



CONFIDENTIAL

**CORPORATE GOVERNANCE:
AN AUDIT COMMITTEE
PERSPECTIVE ON
MONITORING COSTS**

by

PATRICK MICHAEL COLLINS

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Supervisor: Professor Pumela Msweli

Co-supervisor: Professor Vi Makin

DECLARATION

I declare that Corporate Governance: An Audit Committee Perspective on Monitoring Costs is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

P M Collins

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ABSTRACT
CORPORATE GOVERNANCE:
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This thesis discusses Corporate Governance. The Enron collapse and scandal with Arthur Andersen galvanized the corporate World into hysterical over reaction into Corporate Governance issues. Since Enron there have been numerous corporate collapses despite the advent of Corporate Governance (CG).

Committee after committee was established to create codes of conduct and practice for directors and attesters. Politicians enunciated sweeping changes and advocated legislation to curb director and auditor activity to bring about transparency.

Controversy exists whether legislation similar to Sarbanes-Oxley or whether codes similar to Cadbury (UK), Higgs (UK) and King 2 and 3 (South Africa) will bring about a better quality of CG. Nothing even established now, could have prevented the Enron collapse caused by mostly ethical failure coupled with bad attesters and creative accounting. Corporate Governance, despite its complexity, does not have an identifiable structure or crisp definition.

The New South African Companies Act 71 of 2008, effective implementation date 1 May 2011 places a great onus on directors and audit committees in regards to the management of companies. The audit committee is mandatory and is responsible for among other things the risk assessment and appropriate protection of the company.

Having an hypothesis that institutions and conservative investors will pay a premium for shares in companies with declared codes of practice and perceived good CG and avoid those with poor records of transparent reporting and CG, this paper delineates the perceptions of good corporate governance through the audit committee (AC) perspective on control.

As its result section shows, this study looks at the effect of a relevant audit committee role responsibility, that of risk management. “The AC responsibilities and approach to their tasks represent a critical oversight area that deserves closer scrutiny, particularly given concerns about financial-reporting abuses and a lack of relevant expertise and diligence among audit committee members”. (DeZoort et al, 2001; Salterion, 2003) The results reflect that there are correlations between Indemnity Cover and audit fees, the presence of an audit committee, governance firm structure and share ownership.

Key words: Corporate governance, non-executive directors, directors, company law, audit committee, corporate risk, directors’ risk, audit committee, indemnity cover, monitoring.

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GLOSSARY

Accountability. The readiness or preparedness to give an explanation or justification to relevant persons for one's judgments, intentions, acts and omissions when appropriately called upon to do so.¹

Auditor. A person charged with the responsibility of expressing an opinion on the financial statements of an enterprise, based on objective and impartial judgment.

Client. An entity in respect of which the firm conducts an audit engagement. When the client is a listed entity, client includes related entities.

Corporate governance. The author ventures to define Corporate governance as the activity of ensuring there are adequate structures to effectively control the performance and proper accountability of management through the **timeous** full disclosure to all stakeholders on the performance and relationships of any organisation (whether private sector or Public sector) upon which the community interacts.

Corporate. Relating to juristic entities, including political, using stakeholder funds.

Enterprise. An organisation of people formed as a juristic entity for the performance of collective activities, whether economic or social reasons.

Forensic Accountant. As crisply and intuitively defined by my wife Christine when asked what I do as: "A person who looks at the books to catch the crooks".

Non-executive director. An individual not involved in the day in two-day management and not a full-time salaried employee of the company or of its subsidiaries. An individual in the full-time employment of the holding company or of its subsidiaries, other than the company concerned, would also be considered to be a non-executive director unless such individual by his/her conduct or executive authority could be construed to be directing the day-to-day management of the company and its subsidiaries.²

Stakeholder. Any interested party that is affected by the organisation, e.g. Shareowners, staff, creditors, banks, Government (the political arm) and its agents. Arising out of this, such issues as environment impact assessments, the stakeholders can assess the worth of the organisation to their wellbeing.

¹ Definition used by Geoff Hunt of the Freedom to Care organisation in an article on accountability, 2002, and their Charter of Accountability.

² King 2 report, section 1, ch 4, at 57 and 61.

CHAPTER 1

INTRODUCTION

Corporate Governance – An Audit Committee Perspective on Monitoring Costs

Introduction

The “word corporate governance is most misconstrued”. The “word governance derives from the Greek verb κυβερνάω [kubernáo] which means to steer and was used for the first time in a metaphorical sense by Plato. Governance is the activity of governing. It relates to decisions that define expectations, grant power, or verify performance. People set up a government to administer these processes and systems. In terms of distinguishing the term governance from government – ‘governance’ is what a ‘government’ does. The World Bank defines governance as the exercise of political authority and the use of institutional resources to manage society's problems and affairs”. (Mehra, 2010)

“Corporate governance is a process that aims to allocate corporate resources in a manner that maximises value for all stakeholders – shareholders, investors, employees, customers, suppliers, environment and the community at large and holds those at the helms to account by evaluating their decisions on transparency, inclusivity, equity and responsibility.” (Mehra, 2010)

In essence good corporate governance according to Applied Corporate Governance (2009) “consists of a system of structuring, operating and controlling a company such as to achieve the following:

- a culture based on a foundation of sound business ethics
- fulfilling the long-term strategic goal of the owners while taking into account the expectations of all the key stakeholders, and in particular:
 - consider and care for the interests of employees, past, present and future

- work to maintain excellent relations with both customers and suppliers
- take account of the needs of the environment and the local community
- maintaining proper compliance with all the applicable legal and regulatory requirements under which the company is carrying out its activities”.

The author proffers another corporate governance definition:

“Corporate governance is the ethical activity of ensuring there are adequate structures to effectively control the performance and proper accountability of management through the timeous full disclosure to all stakeholders on the performance and relationships of any organisation (whether private sector or Public sector) upon which the community interacts”.

This definition recognises all stakeholders, the structure of the firm, social responsibility, time frames and ethics.

“The issue of governance has existed for as long as there have been social institutions. The ship of state is a famous and oft-cited metaphor put forth by Plato in book VI of Plato's *Republic*. It likens the governance of a city-state to the command of a naval vessel - and ultimately argues that the only men fit to be captain of this ship are philosopher kings, benevolent men with absolute power who have access to the Form of the Good. The origins of the metaphor can be traced back to the lyric poet Alcaeus (fr. 6, 208, 249), and it is found in Aeschylus' *Seven Against Thebes* before Plato”. (Sison, 2008)

Plato (380 BC) in book 6 of “The Republic” “establishes the comparison by describing the steering of a ship as just like any other ‘craft’ or profession - in particular, that of a politician. He then runs the metaphor in reference to a particular type of government: democracy. Plato’s democracy is not the modern notion of a mix of democracy and republicanism, but rather pure rule by what he terms the poor masses by way of pure majority rule. Plato argues that the masses are too busy fighting over what they consider to be the right

way to steer the ship to listen to a true navigator – representing his philosopher-king. Socrates, speaking for Plato, rhetorically asks ‘will he not be called by them a prater, a star-gazer, a good-for-nothing?’ It is ultimately seen, then, that the ship of state metaphor is a cautionary tale against rule by anything other than an enlightened, benevolent monarch-of-sorts”. (Jowette, 2000.)

“Aristotle (1990) in ‘The Politics’ maintains “that States are natural and perfect societies for the purpose of living a flourishing human life”. Business organisations and firms, on the other hand, are examples of artificial and imperfect societies. They are a kind of intermediate body between families and the State seeking economic ends”. (Sison, 2008) The basis for Aristotle’s understanding of the task of governance “lies in the distinction he establishes between the categories of *praxis*’ (action) and *poiesis*’ (production)”. (Aristotle’s Metaphysics, 1971).

According to Lloyd (1998), “Polybius’ work on the separation of powers antedates Montesquieu’s considerably. His system included checks and balances”. “Since the days of Aristotle it had become customary to differentiate among forms of government, especially monarchy, aristocracy, and what we now refer to as democracy. In his history of Rome, Polybius hypothesized that Rome had avoided the cycle of change and deterioration occurring in states with a single form of government. In contrast, Rome combined the three types of government to create a state of equilibrium through the principle of counteraction. Polybius established the notion mixed government”. (Casper, 1989) So Polybius saw the benefits that are expounded today in the name of corporate governance.

Even Shakespeare, in ‘The Tempest’, deals with government and natural order. “Among the last works of a mature and practical playwright, it is one of Shakespeare's most significant commentaries upon the conduct of real human beings and practical government in a modern civilized state”. (Bowling, 1951)

Yet, little over two decades ago, “the term 'corporate governance' had not been coined. The matters involved were of concern only as an esoteric branch of commercial law. Today, the subject is a central political and economic issue in Britain and the United States”. (Kay and Silberton, 1995) South Africa, although in the forefront of corporate governance thought through the King Reports 1, 2 and 3 Reports (1994, 2002, 2009), Transparency International (TI) (2010) have heavily criticised the Country for its poor attitude to corruption with a rating of 4.5. Any rating below 5 is considered by TI to be a poor rating. South Africa on the CPI index is 54th out of 178 Countries reported.

“There are several reasons. One is corporate fraud and corporate collapse on a previously unimagined scale. Economic history records many instances of the collision of greed and naïveté - the South Sea Bubble was the most memorable of many ill-fated trading ventures. The UK Companies Acts of 1844 and 1856 established the limited liability corporation, and many contemporary commentators expected an explosion of fraud and irresponsibility. They were wrong. There were inevitable scandals and crashes, but the majority of corporations - which still control only a modest proportion of economic activity - were run with prudence and integrity”. (Kay and Silberton, 1995)

“The record of recent decades - in which the corporation has come to dominate business - has been a more chequered one. Household names, as famous and as unquestioned as Rolls Royce and Barings, have collapsed. Robert Maxwell, declared by DTI inspectors to be unfit to act as director of a public company, allegedly went on to plunder the assets of several more. Polly Peck, a FTSE 100 company founded on little more than hot air, collapsed amongst allegations of false accounting and vanished assets. The grandly named Bank of Credit and Commerce International turned out to be a web of fraud, deception and money laundering. In the last recession, a number of sound operating businesses were damaged or destroyed by inappropriate financial structures assembled around them in the speculative excesses of the 1980s”. (Kay and Silberton, 1995) The collapse of Parmalat sent shock waves through the business community.

“When Parmalat Finanziaria SpA filed for bankruptcy protection in late December 2003, it was regarded as the biggest financial collapse in European corporate history and was quickly dubbed ‘Europe’s Enron.’” (Buchanan, 2005) Had the lessons of Enron not been learned? The 2008 economic crisis has had similar effects.

“These events have dictated a public policy agenda, and a variety of reforms. In the last decade, there was, in the UK, a new Insolvency Act, a Cadbury Code (1992) on corporate governance, and a Greenbury Code on executive remuneration”. (Kay and Silberton, 1995) In South Africa the King Reports (1994, 2002, 2009) created a focus on corporate governance covering a wide array of corporate governance issues. “What should be the rules for corporate bankruptcy and liquidation? How should directors of public companies be selected, reappointed, and disqualified? What should directors be paid? Who should define accounting standards? Alternatively, who should define the relationship between investors and company management? What are the responsibilities of auditors?” (King 1, 1992) Should legislation be promulgated to control the activities of directors and their honesty? Should increased steps be taken to enforce or assist self-regulation of directors and other forms of management? Are any of these steps reliable? Does culture differentiate between or have varying impacts on honest stewardship and general moral values? “These questions have gained attention far outside the narrow circle of professionals who once debated them.” (Kay and Silberston, 1996)

However, “the issue that has made corporate governance a subject for tabloid headlines is greedy bosses. The salaries of senior managers have risen far faster than earnings generally according to Conyon, Gregg and Machin, (1995)”. “Their pay has been enhanced by share option packages, which allow senior executives to buy shares in the company at a future date for a figure around the current price. Over a decade in which share prices generally rose substantially, share options proved very valuable. The result is that many salaried managers have become personally very rich in a way that was simply unknown in earlier decades. While security of

employment for most workers has been reduced, service contracts for senior managers ensure that even the unsuccessful leave with generous payoffs.” (Kay and Silberston, 1996)

Through all this the concept of audit committees has emerged in South Africa in the King II and III reports. (2002, 2009) Among other matters “the audit committee is responsible for agreeing the appointment of the external monitors and their costs to the firm”. (King, II, 2002; King III, 2009)

1.1 Significance of the Study

Prior research has focused mainly on determining the factors that influence audit pricing. DeAngelo (1981) examined “the relationship between agency costs, the quality of audits and how they relate to monitoring costs”. Palmrose (1986) considered “the impact of auditor size”, and DeFond et al (2000); Craswell, Francis, and Taylor (1995) demonstrate “a positive relation between auditor industry concentration and audit quality”. The implication of these monitoring cost studies is that firms pay a fee premium in return for higher audit quality, a big 4 auditor and attesters who specialize in certain industries respectively.

Other researchers have considered the impact of corporate governance variables on monitoring costs. Dolley, Huynh and Monroe (2000), found “that monitoring costs are higher for those firms that have established an audit committee (AC) after controlling for other factors that may influence the cost”; Carcello, Herrmanson, Neal and Riley (2000) found “that monitoring costs are positively associated with board independence (i.e. the percentage of outside directors) board diligence (i.e. the number of board meetings) and board expertise”. This may appear counter-intuitive but Carcello et al (2000) interpret these results “to mean that outside directors are to some extent transferring their monitoring to attesters, thus broadening the attesters remit”.

This study is based on the assumption that external attesters, the responsibility of the AC, are a “significant monitoring mechanism and that their costs, in part reflect the overall

firm specific demand for corporate governance”. (Blair, 1995) Using a supply side argument assurance effort as measured by monitoring costs (Anderson, Francis, and Stokes, 1993) would be higher where the attesters perceive higher inherent and control risks and as a result put more effort in the assurance work. More relevant to this study is that the higher risk of law suits against the attesters would also entail higher monitoring costs. The provision of Director or Professional Indemnity Cover (“IC”) has been shown by Core (1997, 2000) to be positively associated with risk for a firm. IC “is an insurance to indemnify Directors and Officers for claims against them including the legal costs and expenses incurred in the defence of a claim for wrongful acts performed solely by reason of their acting as a director or officer of a company. In general, it may provide insurance cover for claims arising out of actual or alleged breach of trust, breach of duty, neglect, error, omission, misstatement, libel, slander, breach of warranty of authority and wrongful trading”. (Priest, 1987; Daniels and Hutton, 1993) Chen, Zhang and Ling (2011) state that “in considering the causes of restatements, the audit fees would increase significantly faster for the companies with irregularities than errors. In addition, the auditor turnover in the year following restatement is significantly higher than other years. And the turnover rate is significantly higher for the companies with restatements by irregularities than errors. Accordingly, the empirical results imply that auditors perceive a higher level of audit risk for restatement firms. And they treat restatements caused by errors and irregularities differently”.

“Directors and Officers act as agents for the company; this however does not mean that they are exempt necessarily from liability. Every Director and Officer is personally exposed to claims against them arising out of their activities”. (SA Companies Act 71 of 2008)

“Directors and officers have numerous obligations both at common law and also under statute.” (Cherry Picker Insurance, 2011) The new South African Companies Act 71 of 2008 (In force with effect from 1 May 2011) imposes heavy responsibilities on directors the breaching of which has severe consequences. Some consequences can be “strict liability

offences for directors under the Companies Act. Generally, claims can also be brought by any party with an interest in the affairs of the company. Primarily, directors owe a duty to the company who are ultimately the present and future shareholders; but on insolvency this includes creditors as well. Non-executive directors are exposed also to potential liabilities even though they are perceived to strengthen corporate governance and act as some form of check and balance on the executive directors. Directors and Officers therefore cannot necessarily hide behind the veil of incorporation". Prior studies in the US have shown that without IC a firm may not be able to attract suitably qualified individuals to act as directors. This may be due to such directors facing personal liability for their actions but with no insurance. (Priest, 1987; Daniels and Hutton, 1993).

The aim of this study helps to understand the determinants of monitoring costs by investigating the role of risk in attesters' pricing decisions. It draws on two related streams in the audit literature: agency theory and the monitoring cost model and relates these to risk management from the attester's perspective. Furthermore the interplay of these issues is also examined under the umbrella of corporate governance to determine whether the presence of an effective governance structure moderates the relationship between IC and monitoring costs.

The consideration of litigation risk as one component of overall business risk that attesters face when conducting audits is consistent with earlier studies that document that "attester increase costs in the presence of increases in risk" "(Simunic, 1980; Pratt and Stice, 1994; Simunic and Stein, 1996; Johnstone and Bedard, 2001)" and "that fee premiums arise when risk cannot be controlled through additional programmes monitoring" (Houston, Peters, and Pratt, 1999).

Houston et al (1999) describe "how attesters' cost is affected by different sources of risk. They suggest that attesters set costs as if they price three sources of risk, attester,

insurer, and business-person”. The auditor role makes up that part of the monitoring cost that compensates the attester for undertaking the assurance and “bearing residual (acceptable) assurance risk. This role is the only one implied by professional standards and is consistent with results of prior research”. (Bell, Landsman and Shackleford, 2001) The insurer role “arises when a fee premium compensates the attester for bearing potential risk costs unrelated to assurance risk that cannot be controlled by additional monitoring procedures (e.g., potential for client financial failure)”. (American Accounting Association, 2005) The businessperson role reflects that portion of the cost that can be considered as residual business risk. Residual risk captures the risks and/or opportunities of a general business nature unrelated to the conduct of the assurance and law suits exposure. Examples of sources of residual business risk that could affect monitoring costs “include the potential to provide non-assurance services to the client, the likelihood of collecting monitoring costs and the ability to exploit market advantages”. (American Accounting Association, 2005))

This study provides additional research on monitoring costs and the influence thereon of risk as proxied by IC. The researcher uses the provision of IC as a proxy for the increased risk for law suits against attesters leading to higher monitoring costs. Consequently it would appear reasonable to suppose that attesters would pass on some of this increased risk by including it into their monitoring costs. Core (1997) shows “that firms with greater risk are more likely to purchase insurance and carry higher limits and deductibles”.

Simunic's (1980) monitoring cost model has been used to model the determinants of monitoring costs in a number of different settings and is well understood providing robust results. Using this model, this study examines whether monitoring costs are associated with higher director indemnity cover premiums after controlling for the components of monitoring costs, such as total assets, quick ratio, number of foreign subsidiaries and long term debt. Several studies have also documented a monitoring cost premium attributed to Big 5 attesters (example: “Craswell, Francis, and Taylor 1995, Gul 1999”).

This study examines whether monitoring costs are higher in the presence of IC. IC is used as a proxy for risk since an association between risk and IC has been found in prior research by Core (1997). The provision of IC could also be seen to indicate that a firm's management perceives a higher risk. Furthermore attesters are perceived as an attractive target since under the principle of "joint and severable liability" they may be asked to meet a large proportion of total damages, which may not be commensurate with their level of involvement in conducting the assurance. This is the "deep pockets" argument for suing the attesters.

Thus the presence of IC would be of concern to attesters on two levels: firstly, "a company with IC may face a higher ex-ante probability of distress as if financially healthy it would not need IC". (Core, 1997) Secondly, firms with IC may have managers who are less risk-averse due to the moral hazard effect under agency theory. Consequently attesters may be expected to charge higher monitoring costs for such firms to cover the increased risks. This is the first research question addressed in this study. Using the monitoring cost model, an OLS regression for 387 South African "companies shows that the existence of risk (as proxied by IC) is significantly and positively associated with monitoring costs". (Danckaert, Gaeremynck, and Stokes, 2011)

Using South African data provides a unique setting for examining the above relationships. Two main factors are relevant here:

- a) South Africa's reputation as an emerging litigious society and,
- b) The impact of the South African Companies Act 71 of 2008 on the risk to be borne by Directors in executing their duties.

The South African Companies Act 2008 s 94, now makes the establishment of an audit committee mandatory in keeping with the King Report II (2002). Mandatory audit committees

introduce a regulatory rather than economic demand for “outside directors on the board and may allow observation of underlying substitution effects”. The governance structure is considered of a firm. This is the second research question. “Governance attributes such as the presence of an audit committee, the number of non-executive directors on the audit committee and CEO duality are included and tested in the monitoring cost model” as mentioned by Rusmin, Tower, Brown, and Mitchell van der Zahn (2009). They found that there “was the importance of a boards’ role in monitoring management behaviour. They also found that smaller size boards appear to be less effective than larger size boards. Their findings have implications about the perception of auditor independence and effectiveness of board of directors”. The corresponding results still provide evidence of a significant association between monitoring costs and IC. These results suggest that an effective governance structure mitigates risk.

Finally the study considers whether director shareholding would reduce the risk of firms and hence lower monitoring costs. A high shareholding by directors would suggest risk-averse behaviour (entrenchment) on their part as they have a higher investment in the firm and thus stand to lose more if risky actions are taken on. The findings show an association between IC and monitoring costs is positive and significant for firms where director ownership is low (<5% ownership) but not significant for firms where director shareholdings exceed 5%.

While this risk averseness appears to be postulated in theory, in practice it has not been so in reality with many a corporate failure arising because of greed or fraudulent activity by directors with large shareholdings. Examples are Enron, BCCI, Polly Peck, Fidentia, Masterbond, and in August 2011, Solyndra and MF Global in the USA.

This study also addresses a limitation of the Carcello’s et al (2000) study, in that the dataset used of JSE firms consists of both big 4 and non-big 4 firms. Carcello’s et al (2000) study was “solely comprised of big 6 firms (implying higher quality)”. The inclusion of non-big 4 firms helps in understanding how the demand for assurance reflects both quantity and

quality and how this is influenced by other corporate governance mechanisms. An issue also raised by Rusmin et al (2009).

1.2 Contribution of this Study

By examining the association between monitoring costs and governance characteristics with the introduction of risk (via IC) this study contributes to literature that demonstrates a link “between corporate governance characteristics and various attributes of the financial reporting process”. (Wright, 1996) This study introduces a new proxy for risk management in a South African context and shows how this may affect the costing of monitoring costs as well as impacting on corporate governance attributes. The method employed is based on a widely documented and well understood monitoring cost model but with the inclusion of additional explanatory variables.

The thesis proceeds as follows. Chapter 2 develops the theory and research question along with the hypotheses. Chapter 3 discusses the research methodology and provides the descriptive statistics for the sample selection. Chapter 4 discusses the results, including additional tests concerning the robustness of the model. Chapter 5 provides the findings and the discussion thereon. Chapter 6 sets out the summary of the hypotheses, a conclusion and considers the limitations and some corporate governance issues and recommendations for further research.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL BACKGROUND

Introduction

This chapter looks at the literature and theoretical background underlying the research question. It begins with an examination of the role that agency theory plays and how conflicts under agency theory can provide a rationale for providing insurance to agents. IC is then defined and its role closely considered within this agency framework. Finally the chapter concludes with examining the moderating role that an effective corporate governance structure would have on IC and monitoring costs. Specifically the roles and contributions of the following corporate governance attributes are studied: “presence of an Audit Committee, Board of Directors composition, CEO Duality and Director Shareholdings”. (Ramdani and Witteloostuijn, 2010)

2.1 Agency Theory

“The separation of management from ownership in the modern corporation provides an ideal context for the operation of agency theory”. (Jensen and Meckling, 1976) “ Shareholders (and debt holders) act as the principal with interests in deriving maximum utility from the actions of management, serving as the agent. Problems arise because of the separation of ownership and management and the resulting inability of the owners to observe the actions of management (Jensen and Meckling, 1976; Berle and Means, 1932). Owners and agents have incentives to invest in various information systems and control devices to reduce agency costs associated with information asymmetry (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983). These control devices might offer Pareto optimality (i.e., maximum gains for all parties) since the agent would otherwise bear agency costs that occur when principals discount the value of the firm, based on the likelihood of adverse selection, shirking, and moral hazard (Alchian and Demsetz, 1972; Jensen and Meckling, 1976)”. (Kalbers and Fogarty, 1998)

Kalbers and Fogarty (1998) state that “Management may use various means to indicate to others the quality of the information they are providing. Demands for monitoring may result in external audits (Wallace, 1980; Chow, 1982; Anderson et al., 1993), the use of outside directors (Fama, 1980; Watts and Zimmerman, 1986; Anderson et al., 1993) and audit committees (Eichenseher and Shields, 1985; Pincus, Rusbarsky, and Wong, 1989; Bradbury, 1990; Menon and Williams, 1994)”. “The use of audit committees can be considered an important part of the decision control system for internal monitoring by boards of directors” (Fama, 1980; Fama and Jensen, 1983). “Agency theory suggests some firms will have incentives to incur costs to differentiate themselves from others. For example, in order to assert their higher quality, companies would submit to audits.” (Bar-Yosef and Livnat, 1984). “Additional private information can be signalled through the selection of higher quality audits (DeAngelo, 1981; Francis and Wilson, 1988; Bachar, 1989; Dye, 1991; Menon and Williams, 1991)”. “However, when information is difficult to verify, an agent may attempt to mimic quality messages, which may lead to adverse selection” (Akerlof, 1970). “In a realistic multi-period world, agents have to be concerned about their human capital in the labour market. False communications may therefore have negative consequences for the agent as well as the principal” (Fama, 1980).

Agency theory applies “where a contract under which one or more parties (the principal) engage with another party (the agent) to perform some services on their behalf which involves delegating some decision making authority to the agent. If both parties are opportunists, then there may be good reason to believe that the agent will not always act in the best interests of the principal. The principal can limit divergences from his interest by establishing incentives for the agent and by incurring monitoring costs designed to contain the aberrant activities of the agent”. (Roberts and Ng, 2011)

“Agency Theory (Jensen and Meckling, 1976; Fama and Jensen, 1983; Fama 1980) suggests that the separation of ownership and control in modern organizations creates potential conflicts of interests between principals (shareholders) and agents (managers)”.

There is a conflict of interest between the agent and the Principal in their risk preferences – the agent tends to be risk averse whereas the principal is risk neutral or risk seeking. “This conflict arises when managers, who are responsible for important decisions of the firm are not the primary claimants of the firm's net assets and thus do not bear a major share of the wealth effects of their decisions”. (Blair, 1995)

One way the agent can be motivated to take on more risk is by being indemnified by the principal for his actions – this is via indemnity insurance. This role of insurance as risk protection for the agent needs to be examined more closely.

To reduce conflicts of interest “Agency theory divides the costs of such arrangements into structuring costs, monitoring costs and costs of bonding a set of contracts. (Brown et al, 2007) Agency theory suggests that, given certain characteristics of the firm and the organisational environment, firms adopt particular corporate governance controls to eliminate agency costs. This depends on firm-specific and industry characteristics companies may adopt different agency conflict-reducing mechanisms to varying degrees” (Bathala and Rao, 1995).

“In order to address agency problems, a number of corporate governance mechanisms are available to align shareholder and managers’ goals”. (Schleiffer and Vishny, 1997) In agency theory, control can be based on input, behaviours or outputs. Input controls such as employee selection and “training regulate the conditions of performance such as the knowledge, skills, abilities, values and motives of employees”. (Duckworth, Akerman MacGregor, Salter and Vorhaus, 2009) Behaviour controls involve considerable monitoring of actions, direction and intervention by superiors. However, this can be costly for the firm in collecting detailed information about an individual's behaviour and may not totally eliminate information asymmetries.

“Despite such problems, behaviour controls may be more appropriate in certain circumstance. Output controls may be easier to implement and provide targets, such as financial results, for agents to achieve. Output controls approximate a market contracting arrangement, where the agent is free to select the method of achieving the desired result. Behaviour and output controls are essentially incentive mechanisms that enable monitoring and provide motivation for the agent to contribute to the organisation”. (Kowtha, 1997)

“Costly control procedures such as the use of contracts are necessary to align the actions of the agents (managers) with those of the residual claimants, the principals (shareholders)”. (Virginia Tech, 2008) Such mechanisms to resolve this conflict are costly and this provides incentives to various stakeholders to find solutions to minimize these costs.

Corporate governance mechanisms may help to “resolve such conflicts. These consist of the internal control system, the external market for corporate control and the discipline of the product and factor markets”. (Virginia Tech, 2008) “Jensen (1993) suggests that while the eventual discipline of the product and factor markets is inevitable, they are slow to act as control forces”.

The “challenge of corporate governance is to set up supervisory and incentive alignment mechanisms that alter the risk and effort orientation of agents to align them with the interests of principals”. (Tosi and Gomez-Mejia, 1989)

Agency theory suggests that “principals are considered risk neutral in their preferences for individual firm actions, since they can diversify their shareholdings across multiple firms. Managers, unlike the owners, have already invested most of their concentrated and non-tradable human capital in the firm”. (Peterson, 2010) “Therefore, agent’s employment security and income are inextricably tied to one firm. As a consequence, agents are assumed to be self-interested, opportunistic, risk and effort averse and must therefore be persuaded to act

in the best interests of shareholders to engage in behaviours that maximise shareholder wealth”. (Donaldson, 1961; Williamson, 1975; Hutchinson, 2001)

“It is difficult and costly for the principal to have the agent bear this risk”. (Zajac and Westphal, 2002) “Agents’ risk aversion creates opportunity costs for risk-neutral principals who prefer that agents maximize firm returns”. (Baysinger, Kosnik, and Turk, 1991) “Where managers have little ownership in the firm, implies lower incentives to work as hard as stockholders prefer and, therefore, greater potential losses in stockholder value”. (Gompas and Lerner, 2001; Byrd and Parrino, 1998)

This study considers the following governance attributes of a firm: the existence of “an audit committee, the number of ‘outsider’ to ‘insider’ directors and the leadership structure of the board (i.e. whether the positions of the chairman and CEO are separate or combined.)” (King II, 2002) Such governance attributes are not the only mechanisms available to reduce these agency costs, but instead form part of a wider set of monitoring mechanisms available to stakeholders. Monitoring, both internal and external, is another mechanism. Whilst the external audit is a mandatory requirement for all JSE listed firms, the individual board of directors have great discretion on deciding how much to invest in the external audit (both quality and quantity). The audit committee is responsible for appointing external attestors to provide an assurance opinion. “An independent audit committee fulfils a vital role in corporate governance. The audit committee is vital to, among other things, ensure the integrity of integrated reporting and internal financial controls and identify and manage financial risks. The audit committee should be an integral component of the risk management process”. (King III, 2009)

From an agency theory perspective, the objective of IC is to try to align the risk preferences of the agent and principal. A risk-seeking principal would prefer the agent to take on a degree of risk, as such actions would tend to increase the possibility of high returns (risk-

return relationship – “high risk and high return, low risk and low return”). (Hutchinson, 2001)

The problem here for the agent is that by taking on risk he faces an asymmetric expected reward / loss outcome. This implies that if his higher risk actions are successful he is not fully compensated for this. If his higher risk actions fail he faces the possibility of losing his position and being fired. In such a situation it is only natural that the agent tends to err on the side of caution, by avoiding risk-taking-behaviour. To overcome this situation the principal may offer insurance as a way of indemnifying the agent from any unexpected outcomes resulting from his actions.

The director's indemnity cover (IC) offers one way of reducing such agency costs in that it provides the agent with a safety net for any undesirable consequences resulting from his actions. However, the caveat here is that the agent's actions are insured for any undesirable outcomes so long as the agent acts “in 'good faith' on behalf of the firm”. (King III, 2009; SA Companies Act 71 of 2008) (The demand for IC would be less by a risk-averse principal as they would not want to provide any incentives to agents to take on risk)

This is in line with the monitoring role hypothesis of IC as put forward by Holderness (1990). Holderness's hypothesis “supports the notion that the IC has a valuable monitoring role in publicly owned companies, it has a lesser role for smaller companies”. This is consistent “with the idea of separation of ownership and control in agency theory”. (Jensen and Mekling, 1976) In publicly owned companies there is a wide and diffuse ownership pattern whereas “in smaller firms this separation of ownership and control (ownership-manager) is less of a problem as the manager usually is the owner”. (Jensen, 1993)

Prior literature has suggested a number of reasons why IC is taken out by firms. For example, “without insurance, management may be too risk-averse, which ultimately harms the interests of shareholders”. (Jensen, 1993) “Because of the chance that the firm may not be

able to indemnify them in the case of a law suit, risk-averse directors require IC coverage or extra compensation as a condition of service”. (Parry and Parry, 1991) In addition, IC may act as a sufficient inducement to encourage individuals to act as directors. Prior studies in the US have shown “that without IC a firm may not be able to attract suitably qualified individuals to act as directors”. (Priest 1987, Daniels and Hutton, 1993)

There still remains the unanswered question of the moral hazard problem of insurance in that agents may deliberately take on excessive risk. Excessive risk implies taking on 'long-shot gambles'. The offer of IC may add to and exacerbate this problem known as moral hazard. Moral Hazard implies that due to the divergence of risk preferences then the agent has incentives to misrepresent private information to the Principal. This may imply that the presence of IC may increase an attester's risk. This aspect of IC is not directly examined in this study.

“In sum, agency theory places economic self-interest at the centre of theoretical expectations. Certain contractual relationships, combined with information asymmetry, indicate a corresponding demand for investment in control and monitoring mechanisms. Therefore, the effectiveness of audit committees should be influenced by the factors believed to alter agency costs”. (Kalbers and Fogarty, 1998)

2.1.1 Agency Costs Theory

Most of the theories were developed before the full extent of the takeover movement of the 1979-1989 period. Coffee (1988) and Jensen (1989) propose theories that attempt to address specifically the takeover movement observed during the decade of the 1980s.

Coffee (1988) and Jensen (1989) argue that the primal force behind the wave of mergers, acquisitions, leveraged buyout and corporate restructurings observed during the first part of the decade of the 1980s is a desire on the part of different parties to capture the benefits that result

from reducing existing agency costs in corporations. These transactions give rise to new forms of corporate organizations where the agency costs are mitigated.

Berle and Means (1932) first stated that there exists a fundamental conflict of interest among the different parties brought together in the corporate economic entity. Under the corporate form of organization the ownership and control function of the organization's assets may be separate. Stockholders own the corporation and its assets. Legally, stockholders own the corporation and hire professional managers as their agents to operate and manage the corporation. Both stockholders and managers are interested in maximizing their utility. A fundamental conflict may arise when what is in the “best interest of stockholders is in the best interest of managers”. This conflict is aggravated because stock ownership may be dispersed over many shareholders who, without a collective and coordinated effort, find it difficult to effectively influence and control management. Managers enjoy a degree of autonomy in their actions because they are relatively isolated from capital markets when they can rely on internal financing to fund projects, thus bypassing the market and its monitoring actions.

“Agency costs are defined as the sum total of costs generated by the asymmetry of interests between shareholders and managers”. (Jensen, 1986) Agency costs include two broad categories.

1 - **Monitoring and bonding costs.** Arise from the different types of monitoring and bonding devices used to better align shareholders and managers' interests such as audited financial statements, compensation plans that reward value creation, the use of outside directors, et cetera.

2 - **Efficiency costs.** Stem from losses resulting because it is impossible to resolve completely all the conflicts of interest. Some conflicts can only be resolved partially and some of the solutions to mitigate the agency costs will be less than optimal (second best) solutions.

Coffee (1988) and Jensen (1989) differ in their analysis as to what constitutes the fundamental source of conflict of interest between stockholders and managers. Coffee (1988) argues that the primary source of conflict arises from a fundamental difference in their risk preferences. Jensen (1989) on the other hand argues that the fundamental conflict is over how to dispose of the free cash flow in the organization.

The next section examines the role of IC.

2.2 Role of Indemnity Cover (IC)

The study of IC is an interesting issue. Firstly, IC is “part of the compensation package or is IC a way to align the manager’s incentives with those of the shareholders?” (Kardan and Swinkels, 2008) Secondly, the study of IC may provide more insights into the nature of why firms demand insurance. “Why do firms hedge their risk given that it is more costly to them than to shareholders?” Thirdly, the effect IC has on the “behaviour of highly rational agents (i.e. the managers) when faced with a possible personal loss”. (Boyer, 2003)

Within this study the role of IC can be seen as “a risk management tool to manage the risk faced by risk-averse managers”. (Boyer, 2003) Within the “broader framework of risk management IC is one instrument along with hedging” (Stulz 1984; Smith and Stulz 1985; Froot and Stein, 1993) “and corporate insurance” (Mayers and Smith, 1982, 1987 and 1990) “Given that it is nearly impossible to obtain data on corporate risk management directly, Mayers and Smith had to infer the behaviour of corporations faced with the possibility of managing risk indirectly. To do that, they studied the demand for reinsurance of insurance companies”. This study considers the role of IC as one factor in risk management from the audit committee’s perspective. Firms having IC may be inherently more risky from an assurance perspective.

Within agency theory the effects of insurance are to try to align the risk preferences of the agent and principal. The principal would prefer the agent to take on more risk as such actions would tend to increase the possibility of high returns “(risk-return relationship - high risk and high return, low risk and low return.)” (Kempf, Merkle, and Niessen-Ruenzi, 2010) The problem here for the agent is that by taking on more risk he faces an asymmetric expected reward / loss outcome. This implies that if his higher risk actions are successful he is not fully compensated for this. If his higher risk actions fail he faces the possibility of losing his position and being fired.

In such a situation it is only natural that the agent tends to err on the side of caution by avoiding taking on extra risk. To overcome this situation the principal may offer IC as a way of indemnifying the agent from any unexpected outcomes resulting from his actions. IC offers one way of reducing such agency costs in that it provides the agent with a safety net for any undesirable consequences resulting from his actions.

Another prominent explanation of corporate insurance is “that corporate insurance reduces the probability of bankruptcy and therefore reduces both expected bankruptcy costs and the agency problem associated with debt — the distortion in the investment decisions of managers who act in the interests of equity holders only (after the issuance of debt) by ignoring prospective marginal investment returns in states of bankruptcy”, Mayers and Smith (1982) and MacMinn (2000).

“Most corporations reimburse directors for the costs of defending and settling lawsuits, usually under an indemnification arrangement specified either by law or in the bylaws of the corporation.” (Chalmers, Dann and Harford, 2002) Furthermore “although managers may have made a mistake in good faith, the strict liability rule governing the fiduciary duty of managers does not allow a good faith defence”.

Indemnity cover (IC) “in turn reimburses the firm for these costs, less any excess and pays the directors’ and officers’ costs directly when the firm cannot. Thus the standard IC policy, is a group policy purchased by the firm, includes two types of coverage: (i) reimbursement to the firm for indemnification costs, and (ii) direct payment to officers and directors when reimbursement from the firm is not possible. Coverage is provided as long as the officer or director does not violate his fiduciary duty to shareholders and the firm and does not contravene the Companies Act 71 of 2008. IC does not cover actions that were knowingly fraudulent, involve obvious conflicts of interest, or that should have been known to be illegal. It also does not cover the firm alone. If a lawsuit names only the firm but no officers and directors as defendants, there is no coverage.” (Chalmers, Dann, and Harford, 2002)

“In the event that a lawsuit is filed, the insurer customarily advances the cost of the defence once the excess is exceeded.” “Most suits are settled without trial”, and as Core (1999) argues, “the insurance terms provide strong incentives for settlement”. “Directors and officers are presumed to have upheld their fiduciary duty, and therefore are entitled to coverage, as long as no admission of bad faith is included in the conditions of settlement. Insurers, because they cannot unreasonably withhold consent for payment of defence and settlement costs, will settle claims even when they suspect, but cannot convincingly establish, bad faith by directors and officers”.

The caveat here is “that the agent's actions are insured for any undesirable outcomes so long as the agent acts in 'good faith' on behalf of the firm”. This is in line with the monitoring-role hypothesis of IC as put forward by Holderness (1990).

Prior literature has suggested a number of roles why IC is taken out by firms:

- a) “Without insurance management may be too risk-averse, which ultimately harms the interests of shareholders” (Jensen, 1993).

- b) IC may act as a sufficient inducement to encourage individuals to act as directors. Prior studies in the US have shown “that without IC a firm may not be able to attract suitably qualified individuals to act as directors. This may be due to such directors facing personal liability for their actions but with no insurance”. (Priest, 1987; Daniels and Hutton, 1993).
- c) “Insurance provides a safety valve in the possible event of nuisance suits against directors. These can be costly and may act as a deterrent to acting as a director”. (Oesterle, 1989)
- d) “If there are reputation costs associated with losing lawsuits, then litigation may be an important control device, even if an external insurer pays all direct costs”. (Bhagat, Brickley, and Coles, 1987)

It could be argued that “without insurance, employees, whether at the bottom of the organization structure or at the top, may not invest an optimal level of effort in increasing their firm-specific human capital. Thus by managing risk (via IC) firms may reduce labour costs as well as increase productivity”. (Boyer, 2003)

While an IC policy can often "transfer" directors' liability, it is not comprehensive. Certain acts by a director can nullify the coverage in place and expose the director's personal assets to a lawsuit. In the worst cases, the company may have failed to purchase insurance. Ultimately, avoiding personal liability requires risk management by the directors. “This is not the case with most problems in corporate governance where the most crucial environment factor is asymmetric information between the manager and the legal superiors of the manager (e.g. the shareholders)”. (Williamson, 1979)

A standard IC policy according to Boyer (2003) is usually “a group policy purchased by the company and including two types of coverage”:

1. Reimbursement to the company for indemnification costs and,
2. Direct payment to officers and directors when reimbursement from the company is not possible.

Coverage is provided as long as the “Director or officer is not in breach of his fiduciary duty to the firm and its shareholders. Fraudulent actions are not covered as are obvious conflicts of interest or actions that are known to be illegal”. (Carciumaru, 2009)

In terms of the Companies Act 71 of 2008 s. 78, a company is not permitted to indemnify a director, a former director, alternate director, a member of board committee, including the audit committee or an officer against:

“- relieves a director or an officer of a duty contemplated I sections 75, 76 and 77

- the negation or restriction of any legal consequences arising from an act or omission that constitutes wilful misconduct or wilful breach of trust on the part of the director or officer

- the payment of any fine that may be imposed on a director or officer of the company or a director or officer of a related company, as a consequence of that director or officer having been convicted of an offence, unless the conviction was based on strict liability. (This does not apply to a private or personal liability company)”

The Companies Act 71 of 2008 provides for a company “to indemnify a director or officer” (s.77:7) against liability owed to a third party that arises out of conduct made in good faith. This implies that a “director or an officer” is required “to exercise their powers in good faith and in the best interests of the company and for a proper purpose” (s.76:3).

Although IC is, “only one of the many hedging tools available to a company, it is one of the oldest, and is economically significant”. An IC is taken out and “owned by the firm but covers the firm's directors and officers against liability lawsuits brought upon them as managers of the firm”. (Carciumaru, 2009) “Should a director or officer have to settle or defend a lawsuit related to his or her service to the firm, the IC will reimburse the associated expenses provided that the director or officer had acted honestly and in good faith.” (Carciumaru, 2009; King III, 2009) “In this sense it is not dissimilar to other forms of insurance. What is surprising is that most lawsuits are brought by shareholders against management, the same shareholders who are in effect paying for the insurance!” “According to a study by Tillinghast-Towers Perrin (1999), lawsuits usually originate from shareholders (44%), employees (29%) and clients (14%). There is the situation where shareholders offer managers as part of their compensation package insurance against the possibility that shareholders will sue managers. IC covers managers for their court expenses as well as for any settlement arising from the lawsuit.”

The next section examines “the moderating role of corporate governance attributes in the relationship between IC and monitoring costs”. (See Karuna, 2010)

2.3 Corporate Governance

In order to address the agency problems discussed in the earlier, there are “a number of corporate governance mechanisms available to accord shareholder and managers’ goals”. (Hutchinson, 2001)

Corporate governance becomes more and more difficult as the size of an organization increases. Small companies are usually owner-managed, have only one or two shareholders to report to and relatively few major creditors (the bank and perhaps one or two trade creditors). The needs or incentives for a corporate governance structure is thus somewhat reduced. By contrast larger organizations have a greater number of capital

providers: shareholders, debenture holders, creditors, banks and are accountable to a wider group of users such as investors, the public, employees and the government (collectively referred to as "stakeholders"). In these larger companies control is delegated to the directors by this large body of stakeholders, as stakeholders cannot exercise that control themselves ("separation of ownership and control": Jensen and Meckling, 1976).

As the company size increases it is likely that the board size will also increase including an increasing proportion of external directors. Such an increase in board size would logically lead to increased monitoring and hence increased monitoring costs. Anderson et al (1993), assumes "that the value of monitoring to claimholders can be estimated by monitoring expenditures such as expenditure on internal monitoring, expenditure on external monitoring and directors' remuneration". "In this situation audit committees, as part of the monitoring arrangements that include the board of directors, internal and external monitoring control, have the ability to direct additional resources to internal and external monitoring and assurance. These additional resources can be used to (1) increase the credibility of financial statements, (2) enhance audit independence and (3) assist directors in meeting their responsibilities". (Bradbury, 1990)

An active audit committee may for example divert more resources to the external assurance by appointing a higher quality attester. "This may also contribute to the reliability of the information. In the literature a higher quality assurance opinion is usually associated with the switch from a non-brand name attester to a brand name one". (DeAngelo, 1981; Simunic and Stein, 1987) "Higher quality attesters are associated with higher levels of competence resulting in an increased probability of detecting financial statement errors and irregularities and reporting any such errors or irregularities".

From an agency perspective the audit committee thus has the potential to reduce the information asymmetry between company management and external directors.

Within this context an important strand of corporate governance research “examines the rationale and role of Directors' Indemnity Cover (IC)”. (Oesterle, 1989; Parry and Parry, 1991) The IC covers the monetary costs of lawsuits against directors by shareholders or third parties.

Core (2000), used “the IC or directors' and officers' (D & O) insurance as a measure of ex ante risk, and examines whether there is an association between D & O and weaker corporate governance structures”. Core, finds “that D & O premiums are significantly related to weaker corporate governance such as greater inside control of share votes, lower inside ownership and fewer outside directors”. The results also show that disclosure of any type of pending or prior financial claims significantly increases D & O premiums. Core (2000) “validates the assessment of corporate governance structure quality contained in the D & O premium by showing that excess CEO compensation is higher for firms that have high D & O premium relative to their business risk”. The results suggest that information contained in the D & O premium is a useful summary measure of the quality of the firm's governance.

Hamm, Jung and Wang (2011) “examine \$1 CEO salaries, a high-profile phenomenon that stirs fierce debate among investors, regulators and the media about its merits and potential signal to the market. Using a sample of 309 CEO-firm-years from 1995-2010 (87 firms and 88 CEOs), they showed that not all \$1 CEO salary cases are alike and that there are three underlying motivations. Public and political pressures are primary determinants for firms in crisis, incentive alignment concerns appear to be the motivation for firms shifting towards equity-based CEO pay, and a recent slowdown in business is the impetus for CEOs with substantial equity ownership in the firm. They also found that future firm performance and stock returns are generally higher for only the subsample in which the CEO has substantial ownership in the firm. Their results suggest that a \$1 CEO salary can be interpreted as a signal of better future performance when there are no political and agency costs influencing the decision”.

In this study some different corporate governance variables are examined to test whether an improved governance structure has any effect on the association between monitoring costs and IC. “By looking at the firm’s corporate governance variables as part of a complete governance package, this study will overcome the limitations of prior research. To focus on a single element in the corporate governance-firm performance mix is unlikely to lead to measurable improvements in corporate performance”. (Baliga, Moyer and Rao, 1996) “The determinants of firm performance are highly complex and interrelated and do not appear to be capable of isolation in the context of a single variable”.

Specifically the presence of an “Audit Committee, Board of Directors composition, CEO Duality and Director Shareholdings are examined”. The role and contribution of each of these governance variables is considered in the next sections.

The first section begins with audit committees (AC).

2.3.1 Audit Committees (AC)

“The truth is, the audit committee deserves much of the blame for Enron’s collapse – and the corporate governance movement deserves much of the blame for the Enron audit committee. Whatever its flaws, the committee followed all the rules laid down by federal regulators, stock exchanges and governance experts.. .” (Businessweek Commentary, January 21, 2002 cited in Rudley, Almer, and Philbrick, 2011)

The “board of directors has the senior-most responsibility for the implementation and operation of the corporate governance process. At the apex of the oversight structure is the audit committee of the board. This committee is the ultimate guardian of shareholder value and should ensure that other responsible parties are doing their job. Admittedly, very large and complex organizations are difficult for audit committee members to fully understand and oversee. Nevertheless, this is its role and it must strive to effectively monitor the operations and finances of the organization. One way to do this is to perform an evaluation of the practices and

procedures of the committee, using the assistance of corporate governance experts”. (King III, 2009; Boal and Hooijnerg, 2001; Kihumba, 1999)

A significant recommendation by Cadbury (1992) and King II (2002) “is the formation of audit committees. This, of course, is not a new phenomenon in the U.S. where audit committees have long been established”.

“The audit committee should be appointed by the shareholders in General Meeting from among the non-executive directors of the company.” (Companies Act 71 of 2008) “Meetings of the audit committee should be attended by the finance director and others where necessary. There is also a requirement that at least once a year the committee should meet with the external auditors without executive board members present.” (King II, 2002; King III, 2009)

The “role of the audit committee is twofold: to review with management the adequacy of the company's operational and internal controls and the directors' statement on such matters to shareholders. Where an internal audit department exists, and certainly that is recommended in large listed companies, the audit committee should review the internal audit programs and oversee the coordination of internal and external audit functions. It should also see that the internal audit function is adequately resourced and has appropriate standing and independence within the company”. (King II, 2002)

“The audit committee is charged with the responsibility of reviewing the half-year and annual financial statements before submission to the board, focusing particularly on any changes in accounting policies, major judgmental areas, significant adjustments resulting from the audit, the going-concern assumption, compliance with accounting standards, and compliance with stock exchange and legal requirements. The committee discusses problems and reservations arising from the interim and final audits and any audit matters the auditor wishes to bring to the attention of the Board.” (King III, 2009) One of the main aspects of the AC is to ensure maintenance of reporting standards. The International Financial Reporting Standards are now

mandatory for all South African companies. Wang (2011) “used a difference-in-differences design around the mandatory introduction of International Financial Reporting Standards (IFRS). She finds that mandatory adopters experience a significant increase in market reactions to the release of earnings by voluntary adopters compared to pre-mandatory adoption. This increase was not observed for non-adopters. Taken together, the results showed that accounting standards harmonization facilitates transnational information transfer, and suggest financial statement comparability as a direct mechanism”. The AC is charged with the responsibility to ensure compliance and thus it may cause an increase in monitoring costs. “Audit committees play an important role in ensuring the quality of firm disclosures.” (Ionescu, 2011)

In their study, Liu and Zhuang, (2011) “investigated whether effective audit committees influence the association between management earnings forecasts and the properties of analysts’ forecasts. They posited that this influence on the part of an audit committee would likely result from increased responsibility for monitoring voluntary disclosure. Using the four attributes that the Blue Ribbon Committee (1999) and prior research suggested as being indicative of audit committee effectiveness, they found that analysts’ forecasts exhibited higher accuracy and lower dispersion with the issuance of management forecasts for those firms employing audit committees that are composed exclusively of independent directors, include an accounting expert, and act with due diligence. They also found that effective audit committees strengthen the association between management and analyst forecast accuracy. Their evidence, therefore, supported the notion that effective corporate governance influences the reliability of voluntary disclosure, and thereby benefits the users of financial information”.

According to Rudley et al (2011) “effective audit committees provide numerous public benefits including better financial reporting and reduced corporate fraud. Prior to the passage of the Sarbanes–Oxley Act (SOX), research identified specific features of audit committee effectiveness, many of which were subsequently included in SOX Sections 301 and

407 regulations on audit committees. Using survey methodology, their study examined the extent to which public company audit committee members believed these effectiveness features were operating within their committees. Eighty public company audit committee members from a variety of industries completed a survey and indicated that overall, features of effective audit committees were present. A number of areas for potential improvement were noted. By soliciting post-SOX information about audit committee effectiveness from a difficult to access subject pool, their study provided an updated understanding of the state of public audit committee effectiveness”.

In their paper, Kang, Kilgore and Wright, (2011) “updated the literature on the effectiveness of audit committees as monitoring mechanisms that restrict the occurrence of earnings management (as a proxy for improving financial reporting quality) by examining low- and mid-cap firms. Prior literature examined larger firms and related to the period before the introduction of legislation in the USA and in Australia requiring larger firms to establish an audit committee. They maintain that it is no longer possible to investigate whether the choice to have an audit committee improves financial reporting quality for high-cap firms, and yet it is important to continue examining this question as the reporting and regulatory regime changes. Not only might the effectiveness of audit committees be different in a regulatory environment with other changes to corporate governance requirements, and in which some firms are required to form an audit committee, it may also be different for smaller firms, for which there is less use of Big N auditors”.

“Several key items can provide insight into the operations of the audit committee. Is there a manual spelling out policies and procedures? Does the committee keep records of its activities, both regular meetings and special inquiries and studies? How often does the committee meet? Does it have a benchmark for major items that are to be reviewed, and has it been involved in every such action? How often does the committee meet with the CEO and CFO? Is it aware of fees being paid to insiders as part of special financing arrangements or any other transactions? Is the committee apprised of insider share sales? What is the committee's degree of involvement in

financial statement issues and public pronouncements regarding the financial results and forecasts? Also, to what degree do the board and audit committee set a tone that demands openness and accurate information?” (King III, 2009)

Agoglia, Doupnik George, and Tsakumis, (2011) found “CFO’s in their experiments, exhibit more agreement and are less likely to report aggressively under a less precise (more principles-based) standard than under a more precise (more rules-based) standard. The results also indicate that CFO’s applying a more precise standard are less likely to report aggressively in the presence of a strong audit committee than a weak audit committee. They found no effect of audit committee strength when the standard is less precise”.

“A review of the committee's relationship with outside parties should also be undertaken. The committee should be appropriately involved in retaining the external auditor firm and should meet periodically with their top staff to hear an appraisal of the company's strengths and weaknesses. The committee should also meet with investment and commercial bankers, as well as rating agency personnel, about the health of the organization.” (King III, 2009)

In their article, Marx and Lubbe, (2010) “discussed the developments and factors that impact on the external audit function, and analysed the role that an effectively functioning audit committee can play in supporting the external auditor's independence and effectiveness. This was done through a literature review of external audit and audit committee developments, and is supported by empirical evidence obtained from assessing the annual reports and from questionnaires sent to the audit committee chairs of the Top 40 listed companies in South Africa. The main findings of the study were that audit committees at the largest listed companies in South Africa are taking responsibility for overseeing the external audit function, but that the disclosure thereof in annual reports was found to be lacking. These findings are of significance as they provide support for the recommendations of King III, (2009) (effective from 1 March 2010)

that all companies should form audit committees and that external audit should be given oversight responsibilities in this regard”.

In a study by Tremblay and Gendron, (2011) their results “suggest that paying for a good quality audit is more valued than in the past. The growing awareness of legal risks among board membership may have made a number of members realize that quality audits, encouraged through the payment of sufficient audit fees, constitute a useful mechanism in controlling company management and activities”. (Tremblay and Gendron, 2011)

“The expertise of the audit committee and any financial interests or dealings that board members have had with the company should be examined. The committee's independence and technical competence are particularly important. Observers should ask the following questions: Who appointed the directors that sat on the committee? Were they outside directors or part of management? Were they selected for technical competence or for name recognition? The answers should determine whether the audit committee had the independence, power, and knowledge to do its job.” (King II, 2002)

“Felo and Solieri, (2009) find that disclosure quality is positively related to the percentage of audit committee members who are affiliated with companies providing services to the firm and who are financial experts and negatively related to the percentage of audit committee members who are related to firm executives and who are financial experts.” (Ionescu, 2011)

“The Audit Committee (AC) provides oversight of three distinct areas: financial reporting, assurance functions and risk management and control. Financial reporting includes both external and internal performance reporting. The assurance functions consist of external attesters, internal attesters, and regulatory or other attesters. The risk management system addresses the systematic approach of identifying risk, managing exposures and implementing an effective control process.” (Blue Ribbon Committee, 1999) “The proper functioning of an audit committee provides a certain degree of comfort to stakeholders as

a useful mechanism in the close monitoring of the firm's activities in the above areas". "The role of the audit committee should be in an advisory and oversight capacity with independence, but should remain an internal organ of the corporation." (Blue Ribbon Committee, 1999; King II, 2002) In terms of the Companies Act 71 of 2008 (s 94:2), "the audit committee of public companies and state owned enterprises has to be elected by shareholders at the annual general meeting. The audit committee is still a committee of the directors". "If differences of opinion should arise between the board and the audit committee where the audit committee's statutory functions are concerned, the audit committee's decision will prevail". (King III, 2009: principle 3.1 paragraph 22)

"The audit committee provides oversight of financial reporting and control issues, and manages the relationship between the firm and the independent auditor. Director overlap and performance-based compensation schemes are associated with financial reporting quality. Zheng and Cullinan (2010) incorporate two equity-based measures of CEO pay. The higher the COMP measure, the more sensitive the executive's compensation is to financial performance." (Ionescu, 2011)

In a report by the Blue Ribbon Committee (1999), it states that "audit committees, functioning as an organ of the board, focus the attention of the board, top management and the internal and external directors on the importance of strong financial reporting and risk management." The idea being that audit committees can fulfil a valuable monitoring role for shareholders.

Prior studies simply considered the formation of "an audit committee (Eichenseher and Shields, 1985; Pincus et al, 1989; Bradbury, 1990, all considered the "characteristics of firms that had formed ACs") Menon and William's (1994) were the first researchers to study "the number of meetings as a measure of audit committee activity". They found "that AC activity was positively associated with firm size and the proportion of outside directors.

This still in itself was a crude measure of the effectiveness of an audit committee”. An improvement on the AC measure was introduced by Collier and Gregory (1999) in their study. They use “a more detailed measure of AC activity consisting of:

- a) Both the number of meetings and the average duration of these meetings
- b) They include further agency variables that may be linked to influence the activity of the AC
- c) UK setting used where AC is a more recent phenomenon than the USA
- d) Menon and Williams (1994) used the OTC firms in the US for which the AC formation is a voluntary act. This by implication would exclude many of the larger firms. The sample in this study consisted of major UK companies”.

Collier and Gregory (1999), find “that AC activity is positively associated with the employment by firms of high quality independent attesters, as measured by membership of the Big Six and to some degree the agency cost of debt as measured by leverage”. The “importance of high quality independent attesters is consistent with Pincus et al (1989) and Menon and Williams (1994) both of whom found a positive association between AC formation and the employment of a high quality independent auditor”. “A plausible explanation for this relationship extending to AC activity could be that that pressure from the big 6 attesters for a firm to form an AC is followed by pressure for the AC to be active”. In addition Collier and Gregory (1999), “found that the including of insiders (executive directors) on the AC has a negative impact on the activity of the AC”.

This is also “consistent with Menon and Williams (1994 p.125) who concluded that an AC with inside directors cannot be viewed as an objective monitor of management and adds weight to the comment made by the SEC (1980 p.491) that an AC with inside directors is worse than no AC at all. This also provides support for the recommendation made by the Cadbury Committee (1992 p.69) that membership of the AC should be limited to non-executive

directors of the company”. Collier and Gregory (1999) further show “empirically that AC activity is reduced by around 1.17 hours per annum when insiders are members of the AC, which is nearly 20% of the mean meeting time”. (Collier and Gregory 1999 p.327)

Researchers also consider the motivation for setting up the audit committee and conclude this may not be purely for monitoring reasons. Menon and Williams (1994) and Collier and Gregory (1999) provide “evidence that suggests audit committees are of two types: active audit committees and image audit committees”. The difference being that active audit committees are composed of outside directors and meet frequently. Image audit committees on the other hand are composed of executive directors and other related company officials (a previous company director or retired CEO for example) and meet relatively infrequently. “It can be theorized that image committees are established for their image value and as such designed to prevent regulation and reduce unwanted media attention”. (Bradbury, 1990)

The next section continues with the role that the Board of Directors play in the governance structure.

2.3.2 Board of Directors

A “company's board is the primary internal corporate governance mechanism responsible for setting management compensation and monitoring senior management (Finkelstein and Hambrick, 1989; Jensen, 1993; and Tosi and Gomez-Mejia, 1989.)” The board also represents shareholders and serves, according to Jensen (1993), “as their first line of defence against a self-serving management team”.

The board of directors typically consists of internal (or insiders) or external (outsiders) directors. “Rosenstein and Wyatt, (1990), define an outside director as a director who is not a present or former employee of the firm and whose only formal connection with

the firm is in the capacity as a director. Internal directors are concerned with the day-to-day management of the company whereas external directors are usually concerned with the overall strategic management of the company, rather than day-to-day operations”. (Also King II, 2002) Interestingly enough there is “no legal distinction between the duties of an executive or non-executive director”. (SA Companies Act 71 of 2008) This raises the obvious question of the underlying motivation and or incentives why an individual would voluntarily submit themselves to become a non-executive director. As the compensation package is much less, the frequency of meetings less and with limited input to the day-to-day operations, yet the legal responsibilities remain the same as for an executive director.

Fama and Jensen (1983), state “that one important duty that the board of directors fulfil is to monitor and evaluate senior management. Since the interests of inside directors (managers) may diverge from those of owners, the task of monitoring is predicted to fall mainly on outside board members”. Fama and Jensen (1983), also present “an economic reason why outside directors can be expected to monitor management effectively”. This argument is based on “the reputational effect, in that outside directors who fail in their monitoring duties will suffer a reputational loss in the managerial labour market, thereby reducing the value of their human capital”.

In addition “agency problems between managers and shareholders can be resolved by having outside directors as monitoring mechanisms. Existing empirical evidence generally supports the prediction that outside directors play a significant role in protecting shareholders' wealth in situations where the interests of managers and outside managers diverge”. (Byrd and Hickman, 1992; Brickley et al, 1994). Gul, Tsui and Chen, (2003), extended this in the context of “family owned firms and found that the presence of outside directors only made a difference on performance for non-family owned firms. In family owned firms outside directors are likely to align their interest with top management rather than the

shareholders. Consequently their presence does little to reduce agency costs and may even worsen it”.

“Opinion on board effectiveness in monitoring management can be divided into two broad camps”. “The first as represented by Fama and Jensen, (1983) sees the board as an important part of the firm's monitoring mechanism”. The second basis is of Herman, (1981) and Mace, (1986), is “that boards perform little or no real monitoring and do little more than provide contacts and advice for top management”.

Fama and Jensen, (1983), “maintain that the board is an important part of the firm's governance mechanism. It is the top-level court of appeals for the internal agent market and outside directors to resolve agency problems between managers and shareholders by setting executive compensation and selecting replacement managers”. “They hypothesize that outside board members do not collude with managers to expropriate shareholders because of their incentives to develop reputations for effective monitoring in the external market for monitors”.

In contrast Mace (1986) establishes that “boards: (1) provide advice and counsel to management; (2) serves as some sort of discipline; and (3) act in crisis situations”. He further suggests that “boards do not: (1) establish basic objectives; corporate strategies and broad policies; (2) ask discerning questions; or (3) select the president”. Mace, (1986) is emphatic in stating his opinion that “boards are not performing the monitoring duties they were intended to perform”.

It is worth noting that Mace’s research on how boards work was “based on extensive interviews with board members conducted before 1970”. (Mace, 1986) It is likely that if his study was replicated today the results would be very different as various countries have enacted or put in place explicit requirements for corporate governance mechanisms, such as South Africa with the JSE requirements and acceptance of the King III code. (2009) The

Cadbury Report (1992), focused attention on governance issues and put forward specific recommendations as well as establishing a code of good conduct for companies to adopt. This has been mirrored in other countries e.g. the King Report III in South Africa (2009), the Hellebuyck Commission Report (1998) in France, in India the Desirable Corporate Governance - A Code (1998), and in Japan the Corporate Governance Principles - A Japanese View (1998).

A study by Warther (1998), attempts to reconcile to some extent the two opposing views above. He argues that the “two camps concentrate on different dimensions of the board and so their conclusions may not be as contradictory as they may first appear”. In the context of the ineffective-board viewpoint he shows that “it is quite common for little open dissent in the boardroom, as they are simply not structured to be a channel for voicing regular dissent. On the other hand the effective-boards viewpoint concentrates on the board's disciplinary effect”. He finds “that a lack of routine dissent is still consistent with a significant disciplinary role”. By their nature, “boards are not suited to be political arenas where conflicting opinions are aired and resolved and it is a mistake to assume they should behave as one and thus to equate a lack of open dissent with a lack of effectiveness”.

Warther (1998), states that “the board's structure dictates a different type of oversight where stretches of calm are only occasionally broken by episodic open conflict.” He puts forward an interesting model in which “each board member receives information about managerial ability and must vote to retain or fire the manager. A declaration phase precedes the vote where board members may step forward and announce their intentions to vote against management. The board members' utility is a function of both the firm's performance and their continued membership on the board. Board members care about firm performance because their reputation and compensation are affected by the firm's fortunes and they care about remaining on the board because of the professional contacts and prestige that accompany board membership”. To introduce more realism to this model he “introduces managerial

power by assuming that board members who unsuccessfully vote to dismiss management are ejected from the board”.

The “model predicts board behaviour in line with results” obtained by Herman (1981) and Mace (1986). “Individual board members are reluctant to step forward and oppose management”. The “board appears passive most of the time and operates with little open dissent. Votes are usually unanimous in favour of management and in those circumstances when unfavourable information reaches a critical level and a director steps forward to oppose management, a bandwagon effect develops. Other directors join the opposition and the board moves quickly and usually unanimously to discipline management”. The “board does not function as a debating society where opinions are openly expressed and issues are freely argued. Instead, the board swings between the extremes of passivity and action”. Warther (1998) then “uses his model to examine what makes a board effective or ineffective”.

When examining the effects of board monitoring “researchers have typically evaluated” this through “the use of proxy variables, such as the proportion of outsider directors on a board” (Boyd, 1994; Peasnell et al., 1999, and Vafeas and Theodorou, 1998). A number of arguments suggest “that a unitary board may be effective in resolving potential agency problems”. First, “outside directors have incentives to signal their managerial competence to other potential employers”. (Fama and Jensen 1983 and Weisbach 1988) Second, “outside directors often already have expertise relevant to monitoring a top management team and are experts in internal organizational control” (Fama and Jensen, 1983).

However, it can be considered “that outside directors and boards will be ineffective in monitoring top management teams and exercising vigilance” (Nickell, 1995). First, “outside directors' low financial stakes and low equity holdings may reduce board vigilance and monitoring capability, consistent with propositions offered by Finkelstein and Hambrick (1989)”. Second, “the independence of outside directors may be challenged if they were appointed by a

firm's CEO, and thus are likely to be demographically similar to that CEO” (Westphal and Zajac, 1995), or “former members of the company's management team and so are not truly independent” (Baysinger and Hoskisson, 1990). The “presence of a low proportion of outside directors” suggests poor monitoring capabilities since “insider-dominated boards imply problematic self-monitoring and particularly weak monitoring of the CEO, since the CEO is likely to be in a position to influence the insider directors' career advancement within the firm” (Zajac and Westphal, 1994)

A significant body of US research that examines the monitoring roles of outside directors or Non-Executive Directors (NED) suggests that NEDs do appear to improve accountability in certain situations such as a crisis. Weisbach, (1988) considers “outside directors and turnover”, Brickley et al., (1994) examines “the role of NEDs in relation the adoption of poison pills in takeover situations” and Byrd and Hickman, (1992) consider “the role of NEDs in relation to tender offers”.

There is an emerging body of literature that suggests “that NEDs may actually be causing more harm than good”. Baysinger and Butler, (1985) argue “that boards dominated by outside directors could actually harm shareholders' interests by placing too much emphasis on their monitoring role at the expense of their decision-making and advisory roles”. The Hampel Report (1998), picked up on this point and recognised “that an unintended side effect of the Cadbury Committee's (1992) emphasis on NEDs had been the over-emphasis on the monitoring role of NEDs”. Baysinger and Hoskisson, (1990) argue “that outside directors may have a potentially negative impact on corporate entrepreneurship. Outside directors may emphasize short-term performance through their reliance on financial evaluation of the business resulting from their weaker access to the detailed firm-specific information necessary to evaluate the longer term strategic performance of the firm”.

Hoskisson et al., (1994) argue “that outside directors may favour expansion via external means, such as acquisitions to enter new markets as these are better suited to evaluation using financial criteria. On the other hand inside directors may prefer to engage in internal innovation because while internal innovation may be more risky and difficult to evaluate in a financial sense, inside directors usually have more strategic knowledge of the potential outcomes of internal innovation as being less uncertain than external innovation”.

This leaves the question concerning the conditions under which a majority of insiders or outsiders is appropriate. As yet research has not adequately addressed this issue. In a wider public policy context the current findings also cast doubt on overly prescriptive views of the effectiveness “of larger proportions of outsiders on the board of directors”.

The next section examines the role of CEO duality within the governance structure.

2.3.3 CEO Duality

Prior studies generally provide evidence to support an independent board of directors with an active audit committee as effective corporate governance mechanisms. “An equally important and related issue is a growing insistence that the role of chairman and chief executive should be separate, though on this issue there is less unanimity in the U.S. than in other countries.” (Fosberg and Hensen, 1999) In South Africa, the King Report II, (2002) and the King Report III, (2009: principle 2.16) advocate that the Chairman and CEO posts be occupied by “an independent outside director in the case of the chairman”. The King Code III, (2009) came in to effect on 1 March 2010 and is applicable to all entities, whether public, private or not for profit.

“From an agency perspective it can be argued that firms with a dual role CEO and Chairman are likely to be perceived as needing more stringent monitoring mechanisms in place because of their control over the board. The Cadbury Committee, (1992 p.21) advised that

this role should be separated in order to avoid having a dominant executive”. King II, (2002) and King III, (2009) did the same. It could also be argued “that a dominant Chief Executive may agree to the formation of an AC to give the appearance of monitoring but actually limit its effective functioning”. (King III) CEO duality can be examined in the context of both “agency theory and organizational theory in order to understand” the underlying dynamics.

Some investors suggest taking this further and ensuring “that the Chairman should be a non-executive director and not the outgoing chief executive, in order to remain independent. Non-executive directors are expected to bring an independent judgment to bear on issues of strategy, performance, resources, key appointments, and standards of conduct. They should be independent of management and free from any business or other relationship that could materially interfere with the exercise of their judgment”. (Sealy and Worthington, 2010)

“One aspect to examine over the next few years is whether non-executive directors can, on the one hand, join with management as part of a unitary board deciding on important matters of strategy and direction, while on the other hand act as monitors of executive directors in the interests of shareholders. Good corporate governance is about relationships and ethics. When governance systems fail it is usually because relationships originally set up as checks and balances turn into ones of mutual support and protection, allowing too much power to flow into the hands of too few people”: and the abandonment of ethical values. (Sealy and Worthington)

In an international context this trend mirrors rules in Germany and Japan, “where large companies are required by law to have supervisory boards chaired by non-executives. Furthermore in Japan corporations have formal arrangements to separate executives holding the titles of chairman and *shacho*, or president (effectively the CEO) although the latter usually acts as the *de facto* board chairman. This is in contrast to France, where the prevalent Société Anonyme structure contains an imperial CEO - the *président directeur général* - who runs both the board and the company”. (Sealy and Worthington, 2010) This

is also similar to the US, where strong corporate heads are the norm rather than the exception.

According to Hundley, (2010) “an opinion widely held is that separating the role of chairman from chief executive- would provide the board with sufficient power to challenge CEO dominance. Although in many cases that rationale holds true, there are considerable benefits to CEO duality. Researchers have suggested that chairman/chief executive duality is a double-edged sword. While some shareholders are put off by the absence of board control and checks and balances, others are reassured by the presence of unity of command and the absence of potentially acrimonious conflict between strong-minded individuals”.

Finkelstein and D’Aveni, (1994) “found that a major factor in defining the success of this duality was the level of CEO informal power. Either perceptual or objective data can be used to measure informal CEO power”. A few researchers have utilised “perceptual measures of power; power is a sensitive subject for many managers. In using perceptual measures, a researcher assumes that social actors are knowledgeable about power within their organizations; informants are willing to divulge what they know about power distributions; and such a questioning process”.

Rechner and Dalton, (1991), using the return on equity found “that firms with different individuals in the positions of CEO and chairman outperformed firms with CEO/ chairman duality”. In contrast Donaldson and Davis (1991), found “that firms with CEO/ chairman duality achieved higher shareholder returns compared to firms separating the two positions.

“Further advantages of CEO Duality include when it comes to insiders versus outsiders on the board, a predominant role for insiders finds support more often, probably because insiders are more familiar with the issues, the technology, and the practice of the firm. Only they who are deeply involved and can make it work add value. The inside directors are

unlikely to remove the CEO as their careers are tied in with the CEO, whilst outside directors have reputational incentives to remove ineffective CEO's". Weisbach, (1988) also found "that there is a stronger association between prior performance and the probability of resignation for firms with outsider-dominated boards than for firms with insider-dominated boards". "Firms with outsider-dominated boards are significantly more likely to remove the CEO on the basis of performance than firms with insider-dominated boards, as measured by earnings or stock returns", Weisbach, (1988).

Weisbach (and cited by Kahan and Rock, 2002) states that "performance measures are more highly correlated with CEO turnover for firms in which outsiders dominate the boards than for firms in which insiders dominate. Outsider-dominated boards tend to add firm value through their CEO changes. This addition to firm value is the largest when the change is preceded by poor performance. No similar results hold for insider-dominated boards". According to Weisbach, (1988), "these results do not appear to be caused by differences in the ownership structure of the firm, the size of the firm or the industry in which the firm participates".

Organisational theory suggests that, "CEO duality can establish strong, unambiguous leadership. By consolidating two of the most prestigious offices in a company, stakeholders are often reassured, because it clarifies decision-making authority. An additional problem with non-duality is that it weakens and disrupts CEOs ability to manage the task environments their organization faces. For example, several laboratory studies suggested that the participation of constituencies who review negotiator action lead to less effective and more difficult negotiation processes. As a result the reasons the positions of chairman and CEO are usually combined is that this provides a single focal point for company leadership. A powerful and effective CEO creates an image of stability and instils a sense of well-being to its employees as well as its shareholders, projecting a clear sense of direction". (Jones, 2009)

The downside of CEO duality is “that when a company's chief executive officer is also the chairperson of its board, directors often have contrary objectives. Boards of directors are charged with ensuring that Chief Executive Officers (CEO's) carry out their duties in a way that serves the best interests of the shareholders. Therefore, the Board of Directors maintains equilibrium between CEO and shareholder interests”. (Hundley, 2010)

“Two theories have been put forth to explain why a firm would adopt a dual leadership structure.” Fama and Jensen, (1983) stated “that the leadership structure of the firm can help control the agency problems created by the separation of residual risk bearing and control typically found in most corporations”. It is considered “that the separation of the decision management (initiation and implementation of investment proposals) and decision control (ratification and monitoring of investment proposals) functions within a firm reduces agency costs and leads to enhanced firm performance”. “At the apex of the leadership structure, this means that the highest-level decision management agent (the CEO) should not control the highest-level decision control structure (the board of directors)”. “As the chairman of the board has the greatest influence over the ‘functioning of the board’, Fama and Jensen's, (1983), theory implies that the effective separation of decision management and decision control requires that the chairman of the board must not also be the CEO of the firm. If Fama and Jensen, (1983), are correct, firms that switch to a dual leadership structure should experience an improvement in performance following the leadership structure change. Other researchers found that separating the chair and CEO positions led to improved firm performance”. (Hundley, 2010)

Rechner and Dalton, (1991) “used three accounting measures of profitability to investigate the performance of a sample of Fortune 500 firms that maintained the same leadership structure from 1978 through 1983”. The authors stated “that firms with a dual leadership structure consistently outperformed firms with a unitary leadership structure”. They thus “refute the notion that separating the CEO/Chairman roles leads to improved

firm performance”. Pi and Timme, (1993), “found some evidence that banks with a dual leadership structure were more profitable and were more cost efficient than firms with a unitary leadership structure”.

In their study, Liu and Zhuang, (2011) cited “Byard et al., (2006) who found that analysts’ forecast accuracy is positively related to the independence of the board and negatively related to the presence of a dual CEO. While Byard et al., (2006) build on a similar assumption that strong corporate governance improves the quality of firm disclosure, they did not directly measure the quality of disclosures, nor measure how the quality of information relates to analysts’ forecasts. As a result, their findings can be attributable to other analyst characteristics that are correlated with strong corporate governance, and not necessarily to the quality of disclosures. The study of Liu and Zhuang differed from Byard et al, in that they examined a specific form of firm disclosures, and thus provided direct evidence on whether corporate governance enhances the usefulness of disclosures to analysts”.

“Agency theorists view the board of directors as a type of checks and balances system, similar to that of government. They are typically opposed to CEO duality, whereas organizational theorists offer more support. It has been reported that a vigilant and conscientious board is made up of independent outside directors, otherwise unaffiliated with the company other than that they hold large sums of that company's stock. Outside directors are more vigilant than directors with other firm affiliations because (1) they focus on financial performance, which is a central component of monitoring. (2) They are more likely than insiders to dismiss CEOs following poor performance, and (3) protecting their personal reputations as directors gives them incentive to monitor. Although insiders tend to have more detailed information about firm operations, they are likely to be reluctant to confront a CEO in a boardroom situation”. (Hundley, 2010)

Continuing the “agency perspective, it can be argued that firms with a dual role CEO/Chairman are likely to be perceived as needing more stringent monitoring mechanisms in place because of their control over the board”. The Cadbury Committee (1992) advised “that this role should be separated in order to avoid having a dominant executive”.

Collier and Gregory, (1999), find “that the combination of the role of chairman and chief executive is shown to be a significant variable but rather than leading as hypothesized to increased monitoring, the presence of a dominant chief executive reduces AC activity”. Their study also shows “that the inclusion of insiders (executive directors) in the membership of the AC similarly reduces AC activity”. Collier and Gregory, (1999), conclude from this “that a dominant chief executive was associated with less active AC's and presumably less monitoring”. “This result is in line with that of Forker, (1992), who showed that the presence on a board of dominant personalities adversely affected the quality of disclosure of director's share options”.

This finding by Collier and Gregory, (1999) “that the presence of a dominant chief executive reduces monitoring activity, is of concern to both independent attestors and investors”. The “result reinforces the policy recommendation of the Cadbury Committee, (1992)” along with Koornhof, (2009), and subsequently the King II, (2002) and King III, (2009) Reports which consider “that there must be a clearly accepted division of responsibilities at the head of the company and where the role of chairman and chief executive are combined it is essential that there should be a strong and independent element on the board with a senior member” or in the case of South Africa with a non-executive deputy chairman.

Prior research is not clear on the relationship between CEO duality, monitoring costs and IC. As such the inclusion of this variable may provide some additional insights into the monitoring impact it provides. In this study a dummy variable (CEO) coded 1 is used to indicate the presence of CEO duality otherwise it is coded 0.

The next section of corporate governance examines the moderating role of director share ownership.

2.3.4 Directors' Shareholding

This section considers the moderating role of Director Share ownership on the relationship between IC and Monitoring costs.

Researchers have suggested “share ownership as a means to align the interest of top managers with that of shareholders” (Jensen and Meckling, 1976; Singh and Harianto, 1989). Where “managers own shares in a company they are less likely to take actions that are not in the interests of shareholders. Share ownership by management can reduce the underlying agency problem: the more share management owns (up to the point of entrenchment) the stronger their motivation to work to raise the value of the firm’s shares”.

As managers “become shareholders they have a direct interest in an increasing share price” (Dobbin and Jung, 2011) which can be achieved through better firm performance. In addition when a proportion of directors’ compensation is in the form of company shares, or they independently own shares in the company, they act as owners of the firm and would thus engage in less riskier actions as they have a personal stake in the continued success of the company.

The risk for such firms would be lower and hence monitoring costs also correspondingly lower. Hence, it is expected that director share ownership would have a moderating role on the relationship between IC and monitoring costs as it motivates agents to adopt value-enhancing strategies as the agent also is a shareholder. Prior research has demonstrated “the role of management share-ownership in aligning managers’ and shareholders’ interests and dealing with risky outcomes” (Gaver and Gaver, 1993; Sanders and Carpenter, 1988; Smith and Watts, 1992).

On the other hand, “there may be less demand for alternative anti-agency measures, such as a strong board of outside directors and monetary incentives in firms where management owns a large fraction of the shares. Management share ownership was found to be associated with a decline in the percentage of incentives and external board membership”. (Bathala and Rao, 1995; Beatty and Zajac, 1994).

In line with the agency argument it is generally accepted that the provision of “equity ownership by NED’s may also affect their incentives to monitor the performance of executive directors”. The ‘Hampel Report’, (1998) also considered that the “payment of a part of a non-executive directors remuneration in shares can be a useful and legitimate way of aligning the directors' interests with those of shareholders”. Researchers have suggested “equity ownership as a means to align the interest of top managers with that of shareholders (Jensen and Meckling, 1976); that is, if managers own equity in a company they are less likely to take actions that are not in the interests of shareholders.”

“Equity ownership by management can reduce the underlying agency problem: the more equity management owns (up to the point of entrenchment), the stronger their motivation to work to raise the value of the firm’s stocks.” (Pawlina and Renneboog, 2005) As managers “become shareholders they have a direct interest in an increasing share price” (Dobbin and Jung, 2011) which can be achieved through better firm performance. Furthermore when a proportion of directors’ compensation is in the form of company equity, or they independently own shares in the company, they act as ‘pseudo-owners’ of the firm.

Shivdasani (1993) along with Jensen (1989), suggest “that NEDs who hold a large equity stake in the firm are likely to have a greater incentive to monitor executive directors than those without such a stake”. Morck, Schleifer, and Vishn, (1988) “found that the relationship between firm performance and the equity ownership of NEDs tends to be non-linear”, suggesting

“that NEDs are aligned at low and possibly high levels of ownership, but entrenched at intermediate ownership levels”. By providing NEDs with equity an additional problem may be created, in that it may make it difficult to exit from poorly performing firms.

Overall the available evidence produces generally quite positive results in respect of the role of director shareholding in promoting greater accountability and in aligning interests between agents and principals.

An interesting topic was raised by Greco, (2011) his paper that “examined the determinants of the board and the audit committee meeting frequency, related either to ownership structure, or to board characteristics, in an agency setting featured by large controlling shareholders. Greco found that ownership concentration is not associated to the board and the audit committee meeting frequency. The empirical results showed that the board and the audit committee meeting frequency were negatively associated to insider ownership and positively associated to the proportion of independent directors on the board, and less in firms where directors-shareholders have direct supervision and access to information. He found no evidence that the board and the audit committee meeting frequency are significantly related to CEO duality or presence of a LID. The findings did not support the view that larger board could suffer from inefficiency and coordination problems (Jensen, 1993). He did not find any significant association between board size and both the board and the audit committee meeting frequency. Consistently with prior research, he found that audit committees are more active in larger firms (Menon and Williams, 1994; Raghunandan and Rama, 2007; Mendez and Garcia, 2007). Also, the audit firm size positively influenced the audit committee activity (Raghunandan and Rama, 2007)”.

Overall, these results are consistent with the agency theory-based view that insider ownership and independent directors are substitutive control mechanisms. Directors tend to be more active in firms with higher independent representation on the board

The next section deals with ethics as a characteristic of Corporate Governance.

2.3.5 Ethics

Corporate Governance relies on trust and ethics being central to its implementation and successful execution. “If you don't know where you are going, you will probably end up somewhere else.” (Angelo, 1993) “If corporate ethics, values, and the like are not established at the top, at the board level, and used to govern the operations of the company, then management certainly cannot anticipate that the rank and file will follow such a code on their own. Establish a workable, reliable, and realistic ethics code for the way the corporation conducts business internally and externally.” (Gerrish, 2002)

Appendix 2 is a schematic depicting the role of ethics, a branch of philosophy, in the structure of the firm and the place of the audit committee. Appendix 3 is a schematic depicting the role of the firm in society.

Ethics and morality are defined in King III, (2009) as “that which is good and right in human action. Ethics involves three key, interlinked concepts – self, good, and other. Thus, one’s conduct is ethical if it gives due consideration not only to that which is good for oneself, but also good for others”. This was a feature in the collapse of Enron in that the company had a “fundamental failure in the morality and ethical basis of the decision-making of the company, with systematic deception of investors, manipulation of markets, and exploitation of customers”. (Clarke, 2004)

While ethics is not in the purview of this study it has a bearing on the acquisition and trading of shares by directors. This will impact on the size of shareholding by directors and their influence on the company. This is a variable used in this study.

As an illustration of the importance of the ethical values and trust relied upon by investors, “Hurt, (2009) examined the Madoff scandal and places it within the realm of modern financial frauds and the sensationalism surrounding them. Affinity fraud causes the

same economic harm as any financial fraud. Hurt emphasizes that Madoff's financial crimes 'became a symbol for the greediness and immorality of a financial meltdown he did not cause.' Hurt observes that many victims felt that Madoff was somehow responsible for the economic downturn, that many believed that Madoff's fraud proves him to be of unparalleled evil, and that the losses incurred by Madoff's victims are of unparalleled devastation. Hurt contends that the trauma caused by Madoff is more complex than mere financial loss". (Ionescu, 2011)

"Good corporate governance can enhance corporate responsibility and improve the reputation of companies, which in turn can attract local and foreign investors. It is also seen as a deterrent to corruption and unethical business practices that scar Africa's business image". (Rossouw and Sison, 2006) "Insofar as they belong to the realm of the economy, business organisations should be subject to ethics and ultimately to politics", (Sison, 2008)

Gender has been a topic of discussion in the make-up of the Board and ACs. Although many studies have used the audit committee characteristics yet, most of the previous studies were focused more on independence, meeting frequency, size and financial expertise rather than the facet of gender. Moreover, there is also a growing stream of research on the positive outcomes of having a female director on the board.

In their study, Thiruvadi and Huang, (2011) "investigated whether the gender diversity of audit committees has a significant impact on the firm's earnings management using firm data from the SandP Small Cap 600. The results provided evidence to show that the gender diversity increases the external governance function of audit committee, thereby leading to reduced earnings management. They found consistent evidence to show that the presence of a female director on the audit committee constrains earnings management by increasing negative (income-decreasing) discretionary accruals. This finding was consistent with gender theory and prior literature which showed that women are more conservative and unbiased than men in making ethical decisions further, the study also acted as a strong influencing force against the existence of the glass ceiling concept. In

addition, the authors found that the presence of female director on the audit committee is positively associated with audit committee meeting frequency. Overall, female directors are found to have a significant influence on the quality of financial reporting and also contribute to the efficacy of corporate governance’.

Chapter 3 builds upon the theoretical issues discussed in chapter 2 to develop testable hypotheses.

CHAPTER 3

HYPOTHESES DEVELOPMENT

Introduction

This chapter introduces the attest fee model as proposed by Simunic, (1980) and develops empirically testable hypotheses. Using this model it is possible to test the relationship between monitoring costs and indemnity cover, as well as the moderating role of corporate governance variables. Four specific hypotheses are developed and tested using this model.

3.1 Attest Fee Model

The attest fee model is used to map out the association between indemnity cover and attest costs. According to Simunic, (1980) attest costs are determined by the following model:

$$E(C) = cq + E(d) * E(\theta)$$

where,

$E(C)$ = Expected total costs to the attester or the attest costs,

c = per unit factor cost of external attest “resources to the attester”,
“including all opportunity costs and thus including a mark-up for a normal profit”,

q = quantity of resources utilized by the attester in performing the attest,

$E(d)$ = “expected present value of possible future losses that may arise from this period's attested financial statements, and”

$E(\theta)$ = the likelihood that the attester will have to pay for the losses from this period's attested financial statements.

An attester's cost function thus consists of a resource cost component, cq , which is "increasing in the level of attest effort, and an expected liability loss component, $E(d) - E(0)$ ". "Expected liability losses should generally decrease with increasing attest effort because the attester is more likely to detect material misstatements that might exist in the financial statements, i.e., $E(d) = f(cq)$, where f is decreasing in effort. As noted by Pratt and Stice (1994), in a competitive market, the attester will (a) use judgment to assess the expected liability loss component, (b) invest in the attest to the point where the marginal cost of an additional unit of investment is equal to the marginal reduction in expected liability loss, and (c) charge the client, $E(C)$, an amount that covers the investment in attesting plus the expected value of possible future liability losses".

"The liability losses normally manifest themselves in the form of legal action against the attester. Legal action against the attester occurs when management, shareholders, creditors, or other stakeholders attempt to recover losses caused by thus making the attester responsible for the losses". The attester's assessment of the loss liability may be influenced by the client risk. "Client risk characteristics may be influenced by the evaluation of the loss potential. The size of the attester, the complexity of the attester's operations, the asset structure, and whether the attester is a publicly held company, need consideration." (Simunic, 1980).

“An important determinant of $E(\theta)$ and $E(d)$ is the existence of indemnity cover. Firms with indemnity cover correlate with higher risk of legal action. Thus, an attester’s assessment of $E(\theta)$ and $E(d)$ could be expected to be higher for firms with indemnity cover”. (Simunic, 1980)

An alternate view to also consider would be that the indemnity cover can also be seen as a transfer of risk to an insurance company. Thus a competing hypothesis regarding indemnity cover and attest costs could be proposed as the presence of indemnity cover could be interpreted as reducing the risk of attesters in the bearing of costs of future liabilities in any given engagement ($E(\theta)$). Thus one argument would be that IC increases $E(\theta)$ and another argument that IC decreases $E(d)$, the attester’s expected share of any damages, as the indemnity cover policy will also contribute some payment.

The justification for associating higher attest costs with indemnity cover is due to the first argument being applicable in a longitudinal study of companies. Over time, we would expect attest costs to be lower after indemnity cover has been adopted compared to the period before. Under the second argument when cross-sectional comparing a firm with indemnity cover to another similar firm without indemnity cover the effect of $E(\theta)$ would dominate as firms would only provide indemnity cover where their expected risk is higher than for those firms with no indemnity cover and consequently lower risk. This could be considered as efficient contracting. Thus in a cross-sectional dataset higher attest costs are expected for firms with indemnity cover.

3.2 Hypotheses

The purpose of this research is to test the hypothesis that attest costs will be higher for firms with indemnity cover. The rationale for this is that indemnity cover acts as a safety net for Directors in that they will not be held accountable for their actions so long as they were undertaken in good faith. The idea being that firms use indemnity cover to protect their boards and management from liability for breach of fiduciary duties. This study argues that in

such circumstances firms with indemnity cover will take on a more aggressive risk-seeking stance. For attesters such firms pose extra attest risk which is captured through higher attest costs. Anderson et al. (1993) assume that the value of monitoring to claimholders can be estimated by monitoring expenditure on external attest and director's compensation.

This leads to hypothesis 1:

3.2.1 "There is a positive association between attest costs and firms with director indemnity insurance" ("indemnity cover").

Effective corporate governance mechanisms may also impact this relationship of attest costs and indemnity cover. Improved governance may lead to a reduction in agency costs as monitoring may be improved. Core, (2000) and O'Sullivan, (1997) find that indemnity cover is associated with stronger board governance. This study uses a range of prior established corporate governance variables to proxy for an effective governance structure. Specifically the governance variables used are: Audit committees, the Board of Directors composition, CEO Duality and Director Shareholdings.

Dolley et al., (2000), investigated the "relation between the presence of an audit committee and external attest costs". The rationale is that if an audit committee is active in improving company monitoring then this is likely to be associated with an increase in monitoring expenditures including the external attest cost. Assuming that audit committees can be characterized as actively monitoring, then it would be reasonable to associate that a positive relation between audit committees and external attest costs may be driven by audit committees that actively monitor. The researchers are able to split audit committees into monitoring types by the presence or otherwise of executive directors or company officers on the audit committee. Audit committees composed fully of external directors are more likely to be associated with monitoring than other audit committees.

The results by Dolley et al., (2000), support a positive association between companies with an audit committee and higher attest costs.

The literature also identifies one other important role for the audit committee. It can provide support for the external attester in disagreements with management. Knapp, (1987) found that when an accounting-related disagreement arises, audit committees tend to support the attester rather than the managers. This may be in part due to the fact that the audit committee negotiates with the attester for the attest cost and thus has an interest to agree to higher attest costs if they see higher quality attesting resulting.

In South Africa there is a mandatory requirement for an audit committee for JSE listed firms. The JSE Listing Rules require corporations to explicitly state “in their annual report whether or not they have an audit committee”. This adoption is similar to the NYSE (1977) requirements where audit committees are a mandatory requirement for listed firms.

The New South African Companies Act 71 of 2008, makes it mandatory since its commencement on 1 May 2011, for all public companies whether quoted on the JSE or not, to have an audit committee. (Companies Act 71 of 2008, s 94-2) Such AC must consist of “not less than three independent non-executive directors”.

“The presence of independent audit committees” should contribute in order to improve monitoring of a firm and in turn lead to less risk, consequently lower attest costs. As a result of this AC will be included as an explanatory variable in the attest fee model. A dummy variable (AC) indicates the presence of an audit committee. Based on prior research (Collier and Gregory 1996) a positive coefficient on the AC variable is expected.

This leads to hypothesis 2 :

3.2.2 There is a positive association between attest costs and firms with director indemnity cover after controlling for the presence of an audit committee

Empirical tests have tried to determine the market reaction to the appointment of non-executive directors (NEDs). If the intuition (along with the underlying agency theory principles) is correct then the market should consider the appointment of NEDs in a

positive light. Tests of the stock market reaction to the appointment of additional NEDs indicate that the market generally views such events as good news (Rosenstein and Wyatt 1990). However, board size may affect the ability of boards to function effectively. Jensen (1993) argues that large boards may be unable to operate effectively. The coordination and processes outweigh the advantages of having a large number of directors.

“Yermack, (1996) finds a negative relationship between firm performance and board size for a sample of large US companies”. “Charkham, (1994) notes that US firms have significantly more outsiders on the board than in the UK”. Similarly, Eisenberg, Sundgren and Wells, (1998) found a “negative relationship between firm performance and board size to hold for a large sample of small and medium sized Finnish companies with smaller board sizes”. Conyon and Peck, (1998) “examined the association between the firm performance and board size across a number of European economies”. They found the effect of board size and corporate performance to be generally negative.

Carcello et al., (2000) investigated the role of board characteristics on attest costs and found that attest costs are positively associated with board independence (i.e. the percentage of outside directors) board diligence (i.e. the number of board meetings) and board expertise. They interpret these results as being consistent with increased monitoring at the board level resulting in expansion of attest scope leading to higher attest costs.

However, these results may be misleading as they rely on a survey instrument to obtain information about attest costs and in South Africa, as in the US, it is a statutory requirement for firms to have an audit committee. (Companies Act 71 of 2008, s 94) This regulatory requirement is likely to influence the results for independence as outside directors are mandatory on the AC. In the South African setting JSE companies are required to disclose whether an audit committee exists and are also now required to have one in place. Consequently the monitoring demand for independent directors is likely to be less observable and more influenced by regulatory considerations. (Outside directors are those directors who

are not employed within the firm. They only attend board meetings and sub-committees, if any. They have no line functions or internal management duties. That is they are non-executive directors sourced from outside the firm. Inside directors are those who also have day to day functions within the firm, such as a financial, marketing or managing director. They are in full time employment with the firm.)

John and Senbet, (1998) argue that the more outside directors on the Board, the more independent it becomes. However, US research in this area has produced inconclusive results. Dalton et al., (1998) did not find any “evidence of a relationship between board composition and firm performance”.

In this study the proportion of NEDs on the Board of Directors is used as a measure of the independence in monitoring the company. It is anticipated that a positive coefficient will result based on prior research (Carecello et al, 2000).

The board composition is also considered via the presence of CEO duality. Collier and Gregory, (1999), find that the “combination of the role of chairman and chief executive is shown to be a significant variable but rather than leading as hypothesised to increased monitoring, the presence of a dominant chief executive reduces AC activity”. Their study also shows “that the inclusion of insiders (executive directors) in the membership of the AC similarly reduces AC activity”. Collier and Gregory, (1999) conclude from this that a “dominant chief executive was associated with less active AC's and less monitoring”. Similarly, Forker, (1992), “showed that the presence on a board of dominant personalities adversely affected the quality of disclosure of director's share options”.

In this study the researcher uses a dummy variable (CEO) indicating Chief executive duality. As the relationship between board leadership, attest costs and indemnity cover is less clear than for say audit committees or board composition, the monitoring impact of separating the roles of CEO and the Chairman is unclear. King 2, (2002) recommends that the role of chairman and CEO be separated for good corporate governance.

Taken together audit committees, the Board of Directors and CEO duality provide an effective governance structure. As corporate governance improves, monitoring costs should decrease, thus managers would be less likely to take risks that could lead to law suits or bankruptcy even in companies with indemnity cover. This in turn would decrease the attester's perceived threat of claims and lead to a lower risk premium in the attest cost. It is expected that the association between indemnity cover and attest costs would be reduced in an effective governance structure.

This leads to hypothesis 3:

3.2.3 There is a positive association between attest costs and firms with director indemnity cover after taking into account the corporate governance structure of a firm.

The moderating role of director shareholding is empirically examined. According to Jensen and Meckling, (1976) one way agency conflicts can be reconciled between managers and shareholders is through the agents having an ownership interest in the company. This acts as a way of aligning the divergent interests between these two groups. Jensen and Meckling, (1976) "propose a convergence of interest model in which any increase in the proportion of the firm's equity owned by agents is expected to result in an increase in firm value as the interests of agents and principals are aligned closer together". What this would suggest is that there would be less requirement for more monitoring as agents take on more equity ownership (through say an appropriate Executive share option plan.)

They state that "as the equity increases, then the monitoring costs for shareholders also increases". In such instances shareholders would be expected to consider alternate forms of monitoring the agents. Indemnity cover and director share ownership can be considered in this respect. Warfield et al, (1995) suggest that "managers of firms with low management ownership are more likely to manipulate earnings to increase accounting based compensation schemes than managers of firms with high management ownership". Thus, firms with "low management ownership with higher agency costs are expected to be associated with higher

$E(\theta)$ and $E(d)$ and firms with high management ownership are expected to have lower $E(\theta)$ and $E(d)$ ".

The hypothesis to consider is that for firms with low director shareholding (DSH) the relationship between attest costs and indemnity cover (IC) will still hold as the directors will need the indemnity cover incentive in order to take on the role and mitigate risk. Conversely firms with directors owning a large shareholding may be more risk-averse as they stand to lose more if risky actions are taken. As a result a high shareholding by directors would suggest risk-averse behaviour (entrenchment) and correspondingly lower attest costs. As the agency problem of separation and control is not so strong in firms with a relatively higher director shareholding, the relationship between indemnity cover and attest costs is expected to be reduced.

To test this hypothesis the sample was partitioned into two groups: those with a director shareholding of less than 5% and those with greater than 5%. This yielded a group of 216 firms with directors owning less than a 5% shareholding and 171 firms with directors owning a greater than 5% shareholding.

One additional variable was also included in these additional tests – an interaction term between DSH and IC ((DSHXIC).

This leads to the following hypothesis :

3.2.4 There is a positive association between attest costs and firms with director indemnity cover after controlling for the moderating role of director share ownership

Chapter 4 examines the research methodology used to examine the relationships stated in the above hypotheses.

CHAPTER 4

METHODOLOGY

Introduction

This chapter covers the research methodology used to examine the various hypotheses expounded in chapter 3. It begins with detailing the data sources used in collecting the data for testing. Next it considers the research design and model specification, which is based on the model specified by Simunic, (1980).

The variables used in the model are also clearly defined along with the hypothesised sign on the coefficient.

4.1 Data Sources

The study used data from all listed companies in South Africa from the JSE, Sharedata, RIMES, and McGregor's 'Who owns Whom' databases. Data for the relevant empirical testing was collected for the year 2008. The initial total sample size consisted of 431 firm observations. However after accounting for missing variables the final sample size was reduced to 387 firm observations. This breakdown was as follows:

Table 1:

Sample Selection Breakdown

Initial total sample		431 firms
Less: missing variables		
$L_{og}Af$	2	
$L_{og}NAf$	23	
\sqrt{FS}	6	
% of NED on AC	3	
DSH	4	

CEO	6	<u>44</u>
Final Sample size		<u>387</u> firms

Table 1 Sample selection

Where:

$L_{og} Af$ = log of Attest costs

$L_{og} N Af$ = Non-attest costs (R000's)

\sqrt{FS} = Square root of the no. of foreign subsidiaries

NED = Proportion of Non-executive directors to total directors

AC = Audit committee (dummy variable – 1 = yes, 0 = no)

DSH = % Director shareholding to total outstanding shares

CEO = Chief executive duality (dummy variable – 1 = yes, 0 = no)

One limitation of the data derived from this sample is that the databases consist of those public companies, excluding financial Institutions, quoted on the Johannesburg Stock Exchange, and not all public companies. Parastatals are also excluded. It may not be representative of the whole population, as larger firms and parastatals may have greater incentives to provide more disclosure and compliance with corporate governance regulations than smaller firms.

The model was run without banking, insurance, exchange traded funds and financial firms, as such firms have additional regulatory compliance. As a result 44 firms were removed, leaving a test sample of 350 firms. Although the results are not reported here, when the model was run the coefficient on IC was significant and positive (+0.131) with a t-statistic of 2.905 for the sample with financial firms excluded.

4.2 Research Design

This study uses the attest fee model put forward by Simunic, (1980). Simunic's, (1980) attest fee model has been used to model the determinants of attest costs in a variety of different settings and is well understood providing robust results. The model aims to capture the main determinants of the composition of attest costs. In addition to Simunic's, (1980) original independent variables, the researcher has included the dummy variable - IC. The inclusion of this variable is to capture the effect of the director's indemnity cover on the level of attest costs. Thus a number of models arise from the main model taking in to account the span of variables relating to the four hypotheses.

4.3 Model Specification

The model is specified as follows:

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LDt + a_6IC$$

Where: $L_{og}Af$ = log of Attest costs

$B4$ = big four attesters (dummy variable - 1 = big four, 0 = non big-four)

$L_{og}TA$ = log of Total Assets

Qr = Quick ratio

\sqrt{FS} = Square root of the no. of foreign subsidiaries

LDt = Long term debt (scaled by Total Assets)

IC = Directors Indemnity cover (dummy variable - 1 = yes, 0 = no)

With the exception of the IC variable the independent variables are proxies for attest quality (via BIG 4 or non-BIG 4), scale or size of operations ($L_{og}TA$), attester's complexity (attesting foreign subsidiaries - \sqrt{FS}) and financial risk (as captured by the liquidity measures - quick ratio (Qr) and the long term debt ($LtDt$) scaled by total assets.)

“The regression model is estimated using the ordinary least squares method. Typical of many attest cost studies, a natural logarithmic transformation of the attest cost variable, the total long term debt and the total assets variable is utilized to satisfy the assumptions of the non-linear relationship between attest costs and client size. (Chan et al, 1993)”

4.4. Definition of Variables

This section describes the measurement procedure used for each of the hypotheses, control and dependent variables.

Attest Costs:

The measurement is the Rand value of attest costs as reflected in the 2008 financial reports of the sample. The data are public information and are required to be disclosed in terms of the regulated disclosure rules of the South African Accounting Standards. Measurement is both reliable and not subject to significant error.

Non-Attest Costs

The measurement is the Rand value of non-attest costs as reflected in the 2008 Accounting reports of the sample. In South Africa this is public data and needs to be disclosed separately as costs attributable to the attester and costs attributable to non-assurance services.

“Watts and Zimmerman, (1986) argue that independence of attesters is essential to the value of attestations in monitoring”. Simunic, (1984) “defines a decrease in attest independence as any situation that alters incentives such that a self-interested attester is more likely to ignore, conceal, or misrepresent his findings.”

“Others argue (e.g., Arrunada, 1999), that consulting services reveal more about a client”. “DeAngelo, (1981) posits that reputational capital concerns of the attester constrain and dominate the possible loss of independence effects”. In fact, the Investor Responsibility Research Center (IRRC) report carried out in 2000, “indicates for the firms of the SandP

1500 with revenues greater than \$10 million, that the overall proportion of costs paid to a firm's attester for performance of non-attest services in 2000 was 72%".

In this study by including non-attest costs the aim is to control for the above arguments and as a result a positive coefficient is expected on this variable.

Big 4

For the purposes of this study, PricewaterhouseCoopers, Deloittes, KPMG and Ernst and Young were identified as the Big 4. Two other firms could have been selected but they were considered much smaller in International presence and size than the Big 4. This is a limitation.

Prior evidence suggests that "larger attesters may charge a 'quality' premium for their attests". (Palmrose, 1986; McMeeking, Pope and Peasnell, 2001), consequently a dummy variable is used to differentiate between "big 4" and "non-big 4" attesters. This variable is coded 1 where the attester comes from the Big 4 group of attesters, otherwise it is coded as 0.

A positive coefficient is expected on this variable.

(The variable AUOP capturing Attest Opinion was also used in the modelling, however as the results were not significantly affected it was removed.)

Attester Size

Prior research has shown that attester size is a significant determinant of attest costs (Simunic, 1980, O'Keefe et al, 1994, and Stein et al, 1994). Intuitively, it would be expected that there would be an association between the attester size (more employees, more clients and more exposure), and attest effort, i.e. the bigger the size of the firm the more attest effort would be required by the attesters translated into higher attest costs. "Operations of large firms are hard to oversee by management as the chain of command is longer". Simunic, (1980) also

contends that asset valuations are often a point of contention in attester lawsuits so that total assets could also be associated with risk.

To account for the above total assets a proxy is used for attester size. This is coded using the reported total assets of the attester as reported in the 2008 Annual Financial Reports. “Because attest costs can be expected to increase at a decreasing rate as attester size increases, the specific measure used here is a $L_{og}10$ transformation of the total assets of the attester”.

As a result of the above, a positive coefficient on firm size in line with prior research is expected.

Quick Ratio and Long Term Debt

Palmrose, (1997) points out that attester’ lawsuits often involve bankrupt or distressed clients. The quick ratio (Qr) “and the ratio of total debt to total assets” (LtDt) can be used as measures of solvency to assess the risk of bankruptcy or financial distress. Qr is used to assess if a company has sufficient liquidity to meet short term obligations and is coded using reported figures for current assets minus inventory divided into current liabilities for each company. The LtDt is used to assess long-term obligations and is coded using the reported total long-term debt of the attester as reported in the 2008 Annual Financial Reports. Due to scaling issues “the measure used is a $L_{og}10$ transformation of the total assets of the attester”. This measure is used to measure the credit risk of a firm.

A negative sign for the coefficient on Qr and a positive coefficient on LtDt are expected.

Attester Complexity

It is expected that attest costs will increase in line with the complexity of the assurance required, as attesters will be required to expend more effort. “Consistent with some of the

existing literature” (Simunic, 1984), “the measure of attester complexity is taken as the number of subsidiaries within a group”. Account is taken of both local subsidiaries and foreign subsidiaries. Again because attest costs “are likely to increase at a decreasing rate as attester complexity increases”, the square root has been taken to transform the data and avoid scaling problems due to heteroscedasticity (to ensure this is a robust measure, the regression was tested with a \log_{10} transformation of the number of subsidiaries as well as simply using a dummy variable (1) to represent the presence of foreign subsidiaries or (0) otherwise.

“Client complexity is a difficult measure to operationalise and it is acknowledged that this measure is likely to be highly correlated with client size”. (Simunic, 1984)

A positive coefficient on attest complexity is expected.

Audit committee

This is a dummy variable coded 1 where the firm has stated an audit committee in its 2008 Annual Financial Report, otherwise it is coded as 0. This dummy measure may not be very precise as it does not capture the quality of the audit committee (e.g. number of meetings per year, duration of such meetings, the composition etc..) Prior researchers have found that if this additional information is included more insightful results may be obtained (Peasnell et al, 1999). Data availability limitations may constrain the collection of this full richer information set hence a dummy variable is simply used.

Collier and Gregory, (1996) and Dolley et al, (2000) show that the presence of an audit committee leads to a higher rather than a lower attest cost due to increased monitoring required by the AC. Consequently a positive coefficient on the AC supporting the above result is expected.

Proportion of Non-Executive Directors on the Audit committee

One way to capture the quality of the audit committee is to measure the ratio of non-executive directors on the audit committee. A non-executive director is defined in King II, (2002) “as a director who is not involved in the day to day management and not a full time salaried employee of the company or its subsidiaries”. Data limitations in collecting this information made it impossible to ascertain whether these non-executive directors had any past relationship with the firms or their degree of independence.

Previous researchers have questioned the usefulness and quality of the Audit committee if it is staffed entirely by executive directors who may lack independence (Menon and Williams, 1994). Prior literature characterizes audit committees as one of two types: active audit committees and cosmetic audit committees. Cosmetic audit committees add no value to the firm and are usually staffed by executive directors ('insiders') whose loyalty (and career prospects) may be more closely aligned with the CEO rather than the shareholders. Consequently non-executive directors ('outsiders') are assumed to bring a more independent viewpoint to the firm as their reputation capital may depend on them being impartial and objective as they are not involved in the day-to-day activities of the firm. Independent audit committees are hypothesized to be of a higher quality as they are designed to improve corporate governance and to increase company monitoring. Increased monitoring from independent audit committees may be expected to lead to increased external attest expenditures.

To capture the attest quality the measure of the number of non-executive directors on the audit committee is used. The higher this value, the higher the attest quality. In line with prior research (Carcello et al, 2000), a positive coefficient on this variable is expected, as a higher number of non-executive directors is associated with a higher attest cost, presumably due to enhanced monitoring demanded by a more independent board.

The inclusion of AC and NED in the model is important because O'Sullivan, (1997) shows that the provision of indemnity cover, is associated with the higher proportion of NED's in a firm. Thus if NED was not controlled for, it could be interpreted that a positive coefficient on IC could be due partly or wholly to the variable being a proxy for the higher attest effort due to increased monitoring required by the NED's. With the inclusion of these board characteristics the coefficient on IC more clearly represents a risk premium.

Also used is the number of non-executive directors on the Board of Directors as an additional measure of the board quality. The higher this value, the higher the board quality. A positive coefficient on this variable is expected, as a higher proportion of non-executive directors on the board of directors should be associated with a higher attest cost for reasons stated above. As the results were not materially significant they have not been reported in this thesis.

CEO Duality

Whether "one individual holds both titles of chief executive officer and chairman of the board (CEO=COB) is important as it makes the board less independent, which means the legal suit should be more likely because the decisions of the CEO are less closely monitored". (King II, 2002) This study uses a dichotomous variable coded 1 where the firm has CEO duality (one person assuming both roles of CEO and Chairman) as stated in its 2008 Annual Financial Report, otherwise it is coded as 0. Prior research has found that the presence of CEO duality on the board is associated with higher attest costs Tsui, Jaggi and Gul, (2001). Collier and Gregory, (1999), found "that the presence of a dominant CEO reduces monitoring activity of the AC and in turn should reduce attest costs". The substitutability of monitoring between CEO duality and audit committees is not clear in the effect they have on attest costs. In line with this reasoning it is expected CEO duality will have a negative sign on the coefficient.

Director Share Holding

This variable measures the director's shareholding as a percentage of the total issued shares. Agency conflicts can be reconciled between managers and shareholders through the agents having an ownership interest in the firm. This acts as one way of aligning the possibly divergent interests between these two groups. Directors who have invested in the firm (by way of a higher shareholding) will review operations more closely. This reduces the need for insurance. Wealth can be seen as a proxy for risk aversion. Less risk averse directors are less likely to purchase insurance and as a result of their own increased monitoring, attest costs are expected to be less for such firms. To proxy for the reduced agency costs of better corporate governance, the level of insider (executive director) share ownership is used. A cut-off of a 5% director shareholding is used to partition firms into "low" and "high" insider ownership groups (the 5% cut-off point follows Morck, Shleifer and Vishney, 1988).

As a result a high director shareholding is expected to have a negative impact on attest costs. Firms with a lower director shareholding are expected to have a positive coefficient on this variable.

Director Indemnity Cover

This is the test variable in this study. Due to data availability limitations the indemnity insurance is captured by a dummy variable, with (1) representing the firm having director indemnity insurance (indemnity cover) and (0) otherwise. This study could be improved if the actual value of the premium paid for the indemnity cover was used rather than simply a dichotomous variable - this is an inherent limitation.

A positive coefficient is expected on this variable.

4.5 Descriptive Statistics

“Table 3 shows the descriptive statistics for the experimental, control and dependent variables, whereas table 4 examines the correlations between the variables”.

Table 2
Descriptive statistics

NB: Please note the units in the left hand column, where applicable, are in thousands of Rands

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Attest Cost (R000s)	387	11	6.131	434	891
Non Attest Costs (R000s)	387	0	21.740	491	1,649
Big 4 Attester	387	-	1.00	0.69	0.38
Total Assets (R000s)	387	907	236,691,000	2,984,595	17,271,061
Quick Ratio	387	(5.191)	147.32	2.64	11.21
Foreign Sub (sqrt)	387	-	24.81	1.48	2.56
Long Term Debt (R000s)	387	-	291.62	0.98	13.99
Audit committee	387	-	1.00	0.89	0.24
Non-Executive Directors on Audit Committee	387	-	1.00	0.81	0.37
Proportion of Director Share Holding over Total Shares	387	-	1.92	0.15	0.20
Chief Executive Officer Duality	387	-	1.00	0.22	0.38
Director's Indemnity Cover	387	-	1.00	0.79	0.31

Table 2: Descriptive statistics

Key: AF = Attest costs (R000's)

NAF = Non-attest costs (R000's)

B4 = big four attesters (dummy variable - 1 = big four, 0 = non big four)

AUOP = Attest Opinion (dummy variable – 1 = qualified opinion,

0 =

unqualified opinion) TA = Total

Assets (R000's)

Qr = Quick ratio

$\sqrt{\text{FS}}$ = Square root of the no. of foreign

subsidiaries LTDT = Long term debt

(scaled by Total Assets)

AC = Audit committee (dummy variable – 1 = yes, 0 = no)

NED = Proportion of Non-executive directors on the audit committee

DSH = % Director shareholding to total outstanding shares

CEO = Chief executive duality (dummy variable – 1 = yes, 0 = no)

IC = Directors Indemnity Insurance (dummy variable – 1 = yes, 0 = no)

This table shows that for the total sample of 387 firms approx. 81% have issued indemnity cover. Over 87% of the firms have established an AC and 71% have NED's on their audit committee. Close to 22% of the firms have CEO duality with the corresponding 78% having split the role of chairman and CEO. Just over 75% of the sample firms are attested by Big 4 attesters. For this study it is considered that where there is an Executive Chairman, even if there is a separate CEO, duality exists.

The mean attest costs for the sample are approx. R2.7 million with non-attest costs being just slightly lower.

The data was also split into two groups – those with indemnity cover (331 firms) and those without indemnity cover (56 firms) and descriptive statistic run for each group. The results are shown in Appendix 1. The main differences were as follows: firms with indemnity cover paid higher attest costs and non-attest costs. Firms without indemnity cover on average

used less B4 attesters. Firms with indemnity cover were of a similar size to firms without indemnity cover and had more long term debt. Over 90% of firms with indemnity cover had an AC compared with 74% of firms without indemnity cover. Firms with indemnity cover also had more NED's (81%) compared with firms without indemnity cover (62%).

4.6 Correlation Analysis

Table 3 below examines the correlations between the variables. From this table it can be observed that the LogAf are highly correlated with LogNAF (0.714), LogTA (0.697) and \sqrt{FS} (0.601). This is in line with prior research (Simunic 1980) which also documented this strong correlation.

To overcome problems of multi-collinearity the model was run without these highly correlated variables as well as with additional variables such as Ordinary Income before Interest and Tax. The results did not materially change hence they have been left in the regression models.

Table 3
Correlations between Variables

	LogAF	LogNAF	B4	LogTA	Qr	\sqrt{FS}	LTDT	AC	NED	DSH	CEO	IC
LogAF	1.000											
LogNAF	.714	1.000										
B4	.221	.296	1.000									

L_{og}TA	.697	.599	.214	1.000								
Qr	-.184	-.149	-.011	-.126	1.000							
√FS	.601	.401	.098	.423	-.098	1.000						
LTDT	.207	.192	.022	-.064	-.009	-.028	1.000					
AC	.173	.116	.019	.109	-.011	.097	.012	1.000				
NED	.219	.198	.001	.167	-.010	.119	.029	.599	1.000			
DSH	-.174	-.168	-.137	-.195	-.039	-.097	-.029	-.086	-.127	1.000		
CEO	-.148	-.172	-.138	-.108	.049	.005	-.020	-.059	-.167	.122	1.000	
IC	.134	.087	.109	-.016	-.002	.064	.017	.209	.127	.087	-.058	1.000

Table 3: Correlation between variables

Correlations equal to or greater than .129 or 0.10 are significant at the 0.01 level and 0.05 level respectively

The above variables are defined as in table 2

It can be seen that L_{og}TA is highly correlated with L_{OG}AF. L_{og}TA is used here as a proxy for size, the bigger the size of the firm the more attest effort is required by attesters

hence it would be expected that there would be a high degree of correlation between these variables.

Similarly there is a high degree of correlation between L_{og}^{AF} and L_{og}^{NAF} , which is expected in line with prior research by Ezzamel, Gwilliam and Holland, (2002). Their results suggest “that cost for non-attest costs (such as corporate finance advice and taxation advice) paid to incumbent attesters were significantly positively correlated with levels of attest costs for their sample population”.

In the models most of the attest cost variability is explained, the R^2 explanatory proxy does not exceed the generally recognised critical value of 0.9 that would indicate a possible multi-co-linearity problem (Kennedy, 1992).

A regression standardized residual histogram and scatterplot was performed. The histogram approximately followed a normal distribution. The scatterplot of the residuals also showed no large spread of the residuals.

Chapter 5 provides the results and a discussion thereon based on the hypotheses developed in chapter 3.

CHAPTER 5

FINDINGS AND DISCUSSION

Introduction

Chapter 5 presents the findings of the regression analysis models. At the same time the discussion follows the results so that the flow of results and discussion is easy. It prevents having to jump from results to a discussion thereon in another chapter. Each hypothesis is set out before the regression analysis and the result of the correlations are set out at the end of the discussion. Chapter 6 contains a table reflecting the hypotheses and the results. The statistics were analysed using SPSS. The descriptive statistics are set out in Table 2 in Chapter 4 and in Appendix 1.

Using Ordinary Least Squares (OLS) regression analysis for the data set each hypothesis is tested. The results show that the existence of indemnity cover (as measured by a dummy variable) is significantly and positively associated with attest costs for each hypothesis using the model proposed by Simunic, (1980).

The regression results for hypotheses 1 to 4 are presented in Table 5 onwards. The results of the regression analysis in Table 5 show that the presence of indemnity cover does have a positive and significant impact on attest cost. Generally the results support the hypotheses.

An additional test for non-linearity using a probit model was also performed to help tease out any additional insights to the interactions being examined. The results from this test were mixed in that the coefficients were not all significantly associated with indemnity cover but had the correct sign.

5.1 Results

The regression results for each hypothesis 1 to 4 are presented in Table 4 onwards. A discussion of the results follows immediately after each model.

H1: *There is a positive association between attest costs and firms with director indemnity insurance ("indemnity cover").*

Table 4

Model 1: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6IC$$

Model		Predicted Sign	Unstandardized coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.9320		5.901	.000
	B4	+	0.0799	0.0514	2.009	.039
	L _{og} TA	+	0.3934	0.5480	17.803	.000
	Qr	-	-0.0050	-0.1004	-3.279	.000
	√FS	+	0.0698	0.3096	9.977	.000
	LtDt	+	0.0099	0.3201	12.002	.000
	IC	+	0.1989	0.0991	3.988	.000

Table 4: Model 1

a Dependent Variable: L_{og}Af

Model Summary

Adjusted F Value	Sig. Level
.704 168.629	.000

a Predictors: (Constant), IC, Qr, LtDt, √FS, B4, L_{og}TA

b Dependent Variable: $L_{og}Af$

- Key:
- $L_{og}Af$ = Log of Attest costs (R000's)
 - B4 = big four attesters (dummy variable - 1 = big four, 0 = non big four)
 - $L_{og}TA$ = log of Total Assets (R000's)
 - Qr = Quick ratio
 - \sqrt{FS} = Square root of the no. of foreign subsidiaries
 - LtDt = Long term debt (scaled by Total Assets)
 - IC = Directors Indemnity Insurance (dummy variable – 1 = yes, 0 = no)

The regression equation is statistically significant. The adjusted R^2 is 0.704. The results of the regression equation reflect that attest quality (B4), scale or size of operations ($L_{og}TA$), attester's complexity (\sqrt{FS}), and financial risk (quick ratio (Qr) and the long term debt (LtDt)) are all statistically significant variables in explaining attest costs. The coefficients on these control variables are in the direction predicted. These results are in-line with prior research (Simunic, 1980). The hypothesized result that attest costs are also explained by an additional variable that of IC, is also supported by the regression results (t value of 3.988, significant at the 5% level).

Hypothesis 1 is thus supported by the regression results.

Model 1 was also re-run with the substitute of FS as simply a dummy variable (1 = yes, 0 = no). This was done to test whether there was a significant difference between FS and \sqrt{FS} . The regression results were not materially different. The adjusted R^2 was 0.625 and again the regression equation is statistically significant, with the test variable of indemnity cover remaining highly significant at the 5% level. As the regression results are very similar they are not produced here.

As an additional test of sensitivity the model is re-estimated with the inclusion of non-attest costs as another independent variable. A substantial amount of research has

examined the association between attest costs and non-attest costs (Simunic, 1984; Abdel-Khalik, 1990; Barkess et al, 1994, and Arrunada, 1999). The next test included non-attest costs as an additional independent variable. The log of non-attest costs was taken to avoid scaling problems as outlined above.

Where the variables are as defined above with the exception that $L_{og}NAf$ represents log of non-attest costs.

The model was re-run and the results are presented in Table 5 below.

Table 5

Model 2: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.1871		7.204	.000
	B4	+	-0.0021	-.001	-.072	.897
	$L_{og}TA$	+	0.2392	.351	9.899	.000
	Qr	-	-0.0039	-.075	-3.199	.001
	\sqrt{FS}	+	0.0498	.236	8.989	.000
	LtDt	+	0.0101	.212	8.147	.000
	$L_{og}NAf$	+	0.1499	.302	9.968	.000
	IC	+	0.2136	.089	3.142	.000

Table 5: Model 2

a Dependent Variable: $L_{og}Af$

Model Summary

Adjusted R Square	F Value	Sig. Level
.762	202.911	.000

a Predictors: (Constant), $L_{og}NAf$, IC, Qr, LtDt, B4, \sqrt{FS} , $L_{og}TA$
b Dependent Variable: $L_{og}Af$

Key: Where the variables are defined as in model 1, with the inclusion of $L_{og}NAf$

representing the log of non-attest costs

Again the regression equation is statistically significant with the adjusted R^2 increasing to 0.762. With exception of B4, coefficients on all the control variables are in the direction predicted and significantly associated with attest costs. The inclusion of $L_{og}NAf$ appears to mitigate the significance of the B4 variable as well as change the direction of the sign. A possible explanation for this may be that by charging non-attest costs, the “premium” normally associated with the B4 attest firms is reduced. Perhaps some of this “premium” is being captured now in the $L_{og}NAf$.

These results of the regression equation show that non-attest costs are also statistically significant in explaining attest costs along with the other control variables. Interestingly the coefficient parameter of IC is somewhat reduced (3.142 in table 5 against 3.988 in table 4, however it is still statistically significant at the 5% level. Thus even after accounting for the main determinants of attest costs as identified by prior researchers the IC variable is still significantly associated with attest costs.

In the next section the moderating role of corporate governance variables is considered. The IC variable is examined more closely by considering the interaction that an effective governance structure would have on reducing risks as well as agency costs.

The reasoning here is that those firms with a weak governance structure (as measured by the following proxies: presence of an audit committee, proportion of NED directors on the AC and CEO duality), will entail more compliance and monitoring work for the attester which will be shown in higher attest costs.

The indemnity cover will continue to indemnify the managers of the firm from being sued for any wrong actions occurring in the normal operations of the business, thus allowing them to be more aggressive in their risk-taking. As such the Attesters will charge a higher attest cost to reflect the added attest risk of the more aggressive stance from managers. In effect the hypothesis is that for those firms with an audit committee and with indemnity cover, ceteris paribus, will have higher attest costs.

Table 4 shows the results of running a regression equation with the inclusion of an Audit committee (AC) as an additional explanatory variable in Model 2 above. The model 3 regression equation is:

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8IC$$

Where the variables are as defined as above with the exception that AC represents a dummy variable (1=yes, 0=no) for the existence of an audit committee and NED represents a percentage value of the number of the independent non-executive directors on the audit committee.

The results in this regression are shown below in table 6.

H2: *There is a positive association between attest costs and firms with director indemnity cover after controlling for the presence of an audit committee*

Table 6

Model 3: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.198		6.663	.000
	B4	+	0.0011	.001	.018	.946
	L _{og} TA	+	0.2187	.304	9.877	.000
	Qr	-	-0.0038	-.071	-3.098	.001
	√FS	+	0.0531	.236	8.982	.000
	LtDt	+	0.0087	.207	8.041	.000
	L _{og} NAf	+	0.2660	.305	9.906	.000
	AC	+	0.1290	.048	1.989	.025
	IC	+	0.1298	.069	3.009	.001

Table 6: Model 3

a Dependent Variable: L_{og}Af

Model Summary

Adjusted F Value	Sig. Level
.765	177.869 .000

a Predictors: (Constant), AC, Qr, LTDT, B4, √FS, IC, L_{og}TA, L_{og}NAf

b Dependent Variable: L_{og}Af

Key: Where the variables are defined as in model 1, with the inclusion of L_{og}NAf

representing the log of non-attest costs and AC representing Audit committee

The regression equation is statistically significant with an adjusted R^2 increasing marginally to 0.765 from 0.762 in model 2. All the control variables are in the direction predicted and significantly associated with attest costs with the exception of B4. Interestingly the coefficient on B4 is not significant but the sign is in the predicted direction. A possible explanation for this may be that AC may prefer the use of a B4 attester in order to provide higher quality attesting. This result is also supported by Collier and Gregory, (1999), who “find that AC activity is positively associated with the employment by firms of high quality B4 attesters”.

“The importance of high quality independent attesters is also consistent with Pincus et al, (1989) and Menon and Williams, (1994)”. They found “a positive association between AC formation and the employment of quality B4 attesters”.

These results of the regression equation show that audit committees are also statistically significant in explaining attest costs along with the other control variables.

The results above thus support the Hypothesis 2.

This result is in line with the result obtained by Dolley et al, (2000), who found that attest costs are higher for those firms that have established an audit committee (AC) after controlling for other factors that may influence attest costs. The results of their regression estimates of an attest cost model suggest “that there is a significant and positive relation between the establishment of an audit committee and attest costs”. Their explanation for this relationship was that audit committees improve firm monitoring and improve the quality of attesting and that these activities lead to increased attest costs. The model also includes non-attest costs, which were omitted from the Dolley et al, (2000), model. Thus the result supports Dolley et al, (2000), results as well as identifying additional explanatory variables that explain attest costs – non-attest costs and IC.

Next the IC and Attest costs relationship is examined more closely with the inclusion of additional corporate governance variables. Model 3 only considered one proxy for governance – the audit committee. In the following tests the model will be re-estimated with additional governance measures such as CEO duality, Directors’ shareholding and the number of independent non-executive directors on the audit committee. Following O’Sullivan, (2000) and Carcello et al, (2000), including “the proportion of non-executive directors serving on the board of directors represents the quality of internal governance”. This should provide a richer understanding of the interplay between attest costs and indemnity cover and the effect governance measures have on this relationship.

The model 4 regression equation is:

$$\text{LogAf} = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9DSH + a_{10}CEO + a_{11}IC$$

Where the variables are as defined as above with the exception that NED represents the proportion of non-executive directors on the Audit committee, DSH represents the percentage directors’ shareholding and CEO represents a dummy variable (1=yes, 0=no) to capture the effect of whether the firm has CEO duality (i.e. one person appointed as both CEO and Chairman of the board or where a firm has an Executive Chairman and a CEO)

The results of this regression are shown below in table 7.

H3: *There is a positive association between attest costs and firms with director indemnity cover after taking into account the corporate governance structure of a firm.*

Table 7

Model 4: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9DSH + a_{10}CEO + a_{11}IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.209		6.327	.000
	B4	+	-0.0039	-.002	-.099	.897
	L _{og} TA	+	0.2474	.315	9.084	.000
	Qr	-	-0.0038	-.074	-3.009	.001
	√FS	+	0.0526	.248	8.975	.000
	LtDt	+	0.0100	.222	8.249	.000
	L _{og} NAf	+	0.2471	.365	9.969	.000
	AC	+	0.1299	.050	1.693	.071
	NED	+	-0.0051	-.002	-.108	.898
	DSH	-	-0.0138	-.004	-.192	.797
	CEO	-	-0.0399	-.022	-1.039	.248
	IC	+	0.1298	.070	3.149	.001

Table 7: Model 4

a Dependent Variable: L_{og}Af

Model Summary

Adjusted F Value	Sig. Level
.779	128.977 .000

a Predictors: (Constant), CEO, \sqrt{FS} , LtDt, Qr, IC, B4, AC, DSH, $L_{og}TA$, NED, $L_{og}NAf$

b Dependent Variable: $L_{og}Af$

Key: Where the variables are defined as in model 1, with the inclusion of $L_{og}NAf$ representing the log of non-attest costs, AC representing Audit committee, NED representing proportion of non-executive directors on the audit committee, DSH representing the proportion of directors' shareholding to total shares issued and CEO representing CEO duality.

The regression equation is statistically significant with an adjusted R^2 of 0.779. With the exception of B4 all control variables are in the direction predicted and significantly associated with attest costs. The inclusion of the additional governance variables has the effect of changing the predicted sign on B4 as well as making the coefficient not statistically significant. As stated earlier a possible explanation for this may be that by charging non-attest costs, the "premium" normally associated with the B4 attest firms is reduced as some of this "premium" is being captured now in the $L_{og}NAf$. In addition the inclusion of additional governance variables in the model may also reduce this "premium" as to some extent the monitoring activities undertaken by the attesters may be reduced by a more effective corporate governance structure. By definition a better corporate governance structure would reduce the firm's agency problems. This in turn would lead to more risk-averse behaviour by managers as they would share more of the shareholder's risks.

The results of the regression equation show that whilst audit committees on their own are significantly associated with Attest Costs, when additional governance variables such as CEO duality, NED and DSH are included then this significance is somewhat reduced. The t-value of AC in model 4 is now 1.693 (significant at the 10% level) whereas in model 3 the t-

value of AC was 1.989 (significant at the 5% level). The effect on the test variable of IC is marginal with the inclusion of the additional governance variables. In model 3 the t-value for IC was 3.007 and in model 4 it increases slightly to 3.149 (both values are still significant at the 5% level.)

The coefficients on NED, DSH and CEO are all not statistically significant, however, the sign is in the predicted direction for both DSH and CEO. Surprisingly the sign on NED is in the opposite direction, implying that the greater the proportion of independent non-executive directors the lower the attest costs. This result runs contrary to the result obtained by Carcello et al, (2000), who found that attest costs are positively associated with board independence (i.e. the percentage of outside directors) and who interpret this to mean that with increased monitoring at the board level results in an expansion of the attest scope leading to higher attest costs. The result obtained in this test is more in line with the explanation put forward by Mace, (1986), who “maintains that boards perform little or no real monitoring and do little more than provide contacts for top management”.

Another possible interpretation of these results could be that there may be a degree of substitutability between the various governance variables, which masks the individual effects of a particular variable. E.g. the presence of an audit committee was statistically significant in model 3, however with the inclusion of the addition variables this significance was reduced as the other governance variables also provided a monitoring effect on the firm. Thus this substitutability may reduce the overall significance of a single governance variable. This area could be examined further to look at the underlying cause and effect of substitutability.

In conclusion the results from the model 4 regression *support Hypothesis 3 even where the significance is increased as stated above.*

The next hypothesis to test is the equity ownership by directors. It is expected that director share ownership would have a moderating role on the relationship between IC and attest costs

as it motivates agents to adopt value-enhancing strategies as the agent also is a shareholder. Prior research has demonstrated the role of management share-ownership in aligning managers' and shareholders' interests and dealing with risky outcomes (Gaver and Gaver, 1993; Sanders and Carpenter, 1988; Smith and Watts, 1992).

Four models are tested here:

1. A full model where a dummy variable is used for director shareholding where $<5\%$ DSH = 0 and $>5\%$ DSH = 1
2. A full model using an interaction term between the percentage director shareholding and the indemnity cover
3. A model using only firms with $<5\%$ shareholding. This effectively reduced the sample size to 216 firms.
4. A model using only firms with $>5\%$ shareholding. This effectively reduced the sample size to 171 firms.

For (3) and (4) above the data is split into two groups: with a cut-off of a 5% director shareholding used to partition firms into "low" and "high" insider ownership groups (the 5% cut-off point follows Morck, Shleifer and Vishney, 1988).

The model 5, 6, 7 and 8 regression equations are stated below along with their corresponding results. Where the variables are as defined as above with the exception that DSH in model 5 now represents a dummy variable ($<5\%$ DSH = 0 and $>5\%$ DSH = 1) and DSHXIC in model 6 now represents an interaction term between the percentage director shareholding and indemnity cover. Model 7 only includes the percentage director shareholding of less than 5% and model 8 only includes a shareholding greater than 5%. The regression was re-run for these models and the results detailed below in tables 10 and 11.

H4 *There is a positive association between attest costs and firms with director indemnity cover after controlling for the moderating role of director share ownership*

Table 8

Model 5: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9CEO + a_{10}DSH + a_{11}IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.799		6.2145	0.0000
	B4	+	-0.0050	-0.0032	-0.1479	0.8187
	LogTA	+	0.2493	0.3494	9.7149	0.0000
	Qr	-	-0.0038	-0.0724	-3.1977	0.0011
	\sqrt{FS}	+	0.0508	0.2497	8.9787	0.0000
	LtDt	+	0.0094	0.2097	8.3149	0.0000
	L _{og} NAf	+	0.2690	0.3590	9.9897	0.0000
	AC	+	0.1309	0.0509	1.7793	0.0699
	NED	+	-0.0075	-0.0039	-0.1341	0.8710
	CEO	-	-0.0409	-0.0238	-1.0786	0.2601
	DSH	-	-0.0098	-0.0118	-0.4429	0.6005
	IC	+	0.1397	0.0794	3.0998	0.0012

Table 8: Model 5

a Dependent Variable: L_{og}Af

Model Summary

Adjusted R Square	F Value	Sig. Level
.7586	129.9188	.000

a Predictors: (Constant), CEO, \sqrt{FS} , LtDt, Qr, IC, B4, AC, DSH, L_{og}TA, NED, L_{og}NAf

b Dependent Variable: L_{og}Af

Key: Where the variables are defined as in model 1, with the inclusion of $L_{og}NAf$ representing the log of non-attest costs, AC representing Audit committee, NED representing proportion of non-executive directors on the audit committee, DSH representing a dummy variable (0 = <5% DSH and 1 = >5% DSH), and CEO representing CEO duality.

The results above are quite similar to model 4. This is to be expected as the only change is the DSH from a continuous variable in model 4 to a dichotomous variable in model 5. The analysis of these results is in line with the discussion for model 4.

Model 6 now represents an interaction term between the percentage director shareholding and IC .

Table 9
Model 6: Regression Results

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9CEO + a_{10}DSHXIC + a_{11}IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.2569		6.7975	0.0000
	B4	+	-0.0041	-0.0026	-0.1109	0.8991
	$L_{og}TA$	+	0.2604	0.3497	9.9971	0.0000
	Qr	-	-0.0038	-0.0725	-3.2294	0.0011
	\sqrt{FS}	+	0.0581	0.2497	8.9886	0.0000
	LtDt	+	0.0094	0.2047	8.0078	0.0000

L _{og} NAf	+	0.2701	0.3462	9.9497	0.0000
AC	+	0.1198	0.0500	1.6904	0.0709
NED	+	-0.0051	-0.0030	-0.1009	0.8946
CEO	-	-0.0407	-0.0209	-1.1410	0.2498
DSHXIC	+ or -	-0.0198	-0.0066	-0.2699	0.7691
IC	+	0.1351	0.0798	3.1187	0.0016

Table 9:: Model 6

a Dependent Variable: L_{og}Af

Model Summary

Adjusted R Square	F Value	Sig. Level
.7807	129.8639	.000

a Predictors: (Constant), CEO, \sqrt{FS} , LtDt, Qr, IC, B4, AC, DSHXIC, L_{og}TA, NED, L_{og}NAf

b Dependent Variable: L_{og}Af

Key: Where the variables are defined as in model 1, with the inclusion of L_{og}NAf representing the log of non-attest costs, AC representing Audit committee, NED representing proportion of non-executive directors on the audit committee, CEO representing CEO duality and DSHXIC representing an interaction term.

The regression equation is statistically significant with an adjusted R² of 0.7807 for model 6.

B4 and NED excepted, all the control variables are in the direction predicted and significantly associated with attest costs. The inclusion of the interaction term has very little

impact on the model. Furthermore the interaction term (DSHxIC) is not statistically significant with a negative parameter sign. It is uncertain as to how to interpret these results.

A further refinement of the DSH is considered in the model 7 and model 8. Model 7 only includes the percentage director shareholding of less than 5% and model 8 only includes a director shareholding greater than 5%. The regression was re-run for these models and the results detailed below in table 10 and 11 below.

Table 10
Model 7: Regression Results (Less than 5% DSH)

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9CEO + a_{10}IC$$

Model	Predicted	Unstandardized	Standardized	T	Sig.
				Value	Level
	Sign	Coefficients	Coefficients		
			Beta		
1	(Constant)	+ or -	1.3746	5.4029	0.0000
	B4	+	-0.0409	-0.0201	0.4992
	L _{og} TA	+	0.2036	0.2537	5.8993 0.0000
	Qr	-	-0.0047	-0.1009	-3.2982 0.0010
	√FS	+	0.0599	0.2599	7.0786 0.0000
	LtDt	+	0.0081	0.2195	6.6947 0.0000
	L _{og} NAf	+	0.3598	0.4382	9.5418 0.0000
	AC	+	0.1399	0.0401	1.1982 0.2157
	NED	+	-0.0198	-0.0093	-0.2276 0.7988
	CEO	-	-0.0499	-0.0204	-0.8688 0.3433
	IC	+	0.1401	0.0801	2.4987 0.0104

Table 10: Model 7

a Dependent Variable: $L_{og}Af$

Model Summary

Adjusted R Square	F Value	Sig. Level
.7988	92.0188	0.000

a Predictors: (Constant), CEO, \sqrt{FS} , LtDt, Qr, IC, B4, AC, $L_{og}TA$, NED, $L_{og}NAf$

b Dependent Variable: $L_{og}Af$

Key: Where the variables are defined as in model 1, with the inclusion of $L_{og}NAf$

representing the log of non-attest costs, AC representing Audit committee, NED representing proportion of non-executive directors on the audit committee and CEO representing CEO duality.

Table 11

Model 8: Regression Results (More than 5% DSH)

$$L_{og}Af = a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt + a_6L_{og}NAf + a_7AC + a_8NED + a_9CEO + a_{10}IC$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	(Constant)	+ or -	1.1821		3.6491	0.0001
	B4	+	0.0179	-0.0107	0.3976	0.6429
	$L_{og}TA$	+	0.3511	0.4986	7.9783	0.0000

Qr	-	-0.0016	-0.0263	-0.6011	0.5624
√FS	+	0.0396	0.2297	4.7814	0.0000
LtDt	+	0.0597	0.0209	0.4314	0.6004
L _{og} NAf	+	0.1409	0.2213	3.9987	0.0001
AC	+	0.1228	0.0704	1.3978	0.1403
NED	+	-0.0300	-0.0209	-0.5148	0.5161
CEO	-	-0.0607	-0.0622	-1.5309	0.1101
IC	+	0.0709	0.0517	1.2093	0.2009

Table 11: Model 8

a Dependent Variable: L_{og}Af

Model Summary

Adjusted R Square	F Value	Sig. Level
.6897	40.9431	.000

a Predictors: (Constant), CEO, √FS, LtDt, Qr, IC, B4, AC, L_{og}TA, NED, L_{og}NAf

b Dependent Variable: L_{og}Af

Key: Where the variables are defined as in model 1.

The regression equation is statistically significant with an adjusted R² of 0.7988 for model 7 as compared with 0.6897 for model 8.

All the control variables are in the direction predicted and significantly associated with attest costs with the exception of B4. In model 7 the coefficient on B4 is not statistically significant and the direction of the sign is also in the opposite direction forecast. A possible explanation for this could be that in this model the low shareholding of directors

may offer them less incentive to engage the service of a B4 attester. In line with agency theory the self-interest of the agents is not maximized by having a costlier higher quality attest provided by a B4. In model 8 the coefficient on B4 is again not statistically significant, however, the direction of the sign is as predicted. This could be interpreted as directors with a higher shareholding are more closely aligned with principals as they have a higher investment in the firm and may require the higher quality attest offered by the B4.

The corporate governance variables in models 7 and 8, (AC, NED and CEO) all have coefficients that are not statistically significant but have signs that are in the predicted direction, with the exception of NED. This is again contrary to the result obtained by Carcello et al (2000) and more in line with argument submitted by Mace (1986). For firms with low director ownership the incentives to have independent NEDs on the board of directors may be low in line with the agency argument of self-interest for agents.

The results of the two regressions show that IC coefficient of 0.0801 is significant (t-value 2.4987 significant at the 5% level) in model 7 where the DSH is less than 5% in line with the hypothesis. However, in model 8 the coefficient value is 0.0517 and not statistically significant. The results from these two regressions suggest that indemnity cover is more closely associated with attest costs for firms in which directors have a smaller shareholding (in this case less than 5%) than those firms with a higher director shareholding (greater than 5%).

In line with the hypothesis, it is suggest that this may be due to the reasoning that in cases where the agency costs are high (separation of ownership and control) then directors can only be motivated to take on extra business risk through the issuance of indemnity cover. However, such firms taking on extra risk pose additional work for attesters which, is captured through higher costs. As the agency problem of separation and control is not so

strong in firms with a relatively higher director shareholding then the relationship between indemnity cover and attest costs is reduced.

This would suggest that firms with a higher director shareholding have less of a need for indemnity cover. In turn for such firms attesters would be less concerned with their attester liability. As with high management ownership the attester is likely to have reasonable confidence that management would behave in a risk-averse manner. This could be one explanation why IC is not statistically significant (but the correct predicted sign) in model 8 and significant (and the correct predicted sign) in model 7.

The above results support hypothesis 4.

Although the results are not reported here one additional model was run to test the interaction between the models in Table 11 and 12. In this model the interaction between DSH (a dummy variable 0=less than 5% director shareholding and 1=more than 5% director shareholding) and all variables are considered. The model was specified as follows:

Regression Model showing interaction with DSH in full sample

$$\begin{aligned}
 L_{og}Af = & a_0 + a_1B4 + a_2L_{og}TA + a_3Qr + a_4\sqrt{FS} + a_5LtDt^{**} + a_6L_{og}NAF + a_7AC + \\
 & a_8NED + a_9DSH + a_{10}CEO + a_{11}IC + a_{12}B4 \times DSH + a_{13}L_{og}TA \times DSH + \\
 & a_{14}Qr \times DSH + a_{15}\sqrt{FS} \times DSH + a_{16}LtDt \times DSH + a_{17}L_{og}NAF \times DSH + \\
 & a_{18}AC \times DSH + a_{19}NED \times DSH + a_{20}DSH \times IC + a_{21}CEO \times DSH
 \end{aligned}$$

(**LtDt was entered as a variable in the regression model but excluded in the final analysis due to a high correlation coefficient of 0.9997 with the interaction term LtDTx IC). In this model the coefficients on both the IC and ICxDSH were both in the predicted direction

(0.161 and -0.203 respectively) and significant (the t-statistic was 3.496 and -2.616 respectively).

Furthermore the regression equation was statistically significant with an adjusted R² of 0.829.

Additional testing to consider would be a probit regression. Assuming a non-linear relationship between Attest costs and indemnity cover then the use of such a model may help to explain and add additional insights to the testing. With a probit regression IC is used as the dependent variable and attest costs become part of the independent variables. All other variables stay the same.

The model 9 regression equation is:

$$IC = a_0 + a_1L_{og}Af + a_2L_{og}NAF + a_3B4 + a_4L_{og}TA + a_5Qr + a_6\sqrt{FS} + a_7LtDt + a_8AC + a_9NED + a_{10}DSH + a_{11}CEO$$

Where the variables are defined as above with the exception that IC is now the dependent variable and L_{og}Af becomes an independent variable.

The results of the probit regression are shown in table 13 below.

Table 12

Model 9: Probit Regression Model

$$IC = a_0 + a_1L_{og}Af + a_2L_{og}NAf + a_3B4 + a_4L_{og}TA + a_5Qr + a_6\sqrt{FS} + a_7LtDt + a_8AC + a_9NED + a_{10}DSH + a_{11}CEO$$

Model		Predicted Sign	Unstandardized Coefficients	Standardized Coefficients Beta	T Value	Sig. Level
1	Constant	+ or -	0.3902		1.611	0.122
	L _{og} Af	+	0.1899	0.329	3.198	0.001

L _{og} NAf	+	-0.0049	-0.011	-0.139	0.783
B4	+	0.1009	0.109	2.177	0.018
L _{og} TA	+	-0.101	-0.219	-2.809	0.002
Qr	-	0.0011	0.0395	0.702	0.401
√FS	+	-0.002	-0.021	-0.359	0.708
LtDt	+	-0.0018	-0.075	-1.409	0.137
AC	+	0.259	0.187	3.019	0.002
NED	+	0.0077	0.010	0.128	0.871
DSH	-	0.0486	0.0289	0.41	0.646
CEO	-	-0.0429	-0.046	-0.969	0.326

Table 12: Model 9

a Dependent Variable: IC

Model Summary

Pseudo

R Square*

.0897

a Predictors: (Constant), L_{og}Af, L_{og}NAf, B4, L_{og}TA, Qr, √FS, LtDt, AC, NED, DSH, CEO

b Dependent Variable: IC

* For the probit model there are a number of R² values for models with qualitative dependent variables. Due to this wide range of available values they are known collectively as Pseudo R squares. One of the more popular values is McFadden's R²

Key: Where the variables are defined as in model 5

As can be seen the model provides conflicting results. It has a low explanatory power as captured by the Pseudo R² of 0.0897. Interestingly the L_{og}Af is significantly and positively related to IC as would be expected yet L_{og}NAF is not significant but with a negative sign. B4 and AC are also significantly and positively associated with IC as expected. L_{og}TA is significant but has a negative sign on the coefficient, which is counter intuitive to the hypothesized result. AC is still significant and with the correct sign. However, NED, DSH

and CEO are all not significant but have the correct sign. As the model has a low explanatory power the results need to be read with caution.

Chapter 6 concludes the research with recommendations and final thoughts.

CHAPTER 6

CONCLUSION

Introduction

This chapter concludes with an analysis of the results and considers any policy implications of indemnity cover in practice. It is suggested that indemnity cover will only become more common if not universal, given the increasing claims filed Post-Enron and the huge onus on directors in terms of the new South African Companies Act, 71 of 2008.

Some of the limitations of the study are also considered such as not having actual premiums of the indemnity cover but instead making use of a dummy variable for the presence of indemnity cover. Finally recommendations for future research are also suggested as ways to improve and refine the study.

6.1 Summary and Conclusion

Hypothesis	Table ref	Result
H1 <i>There is a positive association between attest costs and firms with director indemnity insurance ("indemnity cover").</i>	Table 4	Results support H1
Rerun of H1 regression analysis Using FS instead of \sqrt{FS}	Table 5	Statistically significant. Using either variable made no difference to the significance.

H2 <i>There is a positive association between attest costs and firms with director indemnity cover after controlling for the presence of an audit committee</i>	Table 6	Results support H2
H3 <i>There is a positive association between attest costs and firms with director indemnity cover after taking into account the corporate governance structure of a firm.</i>	Table 7	Results support H3 even though with additional variables the significance was reduced.
H4 <i>There is a positive association between attest costs and firms with director indemnity cover after controlling for the moderating role of director share ownership</i>	Table 8	Results in line with table 7 as only change is DSH continuous variable to a dichotomous variable in table 8, model 5.
H4 Interaction % director shareholding and IC	Table 9	Regression equation is statistically significant with adjusted R ² of 0.7807
H4 % director shareholding less than <5%.	Table 10	Regression equation statistically significant with adjusted R ² of 0.7988. IC coefficient is significant and IC associated with <5% shareholding. In line with and supports H4.

H4 % director shareholding greater than >5%	Table 11	Regression equation statistically significant with adjusted R ² of 0.6897. IC coefficient is not statistically significant and IC not closely associated with >5% shareholding. In line with and supports H4.
H4 Probit regression assuming non-linear relationship between attest fees and IC.	Table 12	Conflicting results. Low explanatory power captured by pseudo R ² of .0897. Read results with caution.

Table 13: Hypothesis results.

The aim of this study was to examine whether the presence of director indemnity insurance (IC) is associated with higher attest costs in South Africa. Examining this relationship of indemnity cover and attest costs helps us to improve our understanding of the role of risk and liability in attester's pricing decisions. The explanation for this is that the indemnity cover encourages firms to take on more risk as their downside from any adverse outcome is indemnified via the insurance. As a result of this such firms provide attestors with additional compliance work, which is captured through higher attest costs. The results obtained from the analysis support the above hypothesis.

This effect is more pronounced when the sample is partitioned into two groups: Group 1: covering directors having less than 5% shareholding and Group 2 covering directors holding more than 5% shareholding. The result of this partition shows that the indemnity cover premium in Group 1 is more significant and with a higher coefficient value.

These results provide a direction for further research in this area. The next step would be to try and examine data, which captures the actual indemnity cover premium, rather than

use a dichotomous variable as in this study. This may provide a more insightful understanding in the role and effect of indemnity cover on attest costs and more generally on corporate governance issues. Consequently higher attest costs would arise.

Finally, this area of research is interesting and topical particularly in light of corporate failures such as Enron, Worldcom, Vivendi, Parmalat, BCCI, Madoff, Alan Stanford, Fidentia, Masterbond, Regal Bank, and recently Solyndra (August 2011) who wasted \$500 million in US Government grants, to name but a few. Despite the awareness of corporate governance and the structures put in place, the financial scandals continue. The OECD published a revised draft of its corporate governance principles in December 2003 which called for mechanisms to allow shareholders to bring claims against management and attesters. Attesters are now arguing for limited liability in order to avoid corporate collapse, Mike Rake, chairman of KPMG International, commented that: "Without reform, there is a real chance that another major accounting firm will collapse because it faces claims or settlements which amount to more than current insured levels... This is an urgent issue now for both attesters and company directors" CIMA Insight, (2004).

The idea of proportionate liability for attesters is also being suggested, as in Germany where a five million mark liability cap has successfully operated for decades. However, many adversaries of "proportionate liability", like Frits Bolkestein, (2003), the European single market commissioner, believe that attesters' liability should not be limited because unlimited liability concentrates the mind. Whilst there is a case for liabilities being more proportionate to the attester's role than is currently the case say in the UK, where firms can be liable for every penny lost in a corporate collapse, many attesters would like to see statutory caps on liability. The opposite to this case would be to allow large business to face unlimited sanction risk as this would encourage discipline and influence the way they do business. The danger in such a sanction is bankruptcy wherein employees suffer the most.

Interestingly, in the UK, the case for proportionate liability has been examined several times in the last 20 years, by the DTI Whitepaper “Modernising Company Law. Command Paper CM 5553”, (2002), and dismissed each time on the basis that any change to this law would require a change to liability law in general and would therefore be beyond the scope of this consultation.

In this case indemnity cover may provide a dual role in understanding monitoring costs, as on one level it may help to reduce the cost and likelihood of risk for attesters. This would be especially true in jurisdictions having a “joint and severable liability” as in South Africa, UK and Australia, which would be expected to result in lower attest costs. Conversely, the presence of indemnity cover may lead to higher attest costs as prior research suggests such firms to have an improved governance structure which leads to more monitoring and compliance work for attesters. Further research in this area is needed to identify relevant issues. An aspect of that research could be to examine the relationship between stakeholder interest in monitoring and the expectation, by stakeholders, of the performance, results and liability of attesters.

6.2 Corporate Governance Effects

Post-Enron it would be likely “that company managers may be faced with more and more lawsuits by angry stakeholders who feel they are not being kept fully informed of the company’s activities. Shareholders are arguably the most likely stakeholders to complain about the management team in place, and they are more likely to do so when the situation is not going well”. (Black, Cheffins, and Klausner, 2006) It is trite law that shareholders have no loyalty or fiduciary duties towards the company. Each shareholder has the right of self-interest. This can be detrimental to the company by malicious and vexatious law suits forcing the company to defend itself.

As Carciumaru, (2009) found “director liability and claims against directors have been increasing as a result of doctrinal and complexity issues. The two mitigating steps of codes of corporate governance and legislation are not expected to contain director liability; in fact the new Companies Act (a reference to Act 71 of 2008) may actually lead to an increase in claims against directors”.

If professional indemnity insurance is only maintained for attesters with unlimited liability, then the pool of attesters may begin to shrink as existing attesters may find it increasingly more and more costly to fight out protracted lawsuits. Arthur Anderson learned this lesson in its dealings with Enron. The effect on the renewal of their professional indemnity insurance would increase.

The attesting profession itself may look less attractive to outsiders wanting to join because of the high potential of facing law suits. A mechanism to jointly share liability with directors and managers may go some way to offset this extreme situation occurring. It may also act as a brake on escalating attest costs and premiums for professional indemnity insurance. Indemnity cover may be the most natural way to jointly share liability with the attesters and consequently regulators may have to enforce compulsory insurance for directors and managers of firms – particularly those firms who are economically significant. In fact it may be the only way to attract suitably qualified candidates in becoming a director or officer of the firm. Nevertheless, can legislation govern the human frailties of greed and self-interest? Another option to consider for policy makers would be a liability- cap for both attesters and professionals. In the UK caps on legal claims are being considered by the government as a way of controlling increasing insurance premiums.

6.3 Limitations

The following limitations apply to this study:

Due to data limitations this study only considers the presence of IC as a dichotomous variable; a more refined study could for example, collect the actual premium paid. Another limitation in this study is no account is taken of the year-end for firms. Not all public companies have been considered.

This study also does not take into account institutional investors. They could also act as a moderating effect on attest costs particularly where their shareholding is substantial and they are actively involved in advising managers. They could help to reduce potential agency costs through increased independent monitoring of the managers.

No control has been made for mergers in the accounting profession (or substantial growth in firms becoming close in size to the Big 4) during the sample time frame. It may be that the reduction or increase in attesters has reduced (or increased) costs. This factor could be controlled for in further studies.

There could also be an endogeneity problem as non-executive Directors may request indemnity cover otherwise they may not take up the position. The presence of indemnity cover then is not related to extra attest costs.

Despite the limitation of this research the findings provide insights into the association between monitoring risk (as proxied by indemnity cover) and monitoring costs. Indemnity cover can also be seen as one additional contribution to an effective corporate governance system. Future studies can explore and refine this association further.

The new South African Companies Act, (71 of 2008), imposes a heavy burden and liability on directors. At first blush it appears to act as a deterrent to accepting public company directorships. A just balance between directors' liability, audit committee and monitoring costs, needs to evolve so that diligent directors are protected and delinquent directors are adequately punished through restitution and societal censure.

6.4 Recommendations for Future Research

As mentioned above in the section titled “Limitations” the study could be redone in a later time period after 2012 allowing the effects of the new Companies Act, (71 of 2008) to have an effect on governance. Consequently, the actual premium paid for indemnity cover could be collected and used in the model. Then a more refined test of whether indemnity cover premiums are higher for firms with weaker governance structures could be examined. The indemnity cover insures the monetary costs of lawsuits against directors and officers by shareholders or third parties. The indemnity cover provides coverage if the claim is settled with no admission of bad faith by a director, or if the suit is taken to trial, there is no finding of bad faith or breach of fiduciary duties, by the court. South African law is very weak in this area and the Specialised Commercial Criminal Court has little experience in this area. From the researcher’s observations, generally the Specialised Commercial Criminal Court mostly entertains plea bargains in white collar crime and is reluctant to pursue the principles of crime where the sums of money are considered low. The indemnity cover insurer will set a premium equal to its assessment of the firm’s risk plus a mark-up for its overhead and profit. Provided that an insurer cannot refuse to cover all claims related to weak governance, the insurance will be priced to reflect not only the firm’s business risk but also the quality of the firm’s governance mechanisms. This can be a difficult measure of quality and standards.

If the data for the actual premium paid by firms in the sample could be collected then this would provide a more refined measure of risk (as proxied by higher monitoring costs and to an extent financial claims risk.)

Indemnity cover and higher attest costs are an example of one mechanism that can help to offset the risk. Attesters could also reduce potential risk through the issuance of modified attest opinions. The issuance of a modified attest opinion could be another explanatory variable to use in further studies. However, attest or assurance opinions cannot

completely absolve attesters from the assurance liability. Perhaps this liability should be codified in the South African Companies Act. The Companies Act, (71 of 2008) now specifically caters for payment of IC by the company in terms of s.78 of the Act but prevents the paying of fines imposed on directors.

To overcome the issue of purchasing indemnity cover as a force of habit, further studies could be conducted using a time lag for the indemnity cover. This would proxy for such behaviour.

In this study internal attesting is ignored. It may well be that monitoring costs could be driven downwards by the internal assurance function. The question arises of how does the internal attest affect monitoring costs – spill over/externalities?

In further studies the Governance variables could be refined. As an example the frequency of AC meeting p.a., whether the firm has established a Risk Management or Compensation committee and whether any Executive Share Option plans exist could also be modelled in the regression equation, subject to data availability. One interesting proposal would be to consider the effect of ‘insider’ and ‘outsider’ directors on the attest costs and indemnity cover relationship. Prior results are mixed on whether ‘insiders’ or ‘outsiders’ improve firm performance (Fama and Jensen, 1983; Mace, 1986, and Rosenstein and Wyatt, 1990), however, ‘outsiders’ may be more willing to question the monitoring costs as well as appoint higher quality attesters (big 4). These are all valid issues that can be examined further.

Another area of suggested research of great interest is that of the perspective of the audit committee on its own role. The researcher feels that it was a great pity that Directors of JSE quoted companies failed to respond to the researcher’s original topic, despite many contacts and cajoling, which concerned the perspective of the audit committee and its value by members of the actual audit committees. Even the Institute of Directors in Southern Africa (IODSA) were reticent to assist such research. They championed the three King

Reports but any attempt to test the value of audit committees posed shyness among such a group of directors. The IODSA Executive tried their best to encourage some committees to participate and the researcher is grateful for their several attempts. Only nine respondents participated, two of whom, were happy to disclose themselves and their companies. Those two were, of course, typical to their genuine and demonstrable philosophy of social responsibility, especially towards research by doctoral candidates, to test a contentious issue. The majority of the nine participants felt that the audit committee was of little value to make a real and meaningful contribution to corporate governance and the prevention of anti-social activities by rogue directors and management. It is recommended that this would make a worthwhile research topic, if one can obtain participation by the majority of the 431 JSE quoted companies. Bias towards the politically correct thing to say would be one limitation along with corporate constraints.

6.5 Final thoughts

Unfortunately, most of the participants in the corporate governance debates of the last few years have discredited the notion “that corporations should be run in the interests of all of the stakeholders, rather than just for the shareholders. If stakeholders are defined to mean all those participants who have substantial firm-specific investments at risk, then this idea is actually a reasonable and appropriate basis for thinking about corporate governance reforms. Far from abandoning the idea that firms should be run for all the stakeholders, contractual arrangements and governance systems should be devised to assign control rights, rewards, and responsibilities to the appropriate stakeholders - the parties that contribute specialized inputs. (Blair, 1995)”

How will the stewardship of the corporation be prevented from abusing their positions when controlling the financial resources of the corporation? Are audit committees the answer? Do communities need to bring about moral change before greed of stewards can be abolished? If Government institutions are themselves corrupt, can the business world under its control be

effectively moral to ensure good corporate governance? These questions present a platform for further research outside the realms of philosophy into the real world of human interaction.

To quote Professor Mervyn King in discussion with the researcher, “good corporate governance is about intellectual honesty”. (See Appendix 2 below) We all are taught fair morals no matter our background or culture. Why then do we have to put in specialised structures to ensure fairness and equity? Is it only power, or is it only greed, or even a combination of them, being human foibles?

APPENDICES

APPENDIX 1 – Descriptive Statistics

Descriptive statistics for samples with and without IC **NB:** Units used in left hand column.

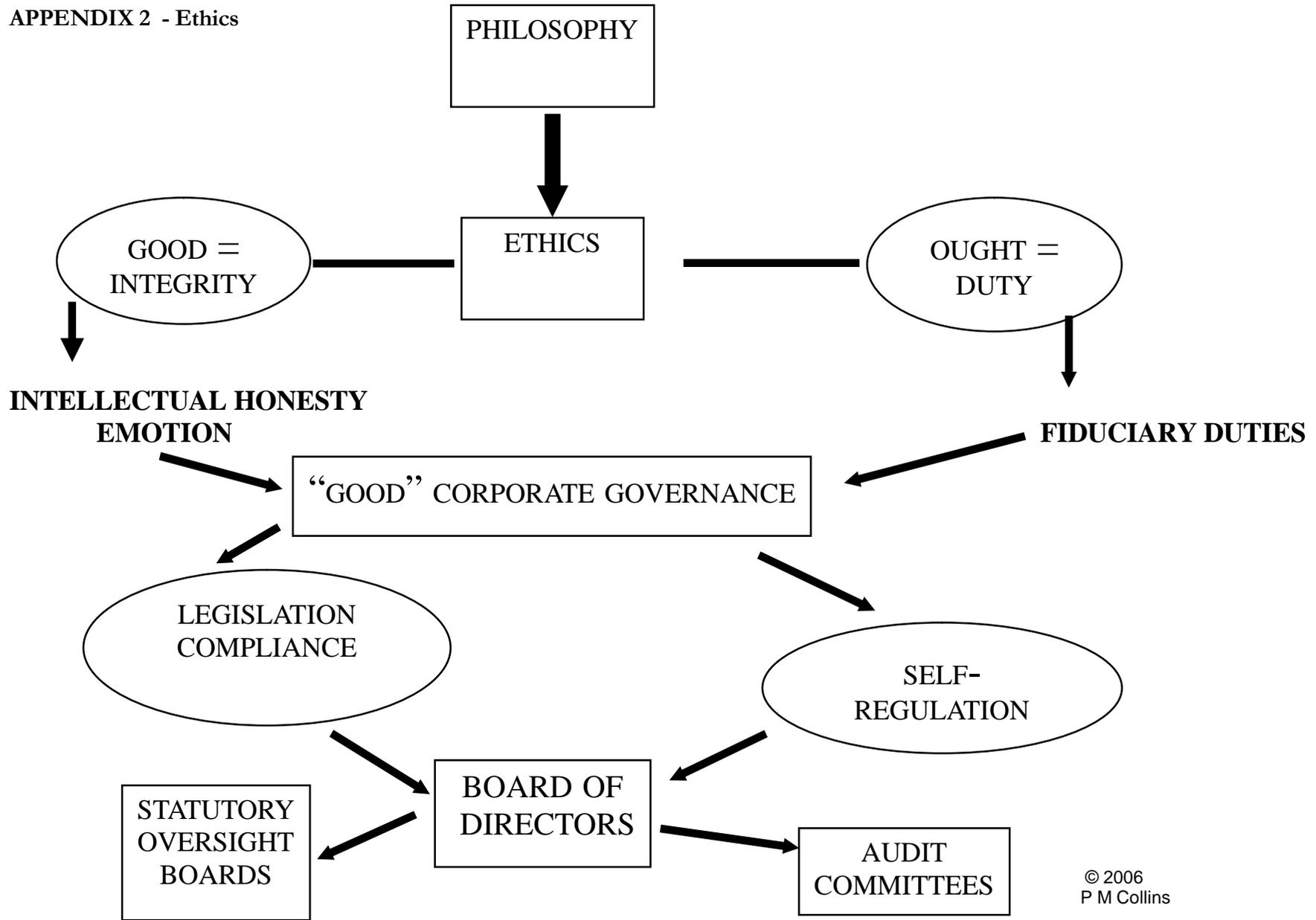
Firms with no IC

Firms with no IC	N	Minimum	Maximum	Mean	Std. Deviation
Attest Costs (R000,s)	56	11	1.500	210	305
Non-Attest Costs (R000,s)	56	0	1,870	223	481
Big 4 Attester	56	-	1.00	0.62	0.41
Total Assets (R000,s)	56	5,641	9,018,423	1,157,437	2,019,472
Quick Ratio	56	0	51.31	3.04	7.67
Foreign Subsidiaries	56	-	6.98	1.31	1.62
Long Term Debt (R000,s)	56	-	0.69	0.12	0.14
Audit Committee	56	-	1.00	0.61	0.38
Non-Executive Directors	56	-	1.00	0.67	0.40
Director Shareholding (% to total issued shares)	56	-	0.67	0.06	0.19
CEO Duality	56	-	1.00	0.24	0.41

Firms with IC

Firms with IC	N	Minimum	Maximum	Mean	Std. Deviation
Attest Costs (R000,s)	331	20	6,131	434	0,991
Non-Attest Costs (R000,s)	331	5	21,740	542	1,463
Big 4 Attester	331	-	1.00	0.76	0.39
Total Assets (R000,s)	331	894	236,691,000	3,461,536	18,531,642
Quick Ratio	331	(5)	147.32	2.63	11.47
Foreign Subsidiaries	331	-	24.81	1.63	2.67
Long Term Debt (R000,s)	331	-	291.62	1.01	14.97
Audit Committee	331	-	1.00	0.91	0.19
Independent Non-Executive Directors	331	-	1.00	0.72	0.29
Director Shareholding (% to total issued shares)	331	-	1.92	0.16	0.24
CEO Duality	331	-	1.00	0.20	0.41

APPENDIX 2 - Ethics



APPENDIX 3 – Firm in Society



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