Managing Partner, Arthur Andersen US (Independence and Ethical Standards 1999).*

Looking back to 1999, it was inconceivable at the time that probably the world's most respected accounting firm was predicting its demise; the stuff of fairytales – which leads us to the well-known 'fairytale' of Alice in Wonderland:

> There was a table set out under a tree in front of the house, and the March Hare and the Hatter were having tea at it: a Dormouse was sitting between them, fast asleep, and the other two were using it as a cushion, resting their elbows on it, and talking over its head. 'Very uncomfortable for the Dormouse,' thought Alice; 'only, as it's asleep, I suppose it doesn't mind.' The table was a large one, but the three were all crowded together

> at one corner of it: 'No room! No room!' they cried out when they saw Alice coming. 'There's plenty of room!' said Alice indignantly, and she sat down in a large arm-chair at one end of the table (from *Alice in Wonderland*, by Lewis Carroll).

As observed by Leung and Cooper (2003), the tea party of corporate greed has been exposed with a vengeance in recent times, with the CEOs and directors (the March Hare and the Mad Hatter) having their fill, the regulators (the Dormouse) caught sleeping, and the accountants and auditors (Alice) joining the fray at the surreal event. Hewitt (2002) argues that the party seems to come around every decade or so, until the bubble seems to expand another size in absurdity and cost to the community, before it finally implodes once again. Whatever the reasons, this time an increasingly angry public have seen their superannuation and pension savings savagely mauled, and respect for corporate managers, regulators and the accounting profession has arguably sunk to an all-time low (Leung & Cooper 2003). Fairytales are fun for children, but the story of Alice in Wonderland takes on a new dimension when viewed in the analogous context of the recent corporate collapses, and the actions of those responsible for this sorry period of business and professional greed in the United States, Australia and elsewhere.

Back to the future

The corporate greed and consequent collapses have been categorised by Gittins (2002a) as arising from a 'new age of materialism', researched by the leading American social psychologist, David Myers, in his recent book on the American paradox of spiritual hunger in an age of plenty (Myers 2000). Support for this view is offered by the Australian social researcher Hugh Mackay, who observes that corporate greed in recent times is as much about morality and culture as about economics (Mackay 2002). More recently, the Hon. Justice Owen, HIH Royal Commissioner, lamented that for all the breaches of law and flaws of the system he identifies, for all the thoughtful remedies he advances, the core problem is something he simply cannot fix. Australia's worst corporate disaster, Owen suspects, was at heart a profound failure of morality (Brearley 2003).

Before examining this recent spate of collapses, and the role played in them by the accounting profession, it is probably useful to look briefly at the history of Australian corporate collapses in the last few decades (including, again, the role played by accountants) to see what, if anything, we can learn from the past. These have been categorised by Clarke, Dean and Oliver (1997) as the dubious credit and tangled webs of the corporate 1960s, going for broke in the 1970s, and the 1980s decade of the deal.

The corporate '60s, '70s and '80s

The 1960s saw the collapse of well-known corporations including Latec Investments, Stanhill Development Finance, Reid Murray and H. G. Palmer. The common threads in all these collapses, impacted by a tight credit squeeze, were valuations of receivables and investments, treatment of unearned income, and intermingling of private and public companies. Directors were jailed, as was one auditor. In the then still developing accounting profession, there was much hand-wringing and finger-pointing at bad management practice, but not much introspection about the role of accountants themselves, and their lack of understanding about the need to properly account for the market value of investments and the collectability of receivables. As observed by Clarke, Dean and Oliver (1997, p. 43), 'those events of the 1960s (and the succeeding decade) are instructive for a considered assessment of professional ethics and business techniques, transactions, structures and accounting employed by the 1980s entrepreneurs' – including Bond, Spalvins, Herscu and Skase, the aggressive and flamboyant corporate dealers of that time.

Following the collapse of Mainline, Cambridge Credit, Minsec and Gollins Holdings in the early 1970s, the public outcry lead to a search for scapegoats. A number of directors were charged and criminal actions against two directors of Gollins Holdings saw them both jailed for more than 10 years. Unfortunately for the accounting profession, a civil action by the debenture holders in Cambridge Credit against the auditors resulted in a then unprecedented out-of-court settlement of $20 million, followed a couple of years later by a $6 million settlement for debenture holders in Gollins Holdings. These settlements have since been dwarfed by others, including $136 million in the Tricontinental case, amongst the largest audit settlements in Australian history (Sykes 1994).

In the early 1970s, Professor Ray Chambers was warning the accounting profession of the dangers lying ahead. He opined at the time that, 'if due to the optional accounting rules available to them, the company managers and directors are able to conceal the drift (in financial position), shareholders and creditors will continue to support, and support with new money, companies that are weaker than their accounts represent them to be' (Chambers 1973, p. 166). Following the collapses of the early '70s, the NSW Government formed the Accounting Standards Review Committee in 1978, chaired by Professor Chambers. The report was critical of the standards applied by the profession, and the then NSW Attorney-General threatened intervention in the accounting standard-setting process. The accounting profession publicly opposed the committee's recommendations and inertia set in; little did the profession realise then that the day of judgment would finally arrive when government intervention would dramatically occur, even though it was to take nearly another 30 years.

The 1980s was a return to the excesses of the '60s and '70s, but on a grander scale. Green (1991) noted that everyone – bankers, lawyers, accountants, regulators and directors – had their eyes closed, and some directors fraudulently abused their trust. It is now apparent that the greed and cavalier attitudes of business and the professions in the 1980s were to return with a vengeance in 2001-02. Many of the accounting issues unresolved in the 1980s, including practices such as interest expenditure being capitalised, formation expenditure being treated as an asset, and related party transactions, came back to haunt the profession in the years 2001-02.

The comments by Clarke, Dean and Oliver (1997, p. 148) in respect of the practices in the accounting profession in the 1980s are insightful:

> … our conventional standard accounting practices were unable to cope with the complexities. Primarily they failed because of their ad hoc, one-off orientation – methods drummed up as a quick fix for a current anomaly, the current object of complaint, the subject of current pressure on the accounting, irrespective of whether they meshed or conflicted with other practices or financial common sense …

And:

> … the use of Urgent Issues Groups to come up with a speedy fix to urgent accounting problems … the old reductionist approach and its one-off solutions continues, with as little hope of success in improving accounting data generally as the well-intentioned efforts in the past.

These sentiments do underline some of the problems that were in fact still facing the profession when the collapses of 2001-02 came. The consequences have impacted on one of the fundamental attributes of a profession, namely that of self-regulation. The upshot is that, in Australia, the profession has now lost its self-regulatory status, with the Australian Accounting Standards Board now under the government-sponsored Financial Reporting Council, and with the Auditing and Assurance Standards Board soon to follow under the CLERP 9 draft legislation.

The recent corporate collapses

The recent collapses in Australia of companies such as HIH Insurance, Harris Scarfe and One.Tel clearly demonstrate similarities to many of the factors surrounding the corporate collapses in the '60s, '70s and '80s. However, there are also important differences. In the 1980s, there was the impact of a severe credit squeeze with the consequent high interest rates, unlike the very low interest-rate regime in 2001-02. There was also virtually no inflation as occurred in the early 1970s. So where was the problem?

The new age of materialism

During the 1990s, there were fundamental changes occurring in Australian society, including changes in corporate and professional culture. As noted above, Gittins (2002a) refers to this as the 'new age of materialism'. He observes that the rise of economic rationalism in the 1980s, which gathered pace in the 1990s, had been the politicians' response to the electorate's increased materialism and the higher living standard that a more efficient economy could deliver. The advice by economists to politicians on the need to cut protection and reduce government regulation was straight out of Economics 101, and had been doctrinaire and politically unpopular until the 1980s. The reforms have worked, but an ancillary development has been the way money has invaded our lives where it formerly played a lesser role (Gittins 2002b). Consider how sport has been taken over by media companies and professionalised; how the weekend has been commercialised, which means more of us now have to work on weekends; how we are now more litigious, so that after an accident we think about how we can turn misfortune into cash; how school fêtes are cancelled because public-risk insurance is too expensive; how houses are getting bigger as families shrink. So it is okay to attack evil economic rationalists, greedy businessmen or stupid politicians, but it's just not done to attack materialism – that would come altogether too close to home (Gittins 2002b).

However, this age of materialism is not a peculiarly Australian phenomenon. Myers (2000) has provided impressive evidence for similar changes in values in the United States. The American psychologist observes that average Americans have doubled their real incomes and have access to relatively cheap goods and services such as espresso coffee, mobile phones, four-wheel drive vehicles and the world-wide web. And yet Myers also observes that Americans have less happiness, more depression, more fragile relationships, less communal commitment, less vocational security, more crime and more demoralised children. Through a series of polls, Myers noted, for example, that the proportion of students going to college believing it essential they 'become well-off financially' rose from 39% in 1974 to 74% in 1990, and that over the same period the proportion that hoped to 'develop a meaningful philosophy on life' slumped from 76% to 43%, and that this reversal stayed unchanged throughout the 1990s.

The point is that once you appreciate the way our values have changed, the reason for a lot of developments becomes clear (Gittins 2002b). The new age of materialism could also help explain why, in recent years, Australian CEOs have been awarding themselves unprecedented – and to many, unbelievable – pay rises, and have become much more ruthless in their attitudes to customers and employees. Corporate boards often justify astronomical salary and bonus payments by the need to compete on the international market and to reward CEOs for the positive impact they can have on the share price. However, with the

average wage for Australians with full-time jobs being $45 000 per year in 2002, Hugh Mackay observes that the community perception of employee exploitation is heightened by revelations of multimillion-dollar salaries and perks for senior executives (Mackay 2002). Even after the criticism of the excesses of 2001-02, the governance débâcle relating to rogue trading at the National Australia Bank (NAB) during 2004, which resulted in the resignation of the CEO Frank Cicutto, meant he walked away from the bank with a reported $3.27 million-payout, including a payment in lieu of six months' notice. However, he had to forgo almost $1.3 million in shares. All of this was cold comfort, however, for NAB's shareholders and the bank itself, which has endured a substantial loss of reputation along with the money (AAP 2004).

As discussed above, this heightened materialism also provides a context for the arguably declining ethical standards among company directors, accountants and auditors. David Knott, the former chairman of corporate regulator the Australian Securities and Investment Commission (ASIC), has strongly criticised the outbreak of management greed, the failure of boards to put a brake on excessive and structurally unsound remuneration practices, the focus on short-term pay-offs, and the behaviour of analysts – and at least some auditors – in foregoing their ethics in return for record-level fees and commissions (Knott 2002). At the same time, others have lamented that the regulators were caught sleeping. The insurance industry regulator, the Australian Prudential Regulation Authority (APRA), was criticised in respect of the HIH Insurance collapse, with politicians and leading insurance executives claiming the regulator was not adequately staffed to identify the weaknesses in the company's systems (Kemp 2001; Elias 2001).

The concept of corporate greed is also illustrated by the work of Toms (2002), who, in an historical analysis of the Lancashire cotton mills from 1870 to 1914, concluded that the collapse of a system of open corporate accountability was due to the rise of a clique of shareholder-entrepreneurs who instigated accounting manipulation. Toms' detailed analysis of the cotton mills shows that social capital (namely, the capital contributed by workers) demanded accurate financial information, with the support of cooperative governance. But systematic wealth transfers in favour of cliques of promoters, directors and institutions narrowed the social base of share ownership, increasing the power of the cliques and reducing proper accountability. This cyclical effect can be seen also in agency compensation, a mechanism to minimise agency costs by aligning individual agents' interests with those of the organisation. But as such a mechanism becomes the tool for wealth transfers, and prey to power and materialism, agency compensation can become the rationale for creative accounting and ultimately the demise of corporations. Also, accounting and auditing rules develop according to the accountability demanded by collective capital, which is in turn the subject of

manipulations by managerial agents, resulting in a failure to produce transparent information.

Toms also noted that individual financial status and capital maintenance reputation were secured through accounting manipulations and dividend announcements and little reliance was placed on the publication or auditing of financial statements. In examining past history, Toms has successfully provided a portrait of how an open corporate accountability system collapsed, with features of shareholder-entrepreneurs, accounting manipulation and the failure of a reliable audit function. The Toms analysis revolves around events that occurred over 100 years ago, but it all sounds very familiar. Other authors have also highlighted the significant pay-outs of under-performing directors and managers (Gordon, Salmons & FitzGerald 2003; Gray 2000), and there has been plenty of evidence of this, particularly in the United States and Australia in recent years.

The collapse of Enron and the implosion of Arthur Andersen

> I also experienced a culture rife with conflict and an organization consumed by never-ending financial and political pressures. I worked with people so in thrall to the great bull market of the 1990s and the power and wealth of their corporate benefactors that they completely forgot that the true purpose of their job was to protect the investing public.
> *Barbara Toffler, former partner-in-charge of Arthur Andersen's Ethics and Responsible Business Practices division (Toffler & Reingold 2003).*

The implosion in 2002 of Arthur Andersen (one of the then 'Big Five' global accounting firms) following the collapse of Enron was arguably the defining moment when public trust was lost in the accounting profession and when the gatekeeping role was clearly breached. It is therefore useful to consider the implosion in the context of the new age of materialism as articulated by Gittins (2002a, 2002b), Myers (2000) and Mackay (2002). In this way, it is possible to provide an enlightening illustration of the link between the new religion of materialism and the loss of integrity and independence by the accountants who prepared the accounts and, in particular, those who audited them.

Enron is a classic case of corporate collapse caused by the failure of the board, a series of accounting frauds, lack of independence and objectivity by the auditor, and poor corporate ethics. Enron was a giant energy trading company listed on the New York Stock Exchange. It had one of the largest audit firms as auditor, namely Arthur Andersen, and a 'blue ribbon' board of directors. Its share price rose from US$20 in 1999 to peak at US$90 in August 2000. However, by December 2001 it dropped to being worthless when Enron filed for bankruptcy protection under Chapter 11 of the US Securities Act.

Much has been written about the collapse of Enron, and the Senate Sub-Committee Report, known as the Powers Report (Powers 2002), is an authoritative investigation of what went wrong. In summary, the issues uncovered by the Powers investigation included substantial and unapproved employee bonuses paid to managers and executives; partnerships (Special Purpose Entities, or SPEs) established to accomplish favourable financial results without bona fide economic objectives, and which did not conform with accounting rules; other improper transactions entered into to disguise US$1 billion in losses; and wrong accounting treatments, despite the auditors' involvement. Arthur Andersen was paid US$5.7 million above audit fees for advice on the accounting treatments. Account restatements were necessary because the SPEs failed to satisfy conditions required for treatment as independent entities. The result was that the financial statements for the financial years 1997 through to 2001 had to be restated. The magnitude of losses was so great that, for example, Enron was found to have lost US$618 million in the third quarter of 2001, and another US$1.2 billion in its SPEs that had not been accounted for. The Powers Report also found failures of the Enron board of directors in their fiduciary duties, high-risk accounting practices, inappropriate conflicts of interest, extensive undisclosed off-the-books activities, and excessive compensation. It was also noted that there was a lack of independence by the board and the auditors. And yet it wasn't just Enron that brought Arthur Andersen down. Toffler and Reingold (2003) observe that Enron was simply the final straw for Arthur Andersen, which was a respected firm before its culture began to decay. They also observe that the downfall of Arthur Andersen and the loss of public trust in the accounting profession could have been avoided had people paid attention to the danger signs flashing everywhere in the late 1990s.

Co-founded by 28-year-old Arthur Andersen, an accounting professor, in 1913, the firm quickly built up a significant reputation for integrity. In 1954, the company began consulting services, and by 1978 it had become one of the largest professional services firms in the world. In 2000, the Arthur Andersen consulting division underwent an acrimonious split from the Arthur Andersen auditing practice and became Accenture. Arthur Andersen continued with its auditing and limited related services until its demise in 2002. In many ways, the company had been seen as a leader in its field. For example, it was first in the use of sophisticated training facilities, set up in St. Charles, Chicago, for its world-wide staff. It recognised the need for formal professional ethics training, and developed ethics cases and educated scores of accounting professors to teach ethics; and yet it was to become the first large international accounting firm to be convicted on criminal charges.

It has been argued that Arthur Andersen's changed culture accounted for its demise (Toffler & Reingold 2003). When the consulting practice surpassed the

audit function and became the most profitable division, the generation of revenue took priority. As observed by Toffler and Reingold, Arthur Andersen came down from its lofty perch to wrestle in the mud in search of more fees, more power, more political clout – more everything: Arthur Andersen had embraced the new age of materialism. A number of issues were soon to become evident. The auditors in the firm were identified with large audit clients and hence the strong desire to maintain clients; audit personnel even looked forward to joining clients as a possible future career path. A number joined Enron and other high-profile clients such as WorldCom and HIH Insurance in Australia. An innovative business audit approach was devised to perform an audit with minimum time but which required a higher level of analysis. Judgment sampling gave way to statistical sampling, and then to strategic risk auditing. Tighter time budgets with a broadened focus on other non-audit outcomes were leading to services that helped to advise on business processes. Growing conflicts between serving the client management team and the interests of the shareholders were recognised by some partners but not reinforced with ethical principles. It became apparent that a good ethical culture amongst top management was lacking.

The final demise of Arthur Andersen was inextricably linked with Enron, where it had multiple roles. These included the role of external auditor, consultant on accounting and other matters, internal auditor, tax advisor, and advisor and reviewer of financial disclosure. In its last year at Enron, Arthur Andersen earned audit fees of US$25 million and other fees of US$27 million, and Enron was one of its largest clients. Arthur Andersen's conflicts of interest included effectively self-audit, in that they were consultants on the setting up of the SPEs which Enron used to hide its true financial position. It also appears that there was a fear of losing a large and prestigious audit such as Enron, leading to the removal of partners who were disliked by Enron management (similar partner changes occurred on the Arthur Andersen audit of HIH Insurance). There was also a covering up of non-compliance, internal debates about Enron not aired, and a failure to inform investors on Enron's non-disclosures.

In summary, Arthur Andersen's shortcomings included a lack of professional competence, failure of internal quality procedures, failure to follow up where there was a lack of information, and a lack of appreciation of the fiduciary duties of auditors. The company was indicted and convicted in March 2002 for obstruction of justice after personnel in several cities were reported as being involved in the shredding of papers and deletion of electronic data relating to the Enron audit. The consequent conviction resulted in Arthur Andersen's ability to audit companies being withdrawn. Its reputation and ability to function as a firm was rapidly eroded, with Arthur Andersen personnel joining other firms, rival firms taking over its clients and parts of its businesses, and the company eventually imploding. The 'Big Five' became the 'Big Four' in June 2002, and Arthur An-

dersen's 85 000 employees world-wide were dissipated to other firms or lost their jobs. A firm that had taken 90 years to build an enviable reputation had lost it all in 90 days.

Déjà vu

Poor management, inadequate controls, competition, acquisitions, financing, poor corporate culture and similar issues have continued to be common factors in corporate collapses. However, in looking back at the collapses of the '60s, '70s and '80s in Australia, it is also apparent that the regulation of corporate groups was, and arguably remains, ineffective. On each occasion, regulation has been increased and accounting standards improved, and yet, as noted by Clarke and Dean (2001), there has not been any observable slowing of the manner in which corporate groups feature in corporate crises. In fact, the use of complex corporate structures continues to be a recurrent feature in corporate failures, and the unravelling of the financial impact of the failure of corporate group structures remains bewilderingly complex. For example, in the case of HIH Insurance, the liquidator announced that it would be two years before the first general dividend payment and up to 10 years before the final payment (Sexton 2001).

An additional factor in the recent collapses was sheer greed. Turner (2001) observes that in a system fed by stock options, boardroom perks, and consulting and underwriting fees, enough was never enough. The seeds of the present crisis, particularly in the United States, were sown in the technology stock boom of the early 1990s, with the now bankrupt e-commerce companies then hailed as the way of the future. At the same time, the telecommunications revolution, in a new world of unregulated competition, required billions in investment for fibre optic cables, satellites and microwave towers. For example, the strategic decision by One.Tel to invest in its own telecommunications system was a major reason behind its eventual downfall (Leung & Cooper 2003). These new technologies demanded financial manipulation schemes to ensure that share prices held up, and options, stratospheric salaries and bonuses would continue to be paid. Even a first-year accounting student could work out that this was all financially unsustainable (Leung & Cooper 2003).

Where were the gatekeepers?

Accountants, auditors, investment banks and law firms, whose independence and integrity had been traditionally relied upon, joined the rush – under threat of being left behind – to access the riches from the new dot.com revolution. In the new age of materialism, the belief in the revolution was so pervasive that the gatekeepers became servants to the new players, rather than remain as the independent guardians. The traditional brakes on the system no longer worked

(Scott 2002). As also observed by the American Assembly at Columbia University (American Assembly 2003), all too often those whose mandate it was to act as a gatekeeper were tempted by misguided compensation policies within their firms to forfeit their autonomy and independence. Further to the review above of the famous Enron collapse, which is synonymous with the loss of credibility by the accounting profession, an analysis of three of Australia's biggest corporate collapses, namely HIH Insurance, Harris Scarfe and One.Tel, provides an inside view into how accountants and auditors, together with other professionals such as lawyers, failed in their gatekeeper role.

HIH Insurance

In March 2001, HIH Insurance was placed in provisional liquidation with reported losses of $800 million, although later estimates put the deficiency at between $2.7 and $4 billion, making it Australia's largest corporate collapse (Kehl 2001). HIH was known as a price-cutter and more willing underwriter than its competitors in the insurance industry, and excessive discounting was one of the contributing factors to the failure of the company. However, it was arguably the hostile takeover of FAI Insurance for $300 million, without proper due diligence investigations, that marked the beginning of the end for HIH (Brown 2001). Also, HIH experienced major losses in its operations in the United States and the United Kingdom, which contributed to its eventual demise.

The Royal Commission into the affairs of HIH Insurance by Hon. Justice Owen was announced in June 2001. The terms of reference were wide-ranging and, to enable the Royal Commission to fully investigate the circumstances surrounding HIH's failure, the actions of Commonwealth and state regulatory bodies, and whether changes should be made to the current legal framework, were included in the brief. The report on the failure of HIH Insurance was issued by Hon. Justice Owen in April 2003.

The moral issues that Owen discovered went beyond individuals in HIH's employ to afflict entire professions on the outside. For example, the accountants emerge as the masters of sneaky tricks. Brearley (2003) observes that 'book-cookers' were rife, and some of the instruments they employed, although legitimate tools of their trade, were decidedly shonky. Goodwill was the first offender, an intangible and largely discretionary asset which surged while real assets were squandered. In time, it came to represent fully half of HIH assets. Another major problem with HIH was that it didn't set aside enough reserves to cover future insurance claims and overvalued some assets. Under questioning at the HIH Royal Commission, the finance director denied that carrying out his acknowledged responsibility to be prudent and conservative in assessing policyholders' claims required the use of a safety margin in claims reserves. This was despite

the fact that the levels set by the company had proved to be inadequate in the past (AAP 2002).

Hon. Justice Owen was far from satisfied with the accounting systems and procedures adopted by HIH. In one of his observations (HIH Royal Commission 2003, p. *xlvi*), he noted that:

> … users of HIH accounts may not have understood it at the time, but in 1999 and 2000 – the years to which primary attention was given in the inquiry – the financial statements were distorted by questionable entries, heavy reliance on one-off end-of-year transactions, and aggressive accounting practices … including, despite significant losses, continuing to record as an asset in its financial statements the full value of the future income tax benefits …

In relation to the efficacy of the audits, Owen commented that: '… in my view, Andersen's approach in the audit of 1999 and 2000 was insufficiently rigorous to engender in users confidence as to the reliability of HIH's financial statements. This detracted from the users' ability to appreciate fully HIH's true financial position' (HIH Royal Commission 2003, p. *lvii*). Finally, there were also problems with the prima facie independence of the audit committee of the board, whose membership was mainly made up of accountants. The chairman and another member of the committee were both former partners of Arthur Andersen, the auditors of HIH, the finance director was a former Arthur Andersen partner, and another two members of the audit committee had business relationships with the company (Correy 2001).

Harris Scarfe

The retailer Harris Scarfe had operated for 150 years before it was placed into voluntary administration by the directors on 2 April 2001, after discovering irregularities dating back six years. In their report to creditors, the administrators highlighted that the systematic overstatement of profit had been funded by increased debt, both to the bank and the creditors (Peacock 2001). After investigations by ASIC and official examinations by the company's receivers and managers, ASIC alleged the chief financial officer, who has since been jailed, had altered Harris Scarfe's accounts to inflate the company's profits and had created a false picture that Harris Scarfe was in good financial health, permitting it to trade when it was virtually insolvent.

A suit has been filed against Harris Scarfe's auditors by the ANZ Bank, seeking recovery of at least $70 million and alleging the auditors had been negligent because they failed to uncover the accounting discrepancies and irregular entries in the accounts. Also, the former chairman of Harris Scarfe has been charged with a number of offences relating to failure to act honestly, dissemination of

false information, and intentional failure to notify the board of falsely inflated profits.

One.Tel

One.Tel was placed in administration and subsequently into liquidation in May 2001 with estimated debts of $600 million. At the same time, ASIC announced it had commenced a formal investigation into One.Tel for potential breaches of the Corporations Act. According to an ASIC spokeswoman, the potential breaches included possible insolvent trading, possible insider trading and market disclosure issues (BBC News 2001). Creative accounting by One.Tel in capitalising expenses had attracted the attention of ASIC, and its insistence that accounting practices be changed led in August 2000 to the company declaring $245 million of costs that would otherwise be hidden (Barry 2002).

The liquidator's inquiry into One.Tel was told how multimillion-dollar bonuses paid to the founders were effectively hidden from public scrutiny by questionable accounting practices. The bonuses totalling $14 million were incurred in 1999, but a change in accounting policy treated the bonuses as deferred expenditure and for set-up costs associated with One.Tel's businesses across Europe and Australia. This treatment, along with other questionable accounting adjustments, had the effect of converting a loss into a profit. It was also claimed that the auditors had supported the questionable accounting (ABC Newsonline 2002).

The fairytale comes true

At the beginning of this paper, the Mad Hatter's tea party included Alice the accountant and auditor, who wanted to join in. Well, the accounting profession *did* join the party of corporate greed and is now paying the price: it is no longer a fairytale. An analysis of the corporate failures in the past provides ample evidence of individual accountants – and, by association, the profession itself – abandoning the traditional gatekeeper role and joining the fray.

Accountants behaving badly

At HIH Insurance, the chief financial officer presided over an accounting system that used complex corporate structures to hide the truth. Inadequate provision was made for future insurance claims, assets were overvalued, and tax losses were turned into assets, even though it must have been known within the company that it was making real losses and that the future income tax benefits were unlikely to ever be realised. Furthermore, the auditors were insufficiently rigorous in their approach to the audit and members of the audit committee were less than independent.

At Harris Scarfe, it was simple manipulation of inventory figures by the chief financial officer, and he got away with it for six years without being detected

by the auditors, who are now being sued. At One.Tel, creative accounting in capitalising expenses was practised until the accountants were forced by ASIC to return to the principles they should have learned in Accounting 101 at university. Substantial bonuses that were clearly expense items were capitalised for nebulous reasons, and when later questioned in court, the finance manager admitted that the treatment was ‘a bit of a stretch’. And where were the auditors?

While one can argue that it is easy to be critical with hindsight, the fact remains that it has all happened before and we are not ‘talking rocket science’. What we *are* now talking about is a loss of public trust. A profession will only survive if it has credibility and can be trusted to serve the public good. For that reason, a profession should be self-regulating, something that is now being lost in Australia. Already the exclusive setting of accounting standards has been taken out of the hands of the profession and the auditing standards are to follow. However, the problem is not confined to Australia, as recognised in the Sarbanes-Oxley Act of 2001 in the United States and the recent IFAC report on rebuilding public confidence in public reporting (IFAC 2003a). It took the dramatic demise of the once great accounting firm of Arthur Andersen to provide the defining moment when public trust was lost. It now has to be rebuilt.

Attempts to restore credibility in financial reporting and auditing

IFAC found that the credibility of reporting is both a national issue in each country and an international issue, with action required at both levels. Some of the specific recommendations of particular relevance to the profession include reduction of incentives to misstate accounts which should require the proper expensing of costs and clear disclosure of the terms of share options; greater attention to auditor independence and corporate governance processes; the raising of auditor effectiveness, primarily through greater attention to audit quality control processes; and the strengthening of auditing and reporting practices and regulation (IFAC 2003a, pp. 2-4). IFAC has also since issued reform proposals that provide for more transparent standard-setting processes, greater public and regulatory input into those processes, regulatory monitoring and public-interest oversight (IFAC 2003b).

The Ramsay Report on auditor independence (Ramsay 2001), the HIH Royal Commission, investigations by ASIC, and the ongoing coverage in the financial press will all impact on the future direction of accounting and audit regulation in Australia. In particular, the latest phase in the Commonwealth Government’s Corporate Law Economic Reform Program, resulting in a draft Bill (CLERP 2003), addresses a number of key issues. Of particular importance to the accounting profession are the recommendations in respect of financial reporting and audit reform. Some of the CLERP 9 recommendations have already been implemented.

These include broadening membership of the AASB, increasing Australian involvement in the development of international accounting standards, and developing professional accounting body guidelines for seeking independent advice.

In respect of audit reform, the recommendations include developing higher standards for the independence of auditors, amending the Corporations Act to require an annual audit statement by auditors to disclose all details of their non-audit services, and the imposition of restrictions on retired auditors becoming directors of former client companies.

Conclusion

The above analysis of corporate collapses and the role of accountants and auditors is not a particularly happy one. The profession has lost much of its credibility, public trust has been badly shaken, and the profession has learned the hard way that it should not take its position in society for granted. As the capital market evolved alongside the rapid growth of technology and globalisation, there was an unhealthy shift in attitudes in the corporate world, one that has also existed in earlier times in the development of modern corporations (Leung & Cooper 2003). It is important to understand this phenomenon if any proposed reforms are to be effective in the future. For the sake of the trusting public, let us hope the period of corporate greed so evident in recent years is forever past history. But then, history does have a habit of repeating itself.

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Chapter 9. Management economic bargaining power and auditors' objectivity[1]

Carolyn A Windsor

Abstract

The audit of large organisations relies on a system of professional self-regulation with public-sector oversight. Professional self-regulation of audit is sustained by the fundamental principles of objectivity and independence that are mandatory in the professional code of conduct. The current system of regulation, however, requires auditors to depend directly on the auditee's client management for their economic survival. Using psychometric measures, two studies examine auditors' ability to remain objective when psychologically pressured by client management economic bargaining power in hypothetical audit conflict scenarios. The scenarios tested hypotheses that auditors applied three hierarchical levels of complex decision-making to process independence judgments. The results of two mixed factorial ANOVA-designed studies indicate that auditors' moral reasoning and personal justice beliefs interact with management economic factors when making independence decisions. Auditors' first level of response is immediate and impressionistic to client economic factors: financial condition, size of fees and tendering that result in main effects. Client economic factors interacted with auditors' second-level cognitive moral development and third-level preconscious beliefs in response to management demands, thus showing the difficulty for auditors to be free of personal beliefs and remain objective under intense pressure.

Introduction

The magnitude of recent corporate collapses has provoked public and media ire. Yet again, the spectre of auditor independence and the ability of auditors to remain objective when employed by economically powerful corporate clients is in the news. Unfortunately, auditors have been implicated in fraud after fraud. The Enron scandal brought down Arthur Andersen, which had been one of the

[1]The author gratefully acknowledges the invaluable contribution by the large international audit firms in Australia. Also I am grateful for the opportunity to present this paper at the ANU Audit and Ethics Workshop, December 2003, chaired by Professor Tom Campbell.

profession's 'Big Five' firms. Now a scandal at Italy's Parmalat that was uncovered in late 2003 threatens Deloitte & Touche, another global giant, as well as Grant Thornton, an important second-tier firm. But new scandals are still emerging (*Economist* 2004).

If the public loses confidence in the auditing profession's ability to remain independent, governments will introduce more regulation; consequently the audit profession might have to relinquish their self-regulatory status (see CLERP 9). Moreover, the shock demise of the respectable accounting firm Arthur Andersen emphasised the vulnerability of the profession. The US Congress responded to the wave of corporate scandals with the landmark legislation Sarbanes-Oxley Act of 2002. The broad corporate governance reforms and anti-fraud provisions of the Act were felt in boardrooms across the nation (Labaton 2003) and around the world. The Australian Federal Government also commissioned the Ramsey Report on Auditor Independence (Hayes 2002), following corporate scandals such as the collapse of HIH Insurance.

Every professional auditor is personally mandated to maintain an independent and objective 'state of mind' to provide an unbiased opinion about the veracity of corporate financial reports. Mautz and Sharaf (1961) argue that the auditor's objective judgment should be similar to a judge's decision in a court of law. Hence, independence relies on the personal but unobservable decision-making processes of the engagement auditor to be objective, and free from conflict of interest, bias and prejudice (see IFAC 2001). Objectivity, therefore, is fundamental to auditor independence. The IFAC Code of Ethics for Professional Accountants (IFAC 2001, p. 5) defines objectivity as 'a combination of impartiality, intellectual honesty and a freedom from conflicts of interest'. Yet auditors are human, with the full range of feelings, thoughts, personal strengths and weaknesses, as well as values and beliefs imbued from various life experiences.

The purpose of this research, therefore, is to investigate whether auditors' objectivity is affected by the unconscious stimulation of their cognitive moral development and personal beliefs when resolving a difficult independence decision. In fact, this research examines whether it is possible for all auditors to have the same ethical fortitude to ensure their objectivity. The independence issue in the present study involves the client management, one group which appears to have considerable economic influence on the auditor (Mautz & Sharaf 1961; Goldman & Barlev 1974). Few studies have investigated auditor objectivity, but this research uses psychometric measures to examine some of the auditors' decision-making processes.

Structural power imbalance between management and the auditor

Corporate management is a powerful social and economic institution that directly and indirectly affects the well-being of millions of people worldwide (Kelly 2001). Yet the forces of the capital markets that guide this powerful institution are shrouded in commercial confidentiality rather than democratic principles of openness and public accountability. Instead, government legislators and regulators have created a system of corporate financial disclosure overseen by the self-regulated auditing profession for the benefit of the capital markets, but also ostensibly in the public interest. Through legislation, governments have conferred a special and lucrative franchise on the auditing profession. In return, auditors' conduct and behaviour are governed by professional codes of ethical conduct that emphasise objective judgment independent of all influences, including management (Mautz 1988).

The auditor's role, however, is confusing and conflicting. The profession must implement the regulation of accounting and legislative frameworks on behalf of the public interest, yet at the same time have a business relationship with the auditee company for private economic benefit. Although the owners of the auditee company legally have the power to appoint auditors, more often executive directors (or senior management), as representatives of the owners (shareholders), negotiate the conditions of the auditors' employment and the information to be disclosed on behalf of the auditee firm (Goldman & Barlev 1974). The livelihood of the auditing profession, therefore, relies on fees negotiated with client management. The vulnerability of a large professional service provider working in a business that relies mainly on fees is evidenced by the demise of Arthur Andersen. When the Enron scandal began to fester into huge litigations and US Federal Government investigation, clients fled Arthur Andersen, giving their business and fees to the remaining 'Big Four', and thus leaving Arthur Andersen with an unsustainable cash flow (Morrison 2004). Short-term economic gain of the audit firms (particularly the partners) is at the expense of the long-term good of the profession. Management control of the corporate domain is empowered further by the self-regulation of auditors. Self-regulation perpetuates a lucrative and comfortable professional monopoly that responds pretentiously but ineffectively to audit failures and maintains the status quo.

An example of the failure of self-regulation that pays little heed to the comfortable auditor management relationship was the appointment of KPMG audit partner Chris Lewis to a senior executive position of the National Australia Bank's (NAB) risk management system, shortly after providing an unqualified opinion for the 2000 financial reports (Hoy 2002). Further, 'The problem for KPMG is that the very audit partner, who gave the all clear to National's accounts including

HomeSide, is now the National Bank's general manager of risk management, in clear breach of CLERP 9' (Hoy 2002).

In the 2001/02 financial reports, HomeSide's US business was written off to the amount of A$3.617 million as goodwill, after tax (2001/02 NAB Concise Report, p. 15), although the 2000/01 Annual Report glowingly described the HomeSide business (see the 2000/01 NAB Concise Report, p. 28). Many saw the 2001/02 NAB report into the HomeSide débâcle as sanitised (Hughes 2004). Chris Lewis and other senior executives of the NAB's risk management committee were dismissed from their positions after A$380 million of fictitious foreign exchange trades were revealed that indicated a failure of NAB's risk management system (Hughes 2004).

Rather than break the nexus between the self-serving economic relationship of auditor and management as the example above shows, the American Sarbanes-Oxley Act and the Australian Ramsey Report (Hayes 2002) have focused on mainly behavioural aspects of auditor independence. These reactions to corporate regulatory failure have not addressed the central issue of auditors' working conditions and economic dependence on the auditee as the client. The lofty idealism of professional obligations is at odds with the pragmatism of business to satisfy client needs.

Private interests, public interest and ethical behaviour

The theory of regulatory capture is critical of state intervention. It refers to the capture of state regulation by businesses in a particular industry that the state agency was designed to regulate (Posner 1974). One common way of doing this is to have former or future employees in the industry work for the regulatory agency, to advance private business interests above the public interest. The theory of regulatory capture is somewhat related to the above example, where the former self-regulated auditor is now employed in a lucrative management position in NAB shortly after having provided a clean audit report. In this instance, the auditor's mandated objectivity was compromised by personal self-interest at the expense of the public interest. At this time, the auditor has not been breached or punished in any way by the profession or ASIC.[2] This is a remarkable failure of private and public regulation, where NAB management has not only gotten away with misinforming the public but also reducing NAB owners' wealth through mismanagement and financial irresponsibility.

The power imbalance of the management-auditor relationship in a problematic regulatory system has been known for some time. In fact it was described in the

[2]ASIC employs in senior positions retired partners from the large accounting firms whose regulatory experience is mainly a self-regulatory regime.

testimony of an expert witness before the US House of Representatives Commerce Committee, who said (Klott 1985, p. 22):

> If one were starting from point zero today, it would be madness to invent a system where the one to be audited hired the auditor, bargained with the auditor as to the size of fee, was permitted to purchase other management services from the auditor, and where the auditor in turn has the social responsibility for setting the rules and for enforcing them and applying sanctions against themselves.

Nevertheless, auditors are personally required to behave independently of management as mandated by ethical codes of professional conduct. Yet little is known about the decision processes that auditors use to make objective judgments about management-prepared financial statements. This research introduces a complex decision-making model of independence judgments, to examine the auditors' personal objectivity processes under ethical pressure by varying degrees of client management economic power.

The complexity of auditor independence judgments

Auditor independence judgments can be difficult and complex, as they involve personal behavioural and decision-making processes that are difficult to observe. To address some of the complexities of auditor independence judgments, an interactionist model (Trevino 1986) is the basis for this study. Expected findings are that those cognitive processes involving auditors' moral reasoning (Kohlberg 1969) and personal justice beliefs (Lerner 1981) will interact with client management's economic power (Mautz & Sharaf 1961) to affect auditors' objectivity, and so their independence judgments.

The auditors' complex ethical decision-making model posits that auditors use three hierarchical levels of individual decision-making, processing the decision through each sequential level when responding to a thorny situation. The more intense the moral dilemma, the more complex the auditors' decision-making becomes, tapping into embedded beliefs. The last two levels involve high-order interactions, the higher the decision level, the higher the order of interaction. Decisions processed at the higher levels are therefore reflected in interactions between personal beliefs at Level 3, cognitive style at Level 2, and the dilemma to be decided (which triggered the initial response). At Level 2, auditors' responses are the result of thinking processes, which are influenced by cognitive style defined in terms of moral reasoning. Finally, at Level 3, auditors' responses are influenced by processes which involve beliefs defined as 'the belief in a just world'.

The model aims for a more holistic approach to individual decision-making by synthesising its two facets of cognitions and preconscious beliefs imbued from a person's social environment. Kahlbaugh (1993) claims that this approach to individual decision-making gives a better understanding of how these two facets of the person interact. Stage theorists such as Kohlberg assume moral reasoning is stable at each stage, however social learning theorist Bundura (1986) questions this assumption. Bundura suggests that the stages of moral development may be more amenable to social influences than expected by stage theorists (see Optow 1990).

Situation variables – economic bargaining power of client management

Management bargaining power is conceptualized in terms of economic factors that exert pressure on auditors, and therefore influence their objective decision-making processes and independence outcomes. The initial interviews with senior audit partners indicated that the three primary dimensions of management bargaining power were (1) client financial condition (Knapp 1985), (2) size of client fees (Gul 1991), and (3) whether or not the client calls tenders for their audits.

Level 1: Immediate response to situation factors

Level 1 of the complex decision-making model is auditors' immediate response to powerful external stimuli of the situation variables representing client management bargaining (economic) power. We hypothesize that auditors' Level 1 responses to an audit conflict involving client management economic pressure is expected to be spontaneous and immediate, resulting in strong main effects for situation variables, financial condition, size of client fees and tendering.

Level 2: Cognitive processes, moral reasoning and auditor independence

The ethical dilemma must be a powerful enough catalyst to activate auditors' higher levels of individual decision-making processes and responses. When management uses the client firm's economic situation to pressure the auditor's objectivity during an audit conflict, the auditor is faced with an ethical dilemma, hence prompting a different level of reasoning than the impressionistic and immediate responses in Level 1. Trevino (1986) proposed Kohlberg's social-cognitive theory of moral reasoning development (1969) as a key to researching the cognitive component of ethical decision-making in organisations.

The present study utilised Kohlberg's (1969) moral reasoning construct. Although this construct has been subject to some controversy (see Modgil & Modgil 1986),

it has been used successfully as a cognitive measure in a number of studies in accounting and organisational settings over recent years (see Louwers, Ponemon & Radtke 1997 for an overview).

Rest (1986) claims the fundamental assumption of Kohlberg's theory is that a person's moral judgments reflect an underlying organisation of thinking. Moral judgments are a part of moral psychology involving how a person judges which course of action is right or just in a social situation. Kohlberg's (1969) theory addresses how the reasoning processes of moral decision-making become more complex and sophisticated with the individual's development. Kohlberg (1969, 1976) identified three broad levels of moral development through which individuals progress: pre-conventional, conventional and post-conventional, with two stages at every level. The pre-conventional level comprises Stages 1 and 2. Here a person responds to notions of right or wrong, particularly when personal consequences are involved (i.e., punishment, reward or an exchange of favours), or when authority figures impose physical power upon the individual. Reasoning at the conventional level consists of Stages 3 and 4, where doing 'right' conforms to the expectations of family, peer groups and society. In post-conventional reasoning (Stages 5 and 6), 'right' is influenced by universal values or principles; the individual defines moral values apart from the authority of groups, and relies upon self-chosen principles to guide reasoning (for a full description of each stage, see Kohlberg 1976, and Colby & Kohlberg 1987).

Rest et al. (1999) acknowledge that there are limits to Kohlberg's approach and that cognitive moral development is one component of the psychological process of morality. They argue that there are four components that lead to moral behaviour; moral judgment, moral motivation, moral sensitivity and moral character. Furthermore, Rest et al. (1999, p. 10) state that 'Some critics have said that Kohlberg's theory (dealing with moral judgement) is too cerebral, that it misses the "heart of morality". But the special function of the construct of moral judgement is to provide conceptual guidance for action choice in situations in which moral claims conflict'. In fact, auditors have to deal with conflicting moral claims of the various interest groups associated with the fair presentation of financial statements (see Goldman & Barlev 1974).

Over the years, criticisms have emerged regarding Kohlberg's theory. Kohlberg and his associates have responded to their major criticisms (see Kohlberg, Levine & Hewer 1983), addressing such issues as stage sequencing, subjectivity in the scoring method, and gender and cultural biases. Snarey's (1985) review of Kohlberg's claim of cross-cultural universality revealed support for much of Kohlberg's theory. Gilligan (1982) voiced criticisms about gender bias. She argued that because Kohlberg focused on justice as the central defining feature of the moral domain, he failed to recognise an important area of morality, namely caring and responsibility. Various researchers, however, such as Lifton (1985), Nunner-

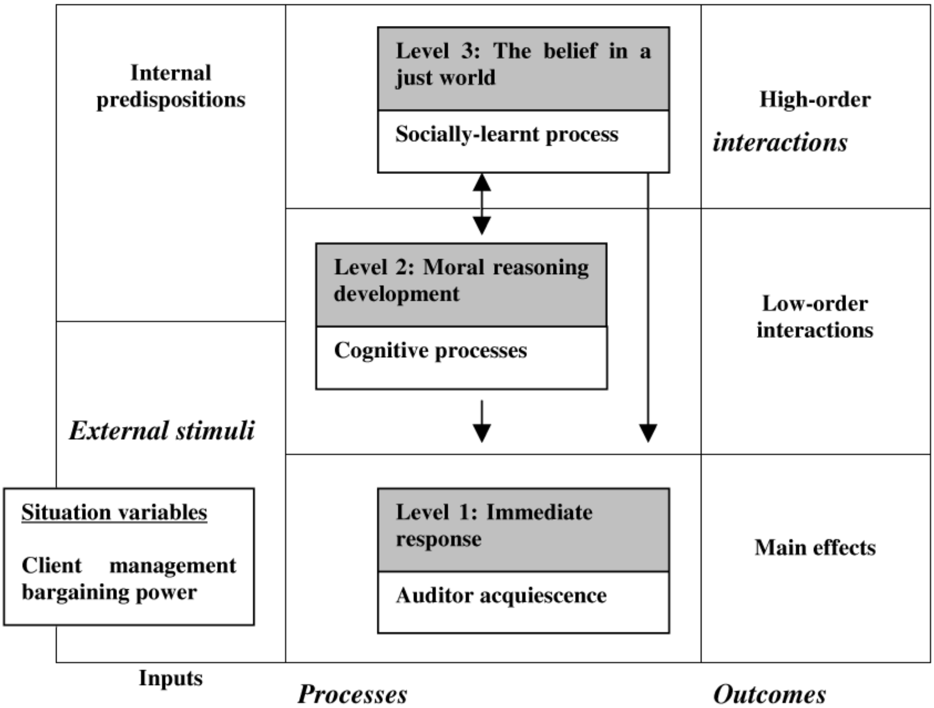
Winkler (1984) and Walker (1984), provide general empirical support for the application of Kohlberg's theory to both sexes.

Level 3: Preconscious socially-learnt belief in a just world

'Personal belief in a just world' (Lerner 1981) is a personality construct from the social justice literature that is suitable for testing auditors' objective decision-making under moral intensity. The auditors' decision-making is characterized by moral reasoning development (Kohlberg 1969) and personal beliefs (Lerner 1981) embedded in the auditors' preconscious, which are stimulated by fractious ethical dilemmas. It is expected that we will find that auditors use their personal beliefs unconsciously, thus affecting their objectivity when making an independence decision. Auditors' decision-making, characterized by decisional levels 2 (cognitive moral development) and 3 (justice beliefs), will be stimulated by an audit conflict when management has the economic advantage, thus affecting auditor objectivity.

Hence, an audit independence dilemma dealing with client economic situational variables is the basis for initiating interactive decisional processes to see if auditor objectivity is maintained. These decisional processes involve an interaction between a 'belief in a just world' personal variable from social learning theory (Rotter 1966) and Kohlberg's (1969) stages of moral cognitions from the cognitive development school. This model aims to show how preconscious personal beliefs from a lifetime of learning influence decision outcomes. Figure 9.1 illustrates the flow of effects in the proposed model of complex decision-making. At Level 1, auditors' responses are a consequence of immediate reactions to situational contingencies (client economic variables), and appear as main effects. At Level 2, auditors' responses are the result of thinking processes, which are influenced by cognitive style defined in terms of Kohlberg's (1969) moral reasoning construct. The decisions resulting from these processes are qualified by cognitions, and are therefore expressed as low-order interactions between cognitions and situational factors. Finally, at Level 3, auditors' responses are influenced by processes which involve beliefs defined as 'the belief in a just world' (Lerner 1981). These are reflected in interactions with cognitive style, personal beliefs and the situational variables:

Figure 9.1. Individual complex decision-making model of auditor independence



Method and analysis

An ANOVA design used the three repeated measures, (1) client financial condition, (2) size of fees, and (3) tendering. The two between-group independent variables were (1) level of moral reasoning and (2) the belief in a just world. The second hypothesis tests whether auditors' decision-making, characterized by decisional levels 2 (cognitive moral development) and 3 (justice beliefs), will be stimulated by an audit conflict when management has the economic advantage, thus affecting auditor objectivity. This will result in an interaction between management client economic variables, auditors' moral development and justice beliefs.

Two studies comprising ethical dilemmas about management economic power tested auditor independence using the three repeated measures. The dilemmas intended to place auditors in an intense conflict situation with client management, whose economic power was represented by eight scenarios involving company financial condition, size of fees and whether the audit was tendered. The three-story DIT measured auditors' level of moral reasoning. Auditors' justice beliefs were measured using the belief in a just/unjust world dimension. Rest (1979) suggested that the P scores might be categorized into high, mid and low groups

corresponding, respectively, to pre-conventional, conventional and post-conventional levels of moral reasoning development. 50 (89%) of the auditors originally contacted responded for the first study. The second study replicated the first, with a 69% response rate.

Results

In the first study, four-way interaction between audit conflict variables of tendering and client financial condition, the belief in a just world variable and moral reasoning development provided support for Hypothesis 1 – that auditors responded immediately and impressionistically to client economic factors, with main effects for financial condition of the client and size of client fees. Hypothesis 2 was also supported, indicating that auditors' moral development and client management economic variables tendering and client financial condition stimulated personal justice beliefs. The results provided general support for the hypotheses that auditors' moral reasoning and personal beliefs are stimulated in a complex decision-making process for thorny audit conflicts. In summary, these results support Lerner's (1981) contention that people's just world beliefs unconsciously affect decision-making, thus affecting auditors' objectivity when faced with an independence dilemma.

Results of the second study supported the first study, with a significant high-order interaction found between client financial condition, the belief in a just world and moral reasoning development. The results of the two studies indicate that intense independence conflicts with management involving the client's economic situation stimulate auditors' personal justice beliefs and moral reasoning, thus reducing the auditors' ability to remain completely objective at a preconscious level. As the dilemma intensifies the decision-making process, client economic factors associated with situation affect auditors' cognitive complexity, and stimulate unconscious beliefs that result in higher-order interactions. The results of the two studies indicate that auditors' personal characteristics and beliefs intervene in independence conflicts with management, hence affecting auditors' personal objectivity. Moreover, this points to the structural problem of client management controlling the economic fate of auditors.

General discussion

The two experiments reported here support the notion that a complex decision-making process comprising three hierarchical levels affects auditors' objective decision-making. The professional standards require auditors to make independence judgments objectively, free from conflict of interest, bias, prejudice, feelings and thoughts. The results of the two studies indicate that intense independence conflicts with management involving the client's economic situation stimulate auditors' personal justice beliefs and moral reasoning, thus reducing the auditors'

ability to remain completely objective at a preconscious level. At the first level, auditors' immediate response to explicit client economic factors is impressionistic, resulting in main effects. Most everyday decisions are made at this level, however when the decision is not straightforward, particularly for an ethical dilemma, second and third levels of thought-processing are activated.

As the dilemma intensifies the decision-making process, client economic factors associated with situation affect auditors' cognitive complexity and stimulate unconscious beliefs that result in higher-order interactions. Personal beliefs are embedded in the psyche, so that objectivity may be affected when they become part of the decision-making process. As such, the empirical results of this research provide strong support for the interactionist approaches proposed by Trevino (1986).

Results of the two studies reported here, however, are subject to three limitations. The first of these is that the research methodology relies on auditors' responses to hypothetical scenarios, which vary on economic situational variables representing client management bargaining power. Given that the respondents in the three studies were practising auditors expected to meet high professional and ethical standards (in the present instance, IFAC 2001), it would be surprising if they were to indicate high likelihood of acquiescence to management demands. In reality, auditors have been successfully sued for malpractice and are currently facing multibillion-dollar lawsuits. Nonetheless, the audit conflict situation was constructed with the active participation and close consultation of the senior audit partners, so that it constituted a realistic conflict between client management and the auditor.

The second limitation of the present study is that it was based on a repeated-measures design, and therefore subject to problems of demand characteristics (see Knapp 1987). Results obtained using a sample of audit students, however, indicated that the instrument was free of inherent bias. Further, the essential findings of the present study were based on the between-groups design, involving the belief in a just world and moral reasoning development. The third limitation concerns the construct validity of the psychological measures used in this research, and the extent to which they reflect respondents' actual cognitions and beliefs (see Rest 1986; Rest et al. 1999). Using Rest's (1979) DIT P Score and Collins' (1974) belief in a just/unjust world scale, however, is justified in the present research on the basis that the scales are well validated in the literature and provide theoretically interpretable results. Nevertheless, the reported results of the three studies need to be validated in field studies of auditors' behaviour in actual conflict situations.

In conclusion, the implications of these studies suggest that merely prescribing more behavioural and relationship rules to improve auditor objectivity and in-

dependence judgments probably will not succeed. The reported experiments indicate that auditors' objective thinking is affected by the corporate economic power controlled by management, the negotiators of audit fees and conditions. Moreover, this points to the regulatory structural problem of client management controlling the economic fate of auditors. In this current situation many auditors find it difficult to dissociate from economic reality and resist management demands when making independence decisions (see Tsui & Gul 1996).

Mautz and Sharaf (1961) maintain that auditor independence relies on the auditors' objectivity, similar to a judge in a court of law. If the judiciary had to support itself through the direct economic patronage of court protagonists by charging fees for services rendered, the judicial system would be compromised. Similarly, auditors whose opinions concern the veracity of corporate financial statements that are relied upon by the public should not be under the direct economic control of the entities that they are examining. Whether regulation should be private, public or a combination is not the issue though. The issue is how the integrity of regulatory systems should be maintained with appropriate checks and balances to encourage the best of human behaviour.

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Chapter 10. Criticisms of auditors and earnings management during the Asian economic crisis

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Abstract

Auditors were criticised during and after the Asian economic crisis for supplying variable quality across global audit markets. This study examines the level of earnings management as measured by discretionary accruals in the pre-crisis compared to the post-crisis periods as they impacted Malaysia. Both the Jones (1991) and earnings per share frequency distribution methods are used to examine earnings management behaviour. As hypothesised, the pre-crisis period is associated with significantly higher levels of absolute discretionary accruals and increased propensity to meet or beat the prior year earnings per share, whereas the post-crisis period is not. This finding is consistent with auditors responding to the criticisms that were made. However, the propensity to avoid losses is found to be higher in the post-crisis period, indicating that earnings management is not fully constrained.

Introduction

During and after the Asian economic crisis of 1997 and 1998, the large international audit firms were criticised for supplying uneven audit quality across their clients globally (see, for example, *Wall Street Journal* 1998; *Accountancy* 1998a-c, 1999a & b, 2000a & b). This study examines whether in one country affected by the crisis – Malaysia – there appears to be, for the then 'Big Five' audit firms, heightened attention to audit quality in the form of constrained discretionary accruals in the post-crisis compared to the pre-crisis periods. If evidence of differential constraint of discretionary accruals post- compared to pre-crisis *ceteris paribus* is found, then it is possible that the criticism of Big Five audit quality is associated with such a difference.

Malaysia is a country where traditionally there has been little criticism of auditors. To date no litigation against auditors has occurred and even if the professional accounting body, the Malaysian Institute of Accountants, disciplines an audit firm, no publicity surrounding the case is observed (Favere-Marchesi 2000). Malaysia adopts the International Standards on Auditing (ISAs) issued by the International Federation of Accountants (IFAC). Hence, if any heightened constraint of earnings management measured by discretionary accruals is observed, it is unlikely to be the reputation effects associated with litigation or disciplinary action that have motivated it.

Malaysia was affected severely by the crisis during 1997 and 1998, with 1999 seeing the emergence of recovery (Bank Negara Malaysia 1999; Athukorala 2000).

Background

Criticisms of auditors during the crisis

During the Asian economic crisis, the World Bank and the United Nations Conference on Trade and Development (UNCTAD 1998) questioned the quality of audits by Big Five auditors operating in Asia (Petersen 1998; Street & Gray 2001). The following quotations are indicative of the type of criticism levelled at auditors, particularly the Big Five:

> When the financial statements of a corporation or bank receive an unqualified audit opinion [from the Big Five], the external users of these statements tend to feel comfortable about the quality of the audit and the reliability of the information … therefore, there is an obligation on the part of the international accounting firms to take the necessary steps so the quality of the audit services provided by their national practices all over the world does not fall short of practices in North America and Europe (*Accountancy* 1998b).
>
> In the precrisis period, the auditors did just what was required by local laws, and the laws were faulty. I think after the crisis they realized that the public sees them as having a responsibility higher than in the past, a responsibility of being a custodian of the interests of the public (Shivakumar, country manager in Thailand for the World Bank, quoted in Crispin 1999, p. 10).

The president of IFAC criticised auditors for asserting that financial statements comply with International Accounting Standards (IASs) when the accounting policies and notes show otherwise (Cairns 1997; Street & Gray 2001). This is evidenced by the formation of the IFAC International Forum on Accountancy Development (IFAD) in response to the 1997 call following the Asian economic crisis from James Wolfensohn, president of the World Bank (*Accountancy* 1999a;

Street & Gray 2001). IFAD, representing an alliance of accountancy groups and firms across the world, is intended to be a platform by which regulators, international financial institutions, investors and representatives of the accountancy and auditing profession act together to promote high-quality financial reporting and reduce the risk of economic downturns such as the Asian economic crisis (Street & Gray 2001).

At the May 2000 conference of IFAC, World Bank advisor Ira M. Millstein criticised the accountancy profession, particularly the Big Five, for failing to offer consistent standards of audit that meet the needs of investors worldwide. The International Auditing Standards Committee stated (IASC 1999) that:

> Identifying and dealing with departures by preparers from International Accounting Standards ... is primarily a matter for auditors, professional accountancy bodies, IFAC, national enforcement agencies and supranational bodies such as IOSCO and the Basel Committee. IASC does not have the resources or the legal authority to do this effectively.

Subsequently, the Forum of Firms (FOF) and the Transnational Auditors Committee (TAC) were formed within IFAC in January 2001. The FOF is a voluntary body made up of international audit firms performing audits across national borders. The founder members were Arthur Andersen, BDO, Deloitte Touche, Ernst & Young, Grant Thornton, KPMG and PricewaterhouseCoopers. These firms agreed to meet certain requirements and undergo a global independent quality review.

Thus, representatives from important institutions made public criticisms of auditors during and after the Asian economic crisis. These criticisms were responded to by auditors with the introduction of various mechanisms to address the issue. This study examines whether evidence consistent with audit firms acting to reduce the level of earnings management exists in Malaysia, one of the countries severely impacted by the crisis.

The pressure on international audit firms to maintain their reputations and supply high-quality audits, it is hypothesised, is likely to lead to constrained earnings management in the post-crisis period compared to the pre-crisis period *ceteris paribus*. It is this hypothesis that is tested in this chapter.

The next part of the chapter examines the research that provides evidence of auditors constraining management of corporate earnings. Then the measurement of earnings management through discretionary accruals is explained. A second method of examining earnings management that uses a frequency distribution of earnings per share (EPS) approach is then explained. Results are analysed before a conclusion is provided which summarises the study, its limitations, and the opportunities it provides for further research.

Prior literature

Auditors and earnings management

Several studies investigate the issue of earnings management and audit quality using archival data and find that higher quality auditors constrain earnings management more than lower quality auditors. Francis and Krishnan (1999) find that 'Big Six' auditors demonstrate greater reporting conservatism – through the modification of audit reports – for firms that record high levels of accruals than auditors from non-Big Six firms. Francis, Maydew and Sparks (1999) find that Big Six auditees record lower levels of discretionary accruals than non-Big Six auditees. Becker et al. (1998) find that Big Six auditees report lower levels of both absolute discretionary accruals, and income-increasing discretionary accruals, compared with non-Big Six auditees. More recently, Kim, Chung and Firth (2003) find that Big Six auditors are more effective in constraining earnings management than non-Big Six only when managers have incentives to engage in income-increasing accruals. Further, Krishnan (2003) finds that Big Five industry specialist auditors are more likely to constrain earnings management than non-specialists.

Amongst the audit judgment studies, Hirst (1994) investigated auditors' sensitivity to management's incentives to manage earnings. The effect of management's incentives to book income-increasing and income-decreasing accruals was examined in association with auditors' judgments of the probability of material misstatement. Management's incentives were manipulated using a management buy-out in one experiment and a bonus in a second experiment. Auditors were found to judge the probability of material misstatement to be higher when management's incentives and the observed unexpected difference were congruent in the first experiment. In the second experiment, auditors appeared not to differentiate between situations in which management had incentives to make either income-increasing or income-decreasing accruals. Hirst speculates that auditor conservatism is the reason for the differential findings, with auditors reacting with scepticism when earnings are expected to be materially overstated, and presupposing management's incentives and the unexpected difference to be congruent.

Nelson, Elliott and Tarpley (2002) found that managers are more likely to attempt earnings management that increases earnings in the current period, while auditors are more likely to recommend adjustments of earnings management attempts where the attempts result in overstated rather than understated earnings. This finding is consistent with differential litigation risk for auditors depending on the direction of the earnings misstatement (Lys & Watts 1994; Heninger 2001). However, as explained earlier, little if any litigation risk is expected in the Malaysian setting.

Earnings management and discretionary accruals

Accruals can be used to modify the timing of earnings recognition. Two key attributes of accruals result in them being the main mechanism by which earnings management is operationalised in the literature. Accruals can be classified as non-discretionary or mandatory accounting adjustments to cash flows required by accounting standards, while discretionary accruals represent voluntary adjustments to cash flows. Accruals can cause earnings to either increase or decrease.

This study utilises the Jones (1991) model as modified by Dechow, Sloan and Sweeney (1995), and Kaznik (1999), in decomposing total accruals into non-discretionary (expected) and discretionary (unexpected or abnormal) accruals. Dechow, Sloan and Sweeney argue that by accounting for the effect of managerial discretion exercised over the timing of receivables in the Jones model, the estimation of discretionary accruals will be better specified. This enhancement is operationalised by subtracting the change in receivables from the change in revenues in the Jones model once the parameters have been estimated. Dechow, Sloan and Sweeney, and Guay, Kothari and Watts (1996), confirm the benefit of this approach. However, this model has been criticised (see McNichols 2000), so a frequency distribution approach is also used.

Time-series data was originally employed to estimate accruals using the Jones model, however Subramanyam (1996), and Bartov, Gul and Tsui (2001), argue that the cross-sectional method of operationalising the model is superior. Since the models are re-estimated each year, an additional advantage of using the cross-sectional approach is that specific year changes in economic conditions affecting expected accruals are filtered out (Teoh, Wong & Rao 1998). Hence, this study employs the cross-sectional modified Jones (1991) model, bootstrap applied within industry categories on a year-by-year basis.

Methodology

The Jones (1991) model

The total accruals model, with organization (*i*) and year (*t*) subscripts, is:

$$TA_{it}/A_{i,t-1} = \alpha(1/A_{i,t-1}) + \beta_1(\{\triangle REV_{it} - \triangle REC_{it}\}/A_{i,t-1}) + \beta_2(PPE_{it}/A_{i,t-1}) + \varepsilon_{it}$$

where:

TA_{it} = total accruals at time t is calculated as: [($\triangle$current assets$_{it}$ – $\triangle$cash$_{it}$) – ($\triangle$current liabilities$_{it}$ – $\triangle$short-term debt$_{it}$) – (depreciation and amortisation expense$_{it}$), where $\triangle$ denotes the change between t and t-1 [1]

[1]Total accruals are not derived from cash flows because IAS 7, 'Cash Flow Statements', was adopted only in 1996. Given the use of this indirect balance sheet approach, it is possible that the computations for the abnormal accruals are erroneous (Hribar & Collins 2002), and as such may lead bias with respect to the existence of earnings management. Nevertheless, due to data constraints this study acknowledges this limitation.

$A_{i,t-1}$ = lagged (one year) total assets

$\triangle REV_{it}$ = change in operating revenues between t and t-1

$\triangle REC_{it}$ = change in net receivables between t and t-1

PPE_{it} = gross property, plant and equipment

ε_{it} = error term, known as discretionary, unexpected or abnormal accruals (DA).

Non-discretionary accruals are defined as the fitted value from equation (1). Discretionary or abnormal accruals are defined as the residual of (1) – that is, the difference between TA and its fitted value from (1) (Jones 1991). Because each variable is scaled by lagged total assets, the level of abnormal accruals can be tested for significant differences between the pre- and post-crisis periods.

Once the discretionary accruals have been estimated, they are included as the dependent variable in an extended version of an earnings management model developed by Becker et al. (1998). The model takes the following form:

$$\begin{aligned} ABDA = {} & \alpha + \beta_1 AQ + \beta_2 OCF + \beta_3 LEV + \beta_4 LASSET + \beta_5 ABTA + \beta_6 NEWAUD + \\ & \beta_7 OLDAUD + \beta_8 INCSHLD + \beta_9 CON + \beta_{10} IND + \beta_{11} PROP + \beta_{12} PRECRISIS \\ & + \beta_{13} POSTCRISIS + \varepsilon_t \end{aligned}$$

where, for company *i* and year *t*:

ABDA = absolute discretionary accruals estimated as the residual from the Jones (1991) model

BIG5 = dummy variable equal to 1 if the auditor is from a Big Five audit firm and 0 otherwise

OCF = operating cash flow

LEV = leverage (debt/total assets)

LASSET = natural log of total assets

ABTA = absolute value of total accruals/total assets

NEWAUD = first sample year with a new auditor

OLDAUD = last sample year is followed by an auditor change

INCSHLD = increase in total outstanding shares during the year

CON, IND, PROP = industry dummy variables representing consumer trading, industrial products, and construction and property respectively (set equal to 1 if the observation is from these industries, and 0 otherwise)

PRECRIS = dummy variable equal to 1 if the observation is from the period 1994-96 inclusive

POSTCRISIS = dummy variable equal to 1 if the observation is from the period 1999

ε_{it} = unspecified random factors.

$$\begin{aligned} EM = {} & \alpha + \beta_1 PRECRIS + \beta_2 POSTCRIS + \beta_3 LEV + \beta_4 LASSET + \beta_5 ABTA + \beta_6 NEWAUD \\ & + \beta_7 OLDAUD + \beta_8 INCSHLD + \beta_9 CON + \beta_{10} IND + \beta_{11} PROP + \beta_{12} OCF + \varepsilon_t \end{aligned}$$

Each of the variables is explained in the following sections, and then, in view of criticism of the modified Jones (1991) model (see McNichols 2000), a second methodology for calculating abnormal accruals under it is explained. This

method is used to provide confirmatory evidence and increase the robustness of results.

Hypothesis variables

Indicator variables PRECRIS and POSTCRIS represent the pre-crisis period from 1994 to 1996 inclusive and the post-crisis period in 1999 respectively. It is hypothesised that PRECRIS will be positive and significant and that POSTCRIS will be significant and negative in their respective associations with the absolute value of discretionary accruals.

Control variables

Leverage (LEV)

Although mixed, evidence from the earnings management literature indicates that managers indulge in income-increasing accruals to delay or avoid the costs of debt covenant violations (Press & Weintrop 1990; Defond & Jiambalvo 1994). Consistent with Becker et al. (1998), a measure of leverage (LEV) is included to control for the possible effects of gearing on earnings management. A positive relationship is expected between absolute abnormal accruals (ABDA) and leverage (LEV).

Total accruals (ABTA)

Francis, Maydew and Sparks (1999) argue that firms with greater endogenous accrual-generating potential have greater uncertainty about reported earnings because of the greater difficulty for outside parties to unravel abnormal accruals from total accruals. Thus, as in Becker et al. (1998), the absolute value of total accruals is included in the model to control for the possibility that firms with larger absolute total accruals also have greater inherent earnings management potential. A positive relationship is expected between ABDA and ABTA.

Equity offerings (INSHLD)

Prior studies argue that equity offerings provide increased incentive for managers to increase reported earnings during the offering period due to the potential existence of information asymmetry during this time. These studies (e.g., Teoh, Wong & Rao 1998; Rangan 1998) find that companies undertaking equity offerings show evidence of significant income-increasing abnormal accruals. Thus, consistent with the findings, and as used in Becker et al. (1998), a dummy variable in included in the model to indicate whether outstanding shares have increased by 10% or more from prior year outstanding shares. This INSHLD dummy variable takes a value of 1 if the outstanding shares have increased by 10% or more, or else 0.

Auditor change (OLDAUD and NEWAUD)

Amongst other factors, the occurrence of client-initiated auditor change may be motivated by auditors' preference for conservative accounting choices. DeFond and Subramanyam (1998) argue that firms with a change in auditor are expected to report more negative abnormal accruals in the last year with their predecessor auditor (OLDAUD). However, on the grounds that the successor auditor (NEWAUD) may be willing to adopt a less conservative stance than their predecessor, they argue that abnormal accruals should be less negative in the first year with the successor than those in the last year with the predecessor. Thus, as in Becker et al. (1998), to control for any possible auditor change effect, a dummy variable NEWAUD (OLDAUD) is included and given a value of 1 if the company is experiencing a year (last sample year) with a new auditor (old auditor).

Industry sector

In addition, the Becker et al. (1998) model controls for industry sector, which helps account for expected inter-industry differences in earnings management (Francis, Maydew & Sparks 1999). Kuala Lumpur Stock Exchange (KLSE)-listed firms are generally highly diversified and so the industry categories are collapsed from the KLSE-suggested nine to four – namely, construction and property development (PROP), consumer and trading (CON), industrial products (IND), and natural resources (plantation and mining).

Operating cash flow (OCF)

It is hypothesised that companies with high cash flows (and hence, probable high profits) engage in income-decreasing abnormal accruals to smooth earnings. Becker et al. (1998) find that cash flow has a negative association with discretionary accruals. Because IAS 7, 'Cash Flow Statements' (Malaysian Accounting Standards Board 1996) was operative mid- rather than pre- the period examined in this study (1994-99), to achieve consistency an indirect measurement approach is taken for all years, subtracting net income before extraordinary items from total accruals to derive OCF before deflating it by prior year assets.

Frequency distribution approach (Degeorge, Patel & Zeckhauser 1999)

This study also utilises an additional indirect, simple but powerful test by examining the frequency distribution of reported earnings. This second approach helps address some of the problems in estimating the level of abnormal accruals (e.g., McNichols 2000). This method rests on prior studies suggesting managers manage earnings to meet or beat certain simple earnings benchmarks. Specifically, this study explores the extent to which managers manage earnings to sustain

previous years' profits. This involves examining the distribution frequency of firms achieving 0 or 1% or more in change in EPS from the prior year.

Being a relatively new technique in identifying earnings management, the frequency distribution approach has gained popularity because of its simplicity and power in focusing on the density of the earnings distribution after earnings management (McNichols 2000). The approach examines the statistical properties of earnings behaviour around a specified threshold. To date, prior studies (Burgstahler & Dichev 1997; Degeorge, Patel & Zeckhauser 1999) have examined this earnings discontinuities behaviour around three benchmarks; (1) zero earnings, (2) previous year's earnings, and (3) analysts' forecasts.

As pointed out by McNichols (2000), one outstanding feature of this approach is the 'specificity of their predictions regarding which group of firms will manage earnings, rather than a better measure of discretion over earnings' (p. 336). However, McNichols argues that despite this power advantage, there are several disadvantages in that, firstly, 'it seems implausible that the behaviour of the nondiscretionary component of earnings could explain such large differences in the narrow intervals around their hypothesized earnings targets. Stated differently, measurement error in their proxy for discretionary behaviour seems unlikely to be correlated with their partitioning variable' (2000, p. 336), and secondly, the approach is silent on the method applied to manage earnings and the incentives for management to achieve specific benchmarks.

In essence, the methodology used in this approach is to examine the density function of the distribution surrounding the chosen thresholds. If there are signs of earnings management, it is expected that there will be an unusually large number of companies with EPS at or slightly above the threshold, but an unusually low number below the threshold. In order to test the significance of any discontinuities at the chosen thresholds, a univariate statistical test that approximates a t-test is conducted. Specifically, the t-test is computed as follows (Degeorge, Patel & Zeckhauser 1999):

$$\tau_n = \frac{\triangle p(x_n) - \underset{i \in R,\, i \neq n}{\text{mean}} \{\triangle p(xi)\}}{\underset{i \in R,\, i \neq n}{\text{s.d}} \{\triangle p(x_i)\}}$$

where:

τ_n = t-like test statistic of the desired bin[2]

$\triangle p$ = proportion change of observation that lie in the desired bin with that in the prior bin

x_n = a random sample of x of size n (desired bin)

[2] A 'bin' is defined as histogram interval widths of \$0.01 for the range –\$0.20 to +\$0.20.

x_i = balance of sample excluding observations corresponding to n

s.d = standard deviation.

Consistent with Degeorge, Patel and Zeckhauser, and Plummer and Mest (2000), a discontinuity is evident if the value of τ is greater than 2.0.

Sample

The data is primarily hand-collected from annual reports of companies listed on the KLSE covering financial periods between 1994 and 1999, where 1994-96 is deemed the pre-crisis period, 1997-98 the crisis, and 1999 post-crisis. In addition, incomplete and other required data were supplemented from other sources including (1) KLSE on disk, (2) KLSE handbook, (3) *Corporate Handbook*, (4) KLSE-RIAM online database, (5) Worldscope database and (6) *Investor Digest*.

The initial data-set comprises companies listed on the KLSE for years 1993 to 1999 since lagged variables are required. To be included, companies had to be:

- listed, as well as report in Malaysian Ringgit and be audited by a Malaysian-based auditor
- in an industry other than finance-related and unit trust sectors
- in existence in all or any of the years 1993 through 1999 with all financial report data available
- not newly listed (initial public offering, or IPO) (since differential levels of earnings management are expected within these companies)
- without a change in financial year-end.

In addition, all auditor data had to be available.

The sample size at various stages of data collection is presented in Table 10.1. For the initial regression analysis and the distribution frequency analysis, 1505 observations met the criteria, 599 from the pre-crisis, 643 from the crisis and 263 from the post-crisis periods.

Table 10.1. Sample selection criteria

Selection criteria	No. of valid cases						
	Pre-crisis			Crisis		Post-crisis	
	1994	1995	1996	1997	1998	1999	Total
Approximate number of KLSE-listed companies	478	529	621	708	736	757	3351
Less finance/trust companies	47	47	56	61	63	63	290
Less companies with incomplete financial data and unavailable annual reports	280	285	279	316	334	422	1478
Less IPO companies	2	11	15	14	2	2	46
Less companies with change in financial year end	-	1	2	4	5	7	19
Usable sample (calculation of abnormal accruals)	149	185	270	314	332	270	1520

Selection criteria	No. of valid cases						
	Pre-crisis			Crisis		Post-crisis	
	1994	1995	1996	1997	1998	1999	Total
Less companies with incomplete auditor data	1	2	1	3	-	1	8
Total	148	183	268	311	332	263	1505
Companies with EPS and change in EPS data available for frequency distribution approach	563			611		248	1422
Companies in existence 1996-99 with Big Five auditor for regression approach			150	150	150	150	600

Results

Univariate results

Table 10.2 reports the mean and standard deviation for each variable for periods 1994 to 1999 and for each of the sub-periods 1994-96 (pre-crisis), 1997-98 (crisis) and 1999 (post-crisis). Also reported are t-tests or Chi^2, as appropriate, to test whether the difference between pre- and post-crisis observations for each variable is significant.

Table 10.2. Descriptive statistics and univariate tests

	Overall N = 600				Pre-crisis N = 150		Crisis N = 300		Post-crisis N = 150		Pre-crisis v. post-crisis	
Variable	**Mean**	**Std. dev**	**Min**	**Max**	**Mean**	**Std. dev**	**Mean**	**Std. dev**	**Mean**	**Std. dev**	**t-statistic or Chi^2**	**p-value**
ABDA	0.132	0.206	0.000	2.450	0.167	0.281	0.115	0.165	0.133	0.186	−1.911	0.058
LEV	0.326	0.432	0.000	5.143	0.234	0.187	0.321	0.355	0.428	0.665	4.490	0.000
INCSHLD	0.120	0.325	0.000	1.000	0.207	0.406	0.120	0.325	0.033	0.180	14.382	0.000
OLDAUD	0.042	0.200	0.000	1.000	0.033	0.180	0.037	0.188	0.060	0.238	0.337	0.056
NEWAUD	0.028	0.166	0.000	1.000	0.033	0.180	0.040	0.196	0.000	0.000	0.189	0.664
ABTA	0.114	0.216	0.000	2.644	0.083	0.099	0.104	0.188	0.163	0.321	2.942	0.003
LASSET	13.528	1.396	8.884	17.703	13.402	1.361	13.594	1.379	13.522	1.462	1.302	0.194
PRECRIS	0.249	0.433	0.000	1.000								
POSTCRIS	0.251	0.434	0.000	1.000								
CON	0.445	0.497	0.000	1.000								
IND	0.257	0.438	0.000	1.000								
PROP	0.193	0.395	0.000	1.000								
OCF	0.013	0.228	−1.766	0.704	0.038	0.141	−0.006	0.238	0.027	0.272	−2.008	0.045

The variable of interest, absolute discretionary accruals deflated by prior year total assets, is 0.132 overall, reaches a high of 0.167 pre-crisis, drops to 0.115 during the crisis, and settles at 0.133 for the post-crisis. The difference between pre- and post-crisis discretionary accruals is weakly significant at $p = 0.058$. Leverage (total debt/total assets) is increasing across the sub-periods, being 0.234 pre-crisis, 0.321 during the crisis, and 0.428 post-crisis, showing the impact of the crisis on borrowing levels. This difference is significant between pre- and post-crisis at $p < 0.001$.

The impact on share issues of the crisis is shown by approximately 12% of observations reporting an increase of 21% or more pre-crisis, dropping to 12% during the crisis, and 3% post-crisis. The difference in proportions is significantly different at $p < 0.001$ between the pre- and post-crisis periods. Auditor changes, represented by the last year with an auditor, increase across the sub-periods, with 3% of observations in the pre-crisis and crisis and 6% post-crisis. This difference in proportions between pre- and post-crisis is very weakly significant ($p < 0.10$). Distressed companies are known to change auditor more frequently than healthy companies (Schwartz & Menon 1985).

Observations reporting the first year with a new auditor grow across the pre-crisis and crisis periods, but drop in the post-crisis period. In the pre-crisis they represent 3% of observations, in the crisis period they represent 4%, and in the post-crisis period they represent less than 1%. The pre- versus post-crisis proportion is not significant. Deflated absolute total accruals increase across the sub-periods, but do so at a significantly different rate between the pre- and post-crisis periods, at $p < 0.001$. They increase from 0.083 pre-crisis to 0.104 crisis and 0.163 post-crisis. The natural log of company size is similar across the sub-periods. As could be expected, deflated operating cash flows decline from 0.038 pre-crisis to –0.006 during the crisis, and then rise to 0.027 post-crisis. The difference in this variable between pre- and post-crisis is significant at $p < 0.05$.

Table 10.3 reports the Pearson correlations between the variables included in the Becker et al. (1998) model. Although many of the correlations are significant, none are at levels likely to cause problems with the regression. The highest correlations of 0.562 and 0.536 are between deflated absolute total accruals and leverage, and between deflated absolute total accruals and absolute discretionary accruals, which is expected.

Table 10.3. Pearson's correlation N = 600

	ABDA	LEV	INCSHLD	OLDAUD	NEWAUD	ABTA	LASSET	PRECRIS	POSTCRIS	CON	IND	PROP
LEV	0.303***	1.000										
INCSHLD	0.107***	−0.018										
OLDAUD	0.071*	−0.027	0.026									
NEWAUD	0.035	−0.033	0.061	0.015								
ABTA	0.536***	0.562***	−0.054	0.012	−0.013							
LASSET	−0.175***	−0.199***	0.147***	0.014	0.019	−0.212***						
PRECRIS	0.098**	−0.123***	0.155***	−0.024	0.018	−0.082	−0.052					
POSTCRIS	0.000	0.136***	−0.154***	0.052	−0.099**	0.132***	−0.002	−0.333***				
CON	−0.046	0.028	0.010	0.031	0.049	−0.039	0.197***	0.002	−0.002			
IND	0.049	0.057	−0.041	0.011	−0.009	0.048	−0.181***	−0.006	0.010	−0.528***		
PROP	0.041	0.005	0.106**	−0.017	−0.032	0.057	0.047	0.001	−0.011	−0.438**	−0.288**	
OCF	−0.245***	−0.416***	−0.053	−0.031	0.027	−0.420***	0.162***	0.063	0.036	0.082**	−0.011	−0.092**

***significant at $p < 0.01$
*significant at $p < 0.10$
**significant at $p < 0.05$

Multivariate results

The regression uses data from the same 150 Big Five-audited companies for the years 1996-99, providing 600 observations. Auto-correlation in the panel data is controlled for using the STATA cluster function to identify each observation emanating from the same company. It is important to bear in mind that the estimation of discretionary accruals by year and industry, with bootstrapping, used all available data from 1520 observations, as per Table 10.1.

Table 10.4 shows that the PRECRIS variable is significant and positive at $p < 0.05$, indicating that absolute discretionary accruals are positively associated with the pre-crisis period compared with the crisis and post-crisis periods combined. However, unlike the pre-crisis indicator variable, the post-crisis period indicator is not significant, although it is negative as expected. This result is consistent with absolute discretionary accruals being more constrained in the pre-crisis compared to the post-crisis periods.

Table 10.4. OLS regression

	Big Five auditees in existence across 1996-99			
Dependent variable ABDA	Coef.	Robust std. err	t	P > |t|
LEV	0.005	0.029	0.150	0.878
INCSHLD	0.077	0.032	2.420	0.017
OLDAUD	0.067	0.084	0.810	0.421
NEWAUD	0.040	0.046	0.880	0.378
ABTA	0.505	0.127	3.970	0.000
LASSET	−0.010	0.005	−2.100	0.038
PRECRIS	0.056	0.022	2.510	0.013
POSTCRIS	−0.007	0.014	−0.480	0.634
CON	−0.004	0.019	−0.230	0.820
IND	0.005	0.020	0.260	0.794
PROP	0.001	0.018	0.030	0.975
OCF	−0.004	0.084	−0.050	0.961
BIG5				
Constant	0.187	0.072	2.580	0.011
N F(13, 379) (13, 184) Prob > F R squared No. of clusters	600 11.170 0.000 33.2 150			

Significant also are the indicator for a 10% or more increased shareholding ($p < 0.05$) and deflated absolute total accruals ($p < 0.001$). Interestingly, the BIG5 variable is not significant. The regression is significant at $p < 0.001$ with an R squared of 33%. The regression on this panel data controls for observations from the same company and so reduces the risk of auto-correlation arising from the non-independence of observations. Robust regression using the Huber-White

sandwich estimator (White 1980) is performed and results reported to cope with potential hetereoscedasticity.

It could be that the need for re-financing from the government agencies of Danaharta or the Corporate Debt Restructuring Committee (CDRC), or from private sources, and the scrutiny entailed in applying for funds, discouraged earnings management (Jaggi & Lee 2002). The regression on the same Big Five auditee sample was re-performed omitting companies that engaged in debt restructuring. This provided 543 observations. The results are not reported but, again, the pre-crisis variable is significant at $p < 0.05$ whilst the post-crisis indicator is not significant.

Results using the frequency distribution approach

This part of the chapter presents results from examining whether sample firms appear to manage earnings to meet or beat prior year earnings or to avoid losses. The aim of this examination is to determine whether the results using the frequency distribution approach support the results of constrained earnings management post-crisis compared to pre-crisis, from the multivariate analysis using the Becker et al. (1998) model in the previous section. Separate analyses for each of the two benchmarks are carried out for each of the distinct periods.

Meet or beat prior year earnings

It is most likely during the post-crisis period that firms will report negative earnings compared to the pre-crisis and, as such, it is unlikely there will be found significant activity around the meet or beat prior year earnings benchmark during the crisis and post-crisis in comparison to the pre-crisis periods. For this reason, the analysis is not performed for the overall period but only for the separately identified macroeconomic periods; that is, 1994-96 for the pre-crisis, 1997-98 for the crisis and 1999 for the post-crisis periods respectively.

Table 10.5 shows the descriptive statistics[3] for the change in earnings per share ($\triangle$EPS) and EPS variables. The mean earnings change between consecutive years is primarily negative when averaged across the whole period, but not exclusively so within each phase of the study period. The change is positive during the post-crisis period, whilst negative in the pre-crisis[4] and crisis periods. In addition, the 1998 (last year of crisis) earnings change appears to confirm the extent of crisis effect, whilst a recovery in the economy is evident in 1999, with companies on average registering positive earnings changes. The mean earnings number is

[3]To maximise the number of observations, the histogram analysis on earnings losses and decreases avoidance is carried out for the total sample. However, for descriptive purposes details for both the total and matched-pair samples are provided.
[4]The earnings change in the pre-crisis period for the total sample is negative whilst for the matched-pair it is positive. Analysis by each study year in the pre-crisis period shows that, for the total sample, the driving force for the negative change comes from 1996.

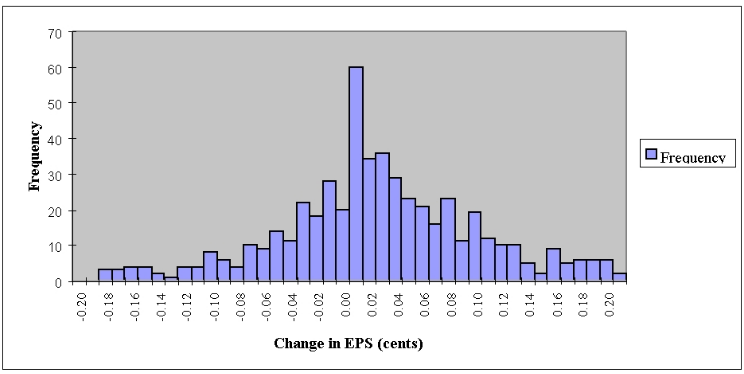
also primarily negative, but not exclusively so throughout the six years from 1994 to 1999.

Table 10.5. Descriptive statistics by period and year for change in earnings per share (△EPS) and earnings (EPS)

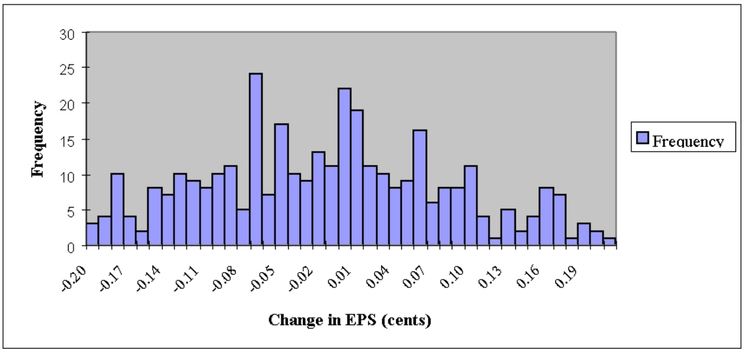
	Change in earnings per share (△EPS)					Earnings (EPS)				
	N	Mean	Std. dev.	Min.	Max.	N	Mean	Std. dev.	Min.	Max.
Overall	1422	−0.089	1.489	−39.724	16.236	1453	−0.007	1.373	−32.463	7.261
Pre-crisis	563	−0.037	1.879	−39.724	16.236	588	0.171	1.407	−32.463	7.261
1994	144	0.144	1.354	−0.272	16.236	146	0.196	0.183	-0.180	0.840
1995	168	−0.031	0.854	−10.921	0.855	181	0.265	0.573	-0.365	7.261
1996	251	−0.145	2.524	−39.724	1.204	261	0.092	2.052	−32.463	1.673
Crisis	611	−0.229	1.120	−12.040	10.861	616	−0.144	1.333	−21.602	6.315
1997	297	−0.109	1.027	−4.329	10.861	302	0.004	1.519	−21.602	6.315
1998	314	−0.341	1.193	−12.040	4.634	314	−0.286	1.109	−11.310	1.690
Post-crisis										
1999	248	0.136	1.230	−12.724	5.872	249	−0.089	1.349	−17.158	2.407

As expected, companies registered positive earnings in the pre-crisis period, whilst negative earnings numbers are registered in the crisis and post-crisis periods. Consistent with the earnings change results and other macroeconomic analyses, the extent and depth of the 1997 crisis was certainly also felt in 1998, with companies reporting mean EPS of –0.286 for the total sample and –0.235 for the matched-pair sample.

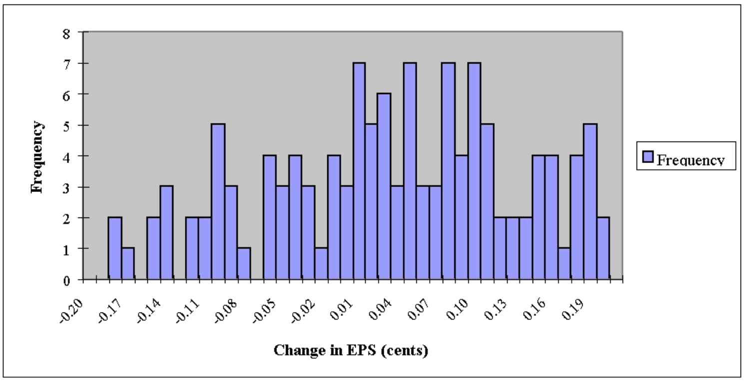
Figure 10.1. Histogram of change in earnings per share since prior year – prior year earnings performance threshold



Panel A: Pre-crisis period (1994-96)



Panel B: Crisis (1997-98)



Panel C: Post-crisis (1999)

Figure 10.1, Panels A to C, plot the empirical distribution of change in the EPS variable during the pre-crisis, crisis and post-crisis periods respectively, with histogram interval widths of \$0.01 for the range −\$0.20 to +\$0.20. The figure in Panel A documents a striking single-peaked, almost bell-shaped, distribution with a noticeable discontinuity near 0 (and \$0.01) only for the pre-crisis period. The evidence is not surprising because during the crisis companies in general experienced negative earnings, and as such the earnings changes distribution in Panels B and C for both the crisis and post-crisis is not likely to be as normally distributed as that in the pre-crisis. The significance of the discontinuity near 0 and 0.01 is confirmed by statistical tests, in that it provides a τ-statistic of 6.310 for the pre-crisis. For the crisis and post-crisis periods, the significance of the discontinuity is less attenuated at τ-statistic = 1.884 and τ-statistic = 1.744 respectively.[5] These results show evidence of earnings management present in

[5]As in Degeorge, Patel and Zeckhauser (1999), and Plummer and Mest (2000), a discontinuity is evident only if the value of τ is greater than 2.0.

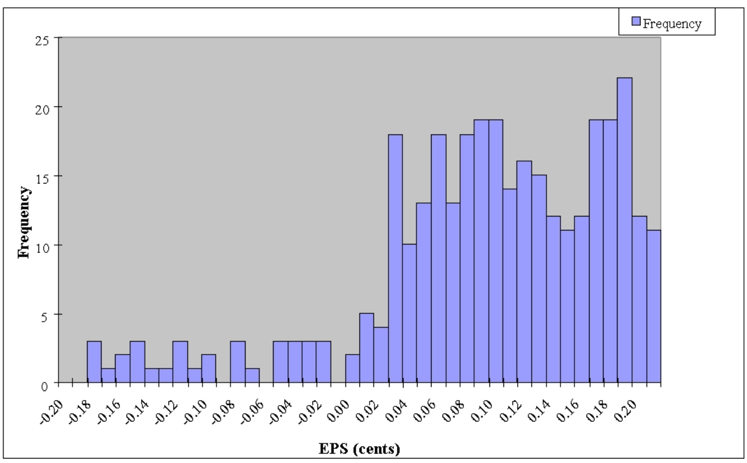
each period, but particularly so for the pre-crisis. This is as expected, given the strong economy during the pre-crisis period.

Avoidance of earnings loss benchmark

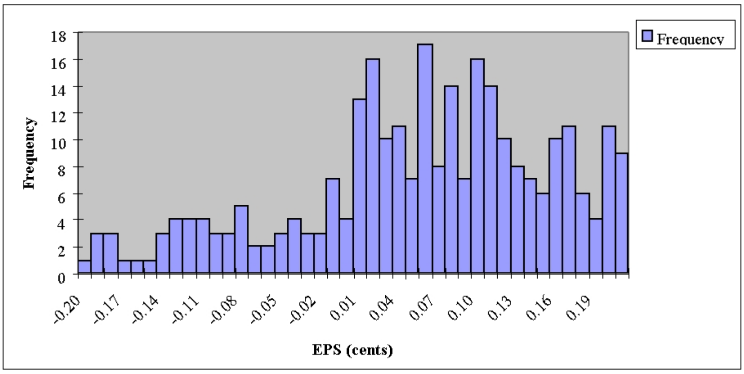
Table 10.5, Panel B, reports the EPS for each distinct macroeconomic period. Figure 10.2, Panels A to C, display the distribution of earnings, again with an interval width of $0.01, for earnings ranging from –$0.20 to +$0.20.

The histogram during the pre-crisis shows a not so smooth bell-shaped distribution (although earnings >+$0.20 are not observable) with the exception of the area near 0 and +0.02 on the x-axis. It is also clear that the earnings distribution seems to fall in the negative and less than +$0.02 earnings region, consistent with the loss avoidance argument. Similarly but with less smoothness, during the crisis period there is some evidence of earnings occurring more frequently in the area beyond the 0, although this is not statistically significant (T-statistic = 1.447). For the post-crisis period, the distribution seems to be erratic, although the frequency of companies reporting +$0.01 EPS is greatest at this point compared to other areas, thus making it significant with a T-statistic = 3.326. Taking these results together and comparing them with the EPS change results in the earlier sub-section, the evidence is consistent with managers strongly desiring to be able to report positive earnings (avoid earnings decreases) as opposed to just breaking even (avoid earnings losses), whilst during the post-crisis period it is evident that companies attempt to avoid earnings losses, although there is still evidence of negative earnings.

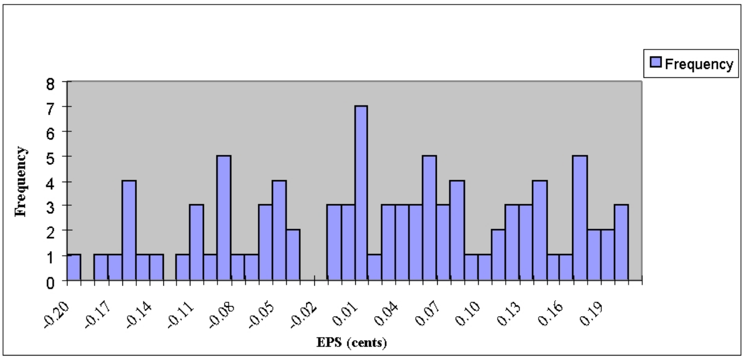
Figure 10.2. Histogram of change in earnings per share – loss avoidance threshold



Panel A: Pre-crisis (1994-99)



Panel B: Crisis (1997-98)



Panel C: Post-crisis (1999)

Conclusion, limitations and further research

This study examines the discrete sub-periods of the Asian economic crisis as it impacted Malaysia in terms of the level of discretionary accruals present. Its purpose is to see whether evidence exists, consistent with the criticisms of auditors by the World Bank and other institutions, that the level of absolute discretionary accruals as a measure of earnings management is reduced.

Regression using panel data consisting of observations of companies in existence from the last year of the pre-crisis (1996), and through the crisis (1997-98) and post-crisis (1999) periods, provides a result showing the pre-crisis period is significantly positively associated with deflated absolute discretionary accruals, whereas the post-crisis period is negatively so, although not significantly. It is acknowledged that care must be taken in interpreting the negative direction in the post-crisis period in the presence of insignificance of the coefficient.

Examining the distribution frequency of change in EPS from the prior year for each crisis sub-period similarly shows evidence of earnings management. A significant discontinuity in the frequency of achievement of earnings to meet or beat the prior year profit is found in the pre-crisis but not in the post-crisis periods. However, in terms of the frequency of avoidance of losses, the post-crisis period demonstrates a significant discontinuity but the pre-crisis period does not.

These results are broadly supportive of constrained earnings management in the post-crisis compared to the pre-crisis periods. However, whether this result is primarily associated with actions by auditors, or primarily an outcome of voluntary actions by the companies themselves, is an issue that cannot be resolved by this study. Alternatively, it may be that the distress in which companies found themselves post-crisis left little opportunity to manage earnings (DeAngelo, DeAngelo & Skinner 1994).

Another limitation is that survivorship bias is a feature of the way the sample is structured. However, because the companies in the sample are likely to be well-established in order to survive the required four turbulent years, it can be argued that these companies are less likely to engage in earnings management than some of their less well-established counterparts. This observation could militate against reporting the result as hypothesised.

Even if it is acknowledged that some of the constrained earnings management is attributable to auditors, the criticisms of auditors by important institutions may not be associated with this. It may be that the heightened distress and need for re-financing from government-established agencies or private sources created a level of scrutiny that encouraged either auditors or clients, or a combination of both, to act to constrain discretionary accruals. However, even with observations removed where debt restructuring was in existence, the finding of pre-crisis association with absolute discretionary accruals remains robust.

Further research to examine the role of Big Five and industry specialist auditors in constraining discretionary accruals across each of the sub-periods of the crisis would be useful. Testing for companies with various motivations to either manage or not manage their earnings would be worthwhile also. Examining the behaviour of discretionary accruals in other countries impacted by the crisis may shed more light on the auditors' role in constraining earnings management.

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