

Internal and External Governance in UK Companies

By

Cornelius Noel O'Sullivan

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ABSTRACT

The 1990s witnessed an increased interest in issues of governance and accountability in U.K. companies. In the wake of a series of governance reports (e.g. Cadbury, 1992; Greenbury, 1995; Hampel, 1998), U.K. companies have significantly altered their governance characteristics. The objective of this thesis is to examine the utilisation of governance mechanisms by U.K. companies immediately prior to the beginning of this governance revolution. My first objective is to ascertain the extent to which board composition and leadership, managerial ownership and external shareholder control were substitutes or complements in the overall governance strategies employed by large quoted companies at the beginning of the 1990s. My second objective is to examine the relationship between internal and external governance mechanisms. This is accomplished in two ways. First, I investigate the internal governance characteristics of takeover targets and a matched sample of non-targets to ascertain the influence of internal governance characteristics at various stages of the takeover process. The motivation for this investigation is a perception in the governance literature that takeovers represent a governance mechanism of last resort exercised only when internal governance structures are ineffective in aligning the interests of managers and shareholders. Second, I examine the governance characteristics of mutual and proprietary insurance companies. In mutual insurance companies, the functions of owner and policyholder are merged which eliminates the prospect of governance either through takeovers or through the ownership of a substantial proportion of equity. The absence of these two governance mechanisms suggests that mutual insurers may place greater reliance on internal governance such as more intensive monitoring by the board of directors. In the case of large quoted companies, I find a significant substitution between the monitoring potential of both external and internal ownership and the utilisation of non-executive directors. I also find that companies with greater non-executive representation on their boards are more likely to acquire the complementary monitoring of directors' and officers' insurance and demand more extensive auditing. Managerial ownership is the dominant influence on the takeover process. Hostile and unsuccessful bids are associated with lower levels of managerial ownership while friendly and successful bids are associated with high ownership levels. I also find some evidence that hostile targets possess less independent boards compared to a matched sample of non-targets. In the case of insurance companies, I find that mutuals place greater emphasis on non-executive directors than their proprietary counterparts. Overall, my empirical analysis suggests that, at the beginning of the 1990s, U.K. companies emphasised different governance mechanisms depending on the specific monitoring problems they faced.

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PUBLICATIONS

The following is a list of my publications that have utilised some of ideas and the data used in this thesis:

Diacon S.R. and N. O'Sullivan (1995), 'Does Corporate Governance Influence Performance? Some Evidence from UK Insurance Companies' *International Review of Law and Economics*, 15, 405-424.

O'Sullivan N. (1997), 'Insuring the Agents: The Role of Directors' and Officers' Insurance in Corporate Governance', *Journal of Risk and Insurance*, 64, 545-556.

O'Sullivan N. (1998), 'Ownership and Governance in the Insurance Industry: A Review of Theory and Evidence', *Service Industries Journal*, 18, 145-161.

O'Sullivan N. (2000), 'The Impact of Board Composition and Ownership on Audit Quality', *British Accounting Review*, forthcoming.

O'Sullivan N. and S.R. Diacon (1994), 'Audit Fee Determination and Governance Structure: Empirical Evidence from UK Insurance Companies' *Geneva Papers on Risk and Insurance*, 19, 70-84.

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INTERNAL AND EXTERNAL GOVERNANCE IN UK COMPANIES

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CHAPTER ONE

INTRODUCTION

1.1 RECENT GOVERNANCE DEVELOPEMENTS IN THE U.K.

The past decade has witnessed an increased interest in issues of governance and accountability in U.K. companies. The initial impetus for such interest was the unexpected failure of a number of high-profile companies at the beginning of the 1990s (e.g. BCCI, Maxwell and Polly Peck) resulting in large losses both for shareholders and other stakeholders. The situation was exacerbated because of an apparent absence of governance and accountability both within and surrounding the failed companies. The ensuing debate focused attention on a number of aspects of governance and accountability in large companies in the U.K. Particular attention focused on, *inter alia*, the composition and behaviour of company boards, the degree of power held and exercised by individuals acting both as CEO and company chairman, the role and independence of non-executive directors, the independence and accountability of statutory auditors, and the ability and willingness of external shareholders to monitor management behaviour.

The main institutional response to these governance concerns was the establishment of the *Committee on the Financial Aspects of Corporate Governance* (Cadbury, 1992) sponsored jointly by the Institute of Chartered Accountants in England and Wales (ICAEW), the London International Stock Exchange (LISE) and the Financial Reporting Council (FRC). Cadbury (1992) published its final report in December 1992. The main recommendation of the report was the development of a *Code of Best Practice* with which all U.K. listed companies were encouraged to comply. The code focused specifically on the leadership, composition and role of boards of directors. It suggested that companies should:

- Have different individuals occupying the roles of CEO and chairman.
- Possess at least three non-executive directors.
- Establish a remuneration committee to make recommendations on the structure and level of executive remuneration.
- Establish an audit committee to liaise with the company's statutory auditors.
- Both the remuneration and audit committees should comprise solely of non-executive directors.
- Directors' responsibilities for the preparation of published financial disclosures should be clearly stated in the company's annual report and accounts.

In addition, Cadbury (1992) encouraged institutional shareholders to take a more active role in the way companies are administered - particularly with regard to exercising their votes at companies' annual general meetings. Cadbury (1992) also encouraged the accounting profession to consider ways in which the statutory audit could be made more objective and effective. Cadbury (1992) expressed broad satisfaction with the extent of auditor liability to corporate stakeholders as represented by the courts in *Caparo Industries v. Dickman and Others* (1990) - excluding auditors from third party liability (O'Sullivan, 1993; O'Sullivan 1994). However, Cadbury (1992) expressed concern regarding the potential for non-audit fees to compromise auditor independence and made suggestions for more detailed disclosure of the extent of non-audit fees paid to auditors. Cadbury's (1992) *Code of Best Practice* was subsequently accepted as best practice by the LISE. Since June 1993, listed companies have been obliged to justify any areas of non-compliance in their annual report to shareholders. Subsequent studies of listed companies have shown widespread compliance with the recommendations of the Cadbury recommendations (Cadbury, 1995; Conyon and Mallin, 1997; O'Sullivan, 1999; O'Sullivan, 2000).

In 1995, the Greenbury Committee was established to examine specifically the issue of director remuneration in U.K. companies. Even though remuneration had been included in Cadbury's (1992) remit and recommendations concerning the establishment of remuneration committees and full disclosure of remuneration and were an important aspect of the Cadbury's (1992) code of best practice, the need for a more comprehensive discussion on the topic of remuneration was highlighted by both public and political concern at the levels of pay enjoyed by executives in large public companies – the newly-privatised utilities were a particular target for criticism. The main recommendations of Greenbury (1995) were as follows:

- The establishment of a remuneration committee comprising solely of non-executive directors to report annually on remuneration matters.
- The remuneration report to give full details of all elements of directors' remuneration, including basic salary, benefits in kind, annual bonuses and long-term incentive plans.
- Full disclosure of directors' pension entitlements for the year.
- Companies should move away from offering directors service contracts with notice periods exceeding one year (except where recruitment demands suggest otherwise).
- Shareholders should be asked to approve any long-term incentive plans that commit company funds over more than one year.

Cadbury (1992) suggested the establishment of a subsequent Committee on Corporate Governance to review how its recommendations operated in practice. This committee, under the chairmanship of Sir Ron Hampel (henceforth referred to as Hampel, 1998) began its deliberations in 1995 and issued its final report in 1998. Since the period of the committee's deliberations coincided with the implementation of the Greenbury (1995) recommendations, Hampel (1998) also sought to review the initial impact of the Greenbury (1995) recommendations on remuneration decisions and disclosure. While the report of the Hampel

committee provided little by way of additional recommendations, it stressed the need for U.K. companies to redress the balance between accountability and prosperity. Essentially, Hampel (1998) argued that while accountability was important (and consequently had dominated the recommendations of both Cadbury (1992) and Greenbury (1995)) it should not replace the most important corporate objective which is: 'to enhance the prosperity of the business over time' (p. 7). Consequently, Hampel (1998) recommended that good governance should be based on principles rather than prescription and this is likely to be best achieved by allowing companies to present governance information in a narrative form rather than being requested to undertake a 'box ticking' exercise (see Short et al (1999) for a comprehensive discussion of accountability versus enterprise and its significance in the context of corporate governance in the U.K.). Hampel's (1998) report is discursive rather than prescriptive with a greater emphasis on allowing companies to apply previous guidelines in a manner appropriate to their specific needs. For example, Hampel (1998) is less insistent that the positions of company chairman and CEO should be held by different individuals and that company shares should not form part of non-executives' remuneration.⁸ Following the publication of the Hampel (1998) report, the Hampel Committee produced a further document providing a set of principles and codes to embrace the Cadbury (1992), Greenbury (1995) and Hampel (1998) proposals – the Combined Code (Committee on Corporate Governance, 1998).

In September 1999, the Institute of Chartered Accountants in England and Wales published the report of a committee chaired by Nigel Turnbull addressing the role of internal control in the governance of U.K. companies (Turnbull, 1999). In the spirit of Hampel (1998), Turnbull (1999) does not impose specific internal control requirements on companies but instead asks company directors to continuously review the quality of internal control and to put in place appropriate measures to minimise the risks faced by the company. The report also provides guidelines for directors on how they may report on the effectiveness of the company's internal

control in their annual report to shareholders. Consistent with the recent move away from prescriptive advice, Turnbull (1999) allows individual companies to decide whether to establish a specific internal audit function. However, in the absence of an internal audit function, the board is still expected to ensure that appropriate procedures are in place to monitor risks faced by the company.

1.2 THE ACADEMIC BACKGROUND TO GOVERNANCE DISCUSSIONS

Even though issues of corporate governance have attracted a great deal of recent academic attention, research into how public companies are managed and controlled is not new. Central to much of the recent interest and analysis of governance relationships is the perception of a separation of ownership and control whereby large public companies are owned by a large number of relatively small shareholders. It is anticipated that these shareholders possess neither the incentive nor ability to actively monitor management behaviour (Berle and Means (1932). As a consequence, public companies are perceived to be under the control of professional managers who are expected to pursue their own interests at shareholders' expense. During the 1960s, the possibility that managers rather than shareholders may control companies resulted in a number of managerial theories of the firm whereby researchers attempted to model managerial behaviour free from shareholder control. Writers such as Baumol (1959), Williamson (1964), Marris (1964), Monsen and Downes (1965) argued that in such an environment corporate objectives are expected to favour managerial rather than shareholder interests.

In the 1970s and 80s however, agency theorists argued that a number of mechanisms exist that may serve to constrain managers from pursuing their own objectives at shareholders' expense. Fama (1980) and Fama and Jensen (1983a; 1983b) for example, argued that competition in the managerial labour markets as well as the presence of outside directors serve to limit managerial

discretion. Jensen and Meckling (1976) and Benston, (1985) suggested that manager and shareholder objectives may be aligned through managerial ownership. Coughlan and Schmidt (1985) and Murphy (1985) suggested that executive compensation packages, linking remuneration with company performance, also serve to minimise the costs of a separation of ownership and control for shareholders. Schleifer and Vishny (1986) argued that managerial objectives could be restrained by the presence of large blockholders who are expected to possess both the incentive and ability to directly monitor managerial behaviour.

In addition to internal governance mechanisms a number of researchers suggested that the monitoring problems associated with the separation of ownership and control may be minimised by external factors. According to Rappaport (1990), the takeover market 'represents the most effective check on management autonomy ever devised' (p. 100). By posing a constant threat of managerial displacement or facilitating the transfer of corporate assets to alternative management teams, takeovers deter managers from promoting their own interests at the expense of shareholders. Furthermore, Watts and Zimmerman (1983) and Wallace (1987) argued that the external regulation of financial disclosures may also help to minimise agency costs between managers and shareholders since statutory audits provide independent verification of performance measures on which efficient contracts between owners and managers can be based.

Even though much recent interest has focused on the role of governance in proprietary companies, not all business organisations are shareholder-owned. In particular, the insurance industry presents an interesting example where mutual companies, friendly societies, Lloyds syndicates and proprietary companies have competed successfully for many years. From a governance perspective, the co-existence of mutual and proprietary insurers is of particular interest. An important characteristic of mutual companies is the fusion of the role of customer

(policyholder) and owner which serves to eliminate potential conflict between shareholders and policyholders regarding the distribution of company surpluses. However, the merging of the customer and owner functions appears to undermine the model of shareholder control upon which much of the recent governance literature is based. By merging the functions of customer and owner, mutual companies exhibit a greater degree of external ownership diffusion making owner control of senior management extremely difficult. Furthermore, the absence of shareholders in mutual companies also eliminates the possibility of hostile takeovers - an important mechanism of control in proprietary companies. However, despite these apparent weaknesses in external governance, mutual insurers continue to compete successfully with their proprietary counterparts. The continued success of both proprietary and mutual insurers in the context of very different external governance environments suggests that mutual companies may place a greater reliance on instruments of internal governance in order to maintain their competitiveness.

1.3 OBJECTIVES OF THE THESIS

The main objective of this thesis is to undertake an empirical analysis of the use and role of governance mechanisms in the U.K. prior to the impact of the 'governance revolution' of the mid-1990s prompted by the recommendations of Cadbury (1992) and subsequent governance-orientated reports (e.g. Greenbury, 1995; Hampel, 1998; Turnbull, 1999). An examination of the use and contribution of governance instruments in the U.K. at the beginning of the 1990s is capable of improving our understanding of the governance process for a number of reasons: First, by examining the use of governance choices made by companies in a relatively unregulated environment, it is possible to investigate why individual companies choose particular mechanisms of governance and the emphasis they place on each mechanism. Second, we are able to examine the interrelationships between different governance mechanisms used by companies in the knowledge that a company's mixture of governance

instruments is not influenced by the requirements of a particular code but reflects their perceived monitoring requirements. Third, investigating governance mechanisms prior to the reforms of the 1990s allows us to comment on the potential usefulness of different governance mechanisms in reconciling the interests of shareholders and managers. Indeed, a major weakness of the Cadbury (1992) recommendations was the absence of significant empirical evidence on the utilisation and value of different governance mechanisms on the operation and behaviour of U.K. companies. Finally, by undertaking such a study at the cusp of a period of major governance change, we can establish a useful benchmark by which to compare the subsequent use and contribution of governance instruments to the process of corporate governance in the U.K.

In order to achieve the main objective of my thesis I address two sub-objectives. First, I investigate the importance of board composition and leadership, managerial ownership, and external shareholder control in a sample of the large quoted companies. An important focus of this part of the thesis is to examine the extent to which different mechanisms of internal governance are substitutes or complements in the overall governance strategies employed by companies. For example, holding the demand for monitoring constant, we would expect an interrelationship between the emphasis placed on each monitoring mechanism depending on its respective cost and the cost of alternative monitoring mechanisms. As the costs of one monitoring mechanism increases relative to the costs of other mechanisms, we would expect shareholders to place increased emphasis on the most cost-effective mechanism at the expense of more expensive alternatives. This suggests a substitution effect between shareholders' emphasis on monitoring via external ownership, managerial ownership and the use of non-executive directors.

The second sub-objective of the thesis is to examine the relationship between internal and external governance mechanisms in U.K. companies. This will be accomplished in two ways. First, I compare the internal governance characteristics of a sample of takeover targets with the internal governance characteristics of a control sample of non-targets. The objective of this analysis is to ascertain whether takeovers - especially those resisted by target management - represent an important mechanism of governance in the U.K. Through the analysis of internal governance in the context of takeovers, I aim to improve our understanding of the role of takeover activity in U.K. governance. On the one hand, takeovers and internal governance may be viewed as substitutes. Consequently, we might expect takeover targets to exhibit inferior governance characteristics compared to non-targets. Alternatively, since takeovers are perceived to be a more costly form of governance than alternations to a company's internal governance characteristics, takeovers may only occur in companies where strong internal governance exists but has proved ineffective in reconciling shareholder and manager objectives. This perspective suggests that internal governance and takeovers are complementary mechanisms of governance. Second, I compare the internal governance characteristics of a sample of mutual and proprietary insurance companies. The objective of this analysis is to ascertain whether mutual insurers compensate for weak external governance by making greater use of internal governance mechanisms. Conversely, I am anxious to ascertain whether proprietary companies place less reliance on internal monitoring due to the availability of strong external governance mechanisms such as large blockholders and the possibility of takeovers.

1.4 STRUCTURE OF THE THESIS

The thesis is structured as follows: Chapter two contains a literature review of the principal mechanisms of internal governance available to companies. Included in this review are discussions of, *inter alia*, the evidence and consequences of a separation in the ownership and

control of quoted companies, the monitoring potential of large external shareholders, the incentive effects of managerial ownership, board composition and leadership, and executive remuneration. Chapter three contains a review of the theoretical and empirical evidence on the governance role of takeovers and the governance implications of mutual versus proprietary insurance companies. Issues reviewed in respect of the governance role of takeovers include; whether takeovers activity is associated with weak pre-bid performance, why some takeovers are opposed by target managers, whether takeovers lead to the replacement of inefficient/opportunistic managers, and whether takeovers lead to improved performance. The review of governance issues in insurance includes; a discussion of the policyholder-shareholder conflict in insurance companies, a discussion of the owner-manager conflict in insurance companies, and an appraisal of insurance conversions (i.e. mutualisation and demutualisation).

Chapter four draws on the reviews in the previous two chapters to explain the theoretical motivation for the thesis. The chapter begins by discussing the contribution of the thesis for governance in quoted companies. Included in this section of the chapter are discussions on the potential for substitutions between governance mechanisms, the potential governance role of directors and officers' insurance, and the potential impact of governance characteristics on audit quality. The second area of discussion concerns the potential for a relationship between companies' governance characteristics and takeovers. Finally, I discuss the potential for a relationship between the governance characteristics of insurance companies and mutual and proprietary status. Chapter four concludes with a discussion of the issues taken into account in constructing appropriate datasets by which to empirically test the thesis' objectives.

In chapters five, six and seven I present the empirical analysis of the issues discussed in chapter four. In chapter five, I focus on governance in quoted companies and explore the governance environment that existed immediately prior to the implementation of the Cadbury

(1992) recommendations. Four aspects of the 1992 governance environment are analysed. First, I explore the relationship between ownership structure and the utilisation of internal governance mechanisms. This allows me to assess the extent to which UK companies use ownership structure and internal governance as substitute or complementary mechanisms of governance. Second, I examine the impact of ownership structure and board composition on company performance. Third, I compare the governance characteristics of companies with and without D&O insurance. Of interest in this respect is whether the purchase of D&O insurance is utilised by shareholders as a substitute or a complement to other sources of monitoring. I also investigate whether the purchase of D&O insurance is primarily motivated by the demands of shareholders or non-executive directors. Fourth, I examine whether governance characteristics influence the extent of auditor effort in the UK. In this respect I utilise the audit fee as a proxy for audit quality. Of interest is whether auditor effort, and ultimately the audit fee, is influenced by the level of non-executive representation and the ownership of managerial and non-managerial shareholders.

In chapter six I compare the internal governance characteristics of a sample of takeover targets with a control group of industry and size-matched non-targets. The chapter examines the role of board composition and ownership at three stages of the takeover process. First, I compare board composition and ownership characteristics of targets and a control group of non-targets in order to ascertain whether targets exhibit different internal governance characteristics compared to non-targets. Second, I further categorise targets on the basis of managerial reaction to the bid since many writers suggest that hostile bids are motivated by governance shortcomings while friendly bids are motivated by synergy. Third, I categorise targets depending on the eventual outcome of the bid to examine whether board composition and ownership characteristics influence the success or failure of takeover bids. In the final section of chapter six, I utilise more sophisticated measures of board independence and external

ownership as well as prior performance measures to examine the likelihood of a hostile takeover using multiple regression.

In chapter seven, I examine the role of internal governance mechanisms in the insurance industry. My main objective in this section of the thesis is to compare both the use and impact of internal governance mechanisms in proprietary and mutual insurance companies. For example, I seek to ascertain whether mutual insurers compensate for weaker ownership control by exhibiting stronger internal governance (e.g. utilisation of outside directors and separating the roles of CEO and chairman). Furthermore, I examine the impact of different external governance and internal characteristics on a variety of indicators of corporate performance (i.e. owner-orientated and manager-orientated performance). I also examine the impact of internal and external governance characteristics on the level of audit fees paid by UK insurers. In order to examine these issues I utilise two datasets. First, I use the results of a postal questionnaire survey to provide an in-depth insight into; the composition and leadership of company boards, the use and composition of board sub-committees, the tenure and source of CEO appointments, and the relationship between insurance companies and their auditors with particular reference the provision of non-audit services. Second, I utilise a pooled dataset of internal governance characteristics in insurance companies between 1984 and 1991. This allows me to explore the relationship between internal governance characteristics and organisational form over a longer time period. For example, I examine, *inter alia*, whether UK insurance companies have altered their reliance on internal governance characteristics during the 1980s and whether internal and/or external governance characteristics influenced company performance over this period. Chapter eight summarises the main findings of the thesis.

CHAPTER TWO

A REVIEW OF INTERNAL GOVERNANCE MECHANISMS

2.1 INTRODUCTION

In a recent article (Keasey et al, 1997) highlight the absence of a clear definition of the meaning of corporate governance. Even though the academic use of the term 'corporate governance' is relatively new, the problems it seeks to address date back to the development of joint-stock companies when the separation of beneficial ownership and executive decision-making first emerged. The current interest in corporate governance can be traced back to the realisation that a separation of ownership and control may exist in large public companies. This arises due to the fact that companies are owned by a large number of small, diversified shareholders possessing neither the incentive nor ability to actively monitor executive behaviour (Berle and Means (1932). Consequently, large companies may be controlled by professional managers who are not expected to pursue the objectives of shareholders. Indeed, in the first empirical insight into the extent of a separation between ownership and control, Berle and Means (1932) estimated that in 1929, 44 per cent of the largest 200 companies in the US were under the control of managers rather than shareholders.

The possibility that managers, rather than shareholders, may control companies resulted in the development of a number of managerial theories of the firm whereby researchers attempted to identify the implications of the situation for corporate behaviour. Managerial theorists such as Williamson (1964) argued that management-controlled firms should be less profitable than owner-controlled firms due to the likelihood of non-profit maximising behaviour by non-owner managers. Marris (1964) argued that, in the absence of owner-control, managers are likely to maximise the growth of the firm in order to maximise their own utility functions. Baumol

(1959) and Mosen and Downes (1965) argued that in management-controlled firms there exists an asymmetry in the management reward structure. Essentially, managers are affected adversely by poor performance, but are unlikely to be excessively rewarded for good performance. Furthermore, exceptionally good performance in one year may raise the expectations of shareholders which managers may be unable to meet in future years. Consequently, Baumol (1959) and Mosen and Downes (1965) argued that management-controlled firms are expected to be more risk averse and should yield lower risk and variability measures than owner-controlled firms.

Over the past few decades, an alternative view of company behaviour has emerged. Specifically, agency theorists argued that, despite the apparent separation in ownership and control, several disciplinary mechanisms serve to constrain corporate managers from pursuing their own objectives at shareholders' expense. For example, Demsetz and Lehn, (1985) argued that while a separation of ownership and control inevitably facilitates greater managerial discretion than may be desirable, the continuation and widespread use of diffused ownership suggests that any such shortcomings may be outweighed by other profit-enhancing aspects of such an ownership structure. Furthermore, Demsetz and Lehn (1985) suggested that in instances where the costs of such an ownership structure exceed the benefits, shareholders would be expected to alter the company's ownership structure to a more concentrated format. Schleifer and Vishny (1986) argued that the presence of large blockholders, possessing both the incentives and ability to directly monitor managers, is also likely to deter managerialism. While small shareholders may be reluctant to incur the considerable costs of directly monitoring managerial behaviour, the potential benefits to large shareholders from ensuring that managers do not engage in non-value-maximising behaviour may exceed the costs of doing so. Furthermore, the presence of large blockholders is expected to discourage managerial opportunism since large external shareholders may facilitate takeovers by selling their shares to

the bidding company when incumbent managers are either unwilling or unable to maximise shareholder wealth.

In addition to external ownership structure, Jensen and Meckling (1976) and Benston, (1985) suggested that despite the wide diffusion of ownership in public companies, manager and shareholder objectives may be aligned through managerial ownership. They argued that managerial ownership of company equity encourages owner-managers to administer companies in the interests of shareholders since any non-value-maximisation behaviour affects the wealth of owner-managers as well as non-manager shareholders. Fama (1980) argued that competition in the managerial labour market as well as the presence of outside directors should also serve to limit managerial opportunism. Managers are expected to continue to maximise shareholder wealth since managers' future employment prospects are likely to be a function of the labour market's perception of how well managers' administer their present company. Therefore, according to Fama (1980), the managerial labour market serves to discipline corporate managers regardless of the extent of shareholder control. Furthermore, shareholders are able to restrain managerial opportunism by ensuring that the board of directors contains outside directors who are capable of monitoring managerial behaviour on behalf of shareholders. Coughlan and Schmidt (1985) and Murphy (1985) argued that executive compensation packages that link managerial remuneration with company performance should also serve to minimise the costs of a separation of ownership and control for shareholders. More recently, Bruce and Buck (1997) specifically highlight the potential for companies to utilise share options to help ensure that executives administer companies with the objective of maximising shareholder wealth.

The purpose of this chapter is to present a review of the governance role of each of these mechanisms of internal governance. The first governance mechanism discussed is governance

through ownership structure in large companies. This section of the chapter will discuss four aspects of ownership structure that are pertinent to current governance deliberations: (1) the concentration of external ownership, (2) the presence of large blockholders, (3) the presence of institutional investors and (4) managerial ownership. Section three discusses the governance role of the board of directors. Much of this discussion focuses on the contribution of non-executive directors in seeking to ensure that companies are administered in the interests of shareholders. This section also analyses the implications of CEO duality - where the same individual occupies the positions of chairman and CEO - for corporate governance. Section four focuses on the remuneration of executives in large companies and specifically seeks to ascertain whether executive remuneration is sensitive to company performance. Finally, section five presents some conclusions on the role of these mechanisms of internal governance in quoted companies.

2.2 OWNERSHIP STRUCTURE

2.2.1 Large External Shareholders

Central to the issue of corporate governance in large public companies is the perception of a separation of ownership and control - whereby shareholdings are so diffuse and small that shareholders possess neither the incentives nor ability to effectively monitor managerial behaviour. It is argued that because of this diffusion of ownership, shareholders fail to exercise sufficient control over managers, thereby enabling managers to pursue their own objectives at shareholders' expense (Berle and Means, 1932). The result is that agency costs are likely to be greater than would otherwise be the case. This arises because the costs associated with taking action to monitor managers may exceed the expected benefits. For an individual shareholder who wishes to take monitoring action, the expected benefits of monitoring are lower in a company with diffuse ownership because the shareholder taking the monitoring action faces the prospect of other shareholders free-riding on his efforts (Grossman and Hart, 1980).

Consequently, individual shareholders are not expected to incur the costs of actively monitoring managerial behaviour since they are unlikely to recover much of the benefit likely to accrue from such monitoring. In such circumstances, there will be less monitoring of managers by individual shareholders and higher agency costs than shareholders would collectively desire.

Where an individual shareholder holds a relatively large proportion of a company's shares however, that shareholder has a greater incentive than smaller shareholders to monitor managers because the monitoring shareholder will receive a greater share of the benefits that result from discouraging (or detecting) mismanagement (Schleifer and Vishny, 1986). It may therefore be expected that, because concentrated ownership provides greater incentives to monitor management, there will be a positive relationship between the degree of ownership concentration and company performance (other factors remaining constant). On this basis it might be considered that rational shareholder action implies concentrated ownership structures.

However, as Demsetz and Lehn (1985) argue, this is not necessarily the case and they suggest a number of reasons why concentrated ownership may not be rational behaviour for shareholders. First, concentrated ownership may be extremely costly for shareholders to possess. This is particularly so as corporate size (measured by market capitalisation) increases. Second, concentrated ownership may not be desirable for individual investors if such blockholdings force shareholders to bear risk that they would otherwise have diversified. Third, there are alternative ways of monitoring managers. The desirability of concentrated shareholdings will be influenced by the extent to which market forces such as the market for corporate control and/or product markets act as effective disciplinary mechanisms on managers and also by the relative costs and benefits of alternative monitoring mechanisms, such as non-executive directors. Finally, legal regulation and the extent to which it reduces agency costs, may reduce the necessity for concentrated ownership. In their empirical analysis, Demsetz and Lehn (1985) found that company size and regulation are both negatively related to the extent of external ownership concentration.

The relationship between ownership concentration and company performance has attracted a great deal of empirical attention. In a comprehensive survey of this literature, Short (1994) concludes that despite a large number of empirical studies, the precise relationship between external ownership and performance remains unclear. One of the problems with much of the earlier empirical work in this area is uncertainty in respect of the categorisation of firms between owner-control and manager-control. Studies are inconsistent in their interpretation of the proportion of ownership perceived to indicate owner or manager-control and also within which type of ownership structure is there effective control of the company (see Short, 1994 pp. 208-215 for an excellent synopsis of the variety of control criteria used). The absence of clear findings in these earlier studies appears to have encouraged subsequent researchers to move away from utilising control-type as a dichotomous variable. For example, Cubbin and Leech (1983) develop a probabilistic voting model of control whereby the degree of control is defined as the probability of the controlling shareholding block securing majority support in a contested vote. This model is then used to identify the size of a controlling shareholding - which will be different for each firm depending on the level of shareholder dispersion. Interestingly, when Cubbin and Leech (1983) applied their model to a sample of large UK companies, they estimated that the cut-off point for shareholder control was about 5 per cent. This figure is significantly lower than the levels of ownership used to signify shareholder control in the majority of earlier studies.

Despite inconsistencies in the methodology used in earlier studies of the relationship between external ownership concentration and company performance, it is useful to highlight some of the findings of the major UK studies in this area. For example, using a sample of 86 large companies between 1957 and 1967, Radice (1971) finds that owner-controlled companies are associated with higher profit levels and higher growth levels compared to their manager-

controlled counterparts. Holl (1975) finds no significant differences in the performance (i.e. return on assets, growth rate of assets, dividend level, sales growth or asset growth) of owner-controlled compared to manager-controlled firms in an analysis of 182 large companies between 1948 and 1960. Using ownership data for a sample of 82 large UK companies between 1967 and 1971, Steer and Cable (1978) find that owner-controlled companies outperform manager-controlled companies in respect of all performance measures used (i.e. return on equity, return on equity and long term debt and net profit margin). Leech and Leahy (1991) examine the relationship between owner control and performance for a sample of 470 UK listed companies for the period 1981-85. Leech and Leahy (1991) find a significant positive relationship between owner-control and a variety of performance measures (valuation ratio, profit margin and return on shareholders' capital) and growth measures (sales and net assets). It is also worth noting that a number of recent US studies also fail to identify significant performance differences for companies with concentrated ownership compared to firms with greater levels of ownership diffusion (Holderness and Sheehan, 1988; Murali and Welch, 1989; Denis and Denis, 1994).

In addition to examining the impact of ownership concentration on stock market or accounting measures of performance, other studies have examined the impact of large external blockholders on other aspects of company behaviour. For example, Brickley et al (1988), Agrawal and Mandelker (1990) and Kabir et al (1997) find that companies with a lower dispersion of external shareholders are less likely to adopt value-reducing anti-takeover amendments compared to companies with more dispersed ownership. This evidence suggests that large external shareholders have a positive impact on governance by discouraging managers from adopting anti-takeover provisions likely to benefit managers at shareholders' expense. Further support for the positive role of blockholders is provided by Shivdasani (1993) in a study of the ownership characteristics of hostile takeover targets in the US.

Shivdasani (1993) finds that the level of unaffiliated blockholder ownership increases the likelihood of a hostile bid (compared to a matched sample of non-targets) and concludes that this result is consistent with blockholders facilitating governance-motivated takeovers of companies by third parties. Further insights on the role of blockholders in the context of takeover activity are provided by Dennis and Serrano (1996). In a study of the consequences of takeover failure for the target companies, Dennis and Serrano (1996) find greater levels of managerial turnover in companies where unaffiliated blockholders acquire significant ownership stakes during the course of the bid. After the bid, these blockholders are instrumental in the appointment of new directors and these directors are instrumental in the removal of incumbent managers - such managerial turnover is especially apparent when the target firm has exhibited weak performance prior to the bid. In contrast, managers in targets without significant blockholder ownership are more likely to retain their positions after the bid, despite poor pre-bid performance and the utilisation of value-reducing measures to defeat the bid.

2.2.2 Institutional Shareholders

A refinement of recent research exploring the impact of ownership structure on company behaviour has been a specific focus on the governance role of institutional investors. Financial institutions own an increasing proportion of equity in large UK and US companies. Short and Keasey (1997) for example, show that the proportion of UK equity held by financial institutions increased from 30.3 per cent in 1963 to 61.8 per cent by 1993. Consequently, institutional investors are expected to play a pivotal role in the governance of companies (Cadbury, 1992). Since institutions are mostly agents for the savings of individuals who are expected to seek a maximum return on their investments, it is reasonable to believe that institutional shareholders would have a particular interest in monitoring managers and ensuring that shareholder objectives are pursued. However, a number of writers have highlighted

reasons why institutions' may not have the incentives to actively monitor corporate management (e.g. focus on short-term performance, investment rather than ownership emphasis, conflicts of interests with shareholder companies, reluctance to vote at AGMs). Both Black (1992) and Short and Keasey (1997) provide detailed discussions on institutions' incentives to monitor managers.

The majority of empirical research on the monitoring role of institutional investors focuses on their behaviour in the context of takeovers. This is especially interesting since takeovers present an obvious opportunity for the interests of managers and shareholders to diverge and analysing the role of institutions in this process is likely to provide useful insights into institutions' governance role. If takeovers (especially hostile takeovers) are believed to represent an important governance mechanism, we would expect institutions to play a role at various stages of the takeover process. In the US, Raad and Ryan (1995) find that institutional ownership is greater in the case of hostile rather than friendly takeover targets. In terms of bid outcome, Sudarsanam (1995) reports that the presence of institutional shareholders increases the likelihood of a successful bid in the case of hostile takeovers in the UK. This evidence is consistent with institutional shareholders resisting takeover bids in an attempt to maximise shareholder wealth but also ensuring that the bid is ultimately successful. However, it should be noted that Black and Coffee (1994) identify that a lower proportion of hostile bids are successful in the UK compared to the US. Black and Coffee (1994) suggest that the comparative ease with which managers in the UK successfully defend against unwanted bids may be due to the presence of less aggressive institutional investors in the UK. Despite this however, in a US study, Pound (1988) also finds that institutional shareholders are more likely to vote with management during proxy contests.

2.2.3 Managerial Ownership

Managerial ownership is an alternative method available to dispersed shareholders to monitor managerial behaviour. Unlike, external or institutional ownership, monitoring via executive ownership operates by providing executives with an incentive to pursue shareholder objectives. Jensen and Meckling (1976) argue that agency conflicts between managers and shareholders may be reconciled when managers possess an ownership interest in their company. According to Jensen and Meckling (1976), managers and directors are inside shareholders participating in the decision-making process as well as enjoying the benefits of ownership. Outside (external) shareholders play a passive role in the company's decision-making process. In Jensen and Meckling's (1976) convergence of interest model, an increase in the proportion of the company's equity owned by insiders is expected to result in an increase in firm value as the interests of inside and outside shareholders are realigned.

However, as discussed by Morck et al (1988), significant managerial ownership may also facilitate managerial entrenchment. Essentially, they argue that a manager who controls a substantial fraction of the company's equity may have sufficient voting power, or influence more generally, to guarantee his employment with the company at an attractive salary. With effective control, the manager may indulge his preference for non-value-maximising behaviour. In their empirical analysis, Morck et al (1988) examine the impact on various levels of managerial ownership on company value (measured by Tobin's q) in order to obtain some insights into the possibility that the convergence of interest and entrenchment effects may predominate at different levels of managerial ownership. When managers own between 0 and 5 per cent of equity Morck et al (1988) found a positive relationship between ownership and performance, a negative relationship for ownership in the 5 to 25 per cent range, and a further positive relationship beyond 25 per cent. McConnell and Servaes (1990) also examine the relationship between levels of managerial ownership and performance (measured by Tobin's q).

They find a positive relationship between levels of 0 and 40/50 per cent, which is consistent with incentive alignment occurring between these ownership levels. While the general findings of alignment at low levels is consistent with Morck et al (1988) the presence of wealth maximising behaviour is retained at higher levels in the McConnell and Servaes (1990) study. In a discussion of the different findings of these two studies, Kole (1995) suggests that the difference may be explained by the use of a larger sample of smaller companies in the McConnell and Servaes (1990) study. Essentially, Kole (1995) suggests that the positive relationship between Tobin's q and managerial ownership is sustained at higher levels of ownership for smaller companies than it is for larger companies.

Short and Keasey (1999) test the relationship between managerial ownership and a number of performance measures for a sample of listed companies in the UK. Overall, Short and Keasey (1999) find evidence that management behaviour moves from alignment to entrenchment and back to alignment as their ownership stake in the company increases. Using both return on shareholders' funds and a proxy for Tobin's q as measures of performance, Keasey and Short (1999) find that alignment occurs between 0 and around 13-16 per cent, entrenchment between 13-16 and 42 per cent with alignment resuming after this figure. These results suggest that UK managers become entrenched at higher ownership levels than their US counterparts, and also remain entrenched at far higher levels than seems to be the case in the US.

In the same way that researchers study takeovers to explore the monitoring role of external shareholders (including institutions), the role of managerial ownership in takeovers has also received a great deal of empirical attention. Overall, the evidence suggests that managerial ownership does play an important role in the takeover process. For the purposes of the present review it is interesting to examine the findings of empirical studies on the role of managerial ownership at two stages of takeover activity: managerial reaction and bid outcome. Song and

Walkling (1993) in the US find that managerial ownership is significantly lower in hostile targets compared to friendly targets. Similar results are reported for the UK by Holl and Kyriayis (1997), and for the US by Raad and Ryan (1995), Bucholtz and Ribbens (1994), Cotter and Zenner (1994, and Walkling and Long, (1984). These findings are consistent with Baron (1983) who suggested that lower managerial ownership serves to focus managers' minds on the value of compensation and job retention and implies resistance to takeover while higher ownership focuses attention on the potential gains arising from bid premium and therefore implies takeover acceptance.

In respect of bid outcome, Holl and Kyriazis (1996) find that higher levels of managerial ownership increases the likelihood of takeover success. Similar results are reported for the US by Song and Walkling (1993), Duggal and Millar (1994), and Cotter and Zenner (1994). Of course, the positive impact of managerial ownership on takeover success is likely to be driven by the positive relationship between managerial ownership and friendly bids. Indeed, in the case of hostile bids in the UK, Sudarsanam (1995) finds no evidence of managerial ownership influencing bid outcome. It appears therefore, that managerial ownership influences the takeover process in different ways and at different stages - managerial ownership facilitates friendly takeovers but serves to hinder unwanted takeovers. Of course, what remains unclear is whether high levels of managerial ownership actually prevent disciplinary takeovers. For example, since hostile takeovers are perceived to play an important role in ensuring that managers in public companies pursue shareholder interests, this discipline may only occur in companies with low levels of managerial ownership.

2.3 BOARD COMPOSITION AND LEADERSHIP

The board of directors has an important role in the corporate governance process. The board's principal duty is to protect and promote the interests of shareholders. The board is authorised

to endorse managerial initiatives, evaluate the performance of senior executives, and to reward or penalise that performance. In UK public companies, boards typically consist of a mixture of executive and non-executive members. Executives include the company's chief executive officer and other senior managers and are expected to contribute to board effectiveness with their skill, expertise and industry-specific knowledge of the business. Non-executive directors are normally individuals with specific knowledge of the company and/or industry, and have often held senior management positions in other public companies, professional organisations or possess political, military, academic or civil service backgrounds. Board meetings are chaired by the company chairman who may be an executive or a non-executive director. CEO duality, where the positions of chairman and CEO are held by the same person, is currently a contentious governance issue. In the light of recent governance recommendations (Cadbury, 1992; Hampel, 1998) UK boards increasingly have different individuals in those two roles (Conyon, 1994; Cadbury, 1995; Conyon and Mallin, 1997; O'Sullivan, 1999; O'Sullivan, 2000).

As noted by Finkelstein and Hambrick (1996), boards of directors fulfil two roles in organisations. First, boards act as 'buffers and boundary spanners' (p. 210) linking organisations to critical resources in the environment via a network of director interlocks. Research into this aspect of corporate boards focuses on relationships between organisations with a specific emphasis on the existence, or otherwise, of a managerial network (see Pettigrew (1992) for a useful review of the literature on this aspect of board research and O'Sullivan (2000) for a recent empirical insight into the prevalence of UK executives holding multiple directorships). Second, internally boards have a dual role in organisations: involvement in setting and implementing strategy and monitoring management. In respect of boards' strategic involvement, there appears some disagreement regarding directors' role. For example, Lorsch (1989), while reporting directors' readiness to become more involved in strategic initiatives

recognises that directors' main role in this respect is advising and evaluating rather than initiating. In a recent UK study however, McNulty and Pettigrew (1999) note that UK directors (both executive and non-executive) are becoming increasingly involved in both the formulation and implementation of strategic decisions within their organisations. The second internal role of directors, monitoring executive behaviour on behalf of shareholders, is of particular relevance to this thesis.

The monitoring role of the board of directors has attracted a great deal of recent attention. Governance deliberations in the UK have focused specifically on the potential monitoring role of non-executive directors. Cadbury (1992) for example, recommended that all listed companies should possess at least three non-executives with these non-executives being usefully employed in areas where conflicts between managers and shareholders are most likely to arise. Consequently, Cadbury (1992) suggests that remuneration, audit and nomination committees (if one exists) should be comprised solely of non-executive directors. In addition to non-executive representation, board leadership has also attracted governance attention. In the U.K. for example, Cadbury (1992) recommends that 'there should be a clearly accepted division of responsibilities at the head of a company....such that no one individual has unfettered powers of decision' (paragraph 4.9). Recent surveys of board composition in the UK note an increase both in the use of non-executive directors and incidents of separating the roles of company chairman and CEO (Cadbury, 1995; Samuels et al, 1996; Conyon and Mallin, 1997; O'Sullivan, 1999; O'Sullivan, 2000).

The recent emphasis on board composition and leadership in the UK is consistent with agency theorists' view of the board's governance role. Agency theorists place the board at the heart of corporate governance (Fama, 1980; Fama and Jensen, 1983a; 1983b). The board is portrayed as an important monitoring device that helps to control corporate management and in doing so

seeks to further the interests of shareholders. It is assumed that effective boards will identify with shareholder interests and use their experience in decision making and control to counter any self-interested tendencies of corporate management. Viewing the board in this way focuses particular attention on non-executive members. Given that executive directors' ability to evaluate their own behaviour is questionable, non-executives are perceived to be the principal monitoring component of the board. This realisation focuses attention on the independence of non-executives since the effectiveness of monitoring is likely to be improved if the non-executives are independent from company management. In an initial assessment of board governance, Baysinger and Butler (1985) categorise directors on the basis of their relationship with the company. Baysinger and Butler (1985) distinguish between directors who are current or former employees, family members, executives of other businesses that have significant business relations with the company, and directors who have no obvious past or present business links with the company. Baysinger and Butler (1985) refer to the latter category as the 'monitoring component' of the board. Much of the subsequent research on board composition in the US has usefully used Baysinger and Butler's (1985) categorisation (Weisbach, 1988; Byrd and Hickman, 1992; Brickley et al, 1994).

The question of non-executive independence has also featured strongly in recent governance discussions in the UK. Cadbury (1992) recommended that a majority of non-executive directors should be 'independent of management and free from any business or other relationship which could materially interfere with the exercise of their independent judgement' (paragraph 4.12). This emphasis on non-executive independence has also been confirmed by the report of the Committee on Corporate Governance (Hampel, 1998). Interestingly, neither Cadbury (1992) nor Hampel (1998) provide a working definition of 'independence', instead referring the matter to individual boards to decide. Many of the empirical studies that have analysed the governance role of non-executive directors have sought to categorise non-

executive directors in respect of their business relationship with the company. In the case of studies undertaken in the US, this categorisation has been facilitated by SEC disclosures requiring companies to include in their proxy statements details of directors who have significant business dealings with the company (see Johnson et al (1996) for a useful summary of the SEC's disclosure requirements on outside director independence). In the UK however, the categorisation of non-executives in terms of their affiliation with the companies on whose boards they serve is more problematic. Interestingly, even in light of the various recommendations regarding non-executive independence, UK companies rarely identify board members that may have business or other ties with the company (O'Sullivan, 1998).

A growing amount of empirical research has sought to examine the role of board composition and leadership in the corporate governance process. For the purposes of this review it is convenient to discuss the empirical contributions under three themes: (1) the demand and supply of outside directors, (2) the impact of outside directors on shareholder wealth, and (3) the implications of CEO duality. The following sub-sections review briefly the main findings of empirical studies in each of these categories.

2.3.1 Demand and Supply of Outside Directors

Monitoring the circumstances surrounding the appointment of outside directors is likely to provide some valuable insights on the governance role of outside directors. For example, if outside directors are effective monitors of executive behaviour, we might expect companies to increase outside representation after periods of weak performance. In a US study, Hermalin and Weisbach (1988) find that after poor performance, companies are more likely to remove inside directors and add outside directors to boards. Hermalin and Weisbach (1988) suggest two possible explanations for their findings. First, companies may fire the insiders perceived to be responsible for the poor performance and, having no individual of sufficient seniority within

the company, they fill the vacancy with an outsider. Alternatively, and more in line with agency theory, poor performance may be an indication of poor management and shareholders react to this by placing more outsiders (monitors) on the board. What is curious about the Hermalin and Weisbach (1988) results is the absence of any evidence of outsiders being replaced in poorly performing companies. Rosenstein and Wyatt (1990) undertake an event study of 1251 outside director appointments by companies listed either on the New York Stock Exchange (NYSE) or on the American Stock Exchange (AMEX). Rosenstein and Wyatt (1990) find a positive stock price reaction at the announcement of such appointments. This positive market reaction suggests that the stock market perceives appointments of additional outside directors to be in shareholders' interests.

A related line of enquiry examines the market for outside directors, seeking to identify the characteristics (as a proxy for quality) of directors used by firms. Gilson (1990) examined 111 public companies that either filed for bankruptcy or privately restructured their debt between 1979 and 1985. Gilson's (1990) study found that outside directors who left the boards of these financially distressed companies held approximately one-third fewer directorships three years after their departure. Gilson (1990) concludes that his results suggest that outside directors' principal compensation from serving on corporate boards derives from the reputation they develop as expert monitors of management performance. In another study, Kaplan and Reishus (1990) examined the relationship between a company's performance (as measured by reductions in its dividends payments) and its top executives' service on boards of other companies. Kaplan and Reishus (1990) found that the top executives of the poorer performing companies were significantly less likely to obtain additional outside directorships than executives of the better performing companies. Cotter et al (1997) examined the effects of board composition and director incentives on the tender offer process. They hypothesised that outside directors may have a greater incentive to maximise shareholder value if they have

reputation capital at stake, as measured by the proportion of the board who hold at least one additional outside directorship. By analysing 140 tender offers that occurred between 1988 and 1991, the study found that the percentage of directors holding additional directorships was positively related to the initial tender offer premiums, the total shareholder gains, and the abnormal returns surrounding the first tender offer announcement. Cotter et al (1997) conclude that outside directors with reputation capital at stake are more likely to seek to maximise shareholder wealth.

It is frequently suggested that one of the most popular sources for outside directors is the pool of executives that manage large companies (Cadbury, 1992). A couple of recent studies have sought to focus on the use of executive directors as non-executives elsewhere. An important motivation of this research is seeking to ascertain whether executives who administer better performing companies are more likely to be in demand as a source of monitoring of executives in other companies. In the US, Booth and Deli (1996) find that CEOs in companies with greater growth opportunities (measured by market-to-book ratio) are less likely to hold additional directorships than their counterparts in companies with lower growth opportunities. In a study of all executives, O'Sullivan (2000) reports a similar finding for UK companies. From a governance perspective these findings present a double-edged message. On the one hand, the evidence suggests that better executives are withheld by their own organisations in order to maximise shareholder wealth rather than being released to serve as monitors elsewhere. This finding is consistent with the results of Ward's (1998) survey where most responding companies insisted on some limits to the number of additional directorships their executives could possess. However, this evidence does suggest that some of the most effective executives, and by implication some of the most effective monitors, are not available to undertake non-executive duties in other companies. Booth and Deli (1996) and O'Sullivan (2000) also find that executives with longer tenure are likely to possess a greater number of additional

directorships while executives in regulated companies hold fewer outside appointments. Interestingly, O'Sullivan (2000) finds that executives from companies with a greater proportion of non-executives are more likely to possess additional directorships, while executives from companies with an executive serving from elsewhere as a non-executive are also more likely to hold additional directorships. This finding does suggest the existence of a 'market for directors' whereby executives are under pressure to offer themselves for non-executive appointments in order to secure the services of other executives to serve on their own boards

2.3.2 Impact of Outside Directors on Shareholder Wealth

Baysinger and Butler (1985) examined differences in financial performance across 266 major U.S. companies as a function of board composition over the 1970-80 interval. The authors found that the proportion of independent outside directors serving on the board has a positive, but lagged, effect on the company's average return on equity relative to the industry's average return. This suggests that companies with relatively more independent outside directors on their boards in the early 1970s enjoyed better financial performance in the late 1970s than firms with lower outside representation. However, Baysinger and Butler (1985) found no evidence that companies performing worse in the beginning of the period reacted by appointing additional outsiders before the end of the period of the study. In view of the current move towards majority outside representation on UK boards, it is interesting to note that Baysinger and Butler (1985) found that optimal performance was found when outside representation was less than 50 per cent of the board with higher representation resulting in declines in relative performance. In a subsequent study of the relationship between outside director representation and performance, Pearce and Zahra (1992) find that higher outside representation on US boards in 1986 resulted in superior financial performance (using a variety of accounting measures) between 1987-89. Schellenger et al (1989) found a positive relationship between the proportion of outside directors on the board and performance as measured by the risk-adjusted

market return.

Even though the empirical evidence on the impact of board composition on company performance is mixed, recent research attention has focussed on the behaviour of outside directors in specific events that have the potential to highlight conflicts between company managers and shareholders. The potential for executives pursuing their own interests at shareholders' expense is particularly likely in such events as: managerial change, executive compensation, and mergers and acquisitions. In a study of how board composition affects the relationship between poor company performance and CEO turnover, Weisbach (1988) found that companies with outsider-dominated boards were significantly more likely than firms with insider-dominated boards to remove the CEO on the basis of firm performance (as measured by stock returns and changes in earnings before interest and taxes). Weisbach (1988) also found that outsider-dominated boards tended to improve firm value by replacing 'bad' CEOs. The improvement in company value (as measured by abnormal returns surrounding the announcement of CEO resignations), was largest when the CEO change was preceded by poor company performance. There was no similar result for insider-dominated boards. In an analogous study, Borokhovich et al (1996) found a strong positive relationship between the percentage of outside directors and the frequency of outside CEO succession. Borokhovich et al (1996) also found evidence from stock returns surrounding CEO succession that, on average, shareholders benefit from outside appointments.

In terms of executive compensation, Mehran (1995) hypothesised that if outside directors better represent shareholder interests than inside directors, companies with outsider-dominated boards are expected to make greater use of equity-based executive compensation. Similarly, if inside directors are more responsive to management interests, companies with insider-dominated boards may be expected to utilise proportionally more fixed cash compensation. To test these

hypotheses, Mehran (1995) studied compensation data for 153 randomly selected manufacturing firms during 1979 and 1980. Consistent with his hypothesis, Mehran (1995) found that firm performance was positively related to the proportion of executive compensation that was equity-based, and companies with more outside directors had a higher percentage of their executive compensation in equity-based form. These results suggest that by focusing compensation on shareholder-orientated performance outsider-dominated boards seek to improve shareholder welfare. Two studies on the level of executive compensation in the financial services industry provide additional support for the monitoring value of non-executive directors. In a study of the banking industry, Brickley and James (1987) found that in states where commercial banks are immune from takeover, the proportion of outside directors on the board is negatively related to managerial consumption of perquisites. In a more recent study in the insurance industry, Mayers et al (1997) found that mutual insurers with a larger proportion of outsiders on the board, have lower managerial salaries and rent expenses. It should be noted however, that Boyd (1994) and Kren and Kerr (1997) find that the proportion of outside directors had little impact on the pay-performance relationship in US firms, a finding confirmed by studies in the UK by Main and Johnston (1993) and Cosh and Hughes (1997).

Mergers and acquisitions may involve a conflict of interest between management and shareholders in a number of respects. First, since takeovers are often associated with the replacement of the target's management, executives have an incentive to impose defensive measures designed to deter potential bidders from launching a bid even though takeovers may be wealth enhancing activities for shareholders. Second, once a bid is launched, executives may seek to defeat the bid in order to avoid subsequent displacement while shareholders may wish to benefit from the bid-related premiums that are expected to arise. Third, managers in companies may pursue takeovers as a means of pursuing growth objectives rather than seeking to maximise shareholder wealth. Studying the behaviour of outside directors in the context of

takeover activity is capable of providing useful insights into the effectiveness of outside director monitoring. Brickley, et al (1994) examined the role and impact of outside directors in the context of the adoption of 'poison pill' takeover defences. Poison pills describe a variety of shareholder agreements that create rights in shareholders of the target company designed to (1) make a company less attractive to a hostile bidder after it takes control and (2) increases the cost of the acquisition to the bidder. For example, under such plans, target shareholders are given the right to purchase additional shares in the target at a very favourable price on the occurrence of a takeover bid. There are competing hypotheses regarding the impact of such devices on shareholder wealth. On the one hand, poison pills are seen as a mechanism that increases the costs of displacing entrenched managers and in this respect are likely to deter bidders and harm shareholder wealth. On the other hand however, poison pills provide managers with a mechanism of extracting maximum returns for their shareholders so in this respect, poison pill adoption may be consistent with managers pursuing shareholder interests. Since the adoption of poison pills may be undertaken by boards without shareholder approval, they provide an interesting opportunity to ascertain whether outside directors pursue shareholder wealth.

Brickley et al (1994) examined the adoption of poison pills by US companies between 1984-86. Brickley et al (1994) hypothesised that if outside directors represent shareholder interests, the probability of using poison pills to damage shareholders should decrease with the proportion of outsiders on the board. Since the market can observe board composition, this effect should be incorporated in the initial stock price reaction to the adoption of poison pills. By contrast, if outside directors represented managerial interests, the probability of using poison pills to harm shareholders should not vary with the proportion of outside directors on the board. Under this scenario, the market reaction to the adoption of poison pills should not depend on board composition. Brickley et al (1994) found that the two-day stock return around the

announcement of poison pill adoptions was positive when the board had a majority of outside directors. By contrast, the abnormal return was negative when outside directors held fewer than half of the board seats. Additionally, among companies adopting poison pills, the probability of an auction among competing bidders during a subsequent control contest was higher if the company's board had a majority of outside directors. This evidence suggests that outside directors use the poison pill mechanism more effectively to benefit shareholders by raising the price that the acquiring company eventually agrees to pay.

An interesting question is whether board independence encourages managers to pursue shareholder interests in responding to takeover bids. In a study of US takeover bids, Cotter et al (1997) found that boards resisting takeovers typically possess a greater proportion of outside directors than boards involved in friendly bids. In a Canadian study, St-Pierre et al (1996) report similar findings. Furthermore, Cotter et al (1997) find that resistance by boards with a majority of outside directors results in higher takeover premiums for target shareholders than resistance by insider-dominated boards. However, Cotter et al (1997) find no evidence to suggest that outside representation increases the likelihood of bid failure. This evidence suggests that outside directors use takeover contests to maximise returns to their shareholders but stop short of forcing the bidder to abandon the bid.

Takeovers also provide the opportunity for a conflict of interest between managers and shareholders in bidder companies. For example, instead of acquiring other companies when doing so maximises shareholder wealth, managers may be motivated by empire-building ambitions. Byrd and Hickman (1992) tested this hypothesis by examining the relationship between the presence of independent outside directors and the return to shareholders of bidding companies. The shareholders' return was measured by the abnormal return on the bidding company's common stock at the announcement of the tender offer. An independent board was

defined as a board with at least 50 per cent independent outside directors, while a non-independent board was defined as a board with less than 50 per cent independent outside directors. Using a sample of tender offer bids by 111 companies between 1980 and 1987, Byrd and Hickman (1992) found that returns to bidders with independent boards was significantly less negative than returns to non-independent boards. Byrd and Hickman (1992) conclude that their findings are consistent with the hypothesis that shareholder interests are better served by independent boards of directors.

2.3.3 CEO Duality

Recent board deliberations have focused specifically on the issue of CEO duality, where the same individual occupies the positions of company chairman and CEO. Most writers and policy initiatives have suggested that CEO duality is unlikely to be in the best interests of shareholders 'for the board to be effective, it is important to separate the CEO and chairman positions' (Jensen, 1993, p. 36). Similarly Cadbury (1992) commented 'there should be a clearly accepted division of responsibilities at the head of a company....such that no one individual has unfettered powers of decision' (paragraph 4.9). The preference for a separate CEO and chairman is grounded in agency theory concerns regarding the potential for CEO domination of the board. As noted by Finkelstein and D'aveni (1994) 'according to agency theory, duality promotes CEO entrenchment by reducing board monitoring effectiveness' (p. 1079). Agency theorists argue that companies respond to potential agency problems by delegating the task of decision management to the CEO, and decision control to the board. Thus, under this model, the CEO is responsible for initiation and implementation of strategic decisions, while the board is responsible for ratifying and monitoring decisions by the CEO. By serving as chairman, the CEO will acquire a wider power base and locus of control thereby weakening decision control by the board. This reduction in board control facilitates pursuit of the CEO's agenda, which may differ substantially from shareholder goals. Agency theory

proposes therefore, that a combination of CEO and chairman positions is likely to weaken board control, and as a consequence, negatively affect company performance. However, as discussed in Boyd (1995) stewardship theory suggests that CEO duality is beneficial since it provides uniform leadership and consequently eliminates any internal or external ambiguity regarding who is responsible for firm outcomes.

A number of recent empirical studies have sought to identify the impact of CEO duality on performance. Brickley et al (1997) examine a number of issues surrounding the existence of CEO duality in large US corporations. Their results suggest that accounting performance is unrelated to whether companies separate the two roles or not. Furthermore, they find that changes from CEO duality to separate leadership and vice versa have any impact on the share prices of the companies involved. They argue that for US corporations, CEO duality is probably efficient for shareholders, and the relatively few instances of separation arise when firms are at different stages of the succession process (Vancil, 1987). Boyd (1995) and Baliga et al (1996) again utilising US data, also find no evidence to support the contention that CEO duality has an adverse effect on shareholder welfare. In the UK, studies of the relationship between executive remuneration and performance find no evidence that companies exhibiting CEO duality pay excessive remuneration (Conyon and Leech, 1994; Conyon and Peck, 1998).

2.4 EXECUTIVE REMUNERATION

Dispersed shareholders may also seek to encourage managers to pursue shareholder objectives through appropriately constructed compensation contracts. As Jensen and Meckling (1976), and Fama and Jensen (1983a and 1983b) suggest, the writing of employment contracts is an important method by which shareholders can control the activities of their agents (managers). As Ezzamel and Watson (1997) observe, within an agency theory perspective, where it is usually assumed that the principal is either risk-neutral or risk-averse and the agent is

presumed to be both risk and effort averse, executive compensation contracts are expected to have both an incentive and insurance effect. In situations where the agent's efforts and output are observable, the principal can eliminate shirking by the agent through monitoring (Holstrom, 1979) and the agent's compensation will be a flat wage (regardless of the level of output). However, when output is observable but the agent's effort is unobservable (or when random factors effect output) Holstrom (1979) has shown that that the agent's reward should be contingent upon the output obtained in order to provide an incentive for the agent to exert greater effort to increase output. This reasoning suggests a potential link between executive remuneration and shareholder-orientated performance.

The potential for a relationship between executive remuneration and performance has proved a fertile ground for researchers seeking to examine whether shareholder or managerial interests predominate in public companies. A central objective of this stream of research has been to identify whether executive remuneration is sensitive to performance (consistent with agency-theory) or whether executive remuneration is sensitive to firm size (consistent with managerialism). The notion that executive remuneration may be sensitive to company performance is motivated by the idea that companies, through the decisions of management, seek to maximise profitability and consequently profits (performance) should have a strong and persistent influence on executives' rewards (Lewellen and Huntsman, 1970). Agency theorists emphasise the potential for incentives to ensure that shareholder and management's interests are aligned. Very often, such incentives are provided through both the structure and level of executive remuneration (Jensen and Murphy, 1990). Managerialists on the other hand, argue that managers' objectives focus on maximising company size (Marris, 1964; Baumol, 1967). According to this perspective, executives are expected to maximise company size because; (1) size is more controllable than profitability, (2) bigger companies have a greater ability to pay larger compensation than smaller companies and (3) bigger companies offer more non-

pecuniary benefits to executives (prestige etc). The managerialist perspective leads naturally to a corporate growth hypothesis, that firm size (sales or assets) will be positively associated with executive compensation (Ciscel and Carroll, 1980).

Early studies such as, Lewellen and Huntsman (1970), Cosh (1975) and Meeks and Whittington (1975) found that cash compensation was positively associated with sales, and to a lesser extent, accounting profit. Other researchers sought to address some of the limitations identified in these early studies by incorporating additional measures of corporate performance such as share performance and by broadening the definition of compensation beyond cash. For example, studies by Murphy (1985), Antle and Smith (1986) and Jensen and Murphy (1990) report evidence of a significant association between total compensation (cash and share options) and share price performance – a finding which is contrary to the sales-maximisation hypothesis presumed to be supported by earlier studies. However, two additional findings of these more recent studies are also worth noting. First, even studies providing support for the agency theory perspective also report a strong association between remuneration and firm size, and the magnitude of the performance-pay relationship in these studies is typically small. Jensen and Murphy (1990) for example, estimate that CEO wealth changes \$3.25 for every \$1,000 change in shareholder wealth, while evidence reported by Murphy (1985) suggests that when returns to shareholders decline by over 30 per cent, CEO salary and bonus reduces by 1.2 per cent, while increases in shareholder returns exceeding 30 per cent results in an increase in CEO remuneration of 8.7 per cent.

Recent UK evidence on the relationship between pay and performance is equally mixed. For example, Main (1991) finds some modest evidence of a positive relationship between CEO pay and share price performance using 1985 data, while Gregg et al (1993) find a decreasing relationship between share price performance and CEO pay between 1983 and 1991 but find

that sales growth does exert a significant positive impact on pay increases. What is especially interesting about the Gregg et al (1993) study is their finding that executive remuneration was unrelated to performance in the 1988-91 period – a period when governance concern in the UK was at its high point (Cadbury, 1992). Subsequent studies by Main and Johnston (1993), Conyon and Leech (1994), Conyon (1997), Cosh and Hughes (1997), and Conyon (1998) also find that company size, rather than performance, is the dominant influence on executive remuneration. Indeed, Main (1994) notes that in the UK between 1969 and 1989, CEOs received an additional remuneration of £50 for every £1 million added to shareholder wealth. In contrast, Main (1994) notes that every time sales doubles, CEOs receive a pay increase of around 30 per cent (p. 89).

The lack of any convincing support for agency theory's prediction on the relationship between pay and performance has initiated a series of studies exploring the impact of ownership and control characteristics on the pay-performance relationship. This line of inquiry is motivated by the notion that stronger shareholder monitoring is likely to result in compensation contracts that are more sensitive to performance. In an initial investigation into the impact of shareholder control on executive remuneration, Gomez-Mejia et al (1987) find that the pay-performance link is significantly stronger in companies with at least one large external blockholder compared to companies without large blockholders and consequently perceived as being manager-controlled. More recently, Hambrick and Finkelstein (1995) also report evidence of a stronger pay-performance relationship in companies with greater levels of external ownership concentration. In the UK, Conyon and Leech (1994) find that executive remuneration is lower in companies with greater concentration of external ownership. A couple of studies have also examined the role of institutional investors in executive remuneration. In the US, Winfrey (1994) finds that higher levels of institutional ownership results in lower compensation while in the UK, Cosh and Hughes (1997) find no evidence of institutional ownership exerting an

influence on executive pay. David et al (1998) find that the impact of institutional investors depends on the institution's relationship with the company. David et al (1998) find that institutions which only possess an investing relationship with the company both have a negative influence on executive pay and also increase the proportion of long-term incentives in the executive's remuneration contract. Institutions with other business relationships with the company on the other hand, do not seem to influence executive remuneration in a similar way.

A specific focus of governance reform during the 1990s has been an increased use of board governance in seeking to ensure that companies are administered in the interests of shareholders. While the main focus of board governance reform has been on reducing the influence of CEO duality and increasing the influence of non-executive directors, the board's role in executive compensation decisions has also come under scrutiny. Specific attention has been directed at the potential for remuneration committees to ensure that executive pay decisions are adequately scrutinised by independent board members. For example, Cadbury (1992) says 'boards should appoint remuneration committees, consisting wholly or mainly of non-executive directors and chaired by a non-executive director, to recommend to the board the remuneration of the executive directors in all its forms ... Executives should play no part in decisions on their own remuneration' (p. 31). The empirical evidence on the relationship between board characteristics and remuneration is mixed. For example, Boyd (1994) finds that outside director representation on boards of US firms is positively associated with CEO pay while Kren and Kerr (1997) found that the proportion of outside directors had little impact on the strength of the pay-performance relationship. Core et al (1999) report a negative association between CEO duality and executive pay and a positive association between a variety of board governance measures (e.g. proportion of independent outside directors, outside directors with multiple directorships) and pay. Core et al (1999) conclude that this evidence provides reassurance regarding the contribution of independent directors in reducing agency

problems in large public companies. In the UK, Main (1991) finds that CEO duality and the number of non-executive directors exert a positive influence on CEO pay. Main and Johnston (1993) report that the proportion of non-executives increases CEO pay while Conyon and Leech (1994) find that CEO duality does not influence pay levels. Conyon and Peck (1998) find no relationship between CEO duality or non-executive representation and CEO pay but do find that changes in remuneration is more in line with performance when boards comprise a greater proportion of non-executive directors.

A few recent studies have sought to explore the role of remuneration committees in determining executive remuneration. In the UK, Main and Johnston (1993) find that companies possessing remuneration committees pay their executives more, while Conyon and Peck (1998) find that remuneration committees with greater non-executive representation also pay higher executive salaries. Interestingly, Conyon and Peck (1998) find that the proportion of non-executives on the remuneration committee is positively related with the strength of the pay-performance relationship. In the US, Daily et al (1998) find that CEO pay does not seem to be influenced by the presence of 'CEO directors' either on the board or serving on the firm's remuneration committee. Daily et al's (1998) findings are particularly reassuring since much public attention has focused on the apparent interdependence of remuneration committee members – i.e. executives sitting on other executives' remuneration committees and bidding up salaries in the knowledge that the CEO will return the 'favour' in due course.

2.5 CONCLUSIONS

This chapter has sought to review the current state of the literature on three sources of internal governance which agency theory has suggested may serve to reconcile the interests of shareholders and managers in large public companies: ownership structure, board composition and executive remuneration. Ownership structure is a central issue in corporate governance

since increased ownership dispersion is expected to allow managers exercise greater discretion in their administration of the company. The risk for external shareholders is that increased managerial freedom may result in manager-orientated rather than shareholder-orientated performance as managers emphasise their own interests at shareholders' expense. Even though shareholders are aware of the potential for managerialism, individual diversified shareholders lack an economic incentive to actively monitor managerial behaviour since other non-monitoring shareholders are likely to 'free-ride' on the monitoring shareholder's efforts and expense. An alternative strategy for shareholders may be to accumulate a sufficient equity stake in the company to make active monitoring economically desirable. The potential for more concentrated ownership to reduce agency costs is further enhanced by the increasing involvement of financial institutions in the ownership of large companies. In addition, it has also been suggested that managers may be motivated to pursue shareholder interests by encouraging them to possess an equity stake in the company they are managing (Jensen and Meckling, 1976).

Not surprisingly, the relationship between ownership structure and company performance has attracted a great deal of empirical attention. Much of the early research on the topic was hampered by inconsistencies in categorising 'manager-controlled' and 'owner-controlled' firms with no clear conclusions emerging. More recently, researchers have sought to focus their evaluations of the value of blockholder oversight in areas of potential conflict between shareholders and managers. For example, there is some evidence that concentrated ownership reduces the likelihood of companies adopting anti-takeover measures designed to protect manager interests in the event of takeover (Brickley et al, 1988; Kabir et al, 1997). Shivdasani (1993) reports evidence that unaffiliated blockholders facilitate the likelihood of hostile takeovers – which are expected to be motivated by governance concerns. Furthermore, Dennis and Serrano (1996) find a greater likelihood of managerial turnover in a sample of

unsuccessful takeover targets that show poor pre-bid performance.⁷ It appears therefore, that even if blockholders are unable to ensure managerial defeat in hostile bids, they can still exercise a governance role by altering the target's management team when the company's pre-bid performance merits such a change. Recent attention has focused on the potential for institutional blockholders to monitor managerial behaviour. This arises due to the dramatic growth in institutional investment in the equity of quoted companies. However, no clear consensus has yet emerged in ascertaining institutional shareholders' contribution to the governance process.

Even though a number of researchers have identified performance benefits of managerial ownership, the impact does not appear to be linear. For example, in the US, Morck et al (1988) find that low levels and very high levels of managerial ownership are associated with better performance, while ownership in the intermediate range is associated with weaker performance – possibly due to managerial entrenchment at the intermediate ownership level. In the UK, Short and Keasey (1999) find similar results but report lower inflection points than that reported in Morck et al's (1988) study in the US. In the context of takeovers, there is increasing evidence of the pivotal role managerial ownership plays at various stages of the takeover process. For example, a number of US studies find evidence that lower levels of managerial ownership is positively associated both with bid hostility and bid failure. This suggests that lower managerial ownership serves to focus managers' minds on the value of compensation and job retention while higher managerial ownership focuses attention on the potential gains expected to accrue from takeover-related bid premiums.

A principal focus of recent governance discussions has been on board composition with a particular emphasis on the use of non-executive directors to monitor executive behaviour (Cadbury, 1992). Non-executives are expected to perform an important governance role by

introducing independence and impartiality to board deliberations and ensuring that the interests of shareholders are taken into account in board decisions. A potential difficulty in seeking to assess the value of non-executive monitoring concerns the true independence of non-executive board members. For example, studies in the US have usefully distinguished between truly independent non-executives and non-executives who have business or family connections with the company. This categorisation of affiliated and unaffiliated non-executives has yielded interesting results – a number of studies have found that higher proportions of truly independent directors are associated with stronger shareholder-orientated decisions (Baysinger and Butler, 1985; Weisbach, 1988; Brickley et al, 1994).

In reviewing the available evidence on the monitoring role of non-executives, a number of research themes can be identified. First, an important objective of governance researchers is to seek to understand the factors that influence the demand and supply of non-executive directors. Hermlin and Weisbach (1988) report evidence of increased non-executive utilisation by companies after periods of weak performance while Rosenstein and Wyatt (1992) find evidence of positive shareholder reaction to non-executive appointments. An emerging area of research interest concerns the supply of non-executive directors. Gilson (1990) provides evidence of directors of financially distressed companies holding fewer non-executive directorships while Kaplan and Reishus (1990) report evidence of executives in weaker performing companies holding fewer non-executive directorships. Of course, a potential impediment to companies securing the services of good non-executives depends on the willingness of other firms releasing these executives to serve on other companies' boards. Booth and Deli (1996) and O'Sullivan (2000) find evidence suggesting that executives of companies with superior growth opportunities hold fewer non-executive appointments in other companies. This implies a reluctance on the part of successful executives to sacrifice the future welfare of their own firms by serving as non-executives elsewhere.

Second, perhaps the most attractive area for researchers exploring the governance role of non-executives concerns their behaviour during situations where the interest of shareholders and managers are most likely to diverge. For example, Weisbach (1988) and Borokhovich (1996) find that outsider-dominated boards are more likely to replace CEOs after poor performance than insider-dominated boards. Brickley et al (1994) find that the stock market reacts more positively to the adoption of takeover defences when boards comprise a majority of outside directors – suggesting a belief that outsider-dominated boards are more likely to make value-maximising decisions. There is also some evidence that outsider-dominated boards are more likely to pursue shareholder interests during takeover bids (Cotter et al, 1997). Furthermore, in a study of bidders, Byrd and Hickman (1992) report higher post-acquisition returns to bidders with outsider-dominated boards compared to bidders possessing a majority of insiders. However, it should also be noted that a number of studies have identified no clear advantage or disadvantage of non-executive behaviour. Third, a major source of governance concern, especially in the UK, is CEO duality – a situation where the same individual occupies the positions of company chairman and CEO. Even though only a handful of studies have examined the impact of CEO duality in the governance process, there is no clear evidence that policy-makers' concerns are justified. For example, Brickley et al (1997) find no relationship between prior performance and the existence of CEO duality and also fail to observe any significant stock market reaction when companies either adopt or move away from CEO duality.

In addition to ownership and board monitoring, managers in public companies can also be encouraged to pursue shareholder objectives through appropriately constructed remuneration contracts. This aspect of internal governance has attracted an enormous amount of empirical attention. The principal finding of researchers is that executive remuneration is predominantly influenced by firm size with, at best, a modest influence by performance. More recently,

researchers have attempted to explore the strength of the pay-performance relationship under different levels of ownership and board control. For example, there is some evidence that more concentrated ownership results in remuneration that is more closely linked to performance. The findings on the impact of board independence is mixed with some researchers suggesting that pay and performance is more strongly aligned in the presence of more non-executive directors (Conyon and Peck, 1998; Core, 1999), while others report a positive relationship between the utilisation of non-executives and remuneration (Main and Johnson, 1993; Boyd, 1994). A subset of this line of enquiry has examined the potential for remuneration committees to ensure a strong pay-performance link. Research in the UK by Conyon and Peck (1998) and in the US by Daily et al (1998) suggests the presence of greater realignment between pay and performance in companies where remuneration committees are outsider-dominated.

CHAPTER THREE

A REVIEW OF EXTERNAL GOVERNANCE MECHANISMS

3.1 INTRODUCTION

Even though agency theory emphasises the contractual nature of firms and the potential for a variety of internal governance mechanisms to reconcile the objectives of shareholders and managers in large public companies, it also recognises that in some instances internal governance may not adequately monitor the behaviour of managers. Consequently, it is often suggested that takeovers represent an important governance mechanism whereby shareholders can replace underperforming or opportunistic managers. The launch of a hostile takeover bid, for example, is generally perceived as a signal by the bidder that the target's assets are not being maximised for the benefit of shareholders. Indeed, Jensen (1986) suggests that 'the external takeover market serves as a court of last resort ... that plays an important role in protecting shareholders when the corporation's internal controls ... are slow, clumsy, or defunct'. This governance role of takeovers is grounded in Manne's (1965) doctrine that the stock market represents an objective evaluation of managerial performance. When the opportunity to create new value via the redeployment of assets or the displacement of existing managers becomes apparent, the company becomes an attractive target in the market for corporate control. Therefore, the greater is management's departure from value-maximisation, the greater is the potential gain for an acquirer and consequently the more vulnerable the incumbent management team is to a takeover bid.

Viewing takeovers as an important source of external governance raises a number of interesting empirical issues that have been addressed in the takeover literature. First, since the governance role of takeovers suggests that takeovers are more likely to occur when managers fail to

maximise shareholder wealth, we would expect takeover activity to be negatively associated with company performance. Second, since the governance rationale for takeovers stems from the perception that target managers are unable/unwilling to maximise shareholder wealth, we would expect incumbent managers to resist takeover bids. Third, we would also anticipate abnormally high rates of managerial turnover in companies that have been successfully acquired. However, as Chiplin and Wright (1987) suggest, unsuccessful takeovers may also have an impact on the turnover of non-value-maximising managers since the launch of a bid may focus shareholder attention on manager's shortcomings. Finally, if takeover activity is motivated by the need to improve efficiency we would expect to see improved company performance subsequent to takeover activity. This section reviews the empirical literature on each of these aspects of takeover governance.

While takeovers are viewed as an important source of external governance in public companies, other forms of organisational structure address similar governance concerns in a different way. An interesting example of an alternative form of organisational structure is found in the insurance industry where mutual and proprietary companies have coexisted for many years. An important characteristic of mutual companies is the fusion of the role of customer (policyholder) and owner which serves to alleviate potential conflict between shareholders and policyholders regarding the distribution of company surpluses (Hansmann, 1985). However, the merging of the customer and owner functions appears to undermine the model of shareholder control upon which much of the recent governance literature is based. By merging the functions of customer and owner, mutual companies exhibit a greater degree of ownership diffusion compared to proprietary companies making effective control of senior management extremely difficult. In addition, the absence of shareholders in mutual companies eliminates the possibility of a hostile takeover - an important mechanism of control in proprietary companies (Rappaport, 1990). Despite this however, the continued competitiveness of mutuals vis-a-vis

proprietary companies in insurance suggests that mutuals may employ other means of restricting managerialism.

In this review, I focus on three aspects of the governance implications of the coexistence of mutual and proprietary insurers. First, I explore the theoretical justification for mutuals in insurance. The literature suggests three reasons for the suitability of the mutual form in insurance: the long-term nature of life insurance contracting and policyholders' desire of policyholders to avoid the adverse consequences of incomplete contracting; the unwillingness of low-risk insureds to subsidise the risks of higher-risk groups; and mutual policyholders' attitude towards risk. Second, I analyse the potential for conflict between owners and managers in both mutual and proprietary companies. The separation of the functions of ownership and management in both mutual and proprietary companies suggests a need for appropriate governance mechanisms to ensure that managers administer the company in the interest of owners. However, in view of the increased level of ownership dispersion in mutual companies and the absence of hostile takeovers, mutual managers are expected to enjoy a greater degree of managerial discretion than their proprietary counterparts. Two issues are addressed in this section: whether mutual companies seek to overcome weaknesses in external governance by emphasising different mechanisms of internal governance compared to their proprietary counterparts; and whether the existing empirical literature identifies any behavioural differences between the two organisational forms. Three, I consider the effects of a change in organisational status - i.e. proprietary companies changing to mutual (i.e. mutualisation) or mutuals becoming proprietary companies (i.e. demutualisation). An important empirical question in this respect is whether policyholders, shareholders and managers experience wealth changes as a result of a change in organisational status.

3.2 THE GOVERNANCE ROLE OF TAKEOVERS

3.2.1 Takeovers and Company Performance

Central to the governance role of takeovers is a belief that takeovers seek to correct for inadequate company performance and occur primarily to reconcile the interests of shareholders and managers by improving the performance of target companies. In seeking to understand company performance surrounding takeover activity two distinct approaches have been employed in the literature. One approach argues that the appropriate measure of performance should reflect changes in shareholder wealth. Proponents of this view argue that shareholders 'are the ultimate holders of the rights to organisational control and therefore must be the focal point of any discussions concerning it' (Jensen, 1984). Supporters of this view utilise stock market data in their analysis of takeover activity – measuring the economic impact of takeovers by focusing on abnormal share price movements at specific points during the takeover process. This procedure is commonly referred to as 'event studies' due to the importance of specific dates (e.g. announcement date, outcome date etc.) in each takeover bid. However, some researchers argue that alterations in a company's share price merely reflect shareholders' expectations and these expectations can be compromised by an asymmetry of information between managers and company outsiders (Porter, 1987; Morck et al 1989). Furthermore, it is often suggested that share price movements surrounding takeover activity merely reflects shareholders' anticipation of wealth transfers from existing bondholders or wealth benefits arising from taxation readjustments and thereby serves as 'an inappropriate' measure of improvements in corporate efficiency (Schleifer and Vishny, 1988). An alternative method of measuring performance surrounding takeover activity is the use accounting information. This approach uses traditional historic accounting measures such as returns on sales, assets, and capital employed as well as profitability and sales growth measures. In analysing the pre-bid performance of targets and the impact of takeovers on target efficiency, I will summarise the main findings in respect of both stock market and accounting measures of performance.

If the principal motive for a takeover is to correct for managerial failure, the pre-bid share price performance of targets is expected to be significantly negative before the bid announcement. Event studies in the US by Dodd and Ruback (1977), Kummer and Hoffmeister (1978), and Asquith (1983) report large negative abnormal returns in the pre-merger period. Asquith (1983) for example, found consistent negative cumulative returns for his sample of 302 target companies for the period spanning 480 days to 20 days before the announcement date of the bid. Palepu (1986) also found that companies with negative abnormal returns are more likely to become subject to a takeover bid. Similar results are reported for the UK by Franks et al (1977) and Firth (1979 and 1980). A refinement of this line of research is the examination of pre-bid returns taking into account the mood of the bid since hostile takeovers are more likely to be motivated by managerial opportunism or inefficiency. For example, Kennedy and Limmack (1996) report lower abnormal returns to targets of disciplinary bids compared to targets of non-disciplinary bids (bids were deemed disciplinary in the context of this study if the CEO of the target was replaced within two years of the acquisition). Franks and Mayer (1996) fail to find any evidence of weaker share price performance among their sample of hostile bids compared to a control group of non-targets.

Studies of the pre-bid performance of targets using accounting information similarly fails to provide an overall consensus on the impact of performance on takeover likelihood. In the US for example, Mueller (1980) analyses the pre-acquisition performance of 287 targets between 1962-1972. Controlling for size and industry, Mueller (1980) finds that targets produced greater pre-acquisition return on assets compared to non-targets. Similar findings are reported for the US by Boyle (1970), Harris et al (1982) and Herman and Lowenstein (1988). More recent research has incorporated the mood of the bid, motivated by the notion that hostile targets may exhibit especially weak pre-bid accounting performance. Ravenscraft and Scherer

(1987) find weak evidence of inferior performance by targets of hostile bids compared to their friendly counterparts while Morck et al (1988) find that hostile targets are associated with a significantly lower Tobin's Q. Additionally, Morck et al (1988) found that hostile targets located in low Tobin's Q industries exhibited lower performance than the industry average. Consequently, Morck et al (1988) concluded that hostile takeovers are more likely to be undertaken for governance reasons. In the UK, evidence reported by Meeks (1977). Levine and Aaronovitch (1981) and Franks and Mayer (1996) fail to find takeover targets exhibiting inferior pre-bid performance. However, Powell (1997) finds that the likelihood of hostile takeover is negatively related to accounting returns in the period 1984-1991 - with the relationship being particularly important in the 1988-1991 period.

Event study methodology is especially useful in assessing the impact of takeover announcements on the wealth of target shareholders. There is widespread agreement that takeovers generate sizeable positive returns to shareholders in target firms. Studies of completed mergers in the US by Dodd (1980), Asquith et al (1983) and Eckbo (1983) report two-day abnormal returns ranging from 6.24 per cent to 13.4 per cent around the bid announcement date. Over a one month period, the positive abnormal returns are estimated at between 13.3 per cent and 21.78 per cent (Asquith et al, 1983; Malatesta, 1983). Jarrell et al (1988) provide an interesting insight into the time dimension on the gains to target shareholders over the past three decades. Their study examines the returns to shareholders of 663 completed takeovers between 1962-1985. The average shareholder gain was 19 per cent in the 1960s, 35 per cent in the 1970s, and 30 per cent in the 1980s. Bradley et al (1988) report broadly similar findings in their study of 236 completed takeovers for the periods 1963-1968 and 1981-1985. In the UK, Franks et al (1977) report abnormal gains of around 26 per cent in a study of takeovers in the brewing industry. Firth (1979) reports gains of 37 per cent between months -4 and +1 and gains of 29 per cent in the announcement month itself. In a study of 1,900

takeovers between 1955-85, Franks and Harris (1989) find gains of 23 per cent in the announcement month alone, while Limmack (1991) reports overall gains of 37 per cent in a study of 462 completed takeovers between 1977-1986.

3.2.2 Reaction of Target Management to Takeovers

Takeover bids are typically classified as being either hostile (or contested) or friendly (uncontested). Takeovers are described as hostile when the target's management opposes the bid and described as friendly when management recommends acceptance of the bid to target shareholders. From a governance perspective, managerial reaction to a takeover bid is important since opposition significantly reduces the probability of a successful bid. In a study of bid outcome in the UK between 1980-1989, Holl and Kyriazis (1996) estimate that the probability of a hostile bid succeeding was 61 per cent compared to a 96 per cent success rate for friendly bids. It is clear therefore, that whether a governance motivation for the takeover bid exists or not, managerial resistance is capable of preventing takeover success. From a corporate governance perspective, resistance by target management can be interpreted in two ways. On the one hand, it may indicate managers' desire to maximise shareholders' returns in the takeover process since management opposition may set in a motion an auctioning process whose effect is to bid up the target's share price. Alternatively, management resistance can be interpreted as seeking to defeat a bid even though the bid may actually be in the interests of shareholders - for example, managerial defensive tactics may increase bidding costs substantially and thereby decrease the probability of the takeover target being acquired. Early empirical studies of the impact of managerial resistance suggested that such resistance adversely affected shareholder wealth (Dodd, 1980; DeAngelo and Rice, 1983; Malatesta and Walkling, 1988). However, a number of recent studies suggest that resistance by managers may actually increase shareholder wealth (Comment and Schwert, 1995; Franks and Mayer, 1996; Holl and Kyriazis, 1997). Interestingly, Holl and Kyriazis (1997) find that the positive

impact of managerial resistance persists for at least two years after the outcome of the bid - regardless of outcome - suggesting long-term benefits to shareholders of such resistance.

Given that management resistance is an important impediment to takeover success it is important to understand why target managers resist some bids and accept others. Wong and O'Sullivan (2001) identify three key influences on management's reaction to takeovers. First, management's attitude may be influenced by the internal governance characteristics of the target company. Managers are more likely to pursue shareholders interests during takeover activity when there is a strong monitoring component on the board and/or when large external blockholders are available to monitor managerial behaviour. In the US, Cotter et al (1997) find that boards resisting takeovers contain a higher proportion of outside directors than boards of friendly targets. In Canada, St-Pierre et al (1996) also find that hostility is more likely when a higher proportion of board members are outsiders. Furthermore, Cotter et al (1997) report higher returns to target shareholders when boards with a majority of non-executives resist a takeover. Interestingly, Cotter et al (1997) find no evidence that board composition influences takeover outcome. This suggests that independent boards pursue shareholder interests by resisting takeover bids in order to maximise shareholder returns but stop short of forcing the bidder to abandon the bid. In respect of the influence of large shareholders on bid resistance, St-Pierre et al (1996) find no differences in the ownership levels of external blockholders in hostile and friendly targets. In a refinement of this area of enquiry, Raad and Ryan (1995) find the ownership of institutional shareholders in the US is significantly higher in hostile compared to friendly targets.

Second, managerial reaction to takeover bids is influenced by managers' equity holding in the target. If a takeover is successful target managers may suffer some pecuniary loss, especially if the takeover results in the manager's displacement. However, any losses arising from

displacement may be compensated for if the manager possesses a significant equity stake in the company. For example, Baron (1983) argues that incumbent managers are less likely to oppose a bid when their personal financial gain from possessing a substantial equity holding is non-trivial. In terms of managerial reaction to takeovers, the empirical evidence provides strong support for Baron's (1983) argument. Studies in the UK by Holl and Kyriazis (1997) and in the US by Raad and Ryan (1995), Bucholtz and Ribbens (1994), Cotter and Zenner (1994) and Song and Walkling (1993) all find that friendly takeovers are associated with high levels of managerial ownership while low levels of managerial equity are associated with managerial hostility. Indeed, the influence of managerial ownership on bid resistance (and ultimately outcome) is so strong that it may suggest that managerial equity may serve to prevent economically desirable takeovers because bidders believe that managers possess sufficient equity either to prevent the bid or to make the bid price uneconomic for the bidder.

Third, managerial reaction to a takeover may also be influenced by the equity value of the target. Managers pursuing entrenchment objectives are more likely to resist a takeover bid when the equity value of the target is large since external shareholders are unlikely to possess sufficient (expensive) equity to effectively monitor managerial behaviour. The available evidence provides some support for this contention. In the UK, Powell (1997) finds that hostile targets are significantly larger (market capitalisation) than friendly targets. In the US, Cotter et al (1997) and Raad and Ryan (1995) report similar findings. Interestingly, Cotter et al (1997) find that target size does not influence bid outcome. Indeed, studying hostile bids only, Sudarsanam (1995) finds that larger targets are more likely to be acquired. This suggests that while size allows managers more freedom to oppose a bid, larger targets are more difficult for managers to successfully defend. Presumably, the dispersion of shareholdings that allows managers to pursue their own interests in opposing unwanted bids is more than counterbalanced by managers' inability to actively influence the voting behaviour of a large

number of widely dispersed shareholders.

3.2.3 Managerial Turnover Subsequent to Takeovers

In a recent survey of corporate governance, Schelifer and Vishny (1997) suggest that the replacement of target management is one of the most consistent findings of takeover research. Scheifer and Vishny's (1997) observation is based on a stream of empirical research that has investigated the rate of managerial turnover experienced by managers in target companies subsequent to successful takeover bids. For example, in the US Walsh and Ellwood (1991) find that 39 per cent of a target's top management team departs within two years of a successful takeover bid compared to a turnover rate of 15 per cent in non-targets. Walsh and Ellwood (1991) find no evidence that targets experiencing poorer pre-acquisition performance are more likely to experience a greater likelihood of managerial turnover. Martin and McConnell (1991) report a turnover rate of 42 per cent for CEOs of targets compared to 10 per cent prior to the bid. However, Martin and McConnell (1991) find that targets replacing their CEOs have performed significantly worse than other firms in their industry prior to the bid. It should be noted that using the traditional hostile/friendly categorisation, Martin and McConnell (1991) find no differences in the rate of post-bid turnover of CEOs. In the UK, Kennedy and Limmack (1996) find that CEO turnover is 40 per cent in the first year after a successful takeover and 26 per cent in the second year. This compares with turnover rates of 6 per cent and 10 per cent in the years immediately prior to the bid. Even though Kennedy and Limmack (1996) fail to find different rates of CEO turnover based on the mood of bid (i.e. hostile or friendly), they find some evidence of a positive relationship between poor pre-bid performance by targets and subsequent turnover. In a study focusing only on hostile bids, Franks and Mayer (1996) also report high levels of managerial turnover subsequent to the bid but find no relationship between the target's pre-bid performance and managerial turnover.

A number of researchers have proposed arguments suggesting that defeating a takeover attempt may not guarantee job retention for the target's managers. Jensen and Warner (1988) for example, argue that if acquisition attempts signal poor managerial performance, the presence of well-functioning internal governance mechanisms should lead to a higher incidence of managerial turnover even if the takeover bid is unsuccessful. Jensen and Warner (1988) also suggest that managers may be dismissed due to wealth-reducing defensive measures adopted during the course of the takeover contest. Hirshleifer and Thakor (1994) present a model in which boards of directors aggregate their information concerning managerial performance with that of potential bidders. In Hirshleifer and Thakor's (1994) model, unsuccessful takeover bids are followed by a high rate of management turnover because the takeover attempt conveys adverse information possessed by the bidder about the target's management.

Denis and Serrano (1996) hypothesise that managers are likely to be dismissed following unsuccessful control contests because of contest-related changes to the company's ownership structure and/or the composition of its board of directors. In their subsequent empirical analysis, Denis and Serrano (1996) find that outside blockholders frequently acquire significant holdings of target shares during the takeover contest and retain this shareholding after resolution of the bid - providing the incentive and ability to subsequently discipline under-performing managers. Denis and Serrano (1996) find that 34 per cent of companies in their sample of abandoned targets experienced top manager turnover within two years of the failure of the bid. These turnovers are concentrated in poorly performing companies in which unaffiliated investors purchase large blocks of shares during the course of, or immediately following, the control contest. These outside blockholders often obtain board seats and are directly responsible for the removal of the incumbent managers. In contrast, managers of targets with no unaffiliated block purchases appear able to retain their positions despite poor pre-bid performance and the use of value-reducing defensive tactics to block the proposed

acquisition. Furthermore, companies with no post-bid management turnover are more likely to exhibit contest-related increases in blockholdings affiliated with the incumbent managers. Given that post-bid management turnover appears to be initiated by unaffiliated investors, not surprisingly, Denis and Serrano (1996) find that management changes are associated with significant increases in shareholder value. In the UK, Franks and Mayer (1996) report similar results regarding management turnover in a sample of hostile bids - management turnover is greater in abandoned targets than either successfully acquired targets or a control group of non-targets. Franks and Mayer (1996) also fail to find evidence of a link between post-bid managerial turnover and weaker pre-bid performance.

3.3 GOVERNANCE OF MUTUAL AND PROPRIETARY INSURANCE COMPANIES

3.3.1 Policyholder-Shareholder Conflict

Fama and Jensen (1983a, 1983b and 1985) seek to justify the co-existence of mutual and proprietary companies with reference to agency theory. They argue that different forms of organisational structure can survive and control agency problems depending on the nature of the residual claimants. Proprietary companies are expected to be successful in circumstances where there is a greater need to diffuse risk, to separate risk bearing from decision making, to finance the purchase of organisation-specific assets, and to have a specialised professional management team. The potential for managerial opportunism is countered by the mechanism of the capital markets, principally the possibility of a takeover. Managers are expected to minimise agency costs in order to encourage a favourable performance evaluation of themselves and their organisations in the capital markets and thereby reduce the likelihood of a takeover and subsequent displacement.

Fama and Jensen (1983a, 1983b and 1985) justify the existence of financial mutuals on the basis that their residual claims are redeemable on demand. They argue that the survival of these mutuals depends on their on-going liquidity which in turn discourages mutuals from engaging in the acquisition of organisation-specific assets. This aspect of redeemability helps minimise agency costs since residual claimants can sell their claims at any time and at a predetermined price. However, while such a rationale is undoubtedly a factor in the continued survival of certain types of financial mutuals (e.g. building societies), it does not fully explain the existence of insurance mutuals since not all insurance policies possess the redeemability characteristics envisaged by Fama and Jensen. Indeed, early redemption of many types of insurance policy is penalised by the insurance company - thereby imposing a withdrawal cost on the policyholder.

Hansmann (1985) suggests a number of reasons for the evolution of mutual insurance companies. In respect of life insurance, Hansmann (1985) identifies three reasons why contracting may be incomplete and thereby facilitates the adoption of the mutual rather than the proprietary form. First, since life insurance contracts are typically long-term, it is difficult and expensive to design a contract that can effectively deal with all possible contingencies which may arise during the life of the contract. A central problem for the policyholder is to ensure that his insurer maintains sufficient financial reserves to pay out on the policy when a claim is made. Second, life insurance contracting takes place in an environment of asymmetric information - life insurance customers being relatively uninformed as to the merits and demerits of competing contracts. In such an environment, Hansmann (1985) argues that life insurance customers are likely to be disadvantaged vis-à-vis the insurance company. Finally, the structure of premium payments in life insurance is designed to make it difficult for consumers to switch between insurers because insurers utilise front-end loading of premiums to tie the insured financially to that particular company. Such a system of lock-in makes it

expensive for the insured to voice his dissatisfaction by withdrawing from the insurance contract.

Hansmann (1985) suggests that the problem of incomplete contracting in the life insurance industry may be countered in two ways. First, insurance regulators may intervene to monitor contracting between insurers and their customers. This has been pursued in most countries - typically requiring insurance companies to maintain adequate reserves to provide against foreseeable claims. In the UK for example, all registered insurance companies are required to make detailed annual returns to the Department of Trade and Industry (DTI) in addition to publishing annual reports and financial statements to shareholders/policyholders. The formation of a mutual is another way of seeking to counter the problem of incomplete contracting. In mutuals there are no shareholders with an interest adverse to that of the policyholders. Consequently, the incentive for the company to behave opportunistically in setting the level of reserves is substantially reduced. The difficulty of market contracting between companies and policyholders is thereby eliminated by eliminating the market and merging the functions of customer and owner.

The uncertainty of long-term contracting which Hansmann (1985) attributes for the existence of mutuals in life insurance, does not adequately explain the existence of mutuals in property-liability insurance. Unlike life insurance, property-liability insurance contracts are usually short-term - typically of one year's duration. However, an important characteristic of many property-liability mutuals is the relative homogeneity of the membership. Carter (1993) suggests that the establishment of many property-liability mutuals is attributable to a particular sector in society coming together to self-insure because existing insurance companies are perceived to charge excessive premiums or impose unacceptable policy conditions. For example, many mutual companies involved in underwriting property-liability insurance today

incorporate a particular interest group in the company's name - clearly signifying their allegiance to the insurance needs of the named group. Common examples are the Mutual Accountants Professional Indemnity Company (MAPIC), the Medical Defence Union (MDU), and the National Farmers Union (NFU).

It appears therefore, that while life insurance mutuals have their origins in the asymmetric information between stock companies and policyholders, property-liability mutuals appear to have evolved from the reverse scenario - proprietary companies being unable to differentiate between insureds in respect of the risks proposed. This lack of differentiation appears to encourage insureds who perceive themselves as being low risk to opt out of traditional insurance in the belief that the interest-specific knowledge which they possess would enable them to provide insurance to their members at a cheaper rate than would be possible if insured by an all-embracing proprietary insurer. Of course, the diversity of risks which encourages certain groups to leave proprietary insurance companies is an important attraction for shareholders in these companies who may be reluctant to invest in the proprietary company in the absence of such a diverse portfolio of insureds.

A number of researchers have suggested that the continued coexistence of mutual and proprietary insurers may be explained in terms of risk. Indeed, risk is a fundamental aspect of the Fama and Jensen (1983b) justification for the existence of alternative organisational forms. Fama and Jensen (1983b) argue that, because of differences in the efficiencies of controlling agency costs, mutual companies should be more prevalent in activities in which the costs of expanding and contracting assets is lower and in which the costs of valuing those assets are lower. Lamm-Tennant and Starks (1993) suggest that mutual insurance companies are expected to be involved in less risky insurance business (risk being defined in terms of variability of cash flows) than their proprietary counterparts. Lamm-Tennant and Starks

(1993) test their hypothesis in the US insurance market and find evidence that proprietary companies have more business in those lines associated with greater risk. Furthermore, Lamm-Tennant and Starks (1993) also find that US proprietary companies have greater concentration in lines of greater risk than their mutual counterparts.

Smith and Stutzer (1990) seek to explain the co-existence of mutual and proprietary insurers by focusing on the risk implications of participating and non-participating insurance policies. With participating policies the price of the insurance is determined *ex post*. Consequently, the insured shares in the overall operating risk of the insurance company. In the case of non-participating policies, the price of the insurance is determined *ex ante* and the insured does not share in the overall operating risk. Smith and Stutzer (1990) demonstrate that participating policies will be purchased by low-risk insurance consumers while non-participating policies will be purchased by high-risk consumers. In this respect a mutual insurance company is a participating policy since the policyholders have the residual claims. Smith and Stutzer (1990) test their theory on a dataset of medical malpractice claims which enables comparisons to be made between a mutual and a proprietary insurer. The authors measure diversified policyholder risk by the expected loss per policy (i.e. the probability that a policyholder will file a claim multiplied by the loss payment per claim filed). This is estimated using the product of the percentage of policyholders filing claims and the average claim payment made. They report that the proprietary company has experienced larger claim payments, but a lower percentage of their policyholders filed claims. Smith and Stutzer (1990) conclude that in this specific instance the proprietary company appeared to serve a riskier clientele than its mutual counterpart.

It appears therefore, that the continued co-existence of mutual and proprietary insurance companies arises because of difficulties with insurance contracting. In respect of life

insurance, the long-term nature and uncertainty associated with such contracts encourages policyholders to organise themselves into mutuals to isolate their wealth from possible shareholder exploitation. In the case of property-liability insurance, mutuals appear to have evolved from the desire of specific trades or professions to protect themselves from the adverse claims exposure of a diversified insurance portfolio - favoured by proprietary companies. The co-existence of mutual and stock insurers may also be due to mutual policyholders' perceptions of risk. Lamm-Tennant and Starks (1993) illustrate that mutual insurers are engaged in less risky lines than their proprietary counterparts, while Smith and Stutzer (1990) show, in one specific instance at least, that mutual companies provide insurance for a less risky clientele than their proprietary counterpart.

3.3.2 Owner-Manager Conflict

The previous section argued that the existence of mutual companies in the insurance industry is due to the possibility of conflict between policyholders and shareholders in proprietary companies. The merging of the functions of customer and owner in mutuals seeks to avoid such conflicts. By eliminating shareholders however, mutual companies appear to exacerbate the potential for owner-management conflict. Not only are external owners (and hence the possibility of external monitoring) highly diffused in the mutual form, each mutual policyholder is unlikely to have a significant number of policies which might motivate active monitoring of company management. The result appears to give managers in mutual insurance companies greater opportunity for exercising discretion than their proprietary counterparts.

Despite the apparent weakness of owner control in mutual insurance companies, mutuals continue to compete successfully with their proprietary counterparts. This suggests that mutuals may utilise alternative systems of managerial monitoring to substitute for the absence of capital market controls. A number of researchers have examined control strategies which

mutual insurance companies may employ in an attempt to minimise the loss of monitoring by the capital market. Mayers and Smith (1988) suggest that mutual insurance companies should be more geographically concentrated than proprietary insurers, since greater geographical coverage is expected to involve increased managerial discretion in setting rates and consequently would be more expensive for mutual policyholders to monitor. Mayers and Smith (1988) also suggest that mutuals should be more specialised, operating in fewer lines of insurance, again restricting the degree of managerial discretion and lowering monitoring costs for policyholders. Finally, Mayers and Smith (1988) hypothesise that mutuals should be more prevalent in lines of insurance where management exercises little discretion in setting premium rates. Mayers and Smith (1988) test each of these hypotheses using US data. Their evidence supports the hypothesis that mutual companies are more concentrated geographically than proprietary companies. In respect of insurance concentration, Mayers and Smith (1988) report no significant difference between proprietary and mutual companies. However, the authors report some evidence of proprietary and mutual companies specialising in different insurance lines.

An important implication of the existence of different control structures in mutual and proprietary insurance companies is the possibility that managers in mutual and proprietary companies may behave differently. The lack of external governance suggests that managers in mutual insurance companies are expected to utilise their positions to improve their own well-being at policyholders' expense. Conversely, the presence of capital markets and the threat of a takeover and possible displacement are expected to encourage managers in proprietary companies to adhere to shareholders' expectations. Over the past decade a number of empirical studies have compared the behaviour of mutual and proprietary insurers. A dominant objective of this research is trying to identify whether performance and efficiency differences exist between the two organisational forms.

Fields (1988) tests for differences in expense preference behaviour between proprietary and mutual life insurance companies. In order for the expense preference hypothesis to hold, Fields maintains that three conditions need to exist: less than perfectly competitive markets, ownership diffusion, and the existence of managerial preferences. The requirement of less than perfectly competitive markets is necessary because a purely competitive market requires production to occur at minimum average costs. Spending on emoluments, by definition, increases average costs above the competitive level. In a competitive environment, the firm that spends on emoluments would record no sales as the market would clear at the competitive price. Ownership diffusion is necessary in that it relates to the monitoring costs associated with ensuring adequate performance by managers - the amount of monitoring by owners is expected to be related to the extent of ownership concentration (Demsetz and Lehn, 1985). Finally, managerial tastes are important since they are expected to be closely related to expense preference behaviour. For example, the type of managerial compensation system in force may serve to limit excessive expense behaviour by managers - executive stock options being a typical example. Fields (1988) finds no significant evidence to support his hypothesis. Mutual firms are not more expensive producers. In addition, Fields (1988) finds no significant difference in the types of life products provided by the respective company types. Fields (1988) concludes that management behaviour in the insurance industry must be influenced by factors other than the limits imposed by product and equity markets.

In an analogous study, Kroll et al, (1993) test for differences in the objectives pursued by the managers of proprietary and mutual life insurers. The authors examine three issues: the ability of mutuals to reward their owners (policyholders), a comparison of CEO compensation, and a further test of expense preference behaviour. Kroll et al (1993) suggest that the average rates (net of dividends) for term life insurance policies issued by mutuals are expected to be lower

than the rates for comparable policies issued by proprietary companies. Secondly, Kroll et al (1993) hypothesise that CEOs in mutual companies are likely to receive greater compensation. Finally, the authors argue that average expenditures on general and administrative expenses will be greater in the case of mutuals. The empirical results reported by Kroll et al (1993) indicate no difference in the pricing of proprietary and mutual policies. However, the authors find that CEO compensation (measured as a percentage of insurance in force) is greater in the case of mutuals and that proprietary insurers are significantly more efficient in controlling general and administrative expenses than their mutual counterparts, a finding which Fields' (1988) earlier study does not identify.

Mayers and Smith (1992) undertake a comprehensive study of executive compensation in the life insurance industry. In establishing their hypothesis, the authors address a number of considerations not addressed in previous research. Traditional arguments have suggested that because of less active ownership monitoring, executives of mutual companies should have greater scope to award themselves larger salaries - consistent with the expense preference arguments proposed in earlier research. However, Mayers and Smith (1992) suggest that because of the existence of mutual insurers in sectors where less managerial discretion is required (Mayers and Smith, 1988), CEOs in mutual companies are unlikely to have the same decision-making responsibilities of their proprietary counterparts and on these grounds it could be argued that CEOs in proprietary companies should receive greater rewards. This is also consistent with the arguments suggesting that good managers (in this case managers capable of exercising discretion in owners' interests) are expected to charge a premium when hired from the market for management services (Fama, 1980).

Mayers and Smith's (1992) empirical results suggest that executives in proprietary companies receive greater compensation than their mutual counterparts. This is consistent with the

hypothesis that the additional discretion (decision-making) required from proprietary CEOs is rewarded with greater compensation. The authors also report higher levels of compensation for executives of proprietary subsidiaries. Again this result suggests differences in the amount of managerial discretion enjoyed by subsidiary CEOs. The authors also find that executives who also hold executive positions in affiliated companies receive lower compensation than similar unaffiliated executives. Mayers and Smith (1992) propose three justifications for this result - economies in decision-making, the provision of lower quantities of service by affiliated CEOs (i.e. the CEO job title is not comparable), and the possibility that remuneration of affiliated CEOs may be under-reported to their unaffiliated counterparts. Finally, the time-series analysis undertaken by the authors indicates that compensation of CEOs in proprietary insurers is more responsive to company performance than the compensation of CEOs in mutual companies. This link between performance and compensation appears to provide some support for the view that managers in proprietary companies are subject to greater ownership monitoring and control.

In a study in the UK, Armitage and Kirk (1994) compare mutual and proprietary life companies in respect of payouts on endowment policies, costs, and growth rates. The authors report consistently higher average pay-outs for mutuals, with a significant advantage in many years of the study. They also find that mutuals had a lower average cost ratio than proprietary companies, again the difference being significant on many occasions. The authors also find that medium and large mutuals experience greater growth rates than proprietary insurers - with the possible exception of small proprietary companies. These results appear at variance with the managerial discretion hypothesis as well as previous research emanating from the US. However, the authors emphasise the need for caution in the interpreting their results. Traditionally, mutual life offices have written predominantly with-profits (i.e. endowment) policies, which in itself provides greater scope for managerial discretion (see Knights and

Willmott, 1993). Therefore, concentrating on such a potentially organisation-specific type of insurance may not present an accurate picture of companies' overall behaviour. In addition, growth comparisons may be contaminated by the fact that mutuals are typically longer established in the market while the period of the Armitage and Kirk (1994) study coincided with the establishment of a number of new proprietary life companies. It is interesting to note that a similar longitudinal study of UK insurers undertaken by Carter (1993) fails to identify behaviour differences in mutual and proprietary companies

3.3.3 Mutualisation and Demutualisation

The study of insurance companies who choose to change organisational form is capable of providing further insights into our understanding of the continued survival of both mutual and proprietary companies. Conversions from proprietary to mutual (mutualisation) and from mutual to proprietary (demutualisation) involve a re-arrangement of the relationships between the various stakeholders in the company. An important aspect of any analysis of insurance company conversions is to identify which parties, if any, benefit or lose from such a restructuring.

A number of reasons have been offered to explain why insurers choose to convert from mutual to proprietary status. An important motivation is access to capital markets. An insurance company may wish to raise additional funds for expansion or diversification from the capital markets but is constrained by its inability to raise funds under the mutual form of organisation. The proprietary form of organisation allows insurers to issue additional shares when an infusion of capital is necessary or to exchange shares with another company to facilitate an acquisition. An early insight into the importance of access to capital markets is found in a survey of insurance officers by Greene and Johnson (1980). Officers in proprietary companies cited the ability to diversify and to acquire other companies as an important advantage of the

proprietary form. An additional motivation for demutualisation may be the potential incentive effects obtained by adopting the proprietary form. Jensen and Meckling (1976) note the benefits of aligning the interests of owners (principals) and managers (agents) by making managers part owners of the firm. Incentive devices such as share options and share bonuses are available under the proprietary form of organisation but not under the mutual form

The demutualisation process may improve managerial monitoring through capital market controls but it introduces an additional conflict of interest between policyholders and shareholders. For mutuals, the apparent lack of managerial monitoring is offset by the union of the shareholder and policyholder functions. An important aspect of the conversion process therefore, is the potential for a rearrangement of stakeholder wealth within the company. A crucial objective is to identify whether a conversion involves efficiency gains or provides an opportunity for a transfer of wealth between the stakeholders involved. Mayers and Smith (1986) suggest that wealth expropriation provides a possible explanation for insurance company conversions. In particular, the demutualised company may alter its dividend policy - reducing dividend payments to policyholders. The conversion could also reduce the insurer's ability to fulfil contractual obligations outstanding at the time of conversion. The possibility also exists that existing policyholders may not receive adequate compensation for surrendering their membership rights. Finally, Hetherington (1969) suggests that demutualisation may be motivated by the self-interests of managers. Through demutualisation, managers may be able to convert their de facto ownership (arising from mutual policyholders' ineffectiveness as owners) into stock representing a substantial fraction of the demutualised company's net worth.

Two US studies have examined the pre and post-conversion behaviour of life insurance companies. Mayers and Smith (1986) examine thirty companies that mutualised between 1902 and 1986. McNamara and Rhee (1992) undertake a similar study in respect of thirty three

companies that demutualised in the same period. The principal hypothesis examined in both studies is whether the conversions are motivated by efficiency or expropriation. A central objective therefore, is to examine how policyholders, shareholders, and managers were affected by the conversions.

Mayers and Smith (1986) utilise data on insurance income to assess the impact of mutualisation on policyholders. Their results suggest little difference in pre and post-conversion income. In addition, mindful of the possibility that mutualisation may encourage a different product mix, the authors also analyse the composition of the premiums written in terms of participating and non-participating policies. Again, Mayers and Smith (1986) fail to identify any significant differences in the data. This evidence suggests that policyholders are not adversely effected by the mutualisation process. As an additional measure of existing policyholder satisfaction, the authors analyse lapse ratios around the time and for five years after mutualisation but again fail to find evidence of an increased lapse rate.

Mayers and Smith (1986) examine stock purchase premiums in order to analyse any possible wealth transfers from shareholders. Their evidence suggests that shareholders receive, on average, a 75 per cent return compared with 18 per cent for the S&P Stock Price Index. As an additional check, the authors compare their results with existing corporate control evidence and conclude that the shareholders of mutualised companies continue to do well out of such conversions. Indeed, since shareholders need to approve the conversion, it is unlikely that a conversion would be approved if it was likely to be detrimental to their wealth. Finally, Mayers and Smith examine management turnover rates as a measure of management welfare. They report that non-health-related turnover reduces after the conversion - suggesting that managers actually benefit from the mutualisation process. This evidence is consistent with the view that mutualisation is likely to hinder the operation of the capital market as a mechanism

for disciplining managers.

An additional aspect of the Mayers and Smith (1986) study is a separate comparison of companies where, prior to mutualisation, the shares are diffusely held versus companies where ownership of the majority of shares is concentrated in the hands of the companies' existing managers. In the case of companies with relatively diffused ownership, there is a greater reduction in the potential disciplining effects of the market for corporate control than in the management-controlled companies. Hence, if mutualisation is motivated by efficiency, favourable affects on policyholders should be more pronounced in the management-controlled companies compared to the diffusely-held companies. Thus, the evidence that there is a favourable change in premium income for management-controlled companies seems to confirm the existence of an efficiency motivation. The evidence of reduced industry-adjusted premium income changes for the diffusely held companies is consistent with either an efficiency motivation where the costs of a less effective market for corporate control outweigh the efficiency benefits (i.e. a miscalculation) or an expropriation motivation for these companies.

McNamara and Rhee's (1992) study focuses on demutualisation and seeks to identify whether the demutualisation process is motivated by efficiency or expropriation. They specifically hypothesise expected relationships before and after the conversion process: the efficiency motivation would predict little change in premium income, admitted assets, or policy lapses, a decrease in the proportion of participating insurance policies and operating expenses and an increase in surplus and capital and management turnover. The expropriation hypotheses predicts decreases in premium income, surpluses and capital, admitted assets, and management turnover. The proportion of participating policies, lapse rates, and operating expenses are expected to increase under an expropriation-motivated conversion. The overall results appear to support the efficiency hypothesis. Premium income was unchanged and lapse rates remained

constant after demutualisation. A significant reduction in the amount of participating coverage in force was detected. There was also a significant increase in capital and surplus immediately following conversion. Admitted assets and expense ratios were not significantly different. Management turnover increased around the time of the demutualisation approval, suggesting that managerial welfare was not a primary motivation for demutualisation.

The Mayers and Smith (1986) study presents strong evidence of gains for shareholders, some evidence of gains for managers, and no evidence of policyholder losses. They conclude that mutualisation is more consistent with the efficiency hypothesis rather than the expropriation hypothesis. These conclusions are also consistent with rational voting since the mutualisation plan is initiated by managers, and voted on by both shareholders and policyholders. In the case of demutualisations, McNamara and Rhee (1992) fail to find any significant wealth transfers between managers, shareholders and policyholders.

3.4 CONCLUSIONS

The objective of this section was to present a review of the theoretical and empirical literature on two sources of external governance: the governance role of takeovers and the coexistence of mutual and proprietary companies in the insurance industry. In reviewing the takeover literature I focus on three themes. First I examine the evidence on the relationship between takeovers and performance. If takeovers seek to correct for inadequate management/performance we would expect a greater likelihood of being taken over after a period of poor performance. Generally, the empirical evidence is split on this - studies using stock prices suggest that takeover targets show weaker performance while studies using accounting information produce no significant findings either way. When the mood of the bid is taken into account, there is stronger evidence of weaker pre-bid performance in the case of hostile bids - this is consistent with expectations since hostile bids are more likely to be

motivated by governance concerns.

An important stage in the takeover process is the reaction of the target's management to the takeover bid. Managerial reaction is important for three reasons. First, hostile bids are generally perceived to be governance-motivated so therefore researchers often focus on hostile bids in seeking to obtain a better understanding of the role of takeovers in the governance process. Second, hostility may be associated either with managerial entrenchment or evidence of managers seeking to maximise shareholders' returns from the takeover process. Third, a number of studies highlight the reduced probability of takeover success when the bid is opposed by managers. In a review of this literature, Wong and O'Sullivan (2001) find that managerial hostility appears to be motivated by a number of factors. For example, there is some evidence that hostility does result in higher bid premiums for shareholders. Such hostility appears to be supported by largely independent boards as well as the presence of significant blockholders. On the other hand, hostility is also associated with lower levels of managerial shareholdings - suggesting that in these cases, managers seek to prevent the takeover in order to preserve their job while managers possessing significant equity can earn large premiums from a successful bid. Wong and O'Sullivan (2001) also highlight the increased likelihood of managerial hostility in larger targets. It is argued that managers are more confident in defeating unwanted bids in larger companies due to the widely dispersed ownership structure.

If takeovers have a governance role we would expect significant restructuring within the acquired company once the takeover is complete. Indeed in a recent review, Schleifer and Vishny (1997) observe that managerial turnover subsequent to takeovers is one of the few consistent findings of takeover research. Studies in the US (Walsh and Elwood, 1991; Martin and McConnell, 1991) and in the UK (Kennedy and Limmack, 1996; Franks and Mayer, 1996) report turnover levels of about 40 per cent in the year immediately after the takeover.

However, there is mixed findings on the relationship between post-acquisition turnover and the pre-bid performance of the target. The study of managerial turnover following unsuccessful takeover bids is also perceived as an important source of information on the governance role of takeovers (Jensen and Warner, 1988). Dennis and Serrano (1996) find that 32 per cent of unsuccessfully acquired targets experience top management turnover within two years of the successful defence. Dennis and Serrano (1996) find that turnover is positively associated with poor pre-bid performance. However, Dennis and Serrano (1996) also find that turnovers only occur when targets become increasingly owned by unaffiliated blockholders. It also appears that management changes are followed by increases in shareholder value. In the UK, Franks and Mayer (1996) also find high management turnover rates in a sample of hostile targets who successfully retain their independence.

Three aspects of the coexistence of mutual and proprietary insurers are addressed: the theoretical justification for the existence of insurance mutuals, the monitoring implications of mutual and proprietary organisations, and the impact of mutualisation and demutualisation on company stakeholders. The evolution of mutuals in the insurance industry seems to arise because of the problems associated with insurance contracting. In respect of life insurance, the possibility of conflict between shareholders and policyholders over the distribution of company surpluses appears to be an important reason for adopting the mutual form. By adopting the mutual form, policyholders eliminate policyholder-shareholder conflicts since mutuality fuses the functions of customer and owner. The origins of mutuals in the non-life insurance sector appears to be due to the coming together of specific professions or industries who perceive themselves as being low risk and who view mutuality as a method of avoiding the diversity of risk types which proprietary companies attract. Finally, mutuals provide an appropriate structure for insureds purchasing participating insurance policies. By utilising the mutual form these policyholders shield themselves from the uncertainty associated with the operating risk of

the company.

While the absence of shareholders has undoubtedly contributed to the popularity of insurance mutuals, the absence of capital market governance raises concerns about the ability of mutual policyholders to monitor effectively the behaviour of managers. However, the continued ability of insurance mutuals to compete with their proprietary counterparts suggests that mutuals have identified alternative control strategies. Indeed, the empirical studies reviewed in this chapter fail to identify consistent performance advantages for either organisational form. However, research does suggest that mutuals may seek to avoid the potential for managerial opportunism by operating in fewer geographic locations and underwriting fewer lines of insurance than their proprietary counterparts (Mayers and Smith, 1988). Finally, an important feature of organisational structure is the ability of insurers to alter their organisational status from mutual to proprietary or from proprietary to mutual. A central empirical question is whether such conversions are motivated by efficiency or expropriation purposes. In order to answer this question it is necessary to analyse such conversions to examine whether managers, shareholders or policyholders have benefited from the restructuring. However, both Mayers and Smith (1986) in the case of mutualisation and McNamara and Rhee (1992) in the case of demutualisations fail to find any evidence of expropriation in the conversions studied.

CHAPTER FOUR

THEORETICAL MOTIVATION AND DATA CONSIDERATIONS

4.1 INTRODUCTION

The objective of this chapter is to outline the theoretical motivation for the empirical work presented in subsequent chapters and also to explain the datasets utilised in testing the thesis' objectives. In this respect, the chapter represents a link between the literature reviewed in chapters two and three and the thesis' empirical contribution to our understanding of the corporate governance process in the U.K. The chapter identifies relevant gaps in the existing literature and explains how the empirical sections of the thesis seek to fill (at least partially) these gaps. The empirical aspect of this thesis addresses two important issues in respect of corporate governance in the U.K. First, it seeks to examine the choice, mixture and impact of governance mechanisms utilised by large U.K. companies prior to the 'governance revolution' of the early 1990s. Second, it seeks to examine the interaction between internal and external governance in two different contexts: takeovers and mutual and proprietary insurance companies. The analysis of internal and external governance in the context of takeovers and insurance companies is also undertaken prior to the governance changes of the mid-1990s.

In developing a framework in which to examine the mixture and impact of governance mechanisms utilised by large quoted companies, it is necessary to reflect on the knowledge we already possess in terms of the use and usefulness of different governance mechanisms as applied to quoted companies. Much of the empirical work reviewed in chapter two focuses on the potential for individual governance instruments to reconcile the interests of shareholders and managers in large companies. Consequently, over the past decade we have learned a great deal about the role of board composition, managerial ownership and external shareholder concentration in corporate governance. However, a limitation of this work is that the impact of

these individual mechanisms is typically examined in isolation, which is unlikely to accurately represent governance decisions made in practice. Indeed, we observe most listed companies utilising a mixture of governance mechanisms - most companies possess a significant number of non-executives, some level of managerial ownership and some degree of concentrated share ownership (both by institutional and non-institutional shareholders).

The tendency of listed companies to utilise a mixture of governance instruments suggests a need to explore the interaction between these instruments. In a recent review of corporate governance research, Short et al (1999) highlight the absence of attention to the interdependence of governance mechanisms: 'as yet research (particularly in the U.K.) into the extent of the linkages and relationships between the various governance mechanisms is extremely limited' (p. 345). In addition to the appropriateness of investigating interrelationships between the different sources of monitoring utilised by companies, Rediker and Seth (1995) suggest that the potential for such interrelationships may cast some doubt on the findings of previous empirical studies which have sought to investigate the effect of single governance mechanisms. This arises due to the structure of existing empirical tests whereby the governance mechanism under scrutiny is hypothesised to influence company behaviour and its utilisation is assumed to be independent of other governance mechanisms. However, if the variable being examined is correlated with other governance variables not included in the analysis, the resulting coefficients may be biased and inconsistent.

In addition to ascertaining the existence and extent of any interrelationships between mechanisms of internal governance, my thesis also examines the potential for interrelationships between internal and external governance. As reviewed in chapter three, a number of U.S. studies have provided useful insights on the impact of board composition and ownership structure on various aspects of takeover activity (Song and Walkling, 1993; Cotter et al, 1997).

These studies predominantly address the role of either ownership or board composition individually but have not sought to examine the relationship between takeovers and both ownership and board composition simultaneously (Shivdasani, 1993 is a notable exception). This thesis undertakes such an analysis in the context of U.K. takeovers. Such an analysis should provide further insights on whether takeovers are a governance mechanism of last resort when internal governance mechanisms fail to maximise shareholder wealth or alternatively, occur in companies where strong internal governance has failed to reconcile the interests of managers and shareholders. Of course, such an analysis also complements the work in respect of quoted companies, since takeovers are often perceived as an instrument of governance in the same way as board composition and ownership.

The literature reviewed in chapter three identifies a number of research strands (mostly emanating from the U.S.) that have compared mutual and proprietary insurers. However, relatively little research has sought to examine the utilisation of internal governance by mutual and proprietary insurers. In this thesis I am particularly interested to ascertain whether mutuals compensate for weak external governance by utilising a greater proportion of non-executives directors. Similarly, it might be expected that proprietary insurers use a lower proportion of non-executives since the possibility of takeovers and blockholder ownership suggests less need to rely solely on the monitoring of non-executive directors. The analysis of governance in insurance companies also complements the study of internal governance in quoted companies and governance in the takeover process. Mutual insurance companies represent an example of extremely dispersed ownership since ownership is linked with the holding of insurance policies and consequently the opportunity for significant external ownership and managerial ownership is eliminated. Furthermore, the absence of takeovers (specifically hostile takeovers) in mutual insurers provides an interesting sample for comparison with companies subject to takeover governance.

The theoretical motivation for the thesis is presented in the following three sections of the chapter. In the next section, I discuss the overall governance environment in which quoted companies operate. This allows me to explore the potential for interrelationships between internal governance mechanisms. For example, an important objective of this thesis is to examine whether board composition and ownership (whether managerial or external) are substitute or complementary mechanisms of governance used by companies. In this section, I also examine the governance potential of directors' and officers' (D&O) insurance. I discuss the ways in which D&O insurance may contribute to corporate governance. In this way I explore the potential interrelationship between D&O insurance and other mechanisms of governance that may be employed by quoted companies. I also discuss the potential impact of a company's governance characteristics on audit quality. Since auditors undertake a crucial monitoring role on behalf of shareholders, I explore the possibility that companies' internal governance characteristics may influence the thoroughness of the audit.

In section 4.3, I discuss the governance role of takeovers. The objective of this section is to discuss the potential relationship between internal governance and takeover activity. This allows me to investigate whether internal governance and takeovers - especially hostile takeovers - are alternative mechanisms of governance utilised by shareholders or whether takeover targets exhibit strong but ineffective internal governance. In section 4.4, I discuss the relationship between internal and external governance in the context of mutual and proprietary insurance companies. This allows me to investigate whether mutual and proprietary insurers employ different internal governance characteristics to reflect their different ownership structures. Of particular interest is seeking to ascertain whether a substitution exists between insurers' utilisation of internal governance and organisational status. Finally, in section 4.5, I introduce and justify the three datasets I use to investigate the thesis' objectives.

4.2.1 SUBSTITUTIONS BETWEEN INTERNAL GOVERNANCE MECHANISMS

Central to corporate governance is the need for diversified shareholders to monitor the behaviour of company managers. The literature reviewed in chapter two suggests that shareholders may exercise their monitoring through three internal governance mechanisms: external ownership concentration, managerial ownership and non-executive directors. The benefits of shareholder monitoring are expected to derive from an increase in company value resulting from the monitoring of managerial behaviour. Given the choice of monitoring instruments available, the mechanism(s) through which shareholders seek to monitor managers is expected to depend on the availability and cost of each monitoring mechanism as well as the availability and costs of alternative monitoring mechanisms. Holding the demand for monitoring constant, we would expect an interrelationship between the emphasis placed on each monitoring mechanism depending on its respective cost and the respective costs of alternative monitoring mechanisms. For example, as the costs of one monitoring mechanism increases relative to the costs of other mechanisms, we would expect shareholders to place increased emphasis on the most cost-effective mechanism at the expense of more expensive alternative(s). This suggests a substitution between shareholders' monitoring via ownership concentration, managerial ownership and the proportion of non-executive directors. Viewing governance in this way provides a useful framework in which to explore the substitutability and complementary of different internal governance mechanisms.

Ownership structure presents a useful starting point in discussing the potential for interrelationships between different governance mechanisms. In a company where managers own all outstanding equity, there is no conflict between the interests of owners and managers and hence, no need for costly monitoring. However, as the ownership of external shareholders increases we would expect such shareholders to find it increasingly difficult to monitor managerial behaviour effectively (Berle and Means, 1932). Consequently, we would expect

such shareholders to explore the use of (costly) internal governance mechanisms to ensure that managers continue to pursue their objectives. A central problem for diversified shareholders is weighing the benefits of incurring monitoring expenses against the likely wealth benefits expected to accrue as a result of any monitoring. For individual shareholders with a relatively small ownership stake, actively monitoring management behaviour is unlikely to be cost effective since the benefits likely to accrue are unlikely to exceed the costs. For shareholders with a relatively small ownership stake therefore, there are a number of monitoring choices. First, they can purchase sufficient equity in the company to ensure that the benefits from actively monitoring managerial behaviour exceed the monitoring costs incurred (Schleifer and Vishny, 1986). Second, they can utilise non-executive directors to monitor on their behalf. Third, they can encourage managers to administer the company in their interests by allowing managers to possess an equity stake in the company. Finally, they can utilise a mixture of these monitoring mechanisms. The substitution hypothesis suggests a positive association between the extent of external ownership dispersion and the proportion of non-executives on a company's board of directors - with non-executives compensating for the weakened monitoring potential of dispersed shareholders. We would also expect a positive association between the extent of external shareholder dispersion and managerial ownership since managerial ownership is perceived as an alternative to non-executive monitoring in seeking to compensate for weak shareholder control.

When an individual shareholder holds a large equity stake in a company, that shareholder has an increased incentive to monitor managerial behaviour since he will receive a greater share of any benefits resulting from discouraging or detecting mismanagement (Schleifer and Vishny, 1986). The substitution hypothesis suggests that such shareholders are less likely to expend additional resources on monitoring managers and consequently, we would expect a negative association between external ownership concentration and the use of alternative monitoring

mechanisms such as, non-executive directors and managerial ownership. However, Whidbee (1997) argues that large external shareholders may actually encourage companies to utilise a greater proportion of non-executive directors as a means of executing their monitoring requirements. Essentially, such shareholders may seek to ensure that management pursues shareholders' interests by having a significant independent input to board deliberations and decisions. This line of argument anticipates that the ownership of blockholders and non-executive directors are complementary rather than substitute mechanisms of governance. Whidbee (1997) suggests that this is particularly likely to be the case where companies have significant institutional ownership since institutional shareholders are perceived to be more active participants in the governance process. Whether large ownership and non-executive representation are substitute or complementary methods of governance, it is anticipated that the ownership of large blockholders and managerial ownership are substitute mechanisms of governance since blockholders are unlikely to require the additional monitoring of managerial ownership.

Even though the potential substitutability and/or complementary of ownership and the use of non-executive directors is appealing, Whidbee (1997) argues that the relationship between ownership structure and the utilisation of non-executives is also contingent upon internal and external shareholders being capable of influencing board appointments. Whidbee (1997) refers to this as 'the shareholder-voting hypothesis'. This line of argument builds upon Hermalin and Weisbach's (1998) modelling of the CEO's influence on board appointments. These authors argue that board membership is not only a function of external ownership but is also a function of a CEO's relative power vis-à-vis other board members and external shareholders. For example, more dispersed external ownership is expected to allow CEOs to exert greater influence on board appointments, resulting in fewer non-executive directors. However, where a significant proportion of external ownership is held by large external shareholders we would

expect to see a greater non-executive representation on the board to reflect external shareholders' increased influence on board appointments. Similarly, when CEOs (and other managers) possess a significant ownership stake in their companies, we would expect them to use the voting influence these holdings allow to ensure that fewer non-executive directors are utilised. While the substitution and shareholder-voting hypotheses are in conflict with regard to the expected relationship between external ownership dispersion and the use of non-executives, they offer similar predictions regarding the relationship between the use of non-executives directors and both external blockholder ownership and managerial ownership.

An important consideration in examining the potential for interrelationships between different governance mechanisms is company size. In terms of ownership and control, large companies are expected to present increased difficulty for shareholders to exercise adequate monitoring of managerial behaviour. Demsetz and Lehn (1985) argue that as company size increases, it costs more for shareholders to acquire a given fraction of ownership and consequently larger companies exhibit a greater diffusion of external ownership. Demsetz and Lehn (1985) refer to this as the risk neutral effect of size on ownership. Furthermore, risk aversion is expected to reinforce this risk-neutral effect. An attempt to preserve effective and concentrated ownership in the face of larger capital needs requires a small group of shareholders to commit more of their wealth to a single company. Normal risk aversion implies that they will purchase additional shares only at lower, risk-compensating prices. This increased cost of capital discourages owners of larger companies from seeking to maintain highly concentrated ownership. Taken together, the risk neutral and the risk-aversion effects of company size are likely to make shareholder monitoring more difficult and consequently, suggest greater shareholder emphasis on alternative mechanisms of internal governance such as the utilisation of non-executive directors and/or managerial ownership.

In addition to the increased cost to shareholders of utilising significant blockholdings to monitor managerial behaviour, company size presents other obstacles in trying to understand the potential for substitutability and complementary between governance mechanisms. Empirical studies typically employ fractions of ownership to represent the ownership of external shareholders. However, an equivalent percentage stake in a large company is a considerably greater investment, on average, than in a small company. Therefore, using fractions of ownership may not be a reliable proxy for external shareholders' monitoring incentives in samples with large and small companies. Similarly, studies of managerial ownership use fractions of ownership to represent managers' monitoring incentives. A given percentage of ownership held by managers in a large company is likely to provide them with a significantly greater incentive to maximise shareholder wealth compared to managers with an equivalent percentage in a smaller company. This suggests that monetary value rather than fractions of ownership may be a more appropriate proxy for blockholder and owner-managers incentives to ensure that companies are administered in the interests of shareholders.

Even though few studies have sought to examine the interrelationship between internal governance mechanisms, two recent studies provide an initial insight into possible associations between governance mechanisms in U.S. banks. Rediker and Seth (1995) hypothesise that the monitoring potential of the board of directors, measured by the proportion of outside directors, is likely to be negatively related to: ownership of large external blockholders, managerial share ownership, and the existence of CEO duality. Rediker and Seth (1995) found support for the hypothesised relationship between blockholder ownership and the proportion of outside directors in the case of larger firms but were unable to find a similar result for smaller companies. The authors report support for the hypothesised relationship between managerial ownership and outsider representation but find no evidence to support the hypothesised relationship between board composition and CEO duality. Whidbee's (1997) study embarks on

a similar line of enquiry, seeking to investigate the influence of ownership structure on companies' utilisation of non-executive directors. In addition to examining ownership and board composition from a substitution perspective, Whidbee (1997) also suggests that board composition may be influenced by what he terms 'the shareholder-voting hypothesis'. Whidbee (1997) proposes that greater CEO ownership increases the CEO's influence on board nominations and CEO ownership is expected to be negatively related to the proportion of outside directors utilised by the firm. Furthermore, Whidbee (1997) suggests that as the ownership of outside blockholders increases there will be a commensurate increase in the proportion of outsiders on company boards. In Whidbee's (1997) empirical analysis, he finds strong support for the 'shareholder-voting hypothesis' - outsider representation is positively associated with blockholder ownership and negatively associated with managerial ownership. It appears therefore, that while both studies report consistent findings in respect of the substitutability of board composition and managerial ownership, they present conflicting results in respect of the substitutability of board composition and external ownership concentration.

4.2.2 THE ROLE OF DIRECTORS' AND OFFICERS' INSURANCE IN CORPORATE GOVERNANCE

Prior to the 1989 amendment to the 1985 Companies Act (section 310), it was considered illegal for U.K. companies to indemnify their directors against negligence occurring in the course of their directorship of the company. (See Cranson (1992) for a comprehensive discussion of the legal history behind the 1989 amendment). For many years it was thought that exposing directors to personal liability for their business wrongdoings served to focus directors' minds on the job at hand. It was argued that the availability of corporate indemnification would allow negligent directors to be cushioned from the consequences of their mistakes by other stakeholders. As Finch (1994) points out: 'damages or criminal sanctions

could be dealt with through company-funded insurance and, accordingly, the penalty payer would be the shareholder, consumer and the employee rather than the wrongdoer' (p. 887). However, the dramatic increase in litigation against directors in the U.S. during the 1980s forced a re-think of the indemnification situation. The specific catalyst for reform was the outcome of *Smith v Van Gorkam* (1985) when the Delaware Supreme Court found nine directors and officers of the Trans Union Corporation personally liable for approving the sale of the corporation at less than its intrinsic value. The 1989 Companies Act in the U.K., while retaining the notion of preventing companies from indemnifying their directors for negligence, specifically allowed companies to purchase a D&O insurance policy on behalf of their directors. Interestingly, the 1989 Act also obliges companies to reveal the existence of a D&O insurance policy in their annual report and accounts to shareholders.

Holderness (1990) suggests a number of ways in which the corporate purchase of D&O insurance may assist diversified shareholders to monitor and influence managerial behaviour. First, prior to issuing an insurance policy, insurers are expected to undertake a thorough examination of individuals for whom insurance is sought. This process provides shareholders with a quasi-vetting procedure through which unsuitable (i.e. uninsurable) directors can be identified. Second, The corporate purchase of D&O insurance may serve to promote improved monitoring of the board of directors. Since a D&O policy typically indemnifies all directors, transgressions by individual directors has a liability impact on the board as a whole. This may serve as an incentive for directors to closely monitor each other's behaviour. Third, the existence of a D&O policy helps companies to recruit outside directors whose independence from company management is more likely to make them objective guardians of shareholder welfare. Indeed, there is U.S. evidence that the absence of D&O insurance adversely affects a company's ability to attract suitable outside directors (Prient, 1987; Daniels and Hutton, 1993). Fourth, insurer monitoring is also expected to take place during the litigation process.

Claims or notifications made under a D&O policy provides insurers with an opportunity to undertake a comprehensive examination of the specific aspects of the directors' behaviour giving rise to the claim.

Other writers have also argued that D&O insurance may have positive governance implications for companies. Jensen (1993) and Daniels and Hutton, (1993) suggest that the absence of insurance may encourage overly conservative management that is unlikely to result in directors maximising shareholder returns. In a further development of this argument, Finch (1994) suggests that uninsured directors may seek to shift risks by delegating particularly awkward decisions to external consultants who are unlikely to be as well placed to make the optimal decision. Oesterle (1989) argues that the possibility of nuisance suits against directors, often necessitating large personal defence costs, suggests that corporate indemnification should be available to directors. Furthermore, Oesterle (1989) suggests that any fear that insurance protection may reduce directors' incentives to pursue shareholder objectives, is likely to be counterbalanced by the incentive effects of both the managerial labour market and the market for corporate control. Oesterle (1989) argues that both the managerial labour market and the market for corporate control are expected to distinguish between value-maximising and opportunistic directors. Of course, if there are reputation costs associated with losing lawsuits, litigation may still be an important control device, even if all direct costs are paid by an external insurer (Bhagat et al, 1987).

Three empirical studies in the U.S. have sought to examine the impact of D&O insurance on shareholder welfare. Bhagat et al, (1987) examine stock returns of New York companies around the announcement of the purchase of D&O insurance and corporate amendments proposing to broaden management indemnification. Bhagat et al (1987) find no evidence that shareholder wealth is reduced by the purchase of D&O insurance. The empirical results

suggest that the effect on shareholder wealth may indeed be positive. Similarly, the broadening of managerial indemnification provisions does not appear to result in negative returns to shareholders. In a similar study, Janjigian and Bolster (1990) examine the impact of Delaware's decision to allow companies to eliminate director liability. Janjigian and Bolster's (1990) results suggest that liability elimination does not affect shareholder wealth since no significant difference between the performance of Delaware and non-Delaware firms is identified. Finally, in a further U.S. study, Brook and Rao (1994) report insignificant stock price reactions to companies' adoption of provisions intended to limit director liability.

Viewing D&O insurance in this framework is useful in seeking to ascertain its precise governance role. If D&O insurance is perceived as an alternative method of managerial monitoring, and holding the demand for monitoring constant, we would expect the use of D&O insurance to increase as the costs of alternative means of monitoring managerial behaviour increase. Similarly, as the demand for monitoring increases, we would expect the demand for D&O insurance to increase, holding the relative costs of alternative monitoring mechanisms constant. Holderness (1990) hypothesises that the corporate purchase of D&O insurance is likely to be influenced by the governance structure of the company - specifically the need for shareholder monitoring of corporate management. Using data from the 1979 Wyatt D&O survey, Holderness (1990) finds that companies exhibiting a clear division between the functions of ownership and management (e.g. NYSE and AMEX companies) are more likely to possess D&O insurance than organisations where the owner-manager-problem is expected to be less acute (e.g. co-operatives). Holding the demand for monitoring constant, the monitoring hypothesis suggests that the use of D&O insurance would increase as the cost of alternative means of monitoring increase. Similarly, as the demand for monitoring increases, we would expect the use of D&O insurance to increase, holding the relative costs of the various monitoring mechanisms constant.

Viewing the governance role of D&O insurance in this framework also highlights some of the problems in attempting to identify a precise role for D&O insurance in the overall monitoring choices made by firms. The problem is particularly acute since we are generally unable to control for the costs and demands of alternative forms of internal monitoring. If all firms had the same demand for monitoring, then the D&O monitoring hypothesis would imply that D&O insurance and high ownership, either by external or internal shareholders, would be substitutes. However, some firms may have a greater demand for monitoring than other firms, and those with a greater demand may make greater use of both D&O insurance and high levels of executive ownership. For example, as equity value increases, the cost of high external ownership as a monitoring device increases, since shareholders will need to pay more for a given proportion of the firms' equity (Demsetz and Lehn, 1985). As a result, we would expect large firms to utilise alternative forms of monitoring such as board composition, D&O insurance, and executive ownership. Even though we are unable to control for the cost and demand of all available monitoring mechanisms, by examining the relationship between D&O insurance and other endogenous governance mechanisms, we can provide some initial insight on the role of D&O insurance in firms' monitoring decisions.

Since the presence of external blockholders is expected to result in more effective monitoring of managerial behaviour, we would expect a reduced demand for the monitoring of D&O insurance in such companies. When external ownership is more dispersed, we would expect greater reliance on alternatives to shareholder monitoring suggesting a greater demand for the monitoring which D&O insurance potentially provides. However, it should also be noted that the existence of large blockholders may also serve to increase the likelihood of D&O insurance as blockholders use their improved voting position vis-à-vis managers to insist on companies acquiring the increased monitoring that D&O is expected to provide. This is analogous to

Whidbee's (1997) 'shareholder-voting hypothesis' discussed in the previous section. Essentially, large blockholders may specifically delegate their monitoring responsibilities to insurers through the purchase of a D&O insurance policy. This suggests that large blockholder ownership and D&O insurance are likely to be complementary, rather than substitute, mechanisms of governance utilised by external blockholders. Regardless of whether the substitution or shareholder-voting hypotheses predominate, we would expect less demand for D&O insurance in companies where managers possess significant equity holdings. Owner-managers are less likely to seek to exploit shareholders and consequently there is expected to be a reduced need for D&O monitoring. Similarly, even where external shareholders might like to purchase D&O insurance, owner-managers are likely to have sufficient voting interests to resist any such interference.

As discussed in the previous section, board composition is expected to be an important monitoring mechanism for companies with diffused ownership. Since D&O insurance is also expected to have a monitoring role in such companies, it may appear that board composition and leadership and D&O insurance may be substitute mechanisms of monitoring employed by shareholders. However, a number of factors suggest that board composition and D&O insurance may be complementary control mechanisms. Since the purpose of a D&O insurance policy is to indemnify all company directors against negligent behaviour, insurers are expected to insist on insured companies having adequate non-executive representation prior to offering insurance protection. Second, the availability of a D&O insurance policy is expected to facilitate the recruitment of non-executive directors to serve on company boards (Priest, 1987; Daniels and Hutton, 1993). It appears, therefore, in instances where shareholders pursue monitoring through D&O insurance, the D&O insurers are likely to insist on the company appointing a sufficient number of non-executives to the board. Alternatively, where shareholders pursue monitoring through the use of non-executive directors, these non-

executives are expected to insist on the additional protection of a D&O insurance policy. We would expect, therefore, that D&O insurance and board composition operate jointly to monitor managerial behaviour.

4.2.3 THE IMPACT OF INTERNAL GOVERNANCE CHARACTERISTICS ON AUDIT QUALITY

The governance concerns of the early 1990s covered many aspects of the U.K. governance process. A particular area of concern was the quality of corporate financial reporting (Cadbury, 1992). An important element of the financial reporting process in the U.K. is the statutory audit whose objective is to provide independent verification of the financial statements prepared by management. The failure of a number of large companies in the early 1990s, without auditor warning, raised serious questions about the quality and reliability of audited information. In its report on the financial aspects of corporate governance, Cadbury (1992) focused specifically on the need for greater objectivity in the auditor-management relationship: 'the central issue is to ensure that an appropriate relationship exists between the auditors and the management whose financial statements they are auditing' (paragraph 5.7). In an attempt to improve the objectivity of managerial behaviour, Cadbury (1992) recommended that companies should utilise a greater proportion of non-executive directors and avoid having the same individual occupying the positions of company chairman and CEO. The committee also recommended the establishment of audit committees comprised solely of non-executive directors to: 'ensure that the relationship between auditors and management remains objective and that the auditors are able to put their views in the event of any difference of opinion with management' (paragraph 5.9).

Cadbury's (1992) concerns regarding the proximity of the relationship between auditors and managers highlights the important role of auditing in the governance process. In providing

independent verification of the financial statements prepared by management, the statutory audit is an important governance mechanism through which shareholders can seek to monitor management. Viewing auditing as a mechanism of governance focuses attention on the relationship between auditing and other monitoring mechanisms utilised by companies. In this section, I am interested in investigating the relationship between a company's governance characteristics and audit quality. DeAngelo (1981) defines the quality of audit services as 'the market-assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system, and (b) report the breach'. The likelihood of discovering accounting errors depends on the extent of the audit while reporting any errors that are discovered is influenced by the auditor's independence from company management.

In the context of this thesis, it is primarily the auditor's ability to discover errors made by management in the preparation of the financial statements that is of interest. However, as Collier and Gregory (1996) note, the ability of the auditor to discover errors will also depend on the auditor being free to determine the appropriate audit techniques used and the extent of their application. Hence, in this respect, the auditor's independence from management may also impact the extent of the auditor's investigation. In this study, I use the amount of the audit fee to proxy for audit quality since the quality of a company's audit is not observable. Utilising the audit fee as a proxy for quality can be justified for a number of reasons. First, since I am interested in capturing the extent of auditor investigation, it is reasonable to assume that more investigation will require more audit hours and/or the use of more specialised audit staff - resulting in higher fees. Second, existing audit pricing studies acknowledge the link between audit quality and pricing by including a binary variable to represent 'big six' auditors. It is suggested that these firms are higher quality auditors and consequently are expected to charge a premium for their expertise (Palmrose, 1986a; Chan et al, 1993). Third, the link between audit quality and fees has been raised both by Cadbury (1992) and the Chartered

Accountants' Joint Ethics Committee (1993) - both reports warning against the likelihood that audit quality may be compromised by low fees.

Viewing the statutory audit as one of a number of monitoring mechanisms available to shareholders is useful in seeking to understand the relationship between board composition, ownership, audit quality, and ultimately audit fees. In their respective reports on corporate governance, both Cadbury (1992) and Hampel (1998) emphasise the value of increased non-executive representation on boards suggesting that non-executives are capable of bringing greater independence and impartiality to board decisions. In respect of the audit process, it is anticipated that increased non-executive representation is capable of improving the quality of the audit process in a number of respects. First, external auditors are able to discuss matters arising from the audit process with non-executive board members, free from managerial influence. This is especially important if the auditors seek to question certain aspects of the way in which the financial statements have been prepared by management or require further (more costly) testing in order to reach an opinion on the quality of the financial statements. Second, in negotiations with the external auditor, non-executives are expected to place a greater emphasis on the extent and quality of the audit rather than on the cost, compared to executive directors. Furthermore, non-executives are expected to favour more extensive auditing in order to complement their own monitoring responsibilities since they share with auditors the objective of identifying and rectifying reporting errors deliberately or otherwise made by managers. This suggests that companies with greater non-executive representation may favour a more comprehensive (and expensive) audit.

Third, it is expected that non-executive directors facilitate separate negotiations between the company and its auditors in respect of audit and non-audit services. Such negotiations are likely to be undertaken under the auspices of an audit committee. Indeed, Collier (1993) finds

a positive relationship between the existence of an audit committee and the number of non-executives serving on the boards of U.K. companies. Cadbury (1992) argues for the establishment of audit committees comprised solely of non-executive directors 'to ensure that the relationship between the auditors and management remains objective' (paragraph 5.9). Hampel (1998) argues that the audit committee is an important safeguard of auditor independence and objectivity and should 'have a key role where the auditors also supply a substantial volume of non-audit services to the client' (paragraph 6.9). The existence of an audit committee with significant non-executive membership is expected to reduce the likelihood that the extent of auditor effort, as well as the auditors' willingness to report any areas of non-compliance, are affected by the level of non-audit fees the company's auditor could earn from the company. This is expected to reduce the likelihood that the extent of auditor effort, as well as the auditors' willingness to report any areas of non-compliance, are affected by the level of non-audit fees the company's auditor could earn from the company. It appears, therefore, that greater non-executive representation is likely to result in more extensive auditing, leading ultimately, to higher audit fees.

Ownership structure is also expected to have an impact on the quality of the audit process. Chan et al (1993) suggest that shareholders in companies with widely dispersed ownership are expected to place particular reliance on auditing as a means of monitoring managerial behaviour. Essentially, as ownership becomes more dispersed, direct monitoring by shareholders becomes more costly and greater reliance on the audit as a mechanism of governance is expected. Of course, as Jensen and Meckling (1976) argue, dispersed shareholders also anticipate increased opportunity for managers to pursue their own interests at shareholders' expense and thereby anticipate greater agency costs. However, managers are aware of this and are expected to seek to reduce such costs by bonding themselves to a more extensive audit. Therefore, managers in companies with dispersed ownership are expected to

encourage more extensive (costly) auditing in an attempt to signal their interest in shareholder welfare. In the case of companies with more concentrated ownership, blockholders possess a greater incentive to actively monitor managerial behaviour due to the size of their equity holdings and the likely cost to them of any non-value-maximising behaviour by managers. Such shareholders are expected to view the audit process as an important mechanism through which they can monitor managerial behaviour. Consequently, we would expect such shareholders to favour more extensive auditing and consequently pay higher audit fees. Overall, therefore, we expect higher audit fees both in companies with widely dispersed ownership (due to the appropriateness of auditor monitoring compared to other monitoring mechanisms and the bonding motivation of managers), and also in companies with large external blockholders (due to such blockholders having the financial incentives to ensure maximum monitoring is undertaken).

Jensen and Meckling (1976) argue that agency conflicts between managers and shareholders may be reconciled when managers possess an ownership interest in their companies. According to Jensen and Meckling (1976), managers and directors are inside shareholders participating in the decision-making process as well as enjoying the benefits of ownership. External shareholders play a passive role in the firm's decision-making process. In Jensen and Meckling's (1976) convergence of interest model, an increase in the proportion of the firm's equity owned by insiders is expected to increase firm value as the interests of inside and external shareholders are realigned. Since managerial ownership serves to realign the interests of shareholders and managers, we would expect a reduced need for intensive auditing. Furthermore, when managers own a significant portion of equity they have less incentive to issue misleading information to shareholders so auditors are less likely to need to undertake additional testing. Consistent with these arguments, Chow (1982) suggests that when managers own smaller equity stakes in their firms they have an increased incentive to falsify

financial disclosures since such disclosures are likely to be utilised by shareholders in setting managers' remuneration. It should be noted however, that a number of recent governance studies have produced evidence of a non-linear impact of managerial ownership. For example, studies by Sudarsanam et al (1996) and Short and Keasey (1999) suggest that at high levels of managerial ownership managers become entrenched with a consequent decline in shareholder returns. This suggests that the extent of auditing and ultimately the audit fee, will be negatively related to the degree of managerial ownership but at higher ownership levels, auditing is expected to be more intensive reflecting the increased likelihood of managerial entrenchment.

4.3 THE RELATIONSHIP BETWEEN INTERNAL GOVERNANCE AND TAKEOVERS

Even though the takeover process has attracted a great deal of research, the precise role of takeovers in the governance process remains unclear. In the context of this thesis, I am interested in how takeover activity interrelates with alternative forms of monitoring managers. The governance role of takeovers is rooted in Manne's (1965) doctrine that the stock market provides an objective measure of managerial performance. When an opportunity to create new value via the redeployment of assets or the displacement of existing managers becomes apparent, the company becomes an attractive target in the market for corporate control. Thus, the greater is management's departure from value-maximisation, the greater is the potential gain for any acquirer and consequently the more vulnerable the incumbent management team is to a takeover bid. A takeover bid therefore, gives target shareholders the opportunity to replace underperforming or opportunistic managers. Viewed in this way, internal governance mechanisms and takeovers may be seen as substitutes and therefore we might expect takeover targets to exhibit inferior governance characteristics (i.e. lower non-executive representation and increased likelihood of CEO duality) compared to non-targets.

However, a number of writers have questioned the efficiency of takeovers as an effective governance mechanism. Grossman and Hart (1980), for example, argue that takeovers may be hampered by the free-riding problem caused by dispersed shareholders in large companies. Small target shareholders, believing that their individual decision will have a negligible impact on the successful outcome of a bid, may refrain from tendering their shares in the expectation of obtaining post-merger gains. As a consequence, economically desirable takeovers will fail or will not occur if acquisition costs are raised to such a high level that bidders have to surrender all potential gains to the existing shareholders. A second weakness of takeover governance is the possibility that an active market for corporate control, with the continuing pressure on companies to be efficient, encourages managers to maximise short-term performance at the expense of long-term investment decisions (Stein, 1988). The implication of this is that firms concentrating on long-term investment are undervalued compared to their short-term counterparts and consequently become more attractive takeover targets (Schleifer and Vishny, 1990). Finally, the costs involved in executing a successful takeover can be substantial. In addition to the financial costs, disruption costs are non-trivial when managers become unduly occupied with the pressure of takeovers and consequently divert attention from managing the business in a diligent manner (Jenkinson and Mayer, 1992).

The above concerns suggest that takeovers may be an expensive and uncertain method of disciplining inefficient/opportunistic managers. Consequently, a number of writers have suggested that takeovers may be used only as a governance mechanism of last resort. For example, Jensen (1986) observes that 'the external takeover market serves as a court of last resortthat plays an important role in protecting shareholders when the corporation's internal controls....are slow, clumsy, or defunct'. This suggests that internal governance and takeovers may be complementary governance mechanisms in that the cost of governance through takeover is greater than changes in internal governance (e.g. the recruitment of additional non-executive

directors). Therefore, takeovers might be more likely to occur in companies where strong governance mechanisms exist but nevertheless have proved ineffective in reconciling shareholder and manager objectives. This notion suggests that takeovers and internal governance may actually be complements in so far as takeovers only occur where strong internal governance is already in place (but has failed to reconcile the interests of shareholders and managers).

As discussed in chapter three, takeovers have provided a fruitful area for researchers interested in analysing the governance impact of both ownership structure and board composition. This work provides some initial insights into the relationship between internal governance and takeover activity. In seeking to understand and apply the findings of existing research to the issue being discussed here, it is useful to examine the relationship between internal governance and takeovers at three stages of the takeover process - bid likelihood, managerial reaction and ultimate outcome. First, it is interesting to ascertain whether internal governance differs between those companies subject to takeovers and non-target companies. The substitution hypothesis suggests that governance-motivated takeovers are likely to occur where shareholder dispersion and the lack of board independence allow managers to pursue their own interests at shareholders' expense. An alternative interpretation suggests that, due to the costs involved in executing governance-motivated takeovers, they are likely to occur only when shareholder control and/or board governance has not succeeded in reconciling the interests of shareholders and managers. In comparing targets and non-targets, researchers often focus only on hostile bids since such bids are perceived to be more likely to represent takeovers motivated by governance objectives.

In the leading study in this area, Shivdasani (1993) finds that ownership of blockholders with no affiliation to management is significantly greater in the case of targets compared to non-

targets while blockholders affiliated to management possess a greater proportion of ownership in non-targets. Shivdasani (1993) finds that managerial ownership in target companies is significantly lower than in non-targets (using a range of measures). This finding is consistent with the findings of Song and Walkling (1993). Shivdasani (1993) also provides some insights into targets and non-targets' utilisation of outside directors. His study found that targets possessed a greater proportion of both outside directors and unaffiliated outside directors. However, Shivdasani (1993) found that outside directors in non-target firms possessed a greater number of additional directorships (Shivdasani's proxy for quality) than their counterparts in targets. Shivdasani's (1993) findings present a mixed message regarding the impact of internal governance characteristics on takeover likelihood. On the one hand his findings regarding external and managerial ownership emphasise the greater likelihood of takeover governance where ownership affiliated to company management is low. This implies that takeover governance is more likely to occur when shareholders are not under the influence of company management. However, Shivdasani's (1993) findings also suggest that takeovers are more likely to occur in companies where external shareholder influence is greatest - an interpretation reinforced by the positive association between outside directors and takeover likelihood. Taken together, these findings suggest that hostile takeovers may actually occur in companies where internal governance is in place but appears to have failed. It should be noted that Shivdasani (1993) found no clear evidence that hostile targets exhibited inferior performance than their non-target counterparts in the years preceding the bid.

Shivdasani's (1993) findings highlight the potential influence of target management in the takeover process. A number of studies have compared the internal governance characteristics of hostile and friendly bids in an attempt to ascertain the influence of ownership and board characteristics on target managers' reaction to takeovers. We might expect managers in companies with significant blockholder ownership less likely to resist governance-motivated

takeovers in the knowledge that such resistance is likely to be futile in the face of large shareholder opposition. However, we might also expect companies in which external blockholders own substantial proportions of equity to be administered in the interests of shareholders and consequently less in need of takeover governance. There is mixed evidence on the relationship between external ownership concentration and managerial reaction to takeovers. For example, in a Canadian study, St-Pierre et al (1996) find no evidence that external ownership influences managers' reaction while in the U.S., Raad and Ryan (1995) report greater institutional ownership in hostile as opposed to friendly bids. A number of studies have compared managerial ownership in the context of hostile and friendly bids. As reviewed in chapter three, almost all these studies report that managerial ownership is significantly higher in the case of friendly as opposed to hostile bids (Walkling and Long, 1984; Song and Walkling, 1993; Bucholtz and Ribbens, 1994; Cotter and zenner, 1994; Raad and Ryan, 1995 and Holl and Kryiayis, 1997).

More recently, a number of studies have compared board composition between hostile and friendly bids. In the U.S., Cotter et al (1997) find that boards with a majority of outside directors are more likely to resist takeover bids. It should be noted though, that Cotter et al (1997) also report that resistance by such boards generate higher returns for target shareholders than boards with a minority of outsiders. St-Pierre et al (1996) also report greater non-executive representation is associated with bid resistance. It appears therefore, that while we have no clear evidence on the impact of blockholder ownership on managerial reaction, both managerial ownership and board composition play important roles. The available evidence suggests that where managers possess significant ownership, the bid is likely to be friendly. This is consistent with Baron's (1983) hypothesis that lower managerial ownership serves to focus managers' minds on the value of compensation and job retention while in the possibility of large pecuniary gains is managers' overriding motivation when managerial equity is high. In

companies with independent boards (and where managers are expected to have lower equity holdings) takeover bids are more likely to be hostile. However, this hostility seems to be designed to maximise shareholder wealth rather than seeking to force abandonment of the bid.

Research in the U.K. by Holl and Kyriazis (1996) estimate that the probability of a friendly bid succeeding is 0.958 compared to a probability of 0.609 for the success of a takeover opposed by management. Indeed, Sudarsanam (1995) estimates that the probability of a contested bid succeeding is as low as 0.47. This illustrates the close association between managers' reaction and ultimate bid success. Not surprisingly, therefore, managerial ownership also exerts a very significant impact on bid outcome - with success being positively related to managerial ownership. However, external ownership and board composition presents a more complex picture. In the previous paragraph we found evidence that strong external ownership and greater outside director representation served to increase the likelihood of bid. However, researchers find no evidence to suggest that either outside directors or large external blockholders influence takeover outcomes (Brickley et al, 1994; Sudarsanam, 1995; Cotter et al, 1997). This is interpreted in the literature as strong board and ownership governance succeed in exacting maximum returns for shareholders during the takeover process but stop short of jeopardising the ultimate success of the bid.

The analysis of internal governance in the context of takeovers is particularly appropriate in the U.K. for a number of reasons. First, prior to Cadbury (1992), U.K. boards were categorised by a majority of executive directors while U.S. studies consistently report a greater use of non-executive directors. Second, as noted by Black and Coffee (1994), institutional investors in the U.K. own a significantly greater proportion of equity compared to their U.S. counterparts. However, despite greater levels of institutional ownership, public shareholder activism in the U.K. is rare - indeed Black and Coffee (1994) find only a few instances of external

shareholders publicly seeking to implement leadership change in U.K. companies. In addition to board composition and shareholder characteristics, the regulation of takeover activity also operates differently in the U.K. The *City Code on Takeovers and Mergers*, which regulates U.K. takeovers, prohibits defensive tactics during the period of a bid, as well as prohibiting preclusive pre-bid actions such as adopting a poison pill. Consequently, U.K. shareholders are able to decide on the success or failure of a bid free from the numerous methods of entrenchment commonly utilised by target managers in the U.S. Interestingly, Black and Coffee (1994) note that even though managers in the U.K. appear to have less freedom in defending unwanted bids, the proportion of U.K. hostile bids successfully defended by managers (often with institutional shareholder support) is greater than was the case in the U.S. prior to the introduction of poison pills.

4.4 THE RELATIONSHIP BETWEEN INTERNAL GOVERNANCE AND OWNERSHIP STRUCTURE IN INSURANCE COMPANIES

As discussed in chapter three, the coexistence of proprietary and mutual companies in the insurance industry provides an interesting governance environment in which to examine the interrelationship between internal and external governance. Shareholders in proprietary companies possess the ability to exercise monitoring of managers through the full range of internal governance mechanisms in addition to exercising governance through takeovers. In the case of mutual companies however, the ability of owners to monitor managers appears far more restricted. The merging of the functions of owner and policyholder effectively eliminates three sources of governance available to shareholders in proprietary companies – external ownership concentration, managerial ownership and takeovers. This leaves the board of directors as the main source of monitoring available to mutual policyholders. Consequently, we would expect mutual companies to exhibit stronger board governance than their proprietary counterparts.

A small number of empirical studies in the U.S. have sought to investigate whether mutuals compensate for the absence of strong external governance by possessing a higher proportion of non-executive directors. In insurance, the leading work in this area is a study by Mayers et al (1997) who explicitly test this substitution hypothesis. Mayers et al (1997) find consistent evidence that mutuals employ a greater proportion of outside directors than their proprietary counterparts. The results show that mutual boards contain, on average, 64 per cent outsiders compared to only 48 per cent outsiders on the boards of proprietary companies. As a further test of the relationship between organisational form and internal governance, Mayers et al (1997) extend their analysis to investigate whether outside director representation changes when insurers alter their ownership structure (i.e. mutualise or demutualise). In the case of companies converting from proprietary to mutual, Mayers et al (1997) find that such companies employ a significantly greater proportion of outside directors three years after the mutualisation. Furthermore, in the case of companies converting from mutual to proprietary status, Mayers et al (1997) report a significant reduction in the proportion of outside directors three years after the conversion. This evidence provides further support for the notion that outside directors substitute for the absence of external monitoring in mutual insurers.

An earlier study of board composition in the U.S. banking sector undertaken by Brickley and James (1987) is also of some interest to this discussion. Brickley and James (1987) compare board composition in companies operating in states that permit takeovers with companies in states where the acquisition of banks is prohibited. Brickley and James (1987) hypothesise that companies not exposed to takeover governance are likely to make greater use of outside directors. The empirical evidence is inconsistent with Brickley and James' (1987) substitution hypothesis as boards in states permitting takeovers were shown to have a greater proportion of outside directors than boards in non-acquisition states. Furthermore, Brickley and James (1987) find no evidence that lower levels of outside directors is compensated for by larger ownership

stakes either by executive directors or non-manager shareholders. However, Brickley and James (1987) find that greater outside director representation is associated with ownership concentration in banks in non-acquisition states. Brickley and James (1987) conclude that this latter finding is consistent with the employment of outsiders only for monitoring purposes in non-acquisition states, while in non-acquisition states, outside directors are more prevalent because they tend to be used for reasons in addition to monitoring (e.g. strategic planning, customer development, or loan valuation).

In addition to comparing the governance environment that exists in mutual and proprietary companies, I am also interested to explore how different governance combinations (both internal and external) influence the behaviour of insurance companies. The literature reviewed in chapter three suggests that U.S. studies have not produced convincing evidence that mutual and proprietary companies exhibit significantly different patterns of behaviour. Having examined the utilisation of different governance mechanisms I will examine how these mechanisms influence company performance in the U.K. Of particular interest is to examine the impact of governance on both shareholder (policyholder) and managerial performance. For example, an increase in insurance funds (or total assets) is commonly seen as a measure of shareholder (policyholder) orientated performance. In contrast, company growth and executive remuneration are commonly viewed as proxies for manager-orientated performance. An objective of this section of the thesis is to explore the extent to which internal and external governance influences each of these measures of performance.

In section 4.2, I discussed how internal governance may impact the thoroughness and cost of the statutory audit for quoted companies. I will undertake a similar examination in the context of insurance companies. Studying audit effort in the context of insurance companies is capable of contributing to the existing audit pricing literature in a number of respects. In addition to

providing further insights on the impact of board composition and leadership on auditor effort, I can also examine the impact of mutuality on auditor effort. From an audit effort perspective, mutuality is especially interesting. All existing work in this area models the auditor's pricing decision in the context of proprietary companies. The merging of the customer and ownership functions suggests that auditors in mutual companies may pursue different pricing strategies. The absence of both concentrated shareholdings and the possibility of takeover suggest that auditors in mutual companies may have different motivations to undertake a thorough audit compared to their counterparts in proprietary companies. On the one hand, the greater dispersion of ownership and the consequent difficulties for policyholders to monitor managers places greater pressure on auditors in mutual companies to detect managerial opportunism. This suggests greater policyholder reliance on the auditor's work and consequently greater auditor effort and ultimately fees. Alternatively, the absence of both blockholders and the possibility of takeovers suggest that any errors the auditor commits are less likely to be detected since most investigations into audit quality occurs immediately after a takeover or other kind of corporate restructuring. This suggests that audit fees may be lower in mutual compared to proprietary companies. The reduced fee arises due to either reduced auditor effort or a reduced element of risk premium in the audit fee (or both). As noted earlier, Mayers and Smith (1988) find that mutuals seek to restrict managerial discretion both by operating in more concentrated geographic locations and by operating in fewer lines of business than proprietary companies. Both these factors are likely to reduce the complexity of mutual audits with a corresponding reduction in the extent of the audit and ultimately the audit fee.

4.5 DATA CONSIDERATIONS AND SOURCES

In the previous three sub-sections of this chapter I have discussed the theoretical motivation for the thesis. In this section I will address the data considerations and explain the type and sources of the datasets used in seeking achieve the thesis' objectives. Even though the issues

addressed by the thesis have a common theme – internal and external governance in the U.K. – the particular issues being addressed suggested that I utilise three different datasets. However, prior to examining the specific data requirements of each section of the thesis, the timing of the data was a critical consideration for all three datasets. As discussed in chapter one, the mid-1990s marked a significant change in the governance characteristics of U.K. companies. In particular, Cadbury (1992) and Greenbury (1995) initiated a significant re-appraisal of governance in companies with the effect of increasing non-executive representation, reducing the incidence of CEO/chair duality and an increase in the utilisation of audit and remuneration committees (Conyon, 1994; Cadbury, 1995; Conyon and Mallin, 1997). In seeking to investigate the thesis' objectives I was anxious to utilise data that was uncontaminated by such changes. Therefore, all three datasets used in my analysis utilises data from 1992 and earlier. This allows me to examine the operation of governance in the U.K at the cusp of a period of rapid governance change. A significant advantage of utilising data from this period is the ability to undertake my analysis in a relatively unregulated period and this allows me greater scope to comment on the interaction between governance instruments (both external and internal) in a relatively free market. Of course, my empirical analysis should also serve as a useful benchmark for future research examining the usefulness of different governance mechanisms in the post-Cadbury (1992) period.

4.5.1 DATA ON THE INTERRELATIONSHIP BETWEEN GOVERNANCE MECHANISMS IN QUOTED COMPANIES

In order to examine the governance mechanisms employed by U.K. quoted companies prior to the implementation of the Cadbury (1992) recommendations it was necessary to compile an appropriate database of internal governance mechanisms and ownership structure. Consequently, I decided to focus my study on companies' governance and ownership characteristics at the end of the 1992 financial year. Even though focusing on a period

immediately prior to the publication of the Cadbury (1992) report may increase the possibility of governance anticipation, a number of alterations to corporate disclosure introduced by the Companies Act 1989 makes 1992 a suitable period in which to base the study. First, the 1989 Companies Act obliges companies to disclose the identity and ownership level of shareholders owning three per cent or more of a company's equity - the previous disclosure threshold had been five per cent. Second, the 1989 Companies Act obliged companies to disclose in their annual report the existence of any Directors' and Officers' insurance policy financed by the company and intended to indemnify directors for negligence arising out of their stewardship of the company. Finally, the 1989 legislation also broadened companies' disclosure obligations concerning fees paid to their auditors. In particular, prior to the 1989 Act companies were obliged to disclose the fee paid to their auditors in respect of the statutory audit only. The 1989 Companies Act however, also obliges companies to disclose the amount of fees paid to their auditors for non-audit work undertaken in the U.K. The improved information about each of these items is of direct importance to the issues covered in this thesis and consequently it was felt that 1992 was an appropriate year in which to base the work. In particular, the disclosure of D&O insurance came into effect for the 1991 financial year while the additional disclosures in respect of non-audit fees became effective during the 1992 financial year.

The starting point for the compilation of my database was the 1994 edition of the *Times 1000*, an annual publication which ranks the largest 1000 companies operating in the U.K by turnover. The 1994 edition provided turnover information relating to companies' 1992 financial year. Since the focus of this section of the thesis is on the governance of quoted companies, I excluded all privately-owned and subsidiary companies from the sample. Excluded in the latter category were a large number of U.K. subsidiaries of U.S., Japanese and European multinationals. I also decided to focus on non-financial companies since financial companies are not easily reconcilable with non-financial companies. For example, the largest

financial companies in the U.K. are typically either banks or insurance companies. Both of these industries operate in a more regulated environment than their non-financial counterparts. Indeed, the Bank of England directly regulates the banking industry and has an effective veto on board appointments. In addition to standard financial disclosures, insurance companies are also obliged to make very detailed annual submissions to the Department of Trade and Industry (DTI). Furthermore, in view of the nature of business undertaken by financial companies, performance comparisons between financial and non-financial companies are difficult. Due to difficulties obtaining copies of certain companies' annual reports and accounts, and the exclusion of a small number of quoted companies with unusual ownership structures, the final sample was reduced to 441 companies. In addition to a comprehensive analysis of companies' annual reports and accounts, I also obtained additional director and ownership information from various issues of the *Arthur Andersen Corporate Register* - a twice-yearly publication which provides extensive board and ownership information on quoted companies. Furthermore, I use *Datastream International* and the *London Business School Share Price Database* to obtain accounting and share price information respectively.

In this section of the thesis I utilise data on main board characteristics such as composition, leadership and ownership. I have not utilised information on other board characteristics such as the presence and composition of audit, remuneration and nomination committees. Even though I am aware that a number of recent studies have usefully utilised data on the existence and composition of such committees (e.g. Conyon and Peck, 1998; O'Sullivan, 1999), such information was not consistently disclosed by companies in the U.K. until the mid 1990s. Incorporating such data into the present analysis would have necessitated the use of a retrospective questionnaire to obtain such information (e.g. Conyon, 1994). However, I felt that this was unnecessary as publicly available information on board composition and ownership was sufficient to adequately address the objectives of this section of the thesis. In

particular, I am not aware of any U.K. study that has examined the relationship between ownership and board composition/leadership so the use of publicly available information was seen as a useful point to begin exploring the interrelationships between these governance mechanisms. In addition, in this section of the thesis I am not seeking to examine the role of executive remuneration in the governance process. As discussed in chapter two, executive remuneration has been one of the most researched areas of corporate governance over the past decade. I am conscious of the important empirical contributions made by Main et al (1995), Bruce and Buck (1997), Conyon et al (1995), Conyon (1997) and Conyon and Peck (1998) who have undertaken comprehensive studies of the governance role of executive compensation in the U.K. I define and describe the specific variables used in this section of the thesis in chapter five which also presents the results of the empirical analysis of the interrelationship between governance mechanisms in quoted companies.

4.5.2 DATA ON THE RELATIONSHIP BETWEEN INTERNAL GOVERNANCE AND TAKEOVERS

As discussed in section 4.3, the second objective of my thesis is to examine the internal governance characteristics of targets and non-targets. This necessitated the construction of a dataset of U.K. takeover targets and a matched sample of non-targets. In compiling the takeover database, the first step was to identify all public companies that were subject to a takeover bid between 1989 and 1993. Since I am interested in the interrelationship between takeover activity and takeovers prior to the implementation of the Cadbury (1992) recommendations, I felt this was the most appropriate period for the study. In assessing a target's internal governance characteristics, I utilise information from the financial year immediately prior to the year of the bid. Hence, the use of 1993 targets is justified on the grounds that I use governance information from the 1992 financial year. *Acquisitions Monthly* and *FT Mergers and Acquisitions International* were used to identify U.K. listed firms

involved in takeovers between 1989 and 1993 inclusive. Having identified takeover targets, the second step was to develop a matched sample of non-targets. Since governance characteristics may differ depending on firm size (Demsetz and Lehn, 1985) and type of industry (Shivdasani, 1993), a control sample is constructed by matching each target with a corresponding non-target firm on the basis of industrial classification and sales turnover. Control firms were matched with a target on the basis of having the same primary SIC code and also belonging to the same Stock Exchange industrial classification. Information on SIC codes and the industrial classification of firms was obtained from the *FAME Database* and *Stock Exchange Official Yearbooks* respectively. Furthermore, control firms were matched for size on the basis of turnover in the financial year immediately prior to the takeover bid. To verify that none of the firms in the control sample had received a takeover bid, both the *Financial Times* and *The Times* indices were monitored for a period of three years before and three years after the announcement of a bid for their target counterparts. The eventual sample comprises 332 firms, consisting of 166 targets and 166 non-targets.

Since the existing takeover literature suggests that the mood of the bid may be an important consideration when assessing the governance role of takeovers, I segregated the 332 bids between those that were opposed by management (i.e. hostile or contested) and those that management did not oppose (friendly or unopposed). Using this categorisation, I identified 53 of the bids as being hostile and the remaining 113 as being friendly. Furthermore, since I am also interested in the role of board composition and ownership on bid outcome, I also segregated the sample of targets on the basis of bid success. 134 targets were successfully acquired while 32 takeover bids were unsuccessful. As in the case of quoted companies, I use publicly available information on board composition, leadership and ownership structure to compile the variables used in the analysis. This information was obtained from companies' annual reports and accounts, relevant issues of the *Arthur Andersen Corporate Register*,

Datastream International and the *London Business School Share Price Database*. I define and describe the specific variables used in this section of the thesis in chapter six which also presents the results of the empirical analysis of the interrelationship between governance mechanisms and takeover activity.

4.5.3 DATA ON MUTUAL AND PROPRIETARY INSURANCE COMPANIES

The third objective of the thesis is to examine the relationship between internal governance in mutual and proprietary insurance companies. Unlike the previous two sections where I utilise data on quoted companies only, compiling a dataset on the governance of U.K. insurance companies is more complex. When this study was being designed there were over three hundred firms active in the U.K. insurance industry (Carter and Diacon, 1991). With the exception of Lloyd's of London and a small number of friendly societies and mutual pools, all U.K. insurance companies are organised either on a mutual or proprietary basis. In addition to the proprietary/mutual distinction, insurance companies can be further distinguished between those that are independent and those that are subsidiaries of other companies. It is important to note that a relatively small number of the proprietary insurers operating in the U.K. are fully quoted companies – a majority are subsidiaries, many of whom are actually owned by overseas insurers. In terms of financial disclosures, insurance companies are governed by the Insurance Companies Act 1982. This legislation, in addition to requiring insurers to publish annual reports and accounts to shareholders/policyholders, also requires companies to make an annual submission to the Department of Trade and Industry (DTI) in respect of their U.K. business.

The starting point for assembling relevant data for the insurance aspect of the thesis was the library of the University of Nottingham Insurance Centre (UNIC) which has a comprehensive collection of annual reports and DTI submissions for insurance companies registered in the U.K. These documents provided information on basic board governance as well as financial data for a significant

number of companies over a considerable period of time. However, in order to adequately achieve my objectives, I felt that I needed to adopt a two-way approach to the data collection process. The presence of so many subsidiary companies compromised the traditional executive versus non-executive distinction with regard to board composition. For example, some non-executives in subsidiary insurers were also executives of their parent companies and hence are likely to be 'affiliated' non-executives. Consequently, I felt it necessary to try to distinguish these directors from non-executive who have no apparent business connection with the company. Since background information on company directors was not consistently available from the financial statements, I decided to devise a questionnaire to solicit this information from companies in my sample. Consequently, I devised a short postal questionnaire and sent it to the company secretaries of 181 companies licensed to undertake insurance business in the U.K. in December 1993. (A copy of the questionnaire is attached at the end of the thesis). Only one questionnaire per company was dispatched and the answers refer to the overall group in cases where an organisation may have had more than one insurance subsidiary. The questionnaires requested information as at the end of the 1992 financial year and focused on five areas: (1) board composition; (2) board sub-committees (i.e. audit and remuneration); (3) CEO characteristics; (4) internal audit and (5) auditor-company relationship. A total of 123 usable responses were received representing a response rate of 68 per cent. The precise information sought is discussed in more detail when I present and discuss the findings of the questionnaire survey in chapter seven. The results of the questionnaire were used to complement the financial information obtained from the relevant companies' annual reports and accounts and DTI returns to provide a comprehensive dataset for the 1992 financial year. This allowed me to undertake an in-depth analysis of the relationship between internal governance, organisational structure and a variety of aspects of company behaviour for 1992.

In addition to examining the governance characteristics and performance of insurance companies in 1992, I also decided to undertake a study of governance in insurance companies for the period 1984-

91. Even though I utilise cross-section data in examining governance in quoted companies (chapter five) and governance in takeovers (chapter six), investigating governance characteristics over a longer period of time in the case of insurance companies can be justified on a number of grounds. First, the evidence revealed in the questionnaire survey (mentioned above) suggested that insurance companies possessed particularly strong internal governance characteristics in 1992. For example, the findings presented in chapter seven show that non-executive directors represent between 64.5 per cent (proprietary) and 73.1 per cent (mutual) of board members in independent insurance companies. Similar figures for the incidence of CEO/chairman duality are 3.1 per cent and 5.3 per cent respectively. These findings compare with non-executive representation of 41 per cent and CEO/chairman duality of 28.6 per cent for my sample of quoted companies analysed in chapter five.

The survey results also suggested that a very high proportion of insurers possessed both audit and remuneration committees in 1992. Furthermore, the questionnaire results report that remuneration committees had been utilised by insurance companies for an average of 12 years while the average age of audit committees was 6 years. The widespread adoption of board sub-committees by insurers during the 1980s is again at variance with the position regarding quoted companies. In a retrospective survey of board committee adoption by quoted companies, Conyon (1994) finds that 54 per cent of companies possessed a remuneration committee in 1988 while 35 per cent possessed an audit committee. Furthermore, Conyon (1994) finds that 40 per cent of companies established a remuneration committee between 1988 and 1993 while 56 per cent of companies established an audit committee over the same period. Therefore, this evidence suggests that insurance companies recognised the importance of strong independent boards and the potential value of remuneration and audit committees significantly earlier than other quoted companies and well before concerns regarding the quality of corporate governance surfaced in the early 1990s.

Knowing that insurance companies possessed strong board-level governance prior to the beginning of the 1990s (and before quoted companies implemented the Cadbury recommendations) provides a unique opportunity to investigate the impact of strong governance on company behaviour. A crucial advantage of undertaking a pooled study in insurance is insurers' adoption of strong governance without the influence of any external reports/regulation (e.g. Cadbury, 1992; Greenbury, 1995; Hampel, 1998). Therefore, by studying insurance data prior to 1992 I can try to capture the consequences of such strong board governance on company behaviour as well as the influence of company behaviour on board characteristics. For example, using a pooled data set in such a governance environment allows me to: (1) examine the historical development of board governance between mutual and proprietary companies; (2) examine whether board composition and leadership influences performance over time; (3) whether board governance influenced levels of executive remuneration, and (4) whether auditors' pricing decisions are affected by board governance.

Finally, studying historical governance data on the insurance industry is also interesting since insurers (particularly life insurers) own significant amounts of U.K. equity. In chapter five, for example, I show that institutional shareholders (of which insurance companies represent a significant proportion) own an average of 23.7 per cent of equity. Short and Keasey (1997) report that insurance companies owned approximately 17.3 per cent of total U.K. equity in 1993. Furthermore, Cadbury (1992) emphasised the important role institutions could play in ensuring that the companies in which they invest pursue good governance practice. By studying the governance practices of insurers over an extended period of time, I can investigate whether such companies can use their own experiences to preach good governance elsewhere.

In constructing the pooled dataset, I began by identifying the largest U.K.-registered insurance companies in 1991. I was able to identify the relevant companies by referring to the 1992 edition of *Insurance Statistics*. *Insurance Statistics* is an annual publication of the University of Nottingham

Insurance Centre (UNIC) which ranks U.K.-registered insurers in terms of premium income. Once the companies were identified, I obtained copies of each company's annual report and accounts for the 1984-91 period. These documents were obtained from the library of the University of Nottingham Insurance Centre (UNIC). This provided me with governance and financial information on each company for an eight-year period. I restricted my data to the 1984-91 period since copies of companies' annual reports for years prior to 1984 were difficult to obtain and consequently, utilising data from earlier years would have considerably reduced the number of companies that could be included in the analysis. I was able to obtain data on 117 insurers over an eight-year period. A precise description of the variables used in this section of the thesis is provided in chapter seven.

CHAPTER FIVE

OWNERSHIP STRUCTURE AND INTERNAL GOVERNANCE IN UK QUOTED COMPANIES: THE EMPIRICAL EVIDENCE

5.1 DATA DESCRIPTION AND VARIABLE DEFINITIONS

Data considerations and the principal sources of data for this chapter of the thesis are discussed in section 5.1 of chapter four. In this section, I define and describe the specific variables used in the empirical work reported in this chapter. Table 5.1 presents an industrial categorisation of the 441 companies included in the analysis while table 5.2 contains definitions of the variables. I utilise a number of variables to examine board characteristics. DIRS represents the number of directors on each company's board while NONEXEC represents the number of directors that are non-executive. For the purpose of this study non-executive directors are defined as directors who are not presently employed by the company. It should be noted however, that I am unable to further distinguish non-executives on the basis of their business or other relationship with the company. This is unlike the position in the United States where SEC disclosures require companies to provide information on non-executives' affiliation with the company. This information has enabled a number of US-based studies to usefully categorise non-executives as being truly independent or 'grey' (Baysinger and Butler, 1985; Weisbach, 1988; Byrd and Hickman, 1992; Brickley et al, 1994). I utilise %NONEXEC to represent the proportion of board directors that are non-executive. An aspect of governance that has attracted a great deal of attention in the UK is where the same individual occupies the positions of Chairman and Chief Executive Officer (CEO). I utilise a binary variable BOSS to signify instances where the same individual occupies the positions of chairman and CEO.

Table 5.1 - Industrial classification of companies in sample

| <u>Industry</u> | <u>No</u> |
|--|------------|
| Brewers and distillers | 13 |
| Building materials, contracting and construction | 52 |
| Chemicals | 19 |
| Industrial conglomerates | 11 |
| Consultancies and agencies | 25 |
| Electricals and electronics | 27 |
| Engineering and aerospace | 57 |
| Food manufacturers and retailers | 38 |
| Media and leisure | 31 |
| Miscellaneous industrials | 17 |
| Miscellaneous consumer goods | 23 |
| Motor components and distributors | 24 |
| Pharmaceuticals | 7 |
| Printing, packaging and paper | 15 |
| Retailers | 27 |
| Textiles | 12 |
| Transport | 12 |
| Utilities | 31 |
| | <u>441</u> |

Table 5.2 - Definitions of variables

| | |
|-------------------|---|
| DIRS | Number of board members. |
| NONEXEC | Number of board members who are non-executive. |
| %NONEXEC | Proportion of board members who are non-executive. |
| BOSS | Binary variable: = 1 if same individual holds the positions of Chairman and Chief Executive Officer; =0 otherwise. |
| %CEOSHA | Proportion of company's issued share capital held by the CEO ^a . |
| £CEOSHA | Monetary value of shares held by CEO ^{a,b} . |
| % EXCEOSHA | Proportion of company's issued share capital held by executive directors excluding CEO ^a . |
| £EXCEOSHA | Monetary value of shares held by executive directors excluding CEO ^{a,b} . |
| %EXECSHA | Proportion of company's issued share capital held by all executive directors ^a . |
| £EXECSHA | Monetary value of shares held by all executive directors ^{a,b} . |
| %NEXSHA | Proportion of company's issued share capital held by non-executive directors ^a . |
| £NEXSHA | Monetary value of shares held by non-executive directors ^{a,b} . |
| BLOCK | Proportion of company's issued share capital held by large external shareholders ^c . |
| £BLOCK | Monetary value of shares held by large external shareholders ^{c,b} . |
| FININST | Proportion of company's issued share capital held by institutional shareholders ^d . |
| £FININST | Monetary value of shares held by institutional shareholders ^{d,b} . |
| MKTCAP | Market capitalisation at financial year-end date. |
| SALES | Total turnover in financial year. |
| ΔSALES | % change in turnover between 1991 and 1992 financial years. |
| VAL | Market value of shareholders' equity at financial year-end divided by book value of shareholders' equity at financial year-end. |
| RD | Reported research and development expenditure as a proportion of total assets. |
| BETA | A measure of systematic risk - the sensitivity of a company's share price to movements in the market as a whole. |
| ROCE | Profit before taxation divided by total net assets. |
| GEAR | Long-term liabilities + bank overdrafts divided by share capital + reserves. |

| | |
|-----------|--|
| WCAP | Working capital defined as: current assets - stock divided by current liabilities. |
| AUDIT | Statutory audit fee as disclosed in financial statements. |
| NAUDIT | Fee for non-audit services provided by auditor ^e . |
| BUSY | Binary variable: = 1 if financial year-end is between 31 December and 31 March inclusive; = 0 otherwise. |
| DELAY | Number of days between financial year-end and date audit report is signed by auditor. |
| LONDON | Binary variable: = 1 if auditor signing audit report has a London address; = 0 otherwise. |
| BIGSIX | Binary variable: = 1 if auditor is: Arthur Andersen, Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG or Price Waterhouse; = 0 otherwise. |
| DOINS | Binary variable: = 1 if company discloses the existence of a directors' and officers' insurance policy in its financial statements; = 0 otherwise. |
| REGUL | Binary variable: = 1 if company belongs to a regulated industry ^f ; = 0 otherwise. |
| TOTSUBS | Number of subsidiaries disclosed in financial statements. |
| UKSUBS | Number of UK-registered subsidiaries disclosed in financial statements. |
| USSUBS | Number of US-registered subsidiaries disclosed in financial statements. |
| %USSUBS | Proportion of disclosed subsidiaries registered in US. |
| OTHERSUBS | Number of subsidiaries disclosed in the financial statements that are not registered in UK or US. |

Sources: Companies' annual reports and accounts for 1992, the 1994 issue of The Times 1000, various issues of the Arthur Andersen Corporate Register, Datastream International and London Business School Share Price Database.

Notes:

- ^a Refers to beneficial ownership only and excludes share options.
- ^b Monetary value is derived by multiplying the number of shares held by the share price at financial year-end.
- ^c Large external shareholders are shareholders owing 3% or greater of a company's issued share capital.
- ^d Institutional shareholders are defined as insurance companies, pension funds and investment trusts that own 3% or greater of a company's issued share capital.
- ^e Non-audit fee refers to work undertaken in the UK only.
- ^f Regulated industries are defined as: telecommunications, water and electricity utilities.

I use a number of variables to represent ownership by the board of directors. %EXECSHA represents the proportion of equity owned by all executive directors in each company. This is defined as the number of ordinary shares held by all executive directors as a proportion of the company's issued share capital. A number of recent papers exploring the impact of executive ownership on takeover activity usefully segregate executive ownership between the CEO and non-CEO executives (e.g. Shivdasani, 1993). I therefore employ separate variables to represent the proportion of equity held by the CEO (%CEOSHA) and the proportion of equity held by executive directors other than the CEO (%EXCEOSHA). I also use a separate variable to represent the proportion of equity owned by each company's non-executive directors (%NEXSHA). The motivation for using this variable is to explore whether share ownership influences non-executives' monitoring behaviour. Even though governance studies typically use the proportion of equity to represent director ownership, percentage ownership may not be an appropriate measure since it fails to take account of company size. For example, as discussed in the previous chapter, using percentage ownership to represent managerial incentives assumes that executive ownership of one per cent in the largest company should provide similar incentives as a one per cent ownership stake in the smallest company. However, in order to own one per cent of a large company, executives are likely to have significantly more invested in the company's equity compared to executives in the smallest company. Consequently, in addition to variables representing executives' percentage ownership, I use variables to represent the monetary value of executive directors and non-executive's investment (i.e. £CEOSHA, £EXCEOSHA, £EXECSHA and £NEXSHA). These variables are obtained by multiplying the company's share price at the financial year-end date by the number of shares held by each category of director. It should be noted that for the purposes of ascertaining both the proportion and monetary value of directors ownership variables I only use shares that executives actually own - I do not include share options that directors may possess.

UK legislation requires companies to disclose the identity and size of shareholders possessing three per cent or more of a company's ownership. BLOCK represents the cumulative value of large shareholders' ownership in each company with £BLOCK representing the monetary value of such ownership. In order to calculate this variable I utilise information on the percentage ownership and the number of issued shares as disclosed in the financial statements, to derive the number of shares large blockholders possess. I then multiplied this figure by the company's share price at the financial year-end. An emerging stream of research focuses on the potential monitoring role of institutional investors (Short and Keasey, 1997; Black and Coffee, 1994). In order to obtain some insights into the governance role of institutional shareholders I use FININST to represent the proportion of each company's equity held by insurance companies, pension funds and investment trusts (provided they own at least 3% of the company's issued share capital). I use the variable £FININST to represent the monetary value of such institutional shareholdings.

In addition to variables representing board structure and both internal and external ownership characteristics, I also employ a number of other variables that may have an impact on companies' governance environment. For example, as discussed in the previous chapter, the corporate purchase of directors' and officers' (D&O) insurance may have an impact on the governance choices made by companies. The 1989 Companies Act obliges companies to disclose the existence of a D&O insurance policy in their annual report and accounts. Consequently, I undertook a comprehensive review of each company's annual report and accounts to ascertain whether there is any mention therein of the corporate purchase of D&O insurance on behalf of directors. I use a binary variable, DOINS to represent companies that indicate the possession of such an insurance policy. I also include a number of size and ownership variables in the analysis. As discussed in the previous chapter, Rediker and Seth (1995) and Demsetz and Lehn (1985) argue that company size may have an important impact

on companies' utilisation of governance mechanisms. For example, as equity value increases, the cost of high external ownership as a monitoring device increases since shareholders will need to pay more for a given proportion of the company's equity. As a result, we would expect large firms to place greater emphasis on alternative mechanisms of monitoring such as non-executive directors, executive equity, and/or D&O insurance. In order to control for this possibility, I include a variable representing the market capitalisation of each company at its financial year-end date (MKTCAP).

A central objective of corporate governance is to ensure that executives administer companies in the interests of shareholders. This implies the need to use suitable measures of performance in any examination of the effect of governance mechanisms on managerial behaviour. I utilise two measures of performance in this study - one market-based and one accounting-based. Following Bryant and Conyon (1998) and Short and Keasey, (1999) and O'Sullivan (2000), I use the variable VAL to represent the ratio of a company's market value of equity to its book value of equity - both values taken at the company's financial year-end. This is frequently utilised in studies undertaken in the UK and is seen as a proxy for Tobin's q that is widely used in the US. In addition, I use the variable ROCE to represent the company's accounting performance for the 1992 financial year. This value is obtained from *Datastream International* and is defined as: profit before taxation/total net assets (%). In seeking to explain company performance, a number of recent studies have usefully included control variables representing expenditure on research and development and gearing (e.g. Vafeas and Theodorou, 1998; Short and Keasey, 1999). In the UK, SSAP 13 requires companies to disclose any expenditure on research and development that they consider material to their financial statements. Consequently, I analysed the 1992 annual report and accounts of companies in my sample to identify companies making such disclosures. For companies disclosing research and development expenditure, I divide the amount of the expenditure by the

company's total assets to provide the variable RD which represents the percentage of assets that is incurred in research and development (similar to Vafeas and Theodorou (1998) and Short and Keasey (1999)). I obtain information on gearing from *Datastream International* (GEAR) - defined as: long term liabilities + bank overdrafts/ordinary share capital + reserves (%). I also obtain the variable WCAP from *Datastream International*: this represents a measure of corporate liquidity and is defined as: (current assets less stock) divided by current liabilities.

An important objective of this thesis is to examine whether board composition and ownership influences the level of audit effort - and consequently the level of audit fee - paid by UK companies. Consequently, I obtain information which previous research has identified as being important in auditors' pricing decisions. UK companies are obliged by law to disclose the amount of the audit fee paid to their auditor in their annual financial statements (AUDIT). Existing studies consistently find that, audit client size, complexity and risk exert a positive influence on audit fees. In common with a number of recent studies (e.g. Collier and Gregory, 1996; Ezzamel et al, 1996), I include company turnover as my size measure (SALES) and variables measuring the number of subsidiaries to represent audit client complexity (TOTSUBS). I offer a further refinement in the classification of subsidiaries by distinguishing between, UK subsidiaries (UKSUBS), US (USSUBS) and other overseas subsidiaries (OTHERSUBS). Segregating US-registered subsidiaries is useful since the audit of US subsidiaries is likely to involve UK auditors in greater risk due to the litigious nature of North American shareholders. I also include a variable to represent the proportion of each company's subsidiaries that are registered in the US (%USSUBS). Furthermore, I use each company's beta (BETA) - the sensitivity of a company's share price to movements in the market as a whole - to proxy for audit client risk.

Since Ezzamel et al (1996) found that companies in regulated industries pay a lower audit fee compared to their unregulated counterparts, I utilise a binary variable to represent telecommunication companies, water and electricity utilities (REGUL). Following Chan et al (1993), I include the binary variable (BUSY) to distinguish companies with a financial year-end in the period between 31 December and 31 March (inclusive). I also include a variable representing the number of days between the company's financial year-end and the date that the audit report is signed by the auditor (DELAY). Both Chan et al (1993) and Ezzamel et al (1996) found a significant positive relationship between the audit fee and the length of time between a company's financial year-end and the date the audit report is signed. This finding suggests that longer periods of delay indicate additional auditor investigation and hence higher fees'. Following Ezzamel et al (1996) and Firth (1997), I also incorporate a variable representing the amount of non-audit fees that each company paid its auditor in 1992 (NAUDIT). The requirement for companies to disclose the amount of remuneration paid to auditors for non-audit work undertaken in the UK became effective for companies reporting after 1 October 1992. However, I also examined the 1993 financial statements of companies reporting prior to 1 October to see whether the relevant 1992 figure was disclosed in the 1993 statements. In total, I was able to obtain non-audit remuneration data for 311 companies in the sample. I utilise two variables to represent auditor characteristics. First, in order to examine whether differential pricing exists between large and small auditors, I utilise a binary variable to represent firms audited by the 'big six' accountancy firms (BIGSIX). Second, I include a binary variable to indicate London-based auditors (LONDON) since a number of studies have found a positive relationship between London-based auditors and audit fees (Chan et al, 1993 and Ezzamel et al, 1996).

5.2 THE GOVERNANCE ENVIRONMENT

Table 5.3 presents descriptive statistics for the variables used in this chapter. The summary

Table 5.3 - Descriptive statistics

| Variables | Mean | Median | Minimum | 25 th Percentile | 75 th Percentile | Maximum | No. |
|------------------|-----------|---------|---------|-----------------------------|-----------------------------|-------------|-----|
| DIRS | 8.619 | 8.0 | 2.0 | 7.0 | 10.0 | 22.0 | 441 |
| NONEXEC | 3.583 | 3.0 | 0.0 | 2.0 | 5.0 | 12.0 | 441 |
| %NONEXEC | 41.065 | 42.857 | 0.0 | 33.33 | 50.0 | 80.0 | 441 |
| BOSS | 0.286 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 441 |
| %CEOSHA | 2.713 | 0.068 | 0.0 | 0.006 | 0.926 | 68.01 | 441 |
| £CEOSHA (£000) | 6952.901 | 147.756 | 0.0 | 22.996 | 875.460 | 122000.000 | 440 |
| %EXCEOSHA | 2.457 | 0.103 | 0.0 | 0.022 | 0.963 | 57.56 | 441 |
| £EXCEOSHA (£000) | 4081.059 | 262.155 | 0.0 | 52.161 | 1586.948 | 131777.031 | 440 |
| %EXECSHA | 5.170 | 0.297 | 0.0 | 0.050 | 3.403 | 69.0 | 441 |
| £EXECSHA (£000) | 11033.960 | 727.376 | 0.0 | 150.722 | 3980.526 | 1227036.232 | 440 |
| %NEXSHA | 0.669 | 0.029 | 0.0 | 0.005 | 0.240 | 16.35 | 441 |
| £NEXSHA (£000) | 1228.804 | 66.769 | 0.0 | 14.730 | 348.048 | 188000.000 | 440 |
| BLOCK | 31.286 | 30.130 | 0.0 | 17.39 | 44.235 | 88.38 | 441 |
| £BLOCK (£m) | 160.035 | 49.921 | 0.0 | 17.245 | 112.623 | 5925.000 | 441 |
| FININST | 23.619 | 22.20 | 0.0 | 11.255 | 35.155 | 67.02 | 441 |
| £FININST (£m) | 110.000 | 36.000 | 0.0 | 9.091 | 95.000 | 5900.000 | 441 |
| MKTCAP (£m) | 883.916 | 179.000 | 1.600 | 60.000 | 539.000 | 20440.000 | 441 |
| SALES (£m) | 1150.000 | 277.000 | 30.000 | 130.000 | 1030.000 | 33300.000 | 441 |
| ΔSALES | 3.617 | 3.034 | -81.13 | -5.150 | 11.318 | 245.38 | 440 |
| VAL | 1.815 | 1.475 | 0.05 | 0.815 | 2.409 | 8.33 | 428 |

| | | | | | | | |
|---------------|---------|---------|--------|---------|---------|----------|-----|
| RD | 0.761 | 0.0 | 0.0 | 0.0 | 0.666 | 12.88 | 431 |
| BETA | 0.999 | 1.010 | 0.22 | 0.820 | 1.180 | 1.57 | 439 |
| ROCE | 17.196 | 14.760 | -49.61 | 9.695 | 21.430 | 167.91 | 429 |
| WCAP | 1.396 | 1.310 | 0.11 | 1.030 | 1.630 | 5.05 | 430 |
| GEAR | 36.451 | 32.290 | 0.0 | 20.703 | 43.960 | 236.580 | 426 |
| AUDIT (£000) | 655.102 | 291.500 | 32.000 | 127.500 | 668.250 | 9024.000 | 430 |
| NAUDIT (£000) | 347.892 | 144.000 | 1.000 | 68.000 | 351.000 | 5595.000 | 311 |
| BUSY | 0.72 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 441 |
| DELAY | 86.317 | 82.0 | 37.0 | 71.0 | 97.0 | 201.0 | 395 |
| LONDON | 0.581 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 401 |
| BIGSIX | 0.834 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 439 |
| DOINS | 0.821 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 440 |
| REGUL | 0.052 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 441 |
| TOTSUBS | 24.175 | 17.0 | 1.0 | 9.0 | 29.0 | 219.0 | 401 |
| UKSUBS | 12.317 | 9.0 | 0.0 | 5.0 | 16.0 | 75.0 | 401 |
| USSUBS | 2.604 | 1.0 | 0.0 | 0.0 | 3.0 | 27.0 | 401 |
| %USSUBS | 9.640 | 5.0 | 0.0 | 0.0 | 15.587 | 77.78 | 401 |
| OTHERSUBS | 8.828 | 3.0 | 0.0 | 0.0 | 10.0 | 201.0 | 401 |

Sources: Companies annual reports and accounts for 1992, the 1994 issue of the Times 1000, various issues of the Arthur Andersen Corporate Register, Datastream International and the London Business School Share Price Database.

statistics in respect of board structure are especially interesting in light of changes in board structure subsequent to Cadbury (1992) and the subsequent endorsement of the Cadbury (1992) recommendations by the London International Stock Exchange. The average board size in the sample is 8.619 with a median of 8. Boards in the samples have a mean number of non-executive directors of 3.583 with a median number of non-executives of 3. It is interesting to note that 117 companies in the sample (26.5%) have less than three non-executives - one of the key recommendations of Cadbury (1992). The average non-executive representation on boards in the sample is 41.065 per cent with a median of 42.857 per cent. In terms of board leadership, 126 companies in the sample (28.6 %) have the same individual occupying the positions CEO and company chairman - a practice discouraged by Cadbury (1992). Comparing these results with studies utilising more recent data on the composition of UK boards illustrates the impact of Cadbury (1992). There has been an increase in the proportion of non-executive directors sitting on company boards and a reduction in the instances of CEO duality. For example, in a study of the largest 175 UK companies at the end of 1995, O'Sullivan (2000) reports average board size of 11.09 directors with a median number of directors of 11. O'Sullivan (2000) reports average non-executive representation of 51.22 per cent in 1995 with only 16 per cent of his sample persisting with CEO duality. This is broadly consistent with Cadbury (1995) which indicated a greater presence of non-executives and less instances of CEO duality on UK boards. However, it is interesting that the increased presence of non-executives directors appears to be accompanied by an overall increase in board size - suggesting that companies in the UK have altered the composition of their boards by employing additional non-executives rather than replacing incumbent executives with non-executives.

Comparing the governance characteristics of companies in our sample with large US companies highlights a number of differences in board composition and ownership between the two countries. For example, studies by Whidbee (1997), Brickley et al (1994), Byrd and

Hickman (1992) and Rosenstein and Wyatt (1990) report board size of 14.35, 11.96, 12.1 and 12.2 respectively with the proportion of non-executive directors of 78.4, 68.8, 62.5, and 65.6 per cent respectively. This suggests that US companies possess larger boards but utilise a far greater proportion of non-executive (non-manager) directors than UK companies. Furthermore, studies by Brickley et al (1997) report the existence of CEO duality in 81 per cent of large US companies while Baliga et al (1996) report CEO duality in 60 per cent of their sample of large companies. These US studies suggest that CEO duality remains an important feature of the corporate environment in the US.

The mean ownership of executive directors in the sample is 5.170 per cent with a median value of 0.297 per cent. The corresponding ownership findings for CEOs is 2.713 per cent and 0.068 percent and for non-CEO executives is 2.457 per cent and 0.103 per cent. As expected, executive ownership is highly skewed with the majority of executives owning relatively small proportions of their companies. In terms of the monetary value of such shareholdings however, executive's personal investment in their companies is not trivial. For example, the average CEO has ordinary shares valued at £6,952,901 invested in his company while the median ownership for CEOs is £147,756. In total, the average monetary value of executive shareholdings is £11,033,961 with a median value of £727,377. The average ownership stake of non-executives is 0.669 per cent with a median of 0.029. The average monetary value of non-executive ownership is £1,228,805 with a median value of £66,770. The ownership of large blockholders provides some interesting insights on the concentration of share ownership in the UK. Large blockholders own an average of 31.286 per cent of company equity with a median value of 30.130 per cent. When the ownership of financial institutions is taken separately, institutional ownership is on average 23.619 per cent with a median ownership of 22.2 per cent. This evidence provides further confirmation of Short and Keasey's (1997) and Black and Coffee's (1994) observations on the growth of institutional ownership in the UK

since 1963. It is also revealing that institutions represent the overwhelming owners of large stakes in companies. Table 5.3 shows that the average monetary value of institutional ownership in companies in the sample is £110 million with a median worth of £36 million. These figures reveal that the total value of institutional shareholdings in the sample of 441 companies is £48.5 billion.

82.1 per cent (362) of companies in the sample purchase a D&O insurance policy on behalf of their directors. The average market capitalisation of companies in our sample is £883.9 million while the median capitalisation is £179 million. The average expenditure on research and development for companies is 0.76 per cent of total assets. It should be noted however, that only 177 companies in the sample disclosed the amount of research and development expenditure incurred. Table 5.3 also shows that the average level of gearing employed by companies in the sample is 36.451 per cent with a median level of gearing of 32.290 per cent. The mean value of the market-to-book measure is 1.396 with a median value of 1.087.

The average audit fee paid by companies in the sample is £655,102 with a median of £291,500. The average non-audit fee paid to auditors was £347,892 with a median value of £144,000. It should be noted however, that non-audit information could only be obtained for 311 companies. Furthermore, some of the auditor-specific information could not be obtained for a number of companies - this was primarily due to difficulties in locating their 1992 financial statements. In terms of complexity, companies possess an average of 24 subsidiaries, 12 of which are based in the UK, almost 3 in the US and the remaining 9 are situated overseas (excluding the US). 72 per cent of companies in the sample had a financial year-end between 31 December and 31 March (inclusive). 58 per cent of companies in the sample are audited by a London-based auditor while 83 per cent of companies are audited by one of the 'big six' accounting firms.

5.3 THE RELATIONSHIP BETWEEN GOVERNANCE MECHANISMS

As discussed in chapter four, size may have an important impact on the choice of governance mechanisms employed by companies. Consequently, table 5.4 compares the use of board composition and ownership characteristics in the large and small sub-samples. Large companies are those with a market capitalisation greater or equal to £179 million (median). I use the parametric student t-test and the nonparametric Kruskal-Wallis test to compare the variables between the large and small sub-samples. Table 5.4 shows a significant difference between the use of practically all the governance and ownership variables between the two sub-samples. For example, larger companies possess a higher proportion of non-executive directors than smaller companies. Larger companies are also less likely to have CEO duality compared to smaller companies. It is also interesting to note that companies in the large sample possess significantly lower levels of external ownership than small companies - indeed, companies in the small sample have particularly high levels of blockholder ownership. For example, almost 40 per cent of equity in smaller companies is owned by external blockholders - 30 per cent of which are financial institutions. The two sub-samples also show striking differences in terms of executive ownership. All three measures of executive ownership are significantly greater in the case of smaller companies. Because of the non-normal distribution of executive ownership, the non-parametric results are especially insightful. The ownership differences between the samples are consistent with the substitution hypothesis. External shareholder monitoring is expected to be more costly in larger companies and consequently such companies place greater reliance on the monitoring of non-executive directors and separating the roles of CEO and chairman. External shareholders in smaller companies are expected to be in a position to utilise blockholdings to monitor managerial behaviour while large blockholdings are less attractive (or affordable) in the case of larger companies. The findings in respect of executive ownership are also consistent with a substitution amongst governance mechanisms - lower non-executive representation is compensated for with greater

Table 5.4 - Comparison of board and ownership characteristics between companies in the large and small sub-samples.^a

| Variables | Large sub-sample (n=221) | | Small sub-sample (n=220) | | Mean Differences ^b | |
|-----------|-----------------------------|--------|-----------------------------|--------|----------------------------------|---|
| | Mean | Median | Mean | Median | t-statistic | Kruskal- Wallis Test ^c |
| %NONEXEC | 42.239 | 44.444 | 39.885 | 42.857 | 1.662 (0.097) | 3.057 (0.080) |
| BOSS | 0.240 | 0.0 | 0.332 | 0.0 | 2.145 (0.0330) | 4.562 (0.033) |
| %CEOSHA | 1.615 | 0.019 | 3.817 | 0.191 | 2.683 (0.088) | 42.968 (0.000) |
| %EXCEOSHA | 1.777 | 0.050 | 3.140 | 0.275 | 1.982 (0.048) | 31.103 (0.000) |
| %EXECSHA | 3.392 | 0.089 | 6.957 | 1.437 | 3.257 (0.001) | 58.455 (0.000) |
| %NEXSHA | 0.353 | 0.011 | 0.987 | 0.094 | 3.478 (0.001) | 40.442 (0.000) |
| BLOCK | 23.266 | 20.400 | 39.342 | 38.075 | 10.713 (0.000) | 100.425 (0.000) |
| FININST | 17.459 | 15.190 | 29.806 | 30.150 | 9.067 (0.000) | 68.044 (0.000) |

^a Large sub-sample consists of companies with a market capitalisation \geq £179m.
Small sub-sample consists of companies with a market capitalisation $<$ £179m.

^b p-values are in parentheses.

^c The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

managerial ownership. Higher managerial ownership is expected to motivate managers in smaller companies to pursue shareholder objectives.

As mentioned in the previous section, company size is likely to distort any conclusions on managerial incentives based on fractions of ownership. In order to obtain a better insight on the incentive effects of internal and external ownership, table 5.5 compares the logs of the monetary values of both director and blockholder ownership between the large and small subsamples. In all ownership categories, the monetary values are greater in the case of the larger companies. Executives (both CEO and non-CEO executives) and non-executives possess equity with significant greater monetary values than their counterparts in smaller companies. Similarly, the ownership values of blockholders and institutional shareholdings are significantly greater than similar shareholders in smaller companies. The incorporation of monetary values puts a new perspective on the incentive effects of share ownership. If greater equity values at stake increases managers' incentives to pursue shareholder interests, the findings reported in table 5.5 suggest that greater non-executive participation and the separation of the roles of chairman and CEO complement managerial ownership in seeking to reconcile the interests of managers and shareholders. Similarly, the greater is external shareholders' monetary investment, the more likely the company has separate individuals in the positions of chairman and CEO and the greater is non-executive representation on the board of directors. This suggests that external ownership and board governance are complementary rather than substitute mechanisms of governance employed by companies. These findings suggest that the utilisation of non-executive directors and separating the roles of CEO and chairman are encouraged when either internal or external ownership values are high. Therefore, based on this evidence, fractions of ownership may not be a suitable proxy for the monitoring incentives of internal and external blockholders in the governance process.

Table 5.5 - Comparison of ownership characteristics between companies in the large and small sub-samples^a (using monetary value of equity).

| Variables | Large sub-sample (n=221) | | Small sub-sample (n=220) | | Mean Differences ^b | |
|--------------|-----------------------------|--------|-----------------------------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^c |
| Log£CEOSHA | 5.217 | 5.624 | 4.744 | 5.173 | 3.047 (0.002) | 1.790 (0.181) |
| Log£EXCEOSHA | 5.625 | 5.619 | 4.951 | 5.123 | 4.959 (0.000) | 23.620 (0.000) |
| Log£EXECSHA | 6.011 | 5.901 | 5.622 | 5.812 | 3.420 (0.001) | 5.684 (0.017) |
| Log£NEXSHA | 4.845 | 4.907 | 4.192 | 4.712 | 3.953 (0.000) | 11.088 (0.001) |
| Log£BLOCK | 7.736 | 8.031 | 7.182 | 7.321 | 4.216 (0.000) | 212.586 (0.000) |
| Log£FININST | 7.175 | 7.972 | 6.789 | 7.197 | 1.942 (0.053) | 162.567 (0.000) |

^a Large sub-sample consists of companies with a market capitalisation \geq £179m.
Small sub-sample consists of companies with a market capitalisation $<$ £179m.

^b p-values are in parentheses.

^c The Kruskal-Wallis Test is a non-parametric test of the null hypothesis that the two categories come from the same population.

Table 5.6 presents Pearson correlation coefficients amongst the board composition and ownership variables. An examination of correlations is particularly useful in the context of this study since it can provide useful insights into the interrelationship between different governance mechanisms. Panel A of table 5.6 provides correlations for the full sample of companies while panels B and C present correlations for the large and small sub-samples respectively. I use separate panels for large and small companies since, as discussed previously, we might expect the mix of governance mechanisms used by companies to vary depending on size. In the case of the full sample, the proportion of non-executive directors is negatively correlated with CEO duality and all of the executive ownership variables but positively correlated with the ownership of non-executives. The proportion of non-executives is also positively correlated with company size. The negative correlation between non-executive representation and executive share ownership is consistent with companies possessing significant executive ownership not requiring the additional (costly) monitoring that non-executive directors are expected to provide.

Panel A of table 5.6 also identifies a significant positive correlation between CEO duality and executive ownership (especially CEO ownership). This is consistent with CEO duality being more likely in companies where the CEO is also a large shareholder in the company. The presence of CEOs with substantial shareholdings is expected to reduce the extent of owner-manager conflict. This in turn reduces the need for the additional monitoring expected to occur in the presence of a high proportion of non-executives and where the positions of CEO and chairman are held by different individuals. The evidence presented here appears to be consistent both with the idea of powerful CEOs being significant shareholders and consequently less likely to require board monitoring and the notion that CEOs with significant holdings become entrenched and consequently resist any additional monitoring which non-executives are expected to bring. The proportion of equity held by financial institutions is

Table 5.6 - Pearson correlations amongst the board composition and ownership variables

Panel A : Full Sample (n=441)

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1 %NONEXEC | 1.0 | | | | | | | | |
| 2 BOSS | -0.14 | 1.0 | | | | | | | |
| 3 %CEOSHA | -0.18 | 0.32 | 1.0 | | | | | | |
| 4 %EXCEOSHA | -0.27 | -0.05 | 0.06 | 1.0 | | | | | |
| 5 %EXECSHA | -0.30 | 0.20 | 0.78 | 0.66 | 1.0 | | | | |
| 6 %NEXSHA | 0.16 | -0.06 | -0.02 | 0.04 | 0.01 | 1.0 | | | |
| 7 BLOCK | 0.07 | 0.01 | -0.08 | -0.05 | -0.08 | 0.03 | 1.0 | | |
| 8 FININST | -0.03 | -0.01 | -0.14 | -0.13 | -0.19 | -0.01 | 0.57 | 1.0 | |
| 9 LogMKTCAP | 0.09 | -0.07 | -0.16 | -0.18 | -0.23 | -0.22 | -0.48 | -0.43 | 1.0 |

Correlations of ± 0.13 are significant at 0.01
Correlations of ± 0.09 are significant at 0.05

Panel B : Large sub-sample (n=221)

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1 %NONEXEC | 1.0 | | | | | | | | |
| 2 BOSS | -0.10 | 1.0 | | | | | | | |
| 3 %CEOSHA | -0.21 | 0.23 | 1.0 | | | | | | |
| 4 %EXCEOSHA | -0.26 | -0.05 | 0.08 | 1.0 | | | | | |
| 5 %EXECSHA | -0.32 | 0.12 | 0.73 | 0.74 | 1.0 | | | | |
| 6 %NEXSHA | 0.15 | -0.10 | -0.05 | 0.09 | 0.03 | 1.0 | | | |
| 7 BLOCK | 0.10 | 0.00 | 0.01 | -0.02 | 0.00 | -0.03 | 1.0 | | |
| 8 FININST | 0.01 | -0.05 | -0.16 | -0.12 | -0.19 | -0.08 | 0.53 | 1.0 | |
| 9 LogMKTCAP | 0.10 | 0.05 | -0.13 | -0.22 | -0.24 | -0.16 | -0.31 | -0.44 | 1.0 |

Correlations of ± 0.18 are significant at 0.01
Correlations of ± 0.13 are significant at 0.05

Panel C : Small sub-sample (n=220)

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|-------|-------|-------|-------|-------|-------|-------|------|-----|
| 1 %NONEXEC | 1.0 | | | | | | | | |
| 2 BOSS | -0.16 | 1.0 | | | | | | | |
| 3 %CEOSHA | -0.16 | 0.36 | 1.0 | | | | | | |
| 4 %EXCEOSHA | -0.27 | -0.07 | 0.03 | 1.0 | | | | | |
| 5 %EXECSHA | -0.29 | 0.24 | 0.81 | 0.61 | 1.0 | | | | |
| 6 %NEXSHA | 0.20 | -0.06 | -0.04 | -0.01 | -0.04 | 1.0 | | | |
| 7 BLOCK | 0.14 | -0.08 | -0.27 | -0.18 | -0.32 | -0.06 | 1.0 | | |
| 8 FININST | -0.01 | -0.06 | -0.24 | -0.24 | -0.33 | -0.09 | 0.44 | 1.0 | |
| 9 LogMKTCAP | -0.01 | -0.03 | -0.08 | -0.14 | -0.15 | -0.16 | -0.11 | 0.00 | 1.0 |

Correlations of ± 0.18 are significant at 0.01
Correlations of ± 0.13 are significant at 0.05

negatively correlated with all of the executive ownership variables. This evidence is consistent with the notion that institutional shareholders are less likely to own substantial blocks in companies where executives have other incentives to pursue shareholder objectives (i.e. executive ownership). However, it could also reflect the costs incurred by institutions in building a substantial stake in large companies (such companies are also expected to be associated with small executive stakes). The latter interpretation is further enhanced by the negative correlation between institutional ownership and company size.

When we look at the large and small sub-samples, broadly similar correlations exist between non-executive representation and executive ownership, between ownership by the CEO and CEO duality and between institutional ownership and executive ownership. In the case of the large sub-sample, the most noticeable difference relates to the weakened correlation between non-executive representation and the existence of CEO duality. A further difference between the two sub-samples is the strength of the correlations between internal and external ownership in the small sub-sample. For example, all three executive ownership variables are significantly and negatively correlated with both the ownership of blockholders and the ownership of institutions. This suggests a stronger substitution between internal and external ownership in smaller companies. Interestingly, these correlations exist in the absence of any significance in the correlation between the ownership of external shareholders and company size.

It is interesting to compare the correlations presented in table 5.6 with two similar studies (also utilising fractions of ownership) undertaken in the United States (Rediker and Seth, 1995; Whidbee, 1997). Even though the board composition and ownership variables used in this study are not identical to those used in the two US studies, comparisons of the correlations is pertinent since both Rediker and Seth (1995) and Whidbee (1997) focus on the relationship between board monitoring and ownership structure. Rediker and Seth (1995) find a significant

negative correlation between the proportion of outside directors and a variety of executive ownership variables. However, Rediker and Seth (1995) report stronger correlations between non-executive representation and external blockholder ownership than reported in table 5.6. In particular, when Rediker and Seth (1995) segregate their sample between large and small companies, they find that in large companies the negative correlation between external ownership and board composition is particularly pronounced. Indeed, in the Rediker and Seth (1995) study, no significant correlation between board composition and blockholder ownership exists in the case of smaller companies. In this respect the evidence reported by Rediker and Seth (1995) suggests a stronger link between board composition and ownership structure in the US. In the case of Whidbee's (1997) study, the proportion of outside directors is also negatively correlated with a selection of executive ownership variables. It is also interesting that Whidbee (1997) reports a positive correlation between non-executive share ownership and non-executive representation on US boards. Whidbee (1997) also includes a variable representing ownership by institutional blockholders and finds that institutional ownership is positively correlated with the proportion of non-executive directors and negatively correlated with all the executive ownership variables.

A potential difficulty in interpreting the correlations presented in table 5.6 is the implicit assumption that a given proportion of ownership is equal in all companies (i.e. providing executives or blockholders with the same incentives to monitor). In reality, this is unlikely since companies have different equity values. Consequently, I felt the need to control for company size. One way of doing this is to include the monetary values of director and blockholder ownership in the correlation tables. Table 5.7 contains the results of these correlations. Panel A presents the correlations for the full sample with panels B and C presenting the correlations for the large and small sub-samples respectively. In panel A of table 5.7, there is a negative correlation between the proportion of non-executive directors and

**Table 5.7 - Pearson correlations amongst the board composition and ownership variables
(using monetary value of equity)**

Panel A : Full Sample (n=441)

| Variables | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|--------------|-------|-------|-------|------|-------|-------|------|------|-----|
| 1 | %NONEXEC | 1.0 | | | | | | | | |
| 2 | BOSS | -0.14 | 1.0 | | | | | | | |
| 3 | Log£CEOSHA | -0.23 | 0.35 | 1.0 | | | | | | |
| 4 | Log£EXCEOSHA | -0.31 | -0.01 | 0.36 | 1.0 | | | | | |
| 5 | LogEXECSHA | -0.39 | 0.19 | 0.69 | 0.76 | 1.0 | | | | |
| 6 | Log£NEXSHA | 0.46 | -0.11 | 0.01 | 0.11 | 0.02 | 1.0 | | | |
| 7 | Log£BLOCK | 0.03 | 0.00 | -0.01 | 0.03 | -0.01 | 0.09 | 1.0 | | |
| 8 | Log£FININST | 0.02 | -0.03 | -0.01 | 0.05 | -0.07 | 0.18 | 0.61 | 1.0 | |
| 9 | LogMKTCAP | 0.09 | -0.07 | 0.15 | 0.27 | 0.19 | -0.21 | 0.26 | 0.13 | 1.0 |

Correlations of ± 0.13 are significant at 0.01
Correlations of ± 0.09 are significant at 0.05

Panel B : Large sub-sample (n=221)

| Variables | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|--------------|-------|-------|-------|-------|-------|------|------|------|-----|
| 1 | %NONEXEC | 1.0 | | | | | | | | |
| 2 | BOSS | -0.10 | 1.0 | | | | | | | |
| 3 | Log£CEOSHA | -0.39 | 0.34 | 1.0 | | | | | | |
| 4 | Log£EXCEOSHA | -0.42 | 0.07 | 0.45 | 1.0 | | | | | |
| 5 | LogEXECSHA | -0.48 | 0.20 | 0.75 | 0.80 | 1.0 | | | | |
| 6 | Log£NEXSHA | 0.49 | -0.14 | -0.21 | -0.09 | -0.19 | 1.0 | | | |
| 7 | Log£BLOCK | 0.03 | 0.04 | -0.08 | -0.03 | -0.05 | 0.08 | 1.0 | | |
| 8 | Log£FININST | 0.00 | 0.02 | -0.04 | 0.04 | -0.07 | 0.17 | 0.65 | 1.0 | |
| 9 | LogMKTCAP | 0.10 | 0.05 | -0.05 | 0.05 | -0.02 | 0.11 | 0.07 | 0.03 | 1.0 |

Correlations of ± 0.18 are significant at 0.01
Correlations of ± 0.13 are significant at 0.05

Panel C : Small sub-sample (n=220)

| Variables | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|--------------|-------|-------|-------|------|-------|------|------|------|-----|
| 1 | %NONEXEC | 1.0 | | | | | | | | |
| 2 | BOSS | -0.16 | 1.0 | | | | | | | |
| 3 | Log£CEOSHA | -0.15 | 0.40 | 1.0 | | | | | | |
| 4 | Log£EXCEOSHA | -0.28 | -0.04 | 0.28 | 1.0 | | | | | |
| 5 | LogEXECSHA | -0.34 | 0.21 | 0.64 | 0.72 | 1.0 | | | | |
| 6 | Log£NEXSHA | 0.43 | -0.06 | 0.09 | 0.17 | 0.11 | 1.0 | | | |
| 7 | Log£BLOCK | 0.01 | -0.04 | 0.02 | 0.01 | -0.02 | 0.04 | 1.0 | | |
| 8 | Log£FININST | 0.07 | -0.08 | -0.01 | 0.01 | -0.12 | 0.19 | 0.45 | 1.0 | |
| 9 | LogMKTCAP | -0.01 | -0.03 | 0.14 | 0.23 | 0.22 | 0.11 | 0.55 | 0.24 | 1.0 |

Correlations of ± 0.18 are significant at 0.01
Correlations of ± 0.13 are significant at 0.05

the various measures of the monetary value of executive ownership. This is broadly similar to the correlations reported in panel A of table 5.6. This finding suggests that executives with significant monetary values invested in their companies are less likely to require the monitoring of non-executive directors. In one sense, this is reassuring since it suggests that the negative correlation between the proportion of non-executives and ownership of executives is not the result of executives with significant ownership (and influence) resisting additional monitoring that might be desired by external shareholders. Instead, it appears to be motivated by the absence of a need for such monitoring since greater executive investment appears to be associated with a greater non-executive presence on the board of directors. Similar to table 5.6, there is a positive correlation between non-executive representation and the monetary value of non-executive ownership. However, the strength of the correlation in table 5.7 is very significant. This may indicate that increased non-executive representation represents the appointment of non-executives with significant equity invested in the company. It may be that such non-executives are perceived to be better monitors on behalf of shareholders since their significant equity stakes encourages them to pursue shareholder interests in board deliberations. Table 5.7 also shows a positive correlation between non-executive equity values and the ownership of financial institutions. This is consistent with institutional shareholders specifically utilising non-executives with significant amounts of personal wealth invested in equity to monitor the company executives on the institutions' behalf. Therefore, this suggests that the ownership of institutions and the ownership of non-executives are complementary governance mechanisms.

When equity is included at monetary values rather than fractions of ownership, the correlations between executive ownership and company size are significant but positive. This contrasts with the position in table 5.6 where the proportions of executive ownership are negatively correlated with company size. The findings in table 5.7 suggest that the larger the company the

more executives have invested in equity. From a governance perspective this is reassuring since it suggests that the larger the company, the greater is executives' incentives to ensure that shareholder objectives are pursued. The correlations for the large and small sub-samples provide some further insights into the role of the value of ownership in the governance process. In the case of larger companies, the correlations between the three executive ownership variables and company size are not significant but these correlations are significant in smaller companies. Furthermore, in the small sub-sample, the value of institutional ownership is positively and significantly correlated with company size, while a similar correlation does not exist in the case of larger companies.

Tables 5.8 and 5.9 present the results of multivariate regressions seeking to explain the impact of CEO duality and ownership structure on the proportion of non-executives employed by companies in the sample. Table 5.8 includes explanatory variables representing the proportion of ownership while table 5.9 examines the impact of the monetary value of ownership on non-executive representation. Following the earlier discussion of the potential impact of size on companies' governance choices, I run separate regressions on both the large and small sub-samples of companies in each of the two tables. In table 5.8, all the executive ownership variables exert a negative and significant impact on the proportion of non-executives used by companies. This is consistent with our expectations since executive share ownership and the monitoring of non-executive directors are likely to be substitute mechanisms of governance employed by companies. CEO duality has a negative and significant impact on the proportion of non-executives when CEO ownership is included in the regression separately. However, when all executive ownership is included as one variable, CEO duality loses its significance. The proportion of equity held by non-executive directors has a positive and significant impact on the proportion of non-executives employed by companies. This finding is consistent with the expectation that non-executives possessing a significant equity interest in the company are

Table 5.8 - Ordinary least squares regressions explaining the proportion of non-executive directors on the boards of UK quoted companies using fractions of ownership (p-values are in parentheses).

| Variables | Full sample | | Large sub-sample | | Small sub-sample | |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Coefficient | Coefficient | Coefficient | Coefficient | Coefficient | Coefficient |
| BOSS | -3.405 (0.029) | -2.203 (0.144) | -1.856 (0.407) | -1.495 (0.498) | -4.328 (0.047) | -2.759 (0.191) |
| %CEOSHA | -0.218 (0.007) | | -0.365 (0.012) | | -0.112 (0.281) | |
| %EXCEOSHA | -0.559 (0.000) | | -0.552 (0.000) | | -0.526 (0.000) | |
| %EXECSHA | | -3.396 (0.000) | | -0.474 (0.000) | | -0.341 (0.000) |
| %NEXSHA | 1.218 (0.000) | 1.199 (0.001) | 1.751 (0.011) | 1.636 (0.017) | 1.197 (0.004) | 1.096 (0.009) |
| BLOCK | 0.040 (0.285) | | 0.097 (0.095) | | 0.075 (0.245) | |
| FININST | | -0.087 (0.046) | | -0.047 (0.533) | | -0.094 (0.147) |
| Constant | 41.927 (0.000) | 44.999 (0.000) | 41.374 (0.000) | 44.453 (0.000) | 39.251 (0.000) | 44.885 (0.000) |
| F statistic | 14.095 (0.000) | 16.447 (0.000) | 7.105 (0.000) | 7.973 (0.000) | 7.715 (0.000) | 8.128 (0.000) |
| Adj R ² | 0.130 | 0.123 | 0.122 | 0.113 | 0.133 | 0.115 |
| Observations | 440 | 440 | 220 | 220 | 219 | 219 |

Table 5.9 - Ordinary least squares regressions explaining the proportion of non-executive directors on the boards of UK quoted companies using monetary value of equity (p-values are in parentheses).

| Variables | Full sample | | Large sub-sample | | Small sub-sample | |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Coefficient | Coefficient | Coefficient | Coefficient | Coefficient | Coefficient |
| BOSS | -1.880 (0.174) | -0.473 (0.713) | 1.514 (0.433) | 1.626 (0.376) | -4.459 (0.026) | -1.787 (0.329) |
| Log £CEOSHA | -0.849 (0.036) | | -1.925 (0.006) | | -0.313 (0.549) | |
| Log £EXCEOSHA | -3.424 (0.000) | | -3.567 (0.000) | | -3.529 (0.000) | |
| Log £EXEC SHA | | -4.926 (0.000) | | -5.518 (0.000) | | -4.646 (0.000) |
| Log £NEX SHA | 4.161 (0.000) | 4.048 (0.000) | 4.317 (0.000) | 4.353 (0.010) | 3.778 (0.000) | 3.763 (0.000) |
| Log £BLOCK | 0.011 (0.978) | | -0.238 (0.575) | | -0.042 (0.746) | |
| Log £FININST | | -0.612 (0.026) | | -0.633 (0.040) | | -0.782 (0.171) |
| Constant | 45.052 (0.000) | 55.676 (0.000) | 52.919 (0.000) | 58.474 (0.000) | 47.265 (0.000) | 56.127 (0.000) |
| F statistic | 48.789 (0.000) | 65.080 (0.000) | 29.137 (0.000) | 37.674 (0.000) | 22.421 (0.000) | 28.585 (0.000) |
| Adj R ² | 0.352 | 0.369 | 0.390 | 0.400 | 0.328 | 0.336 |
| Observations | 439 | 439 | 220 | 220 | 219 | 219 |

anxious to ensure that executives pursue shareholders' (including non-executives') interests. Neither of the two blockholder variables have a significant impact on companies' utilisation of non-executives. When separate regressions are run for the large and small sub-samples, few differences are observed.

When I include monetary values of ownership in table 5.9 the explanatory power of the regressions improves considerably. In the case of the full sample, all three variables representing the value of executive shareholdings have a negative impact on the proportion of non-executives while the value of non-executive holdings has a very significant and positive impact on non-executive representation. The impact of the executive and non-executive variables is consistent across all three samples. The value of institutional blockholdings has a negative impact on the use of non-executives in both the full sample and the large sub-sample but does not appear to have a significant impact in the case of smaller companies. The regression results in tables 5.8 and 5.9 suggest that executive ownership has a negative impact on non-executive representation on UK boards. The consistency of the impact of executive ownership in both tables suggests that board composition and managerial ownership are substitute mechanisms of governance - regardless as to whether fractions of ownership or value of ownership are used. This consistency is important since it suggests that fewer non-executives are required when executives have large equity at risk regardless of company size. This implies that the use of fewer non-executives is in shareholders' interests since executives are unlikely to seek to undermine shareholder interests when they are significant shareholders themselves. The positive impact of non-executive ownership in all regressions is also important since it suggests that non-executive ownership encourages companies to use a greater proportion of non-executives. As discussed earlier, this may also suggest that external shareholders are anxious to appoint non-executives with equity holdings since these are perceived to have a greater incentive to ensure that executives pursue shareholder interests.

Table 5.9 provides some evidence that when financial institutions possess a significant equity interest in companies, those companies utilise a lower proportion of non-executives.

The regression results in tables 5.8 and 5.9 are broadly consistent with the findings of Rediker and Seth (1995) and Whidbee (1997) in respect of US companies. Both studies found that the proportion of equity held by executives had a negative impact on the proportion of outside directors while Whidbee (1997) found that non-executive ownership had a positive impact. Unlike this study however, both Rediker and Seth (1995) and Whidbee (1997) found some evidence of blockholders exerting a positive impact on the proportion of non-executives used.

A further consideration in examining the governance environment of quoted companies relates to the impact of CEO duality. 126 companies in the sample (28.6%) have CEO duality. Of interest for the purposes of this study is whether companies with CEO duality exhibit different board composition and ownership characteristics compared to non-CEO duality companies. Comparisons between board composition and ownership between companies with and without CEO duality are presented in tables 5.10. Companies with CEO duality have a lower proportion of non-executive directors serving on their boards. CEOs in duality companies have larger ownership stakes compared to CEOs in non-duality companies. For example, average CEO ownership in duality companies is 7.047 per cent compared to only 0.980 per cent in non-duality companies. Excluding CEO ownership, there is no statistically significant difference in the ownership of non-CEO executives. Similarly, there is no significant difference in the ownership of non-executives, external blockholders or institutional blockholders between the two samples. The results of table 5.9 suggests that CEO duality is more likely where CEOs possess significant ownership stakes in their own companies. It appears from this evidence that ownership allows CEOs to resist the imposition of a greater proportion of non-executive directors. This provides some support for Whidbee (1997) and Hermalin and Weisbach's

Table 5.10 - Comparison of board and ownership characteristics between companies with and without CEO duality (using fractions of ownership).

| Variables | CEO duality (n=126) | | Non-CEO duality (n=315) | | Means difference ^a | |
|-----------|---------------------|--------|-------------------------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b |
| %NONEXEC | 37.815 | 40.0 | 42.364 | 42.857 | 2.884 (0.004) | 7.059 (0.008) |
| %CEOSHA | 7.047 | 1.101 | 0.980 | 0.030 | 4.724 (0.000) | 69.422 (0.000) |
| %EXCEOSHA | 1.866 | 0.145 | 2.693 | 0.086 | 1.369 (0.172) | 1.745 (0.187) |
| %EXECSHA | 8.913 | 2.192 | 3.673 | 0.211 | 3.602 (0.000) | 26.896 (0.000) |
| %NEXSHA | 0.494 | 0.032 | 0.740 | 0.029 | 1.517 (0.130) | 0.416 (0.519) |
| BLOCK | 31.539 | 30.565 | 31.184 | 30.090 | 0.189 (0.850) | 0.034 (0.845) |
| FININST | 23.414 | 20.355 | 23.701 | 22.590 | 0.168 (0.866) | 0.199 (0.656) |

^a p-values are in parentheses
^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

(1998) argument that board composition is influenced by the degree of CEO influence on board appointments. However, the fact that CEO duality (and the consequent lack of non-executive representation) is unlikely to result in weaker governance since CEOs are still expected to pursue shareholder objectives since their own ownership stake in the company is non-trivial. This appears to be supported by the absence of any blockholder differences between the two samples. Overall, the evidence presented in table 5.10 is consistent with CEO duality and significant CEO ownership being an acceptable substitute for the absence of duality and low levels of CEO ownership.

Table 5.11 presents a comparison of the monetary value of internal and external ownership between CEO and non-CEO duality companies. The results reinforce the finding that CEO duality is associated with significant equity investment by CEOs but not by other executives. This is reassuring since it appears that CEO duality exists where CEOs have significant equity investments in companies - suggesting an incentive for these CEOs to pursue shareholder (including their own) interests. The value of non-executive ownership is significantly greater in companies without CEO duality. The comparisons in respect of external blockholder ownership shows some differences compared to using fractions of ownership. The non-parametric comparisons show that the value of blockholder ownership is marginally greater in the case of non-CEO duality companies (significant at 5%) while a similar difference exists in respect of the ownership of financial institutions. Overall, this evidence suggests that while CEO duality is associated with significant CEO ownership, CEOs retain an incentive to maximise shareholder returns due to their own significant investment in CEO-duality companies. The evidence also suggests that the greater the investment of large blockholders (both institutional and other), the more likely companies are to have separate individuals in the positions CEO and chairman. This finding, coupled with greater utilisation of non-executives

Table 5.11 - Comparisons of ownership characteristics between companies with and without CEO duality (using monetary value of equity).

| Variables | CEO duality (n=126) | | Non-CEO duality (n=315) | | Means difference ^a | |
|--------------|------------------------|--------|----------------------------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b |
| Log£CEOSHA | 5.893 | 5.893 | 4.620 | 4.824 | 8.718 (0.000) | 77.014 (0.000) |
| Log£EXCEOSHA | 5.256 | 5.449 | 5.302 | 5.382 | 0.291 (0.771) | 0.138 (0.710) |
| Log£EXECSHA | 6.172 | 6.240 | 5.677 | 5.658 | 3.848 (0.000) | 23.436 (0.000) |
| Log£NEXSHA | 4.217 | 4.735 | 4.640 | 4.850 | 2.128 (0.035) | 2.592 (0.107) |
| Log£BLOCK | 7.451 | 7.523 | 7.403 | 7.750 | 0.090 (0.928) | 3.893 (0.048) |
| Log£FININST | 6.894 | 7.436 | 7.018 | 7.615 | 0.569 (0.570) | 4.488 (0.034) |

^a p-values are in parentheses

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

on the boards of non-CEO duality companies, suggests that blockholder investment is associated with more independent boards.

5.4 THE RELATIONSHIP BETWEEN GOVERNANCE AND PERFORMANCE

Having discussed the governance environment that existed prior to the implementation of the Cadbury (1992) recommendations, I next examine whether board characteristics and ownership structure influence performance. The results of a series of regressions that examine the impact of board and ownership characteristics on company performance are presented in tables 5.12 and 5.13. I use two measures of performance: ROCE to represent accounting performance, and LogVAL to represent each company's market-to-book ratio - a frequently used proxy for Tobin's q in UK studies (Short and Keasey, 1999). Table 5.12 includes regressions on the full sample of companies while panels A and B of table 5.13 include regressions for the subsamples of large and small companies respectively.

In table 5.12, neither of the two board composition variables have a significant impact on either of the performance measures. In explaining variation in ROCE, the ownership of CEOs does have a marginally significant (negative) impact. However, it does not appear to have any impact on LogVal. None of the other director ownership variables appear to influence performance. The ownership of blockholders has a significant and negative impact on LogVal. When I include institutional ownership on its own, the impact remains negative but is marginally insignificant. Following Short and Keasey (1999) and Vafeas and Theodorou (1998) I also include variables representing company size (as measured by sales turnover) as well as growth in turnover. Size potentially affects performance through at least two avenues. First, there is a potential financing effect, in that larger companies may find it easier to generate funds internally and to access funds from external sources. A reduced financing constraint allows the firm to make greater use of profitable projects. Second, the economies of scale

Table 5.12 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for a sample of UK quoted companies (using fractions of ownership).

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | -0.005 | 0.904 | -0.018 | 0.646 | -0.978E-03 | 0.365 |
| BOSS | -0.460 | 0.710 | -1.165 | 0.333 | 0.014 | 0.688 |
| %CEOSHA | -0.133 | 0.067 | | | -0.936E-03 | 0.616 |
| %EXCEOSHA | 0.131 | 0.112 | | | -0.116E-02 | 0.608 |
| %EXECSHA | | | -0.037 | 0.506 | | |
| %NEXSHA | -0.238 | 0.393 | -0.236 | 0.400 | -0.852E-02 | 0.268 |
| BLOCK | -0.016 | 0.649 | | | -0.396E-02 | 0.000 |
| FININST | | | -0.055 | 0.182 | | |
| LogSALES | -0.210 | 0.853 | -0.811 | 0.469 | -0.029 | 0.366 |
| ΔSALES | 0.174 | 0.000 | 0.175 | 0.000 | 0.399E-02 | 0.000 |
| GEAR | 0.099 | 0.000 | 0.101 | 0.000 | -0.911E-03 | 0.000 |
| RD | 0.904 | 0.006 | 0.922 | 0.005 | 0.039 | 0.000 |
| Constant | 14.026 | 0.177 | 20.821 | 0.044 | 0.564 | 0.051 |
| F-statistic | 12.292 | 0.000 | 13.113 | 0.000 | 11.689 | 0.000 |
| Adj R ² | | 0.216 | | 0.210 | | 0.208 |
| Observations | | 411 | | 411 | | 406 |

Table 5.13 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for samples of large and small UK quoted companies (using fractions of ownership).

(a) Large Firms:

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.346E-02 | 0.946 | 0.204E-02 | 0.963 | -0.002 | 0.254 |
| BOSS | 1.636 | 0.338 | 0.545 | 0.747 | 0.019 | 0.647 |
| %CEOSHA | -0.192 | 0.081 | | | -0.140E-02 | 0.594 |
| %EXCEOSHA | 0.237 | 0.028 | | | 0.734E-04 | 0.977 |
| %EXECSHA | | | -0.678E-02 | 0.933 | | |
| %NEXSHA | 0.349 | 0.504 | 0.328 | 0.537 | 0.019 | 0.130 |
| BLOCK | 0.047 | 0.325 | | | -0.922E-03 | 0.431 |
| FININST | | | -0.008 | 0.221 | | |
| LogSALES | -2.094 | 0.158 | -3.692 | 0.019 | -0.131 | 0.000 |
| ΔSALES | 0.106 | 0.001 | 0.106 | 0.001 | 0.210E-02 | 0.006 |
| GEAR | 0.001 | 0.975 | 0.014 | 0.686 | 0.790E-03 | 0.293 |
| RD | 0.746 | 0.043 | 0.827 | 0.027 | 0.033 | 0.000 |
| Constant | 33.546 | 0.015 | 50.359 | 0.001 | 1.464 | 0.000 |
| F-statistic | 3.425 | 0.000 | 2.936 | 0.003 | 4.724 | 0.000 |
| Adj R ² | | 0.104 | | 0.077 | | 0.153 |
| Observations | | 208 | | 208 | | 206 |

(a) Small Firms:

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | -0.045 | 0.426 | -0.055 | 0.325 | -0.146E-02 | 0.361 |
| BOSS | -1.010 | 0.559 | -1.370 | 0.413 | 0.036 | 0.460 |
| %CEOSHA | -0.129 | 0.173 | | | -0.186E-03 | 0.938 |
| %EXCEOSHA | -0.914E-03 | 0.994 | | | -0.409E-02 | 0.221 |
| %EXECSHA | | | -0.072 | 0.334 | | |
| %NEXSHA | -0.279 | 0.394 | -0.254 | 0.437 | -0.011 | 0.214 |
| BLOCK | -0.031 | 0.564 | | | -0.268E-02 | 0.082 |
| FININST | | | -0.004 | 0.943 | | |
| LogSALES | -2.869 | 0.317 | -2.729 | 0.336 | -0.267 | 0.001 |
| ΔSALES | 0.247 | 0.000 | 0.248 | 0.000 | 0.490E-02 | 0.000 |
| GEAR | 0.120 | 0.000 | 0.119 | 0.000 | -0.755E-03 | 0.000 |
| RD | 0.795 | 0.206 | 0.837 | 0.181 | 0.039 | 0.027 |
| Constant | 36.589 | 0.127 | 34.829 | 0.140 | 2.408 | 0.000 |
| F-statistic | 10.981 | 0.000 | 12.097 | 0.000 | 6.151 | 0.000 |
| Adj R ² | | 0.331 | | 0.331 | | 0.206 |
| Observations | | 202 | | 202 | | 199 |

associated with size enables the company to create entry barriers with the associated beneficial effects on the performance of firms (Short and Keasey, 1999).

In the regression models, sales turnover does not have a significant impact on either of the performance measures while sales growth has a positive and significant impact on both measures of performance. The absence of an impact by turnover is at variance with the findings of Short and Keasey (1999) but the significance of sales growth is consistent with their findings. It should be noted however, that Vafeas and Theodorou (1998) also fail to identify a significant relationship between sales turnover and performance (as measured by the market-to-book ratio). I also include the variable GEAR to represent each company's capital gearing. A variable measuring debt is important for a number of reasons. First, it controls for the possibility that debt holders exert significant influence over the behaviour and operation of the company and its management. Stiglitz (1985) argues that control over management actions is effectively exercised, not by shareholders, but by lenders. Second, as suggested by Grossman and Hart (1982) and Jensen (1986), debt may be used by management to signal that they have bonded themselves to achieving the levels of cash flow necessary to meet the debt repayments. Debt may, therefore, be used to resolve conflicts between managers and shareholders as it reduces management discretion to consume excessive perquisites and, hence, should increase the value of the company's equity (Jensen and Meckling, 1976; Grossman and Hart, 1982). In the regression models, capital gearing has a significant and positive impact on ROCE but has a significant negative impact on LogVAL. My findings in respect of the negative impact on the LogVAL variable is consistent with the findings of Vafeas and Theodorou (1998), and Morck et al (1988). Finally, in common with Vafeas and Theodorou (1998) and Short and Keasey (1999), I also include a control variable to represent the extent of each company's expenditure on research and development. Similar to all the above studies, I also find that expenditure on research and development has a significant and positive impact on company performance -

regardless as to whether accounting or market performance measures are utilised.

In the large sub-sample, neither of the board composition variables have a significant impact on performance. The ownership of the CEO and the ownership of non-CEO executives appear to pull in opposite directions in terms of their impact on accounting performance. CEO ownership has a negative and significant impact on ROCE while the ownership of other executives has a positive and significant impact on performance. The negative impact of CEO ownership may indicate CEO entrenchment while the finding for non-CEO executives is consistent with managerial ownership encouraging executives to pursue shareholder interests. Neither of these two variables appears to impact variations in valuation. None of the other director ownership variables impact on either of the performance measures. The ownership of institutional shareholders has a negative and significant impact on the LogVal model. This suggests that the more concentrated institutional ownership becomes in large companies, the lower the company's market-to-book ratio. The ownership of non-institutional shareholders does not appear to influence company performance. Company size (measured by turnover) has a positive and significant impact on both performance measures (but particularly the market-to-book ratio). Growth in sales also has a positive and significant impact on both performance measures. Gearing is not significant in either of the models. Research and development expenditure is significant in both models but particularly so in the case of the market measure of performance. In the case of smaller companies, none of the board composition or director ownership variables have an impact on either measure of performance. In the case of explaining variation in LogVal, blockholder ownership does have a marginally significant positive impact (8 % significance level). Company size has a significant and negative impact on LogVal. This finding suggests that larger companies within the small sub-sample are associated with higher valuation ratios. The percentage change in sales has a positive impact on both performance measures in smaller companies. Gearing has a positive impact on

accounting performance but exerts a negative impact on market performance for smaller companies. Investment in research and development exerts a positive impact on variations in logVal.

Table 5.14 replicates the regressions in table 5.12 while using the monetary value of ownership to represent the impact of ownership on company performance. Similar to the previous findings, I find that board composition and leadership do not influence the performance of companies in the sample. However, the value of executive ownership does exert a significant influence in all of the regressions. The monetary value of CEO, non-CEO and total executive ownership exerts a positive influence on both the accounting and market measures of company performance. This suggests that the greater is executives' investment in the equity of companies, the better performance the companies experience. Given the lack of significance of the fractions of ownership in table 5.12, the results here suggest that the value of executive ownership does serve to reconcile the interests of shareholders and managers by motivating improved corporate performance. The value of blockholder ownership also exerts a significant positive impact on both the accounting and market-based measures of company performance. The value of institutional ownership has a positive impact on the market-based performance. Again, this evidence suggests that the greater the ownership of large blockholders the better performance is achieved by companies in the sample. Growth in sales, gearing and expenditure on research and development also exert a positive influence on both performance measures in table 5.14.

Tables 5.15 and 5.16 present results of ordinary least squares regressions that examine the impact of board and ownership characteristics on the performance of companies with and

Table 5.14 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for a sample of UK quoted companies (using monetary value of equity).

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.055 | 0.204 | 0.064 | 0.149 | -0.789E-03 | 0.870 |
| BOSS | -1.822 | 0.140 | -1.708 | 0.151 | -0.121 | 0.372 |
| Log £CEOSHA | 0.849 | 0.020 | | | 0.135 | 0.001 |
| Log £EXCEOSHA | 1.104 | 0.008 | | | 0.155 | 0.001 |
| Log £EXECSHA | | | 1.974 | 0.000 | 0.084 | 0.000 |
| Log £NEXSHA | -0.489 | 0.163 | -0.435 | 0.222 | -0.037 | 0.338 |
| Log £BLOCK | 1.561 | 0.000 | | | 0.122 | 0.010 |
| Log £FININST | | | 0.343 | 0.210 | 0.018 | 0.015 |
| LogSALES | -0.647 | 0.488 | 0.129E-02 | 0.999 | -0.040 | 0.695 |
| ΔSALES | 0.147 | 0.000 | 0.159 | 0.000 | 0.014 | 0.000 |
| GEAR | 0.102 | 0.000 | 0.101 | 0.000 | -0.136E-02 | 0.035 |
| RD | 0.890 | 0.005 | 0.949 | 0.003 | 0.206 | 0.000 |
| Constant | -4.535 | 0.583 | -2.871 | 0.739 | -0.233 | 0.807 |
| F-statistic | 15.658 | 0.000 | 15.295 | 0.000 | 13.623 | 0.000 |
| Adj R ² | | 0.263 | | 0.239 | 16.943 | 0.000 |
| Observations | | 410 | | 410 | | 408 |

Table 5.15 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for UK companies with CEO duality (using fractions of ownership).

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | -0.049 | 0.502 | -0.069 | 0.336 | -0.290E-02 | 0.175 |
| %CEOSHA | -0.200 | 0.015 | | | -0.165E-02 | 0.463 |
| %EXCEOSHA | 0.124 | 0.582 | | | -0.151E-02 | 0.818 |
| %EXECSHA | | | -0.182 | 0.024 | -0.123E-02 | 0.582 |
| %NEXSHA | -0.358 | 0.694 | -0.433 | 0.634 | 0.018 | 0.501 |
| BLOCK | -0.060 | 0.327 | | | -0.285E-02 | 0.119 |
| FININST | | | -0.087 | 0.222 | -0.133E-02 | 0.529 |
| LOGSALES | 1.944 | 0.390 | 0.960 | 0.688 | 0.874E-03 | 0.989 |
| ΔSALES | 0.095 | 0.010 | 0.094 | 0.011 | 0.320E-02 | 0.003 |
| GEAR | -0.055 | 0.176 | -0.049 | 0.238 | -0.720E-03 | 0.001 |
| RD | 0.712E-08 | 0.743 | 0.719E-08 | 0.741 | 0.640E-09 | 0.314 |
| Constant | 5.798 | 0.769 | 15.370 | 0.465 | 0.370 | 0.527 |
| F-statistic | 2.426 | 0.015 | 2.604 | 0.012 | 3.586 | 0.001 |
| Adj R ² | | 0.100 | | 0.100 | | 0.166 |
| Observations | | 116 | | 116 | | 117 |

Table 5.16 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for UK companies without CEO duality (using fractions of ownership).

| Variables | Dependent variable = ROCE | | | Dependent variable = LogVAL | | |
|--------------------|---------------------------|---------|-------------|-----------------------------|-------------|---------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.017 | 0.718 | 0.013 | 0.777 | -0.312E-06 | 0.999 |
| %CEOSHA | -0.035 | 0.830 | | | -0.545E-03 | 0.906 |
| %EXCEOSHA | 0.109 | 0.225 | | | -0.196E-02 | 0.440 |
| %EXECSHA | | | 0.064 | 0.407 | | |
| %NEXSHA | -0.262 | 0.371 | -0.268 | 0.360 | 0.013 | 0.106 |
| BLOCK | -0.564E-02 | 0.899 | | | -0.430E-02 | 0.001 |
| FININST | | | -0.021 | 0.676 | | |
| LOGSALES | -1.264 | 0.400 | -1.450 | 0.312 | -0.031 | 0.474 |
| ΔSALES | 0.250 | 0.000 | 0.250 | 0.000 | 0.489E-02 | 0.000 |
| GEAR | 0.114 | 0.000 | 0.115 | 0.000 | -0.149E-02 | 0.000 |
| RD | 0.602E-08 | 0.511 | 0.645E-08 | 0.482 | 0.993E-10 | 0.702 |
| Constant | 21.751 | 0.114 | 23.835 | 0.071 | 0.608 | 0.124 |
| F-statistic | 13.695 | 0.000 | 15.388 | 0.000 | 7.727 | 0.000 |
| Adj R ² | | 0.282 | | 0.283 | | 0.175 |
| Observations | | 291 | | 291 | | 285 |

without CEO duality respectively. An important objective of this section is to examine whether CEO duality is associated with CEO entrenchment as evidenced by inferior performance compared to non-CEO duality companies. In CEO duality companies, the proportion of equity held by CEOs exerts a negative impact on accounting performance. The ownership of executives also has a negative impact on ROCE. However, it is likely that CEO ownership drives this result since non-CEO ownership is not significant. None of the other board and ownership variables appear to exert a significance impact on either of the two performance measures. Of the control variables, sales growth exerts a positive impact on both the performance measures while gearing has a negative impact. In non-CEO duality companies, none of the executive ownership variables seem to have a significant influence on either of the performance measures. The ownership stake of external blockholders has a negative impact on the valuation ratio. This suggests that the greater is blockholder ownership, the weaker the performance. Of the other variables, only sales growth (positive) and gearing have a significant impact. Gearing is interesting in that, it has a positive impact on ROCE but a negative impact on market valuation.

In table 5.17 I present the results of ordinary least squares regressions that examine the impact of the monetary value of ownership on the performance of CEO duality and non-duality companies. When the dependent variable is ROCE, the value of CEO ownership has a marginally significant (positive) impact on performance while the monetary value of external blockholders exerts a significant and positive influence on the performance of CEO duality companies. When the dependent variable is LogVAL, the value of CEO ownership exerts a significant (positive) impact in both duality and non-duality companies. However, the strength of the influence is significantly greater in the non-duality companies. Interestingly, the opposite is the case in respect of non-CEO executive ownership: even though the direction of influence is positive, the strength of the impact is greater in companies with CEO duality. Similarly,

Table 5.17 - Ordinary least squares regressions of the impact of board composition and ownership characteristics on performance for UK companies with and without CEO duality (using monetary value of equity)^a.

| | Dependent variable = ROCE | | Dependent variable = LogVAL | |
|--------------------|---------------------------|-------------------|-----------------------------|-----------------------|
| | CEO duality | Non-CEO duality | CEO duality | Non-CEO duality |
| %NONEXEC | -0.091 (0.428) | 0.076 (0.326) | -0.275E-02 (0.153) | 0.143E-02 (0.339) |
| Log£CEOSHA | 0.457 (0.739) | 1.121 (0.060) | 0.042 (0.066) | 0.041 (0.000) |
| Log£EXCEOSHA | 1.669 (0.137) | 0.814 (0.279) | 0.054 (0.005) | 0.037 (0.021) |
| Log£NEXSHA | -0.115 (0.891) | 0.031 (0.963) | 0.018 (0.192) | -0.012 (0.346) |
| Log£BLOCK | 3.205 (0.012) | 0.881 (0.231) | 0.084 (0.000) | 0.025 (0.075) |
| LogSALES | 0.695 (0.790) | -3.015 (0.064) | -0.842E-02 (0.846) | 0.034 (0.270) |
| ΔSALES | 0.051 (0.347) | 0.253 (0.000) | 0.002 (0.029) | 0.378E-02 (0.000) |
| GEAR | -0.112 (0.075) | 0.167 (0.000) | -0.609E-03 (0.000) | -0.151E-02 (0.000) |
| RD | -0.017 (0.982) | 1.815 (0.001) | 0.030 (0.022) | 0.037 (0.001) |
| Constant | -16.443 (0.484) | 15.324 (0.293) | -0.896 (0.024) | -0.690 (0.014) |
| F-statistic | 2.389 (0.017) | 14.908 (0.000) | 10.650 (0.000) | 11.148 (0.000) |
| Adj R ² | 0.097 | 0.296 | 0.424 | 0.241 |
| Observations | 117 | 297 | 118 | 287 |

^a p-values in parentheses.

external blockholders exert a particularly significant impact on LogVAL in the sample of companies with CEO duality. This evidence suggests that in duality companies, the value of ownership by both non-CEO executives and external blockholders helps to ensure that shareholder interests are pursued. In non-duality companies however, the value of CEO ownership has the most significant impact with non-CEO executives and blockholders exerting a reduced (although still significant) influence. In respect of the control variables, sales growth and expenditure on research and development exert a significant positive influence in the case of non-duality companies regardless of whether the accounting or market-to-book ratio is used as the dependent variable. Gearing has a negative and significant impact on LogVAL in both duality and non-duality companies. In the case of ROCE however, gearing exerts a positive and significant impact on performance in non-duality companies while the impact is only marginally significant but positive in duality companies.

This section of the chapter has sought to examine the interrelationship between the use of governance mechanisms in UK companies and the impact of these mechanisms on company performance. The empirical results present a complex picture of both the use and effect of governance mechanisms. Comparisons of large and small companies suggest evidence of a substitution between board composition, leadership and ownership. Larger companies are associated with a greater proportion of non-executive directors and a lower incidence of CEO duality. Larger companies are also associated with lower proportions of both executive and external ownership. When I compare the monetary value of ownership however, executives and external blockholders have a greater investment in larger companies. This suggests that board composition and leadership and the monetary value of ownership may be complementary. In order to explore the interrelationship between governance mechanisms further, I examine correlations between board and ownership variables (using both the proportion and the monetary value of ownership). Taking the full sample of companies, board

composition and executive ownership are negatively correlated. This is the case whether I use proportions or values of ownership. The correlations between executive ownership and company size differ depending on the measure of ownership used. For example, the correlations are negative when fractions of ownership are used but are positive when monetary values are used to represent ownership. The latter suggests that, as the monetary value of blockholder ownership increases, and presumably managerial monitoring becomes more difficult, managers hold more expensive equity. This may ensure that blockholders' investment is linked to the wealth of managers and consequently, managers are encouraged to pursue shareholder-maximising strategies.

I also undertake a series of multivariate regressions seeking to examine the impact of board and ownership characteristics on the proportion of non-executives serving on company boards. Executive ownership has a significant negative impact on the proportion of non-executives used by companies. This impact exists whether fractions or monetary value is used to represent ownership. This finding is consistent with a substitution between governance through board monitoring and governance through the incentive effects of executive ownership. I also find that the ownership of non-executive directors (whether measured by fractions or monetary value) has a significant positive influence on the representation of non-executives on company boards. This is consistent with two possible explanations. First, non-executive directors with significant equity holdings may seek to ensure their investment is protected by encouraging companies to recruit additional non-executives. Alternatively, others, such as external shareholders, may seek to appoint non-executives with significant equity holdings to ensure that they possess sufficient personal motivation to pursue shareholder interests in board deliberations. There is weak evidence that the ownership of institutional blockholders has a negative impact on the proportion of non-executives employed by companies.

Having examined the relationship between governance mechanisms, I then investigated the impact of board composition and ownership on both accounting and market measures of company performance. When fractions of ownership are used, I find weak evidence that CEO ownership has a negative impact on accounting performance while ownership of executives other than the CEO have a positive impact, particularly in the case of larger companies. Using a market measure of performance, I find that the ownership of external blockholders has a negative impact. When I include the monetary value of ownership however, my regressions reveal more interesting results. For example, the monetary value of executive ownership has a positive impact on both the accounting and market measures of performance. The ownership value of both blockholder and institutional ownership also exert a positive impact on both accounting and market performance measures. These findings suggest that greater executive and blockholder investment serves to reconcile the interests of shareholders and managers in UK companies.

5.4 DIRECTORS' AND OFFICERS' INSURANCE

Table 5.18 presents summary statistics and mean comparisons for companies with and without Directors' and Officers (D&O) insurance. 361 (81.8%) of companies in the sample possess a D&O insurance policy. If D&O insurance represents an additional source of monitoring as was suggested in chapter four, we would expect some interrelationship between the possession of D&O insurance and companies' board composition and ownership characteristics. In table 5.18, insured companies have larger boards, a greater number and proportion of non-executives, and are less likely to have CEO duality than uninsured companies. This suggests that companies possessing D&O insurance have stronger board governance compared to non-insured companies. Insured companies have significantly lower executive ownership compared to their non-insured counterparts. This is especially noticeable in the case of CEO ownership (insured CEOs = 2.018 per cent; uninsured = 5.924 per cent). This is consistent with

Table 5.18 - Comparison of board composition and ownership characteristics between companies possessing D&O insurance and uninsured companies (using fractions of ownership).

| Variables | Insured companies (n=361) | | Uninsured companies (n=79) | | Means Difference ^a | |
|------------|------------------------------|--------|-------------------------------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b |
| DIRS | 8.806 | 9.0 | 7.722 | 7.0 | 3.322 (0.001) | 12.378 (0.000) |
| NONEXEC | 3.756 | 4.0 | 2.772 | 3.0 | 4.579 (0.000) | 25.962 (0.000) |
| %NONEXEC | 42.333 | 42.857 | 35.262 | 37.500 | 3.734 (0.000) | 14.367 (0.000) |
| BOSS | 0.260 | 0.0 | 0.405 | 0.0 | 2.403 (0.018) | 6.624 (0.010) |
| %CEOSHA | 2.018 | 0.039 | 5.924 | 0.560 | 2.583 (0.011) | 22.825 (0.000) |
| %EXCEOSHA | 2.213 | 0.078 | 3.602 | 0.629 | 1.405 (0.163) | 18.410 (0.000) |
| %EXECSHA | 4.231 | 0.215 | 9.526 | 2.374 | 3.025 (0.003) | 29.724 (0.000) |
| %NEXSHA | 0.657 | 0.023 | 0.735 | 0.070 | 0.380 (0.704) | 5.797 (0.016) |
| %BLOCK | 31.022 | 29.900 | 32.761 | 34.140 | 0.855 (0.394) | 1.108 (0.293) |
| %FININST | 23.467 | 22.090 | 24.522 | 22.710 | 0.555 (0.580) | 0.381 (0.537) |
| Log MKTCAP | 8.322 | 8.330 | 8.018 | 7.964 | 3.380 (0.001) | 12.587 (0.000) |

^a p-values are in parentheses
^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

companies exhibiting significant executive ownership not requiring the additional monitoring that a D&O insurance policy is expected to provide. The ownership of non-executive directors is greater (marginally significant) in the case of uninsured companies. This suggests that non-executives with significant equity holdings do not require the additional monitoring that a D&O insurance policy is likely to provide. Non-insured companies in the sample have lower numbers of non-executives but greater levels of non-executive ownership. In terms of external blockholder ownership, there are no significant differences between the insured and uninsured companies. Neither the ownership of blockholders as a group nor the ownership of financial institutions differs between the two samples. Finally, companies possessing D&O insurance are significantly bigger - as measured by market capitalisation - than uninsured companies. The difference in equity values between the samples, especially the increased likelihood that larger companies insure their directors, is consistent with the expectation that D&O Insurance is likely to play an especially important role in the governance of companies when monitoring by ownership is expected to be more costly.

Table 5.19 compares the monetary values of internal and external ownership between insured and uninsured companies. Executives in insured companies have significantly lower monetary investments compared to their counterparts in uninsured companies. This reinforces the findings from table 5.18 - in companies with significant executive ownership the additional monitoring of D&O insurance is not required. Unlike table 5.19, there is no evidence that the monetary value of non-executive shareholdings differs significantly between insured and uninsured companies. The value of both blockholder and institutional ownership is greater in insured companies (using the nonparametric comparison). This suggests that external shareholders may view D&O insurance as an important mechanism of governance when they possess significant investments in companies and consequently, are instrumental in ensuring that a D&O policy is purchased.

Table 5.19 - Comparison of ownership characteristics between companies possessing D&O insurance and uninsured companies (using monetary value of equity).

| Variables | Insured companies (n=361) | | Uninsured companies (n=79) | | Means Difference ^a | |
|--------------|------------------------------|--------|-------------------------------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b |
| Log£CEOSHA | 4.891 | 5.047 | 5.392 | 5.731 | 2.315 (0.022) | 14.313 (0.000) |
| Log£EXCEOSHA | 5.237 | 5.321 | 5.513 | 5.806 | 1.600 (0.112) | 5.034 (0.025) |
| Log£EXECSHA | 5.728 | 5.707 | 6.217 | 6.317 | 3.770 (0.000) | 15.251 (0.000) |
| Log£NEXSHA | 4.523 | 4.828 | 4.500 | 4.796 | 0.113 (0.910) | 0.125 (0.723) |
| Log£BLOCK | 7.482 | 7.750 | 7.346 | 7.473 | 0.959 (0.339) | 9.324 (0.002) |
| %Log£FININST | 6.971 | 7.610 | 7.016 | 7.370 | 0.214 (0.831) | 7.707 (0.006) |

^a p-values are in parentheses
^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

Table 5.20 - Pearson correlations amongst board composition and ownership variables for insured and uninsured companies.

Panel A : Insured companies (n=361)

| Variables | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1 | %NONEXEC | 1.0 | | | | | | | | |
| 2 | BOSS | -0.13 | 1.0 | | | | | | | |
| 3 | %CEOSHA | -0.15 | 0.24 | 1.0 | | | | | | |
| 4 | %EXCEOSHA | -0.29 | -0.07 | 0.11 | 1.0 | | | | | |
| 5 | %EXECSHA | -0.30 | 0.12 | 0.75 | 0.73 | 1.0 | | | | |
| 6 | %NEXSHA | 0.15 | -0.07 | -0.02 | 0.05 | 0.02 | 1.0 | | | |
| 7 | BLOCK | 0.08 | 0.01 | -0.03 | -0.07 | -0.06 | -0.01 | 1.0 | | |
| 8 | FININST | -0.06 | 0.00 | -0.09 | -0.14 | -0.15 | -0.05 | 0.57 | 1.0 | |
| 9 | LogMKTCAP | 0.09 | -0.03 | -0.14 | -0.18 | -0.21 | -0.20 | -0.50 | -0.44 | 1.0 |

Correlations of ± 0.14 are significant at 0.01
Correlations of ± 0.11 are significant at 0.05

Panel B : Uninsured companies (n=79)

| Variables | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1 | %NONEXEC | 1.0 | | | | | | | | |
| 2 | BOSS | -0.08 | 1.0 | | | | | | | |
| 3 | %CEOSHA | -0.18 | 0.47 | 1.0 | | | | | | |
| 4 | %EXCEOSHA | -0.14 | -0.05 | -0.09 | 1.0 | | | | | |
| 5 | %EXECSHA | -0.24 | 0.39 | 0.84 | 0.48 | 1.0 | | | | |
| 6 | %NEXSHA | 0.25 | -0.01 | -0.06 | -0.03 | -0.07 | 1.0 | | | |
| 7 | BLOCK | 0.10 | -0.02 | -0.27 | 0.02 | -0.23 | 0.27 | 1.0 | | |
| 8 | FININST | -0.11 | -0.06 | -0.32 | -0.12 | -0.35 | 0.22 | 0.59 | 1.0 | |
| 9 | LogMKTCAP | -0.02 | -0.17 | -0.14 | -0.18 | -0.22 | -0.36 | -0.35 | -0.39 | 1.0 |

Correlations of ± 0.26 are significant at 0.01
Correlations of ± 0.21 are significant at 0.05

The finding that board composition, executive ownership and size differs between insured and uninsured companies focuses attention on the role of D&O insurance in the overall governance choices made by companies. In order to obtain further insights into the relationship between D&O insurance and other governance mechanisms, table 5.20 presents the results of Pearson correlation coefficients between board composition, ownership and size in sub-samples of insured and non-insured companies. In both sets of correlations, the proportion of non-executive directors is negatively correlated with the external ownership variables and positively correlated with the ownership of non-executives. The most noticeable difference between the two sets of correlations concerns blockholder ownership. In the case on uninsured companies, blockholder ownership is negatively correlated with the executive ownership variables suggesting that executive ownership and blockholder ownership may be substitute mechanisms of governance in such companies. Even though there are significant negative correlations between the ownership of financial institutions and executive ownership in the insured companies, the strength of the correlations are far stronger in the non-insured firms. It is also interesting to note that in the case of non-insured firms, there is a positive correlation between the ownership of non-executives and the ownership of external blockholders - especially institutional blockholders. Finally, the non-insured correlations highlight a significant negative correlation between the value of equity and the presence of CEO duality. This suggests that companies without insurance appear to display stronger ownership control than their uninsured counterparts.

Table 5.21 presents the results of three logit regressions seeking to explain why companies purchase D&O insurance. Table 5.22 presents the results of similar regressions but includes variables representing the monetary value of internal and external ownership. In models 1 and 2 of both tables, I examine the impact of the board composition, ownership and size variables on the D&O purchase decision. In model 3, I also include a number of additional explanatory variables that Core (1997) found to have a significant influence on the D&O purchase decision for his sample of Canadian companies. In model 1, I include separate variables for the ownership of the CEO and the ownership of non-CEO executives as well as a variable to represent total blockholder ownership. In model 2, I include one variable representing the

Table 5.21 - Results of a Logit analysis between the dictomous dependent variable D&O insurance and board composition, ownership and a number of control variables.

| Variables | Model I | | Model II | | Model III | |
|---|-------------|---------|-------------|---------|-------------|----------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.0259 | 0.0043 | 0.0246 | 0.0059 | 0.0307 | 0.0023 |
| BOSS | -0.3591 | 0.2154 | -0.4440 | 0.1049 | -0.2336 | 0.4700 |
| %CEOSHA | -0.0220 | 0.0931 | | | -0.0086 | 0.5682 |
| %EXCEOSHA | -0.0026 | 0.8779 | | | 0.0226 | 0.3063 |
| %EXECSHA | | | -0.0136 | 0.2047 | | |
| %NEXSHA | -0.0287 | 0.6633 | -0.0246 | 0.7089 | -0.0023 | 0.9748 |
| %BLOCK | -0.0007 | 0.9325 | | | 0.0058 | 0.5665 |
| %FININST | | | 0.0015 | 0.8775 | | |
| Log MKTCAP | 0.4336 | 0.0440 | 0.4480 | 0.0325 | 0.5711 | 0.0312 |
| BETA | | | | | 1.5342 | 0.0096 |
| ROCE | | | | | 0.0017 | 0.8608 |
| GEAR | | | | | 0.0097 | 0.1666 |
| WCAP | | | | | -0.3424 | 0.1466 |
| %USSUBS | | | | | 0.0218 | 0.1273 |
| REGUL | | | | | 6.4637 | 0.6626 |
| Constant | -2.7802 | 0.1580 | -2.8818 | 0.1303 | -6.0770 | 0.0137 |
| Likelihood ratio index ^a | | 0.071 | | 0.069 | | 0.140 |
| Likelihood ratio statistic ^b | | 59.136* | | 57.418* | | 102.396* |
| Observations | | 440 | | 440 | | 387 |

*Significant at 0.0001

^a The likelihood ratio index is equal to (1 - log likelihood at convergence/log likelihood at zero). It is the analog of R-square in multiple regression.

^b The likelihood ratio statistic is defined as: 2 x (log likelihood at convergence - log likelihood at zero). The statistic tests the null hypothesis that all model parameters are equal to zero. Under this hypothesis, the likelihood ratio statistic is asymptotically distributed as a chi-square. The degrees of freedom are equal to the number of parameters in the model.

Table 5.22 - Results of a Logit analysis between the dictomous dependent variable D&O insurance and board composition, equity value of ownership and a number of control variables.

| Variables | Model I | | Model II | | Model III | |
|---|-------------|---------|-------------|---------|-------------|----------|
| | Coefficient | p-value | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.0353 | 0.0014 | 0.0290 | 0.0088 | 0.0342 | 0.0054 |
| BOSS | -0.4025 | 0.1798 | -0.3984 | 0.1536 | -0.2847 | 0.3625 |
| Log£CEOSHA | -0.1239 | 0.2177 | | | | |
| Log£EXCEOSHA | -0.0718 | 0.5166 | | | | |
| Log£EXECSHA | | | -0.3751 | 0.0127 | -0.2223 | 0.1535 |
| Log£NEXSHA | -0.1993 | 0.0247 | -0.1695 | 0.0538 | -0.1623 | 0.0844 |
| Log£BLOCK | -0.0246 | 0.8411 | | | -0.0796 | 0.6079 |
| Log£FININST | | | -0.0815 | 0.3195 | | |
| LogMKTCAP | 0.6917 | 0.0010 | 0.7678 | 0.0002 | 0.5808 | 0.0235 |
| BETA | | | | | 1.4549 | 0.0136 |
| ROCE | | | | | 0.0071 | 0.6189 |
| GEAR | | | | | 0.0072 | 0.3032 |
| WCAP | | | | | -0.3424 | 0.1281 |
| %USSUBS | | | | | 0.0183 | 0.1914 |
| REGUL | | | | | 6.0476 | 0.6844 |
| Constant | -3.262 | 0.0395 | -2.1611 | 0.1923 | -3.2734 | 0.1116 |
| Likelihood ratio index ^a | | 0.089 | | 0.099 | | 0.148 |
| Likelihood ratio statistic ^b | | 73.466* | | 81.918* | | 105.496* |
| Observations | | 439 | | 439 | | 380 |

*Significant at 0.0001

^a The likelihood ratio index is equal to (1 - log likelihood at convergence/log likelihood at zero). It is the analog of R-square in multiple regression.

^b The likelihood ratio statistic is defined as: 2 x (log likelihood at convergence - log likelihood at zero). The statistic tests the null hypothesis that all model parameters are equal to zero. Under this hypothesis, the likelihood ratio statistic is asymptotically distributed as a chi-square. The degrees of freedom are equal to the number of parameters in the model.

ownership of all executives as well as a variable indicating the ownership of financial institutions. In both models, the proportion of non-executive directors has a positive and significant impact on the possession of a D&O insurance policy. The equity value of the company also has a positive and significant influence on the purchase of a D&O insurance in both models. This is consistent with shareholders in larger companies making greater utilisation of both non-executive directors and D&O insurance to monitor managers instead of the costly monitoring via more concentrated ownership. In table 5.22 the proportion of non-executives and company size influence the D&O purchase decision in a similar manner. However, the impact of size is more significant when the value of ownership is used in table 5.22. What is unclear is which comes first - a greater use of non-executives or the possession of an insurance policy. It may be that the greater reliance by large companies on the monitoring of non-executives provides an incentive for these non-executives to seek to 'transfer' their monitoring responsibilities to D&O insurers. The evidence is also consistent with D&O insurers insisting on insured companies possessing adequate non-executive representation on their boards. Furthermore, in table 5.22, the value of non-executive ownership exerts a negative influence on the existence of a D&O insurance policy. This finding suggests that the greater is non-executives' financial wealth invested in the company, the less likely that the company possesses a D&O insurance policy.

In model 3, both the proportion of non-executive directors and equity value continue to influence the D&O purchase decision. However, a number of the additional variables are also significant. Core (1997) suggests that a major influence on a company's decision to purchase a D&O insurance policy is the risk that the directors will be subject to litigation. Core (1997) uses a variety of variables to seek to represent a company's exposure to litigation. For example, Core (1997) suggests that volatility of a company's market returns is expected to increase the risk of litigation since it makes a decline in share price more likely. In order to

obtain some insights into this, I include each company's beta as an explanatory variable (BETA). Core (1997) also suggests that litigation risk is likely to be negatively related to companies' financial performance and consequently he includes return on assets as a proxy for performance. I include each company's return on capital employed for the 1992 financial year (ROCE) as a measure of financial performance. In addition to financial performance, D&O claims are expected to occur when companies go bankrupt and creditors seek to receive compensation from potentially negligent directors. In order to assess this, I include the variable, WCAP to represent each company's working capital - since companies are more likely to be bankrupt when current assets are insufficient to cover liabilities. I also include the variable, GEAR to represent each company's level of capital gearing. Because of differences in the legal systems in the UK and US, it is reasonable to expect companies with significant assets invested in the US are more likely to be sued than companies without US exposure. Consequently, I include the variable %USSUBS as an explanatory variable to represent the proportion of each company's subsidiaries that are registered in the US. In the multivariate analysis, both the volatility of a company's stock returns and the proportion of subsidiaries invested in the US are significant. The greater the daily volatility of a company's stock, the more likely is the company to possess a D&O insurance policy. This finding is interesting since, on the one hand, it suggests that higher risk companies are more likely to purchase a D&O insurance policy. However, since we cannot tell when the policy was actually purchased, it is also consistent with companies being high risk after the policy is issued - an example of moral hazard on the part of insured companies.

Weisbach (1993) suggests that a useful method for discussing results of logit models is by examining the predicted probabilities from the logit equations. Table 5.23 presents the estimated probabilities for the study. At the base case, where all the variables are at their mean values, the probability of a company possessing a D&O insurance policy is 84 per cent. Table

Table 5.23 - Estimated probabilities of companies possessing D&O insurance as a function of board composition and ownership characteristics (probability of possessing D&O insurance with all variables at their means = 0.840)^a

| Variables | Value at 10 th percentile | Value at 90 th percentile | Probability at 10 th percentile | Probability at 90 th percentile |
|------------|--------------------------------------|--------------------------------------|--|--|
| %NONEXEC | 22.222 | 59.667 | 0.763 | 0.895 |
| BOSS | 0.0 | 1.0 | 0.853 | 0.803 |
| %CEOSHA | 0.001 | 6.464 | 0.848 | 0.829 |
| %EXCEOSHA | 0.004 | 7.419 | 0.841 | 0.838 |
| %NEXSHA | 0.0 | 1.862 | 0.843 | 0.836 |
| %BLOCK | 9.046 | 55.074 | 0.842 | 0.840 |
| Log MKTCAP | 7.235 | 9.256 | 0.770 | 0.890 |

^a The logit regression in Model I of Table 5.21 is used to estimate the probabilities.

5.23 presents the probability of possessing a D&O policy when each of the variables at their 10th and 90th percentile but holding all the remaining variables at their mean values. The results provide useful insights on the impact of changing governance measures on insurance likelihood.¹ For example, as the proportion of non-executives increases from 22.2 per cent of board members to 59.7 per cent, the likelihood of the company possessing an insurance policy increases from 0.76 to 0.90. Similarly, as the log of market capitalisation increases from 7.235 to 9.256, the probability of an insurance policy increases from 0.77 to 0.89. Significant alterations to the other governance and ownership variables appear to have little impact of insurance likelihood - as suggested by the regression results in tables 5.21 and 5.22.

This section examines the potential monitoring role of directors' and officers' (D&O) insurance in quoted companies. The theoretical discussion in chapter five suggested that D&O insurance may have a role in corporate governance for three reasons. First, it was argued that D&O insurance may be used as a substitute source of monitoring when company size makes direct monitoring too expensive for external shareholders. Second, it was suggested that D&O insurance may complement non-executive monitoring. Third, it was suggested that companies would have a reduced need for the additional monitoring that D&O insurance is expected to provide when executives possess a significant proportion of equity. The results of the analysis undertaken here provides broad support for the first two of these expectations but less support for the latter. Specifically, both in the univariate and multivariate analysis, larger companies are associated with the existence of a D&O policy. However, there is no direct empirical support for the notion that the purchase of insurance is influenced by external shareholder concentration. Insured companies possess a significantly higher proportion of non-executives compared to uninsured companies. Furthermore, in the logit regressions, non-executive representation exerts the strongest single influence on the D&O purchase decision. In the univariate comparisons, both the fraction and value of executive ownership is greater in

uninsured companies. However, executive ownership has an insignificant impact in the logit regressions.

5.6 THE IMPACT OF GOVERNANCE ON AUDIT PRICING

Table 5.24 presents Pearson correlations between the variables used in the audit pricing regressions. An examination of correlations is useful in the context of audit pricing since it provides some additional insights into the relationship between the explanatory variables used in the subsequent multivariate analysis. For example, company size (measured in terms of sales turnover) is significantly correlated with all three subsidiary variables. The subsidiary variables are similarly correlated with each other. This is expected since larger companies are likely to have a greater number of subsidiaries and are also more likely to operate on a world-wide basis. The correlations in table 5.24 also reveal that large companies predominantly employ 'big six' auditors based in London. It is interesting that, despite their size and complexity, large companies experience shorter delays between their financial year-end and when the audit report is signed. The correlation coefficients also identify the significant and positive correlation between company size and complexity and the amount of non-audit services provided by auditors. It is noticeable that non-audit remuneration is particularly highly correlated with both the non-UK subsidiary variables. An interesting correlation is the positive association between the existence of D&O insurance and expenditure on non-audit services.

Table 5.25 presents the results of the multivariate analysis. The results of two models are presented. In model I, I regresses company, auditor and governance variables on the log of the audit fee for all companies in our sample. Model II includes the log of non-audit fee as an additional explanatory variable with a resulting reduction in the usable sample to 290 companies. The results in Model I are broadly consistent with existing research - both audit

Table 5.24 - Pearson correlation coefficients amongst the variables used in the audit fee regressions.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-----|
| 1. LogAUDIT | 1.0 | | | | | | | | | | | | | | | | | |
| 2. LogSALES | 0.781 | 1.0 | | | | | | | | | | | | | | | | |
| 3. UKSUBS | 0.396 | 0.283 | 1.0 | | | | | | | | | | | | | | | |
| 4. USSUBS | 0.520 | 0.328 | 0.394 | 1.0 | | | | | | | | | | | | | | |
| 5. OTHERSUBS | 0.536 | 0.434 | 0.276 | 0.365 | 1.0 | | | | | | | | | | | | | |
| 6. ROCE | 0.028 | 0.071 | -0.064 | 0.111 | 0.042 | 1.0 | | | | | | | | | | | | |
| 7. REGUL | -0.078 | 0.151 | -0.104 | -0.123 | -0.097 | 0.032 | 1.0 | | | | | | | | | | | |
| 8. DOINS | 0.270 | 0.202 | 0.056 | 0.113 | 0.020 | 0.018 | 0.110 | 1.0 | | | | | | | | | | |
| 9. BUSY | 0.117 | 0.125 | -0.023 | 0.066 | 0.055 | 0.015 | 0.146 | 0.091 | 1.0 | | | | | | | | | |
| 10. LogDELAY | -0.113 | -0.231 | 0.088 | -0.025 | -0.064 | -0.052 | -0.018 | 0.014 | -0.045 | 1.0 | | | | | | | | |
| 11. LogNAUDIT | 0.662 | 0.632 | 0.174 | 0.284 | 0.349 | 0.119 | 0.154 | 0.257 | 0.157 | -0.111 | 1.0 | | | | | | | |
| 12. LONDON | 0.392 | 0.336 | 0.070 | 0.153 | 0.219 | -0.004 | -0.095 | 0.116 | 0.082 | -0.072 | 0.304 | 1.0 | | | | | | |
| 13. BIGSIX | 0.253 | 0.209 | 0.060 | 0.094 | 0.116 | -0.133 | 0.047 | 0.173 | 0.105 | -0.055 | 0.267 | 0.071 | 1.0 | | | | | |
| 14. BOSS | -0.075 | -0.068 | -0.092 | -0.009 | -0.015 | 0.016 | -0.081 | -0.123 | -0.066 | -0.037 | -0.095 | -0.039 | -0.136 | 1.0 | | | | |
| 15. %NONEXEC | 0.219 | 0.130 | -0.053 | 0.020 | 0.067 | -0.016 | 0.090 | 0.182 | 0.062 | -0.067 | 0.179 | 0.130 | 0.126 | -0.138 | 1.0 | | | |
| 16. %EXECSHA | -0.365 | -0.239 | -0.061 | -0.173 | -0.116 | -0.018 | -0.104 | -0.175 | -0.124 | 0.128 | -0.284 | -0.111 | -0.163 | 0.204 | -0.304 | 1.0 | | |
| 17. FININST | -0.253 | -0.409 | -0.148 | -0.128 | -0.209 | -0.036 | -0.148 | -0.026 | -0.008 | 0.083 | -0.262 | -0.145 | 0.041 | -0.008 | -0.034 | 0.186 | 1.0 | |
| 18. NFININST | -0.100 | -0.105 | -0.111 | -0.121 | -0.009 | -0.005 | -0.076 | -0.017 | -0.061 | 0.049 | -0.134 | 0.109 | -0.078 | 0.019 | 0.119 | 0.091 | -0.351 | 1.0 |

Correlations \pm 0.13 (0.09) are significant at 1% (5%) respectively

Table 5.25 - Results of ordinary least squares regressions explaining the determinants of audit fees for UK quoted companies (dependent variable = log of the audit fee). Model I includes the full sample. Model II includes companies where information on non-audit fees for 1992 was available.

| Variables | Model I | | | Model II | | |
|--------------------|-------------|---------|---------|-------------|---------|---------|
| | Coefficient | t-ratio | p-value | Coefficient | t-ratio | p-value |
| LogSALES | 0.517 | 17.464 | 0.000 | 0.453 | 13.091 | 0.000 |
| UKSUBS | 0.339E-02 | 2.856 | 0.005 | 0.421E-02 | 3.302 | 0.001 |
| USSUBS | 0.021 | 6.330 | 0.000 | 0.021 | 5.592 | 0.000 |
| OTHERSUBS | 0.366E-02 | 4.884 | 0.000 | 0.314E-02 | 3.911 | 0.000 |
| ROCE | -0.477E-03 | -0.481 | 0.631 | -0.546E-03 | -0.513 | 0.608 |
| REGUL | -0.421 | -6.547 | 0.000 | -0.544 | -6.864 | 0.000 |
| DOINS | 0.095 | 2.910 | 0.004 | 0.087 | 2.343 | 0.020 |
| BUSY | 0.023 | 0.870 | 0.385 | 0.023 | 0.809 | 0.419 |
| LogDELAY | 0.258 | 2.423 | 0.016 | 0.133 | 1.169 | 0.243 |
| LogNAUDIT | | | | 0.154 | 4.895 | 0.000 |
| LONDON | 0.085 | 3.273 | 0.001 | 0.077 | 2.678 | 0.008 |
| BIGSIX | 0.046 | 1.363 | 0.174 | 0.027 | 0.749 | 0.454 |
| BOSS | 0.018 | 0.667 | 0.505 | 0.014 | 0.477 | 0.634 |
| %NONEXEC | 0.239E-02 | 2.748 | 0.006 | 0.182E-02 | 1.836 | 0.067 |
| %EXECSHA | -0.510E-02 | -4.186 | 0.000 | -0.438E-02 | -3.384 | 0.001 |
| FININST | 0.257E-03 | 0.260 | 0.795 | 0.953E-03 | 0.872 | 0.384 |
| NFININST | -0.248E-04 | -0.028 | 0.977 | 0.969E-04 | 0.102 | 0.919 |
| Constant | 0.197 | 0.548 | 0.584 | 0.221 | 0.576 | 0.565 |
| F-statistic | | 91.430 | 0.000 | | 77.302 | 0.000 |
| Adj R ² | | | 0.796 | | | 0.817 |
| Observations | | | 371 | | | 290 |

client size and complexity have a significant positive impact on audit fees. All three classifications of subsidiaries have a positive influence on the audit price. Consistent with Ezzamel et al (1996), regulated companies pay a significantly lower audit fee compared to their unregulated counterparts. Similar to Chan et al (1993) and Ezzamel et al (1996) I find that the length of delay between a company's financial year-end and the signing of the audit report has a positive impact on the audit fee. This suggests that longer periods indicate some additional effort on auditors' behalf and a consequent impact on price. I also find that auditors based in London charge higher prices compared to their regional counterparts. However, I find no evidence that audits undertaken in the busy period (i.e. between 31 December and 31 March) attract an audit fee premium. There is only weak evidence of a large auditor premium (big six variable is significant at 6.9%). Consistent with Ezzamel et al (1996) and others, model II shows that non-audit remuneration has a significant and positive impact on audit fees. The impact of the other explanatory variables used in table II are broadly consistent with the results of the larger sample in model I.

In respect of the board and ownership variables, model I identifies that both the proportion of non-executive directors and the proportion of equity owned by executive directors as being important in determining the audit fee. I find that the proportion of non-executive directors has a positive and significant impact on audit fees. This is consistent with increased non-executive representation encouraging more intensive auditing. This is also consistent with the notion that non-executive directors utilise more extensive auditing to complement their own monitoring of managerial behaviour. I find no evidence that CEO duality has a significant impact on audit fees. The regression results in table 5.25 also highlight the negative impact of executive share ownership on audit fees. This evidence suggests that as executive ownership increases there is less demand for an extensive audit. This may be due to the merging of the functions of ownership and management in such companies and consequently minimising the monitoring

motivation for the audit. Of course, this finding is also consistent with auditors being less inclined to undertake additional testing when managers are also significant equity holders since owner-managers are less likely to deliberately mislead themselves. The results in table 5.25 fail to provide any evidence to support the notion that external shareholder concentration influences audit fees. In particular, I fail to provide any support for the notion that more dispersed shareholdings are associated with a greater degree of auditing as managers seek to bond themselves to an external monitor in order to reduce agency costs for shareholders. I also fail to find any evidence to support the contention that the presence of large blockholders (whether institutional or otherwise) results in differential auditor effort.

Table 5.24 identifies a number of significant correlations between company size and the other explanatory variables. In order to obtain a better understanding of the role of company size in the multivariate regressions I split the sample into large and small companies - using the median figure for turnover (i.e. £289 million). The results of the regressions are shown in table 5.26. For the large sub-sample, size, complexity (especially US and Canadian subsidiaries), regulation and London-based auditors are significant determinants of the audit fee. The proportion of non-executive directors also exerts a significant positive influence on the audit fee. Executive ownership has a negative (at 5% level) impact on the audit fee. The result of the regression for the smaller sub-sample identifies some important differences. Company size, all three subsidiary variables, and London-based auditors have a significant impact on the audit fee. However, for smaller companies the proportion of equity held by executives has a significant impact on audit pricing while the proportion of non-executives has a weak impact.

The results for the two sub-samples reported in table 5.26 are broadly consistent with expectations. For larger companies, the proportion of non-executive directors has a more significant impact on audit fees since non-executive monitoring is especially important in those

Table 5.26 - Results of ordinary least squares regressions explaining the determinants of audit fees for UK quoted firms based on company size (dependent variable = log of the audit fee).

| Variables | Large sub-sample ^a | | | Small sub-sample ^a | | |
|--------------------|-------------------------------|---------|---------|-------------------------------|---------|---------|
| | Coefficient | t-ratio | p-value | Coefficient | t-ratio | p-value |
| LogSALES | 0.555 | 10.229 | 0.000 | 0.399 | 4.993 | 0.000 |
| UKSUBS | 0.276E-02 | 1.704 | 0.090 | 0.599E-02 | 3.256 | 0.001 |
| USSUBS | 0.025 | 5.287 | 0.000 | 0.016 | 3.279 | 0.001 |
| OTHERSUBS | 0.281E-02 | 3.135 | 0.002 | 0.019 | 6.925 | 0.000 |
| ROCE | -0.160E-02 | -1.078 | 0.282 | 0.579E-03 | 0.948 | 0.344 |
| REGUL | -0.432 | -5.556 | 0.000 | -0.270 | -1.501 | 0.135 |
| DOINS | 0.132 | 1.722 | 0.087 | 0.083 | 2.762 | 0.006 |
| BUSY | -0.993E-02 | -0.229 | 0.819 | 0.048 | 1.668 | 0.097 |
| LogDELAY | 0.206 | 1.181 | 0.239 | 0.247 | 2.133 | 0.034 |
| LONDON | 0.092 | 1.999 | 0.047 | 0.077 | 2.843 | 0.005 |
| BIGSIX | 0.075 | 1.162 | 0.247 | 0.034 | 1.055 | 0.293 |
| BOSS | -0.015 | -0.341 | 0.734 | 0.041 | 1.335 | 0.184 |
| %NONEXEC | 0.380E-02 | 2.400 | 0.017 | 0.168E-02 | 1.844 | 0.067 |
| %EXECSHA | -0.471E-02 | -2.088 | 0.038 | -0.474E-02 | -3.909 | 0.000 |
| FININST | 0.323E-03 | 0.200 | 0.841 | 0.197E-03 | 0.175 | 0.861 |
| NFININST | 0.105E-03 | 0.072 | 0.943 | -0.623E-03 | -0.608 | 0.544 |
| Constant | -0.120 | -0.178 | 0.859 | 1.117 | 1.589 | 0.114 |
| F-statistic | | 30.227 | 0.000 | | 13.881 | 0.000 |
| Adj R ² | | | 0.710 | | | 0.528 |
| Observations | | | 191 | | | 184 |

^a Large sub-sample consists of companies with sales ≥ £277m..
 Small sub-sample consists of companies with sales < £277m.

companies. In smaller companies, where non-executive monitoring is expected to be less important, the relationship between non-executive representation and audit fees is weaker. However, in smaller companies where executive share ownership is expected to be an important monitoring mechanism, audit fees are more responsive to levels of managerial ownership.

The objective of this section of the chapter has been to investigate whether audit quality, represented by the audit fee, is influenced by a company's governance characteristics. I seek to extend existing audit fee studies by including variables measuring board independence and ownership structure. The theoretical discussion suggested that greater non-executive representation is likely to result in more expensive audits. It was also suggested that increased managerial ownership is likely to help realign the interests of shareholders and managers and consequently result in lower audit fees. In terms of external ownership, I argued that as external shareholder diffusion increases, shareholders are expected to increase their reliance on auditing as a monitoring device and consequently audit fees are likely to be inversely related to shareholder concentration. Consistent with expectations, the proportion of non-executive directors has a positive impact on audit fees. I also find that companies with higher levels of executive share ownership pay lower audit fees. However, I find no evidence that the ownership of external blockholders (institutional or otherwise) influences the audit fee paid by companies in the sample. From a governance perspective, the findings on the impact of non-executives on auditor effort is reassuring in that greater levels of non-executive representation result in more extensive auditing which in turn is expected to result in more reliable financial statements and related disclosures. The negative impact of executive ownership on audit fees suggests less need for intensive auditing in companies where the interests of shareholders and managers are expected to be more aligned due to the shared interest in shareholder welfare.

CHAPTER SIX

OWNERSHIP STRUCTURE AND INTERNAL GOVERNANCE IN TAKEOVERS: THE EMPIRICAL EVIDENCE

6.1 DATA DESCRIPTION AND VARIABLE DEFINITIONS

Data considerations and the principal sources of data for my takeover dataset are discussed in section 5.2 of chapter four. This section describes and defines the variables used in the empirical analysis reported in this chapter. Table 6.1 contains definitions of the variables used in this section of the study. Consistent with the literature reviewed in chapter two and the variables selected to represent internal governance in quoted companies in chapter five, board composition, managerial ownership, and the ownership of external blockholders are used to proxy for internal governance characteristics. DIRS represents the number of directors on the board of directors, while NONEXEC represents the number of board members who are non-executive. %NONEXEC is the proportion of board members that are non-executive. In an attempt to obtain more precise measures of board independence, particularly in respect of examining the role of board composition in the context of hostile takeovers, I include two further non-executive variables. First, I categorise non-executive directors depending on the length of time spent on the company's board. Corporate discussion in both the US and the UK have highlighted the potential for non-executive directors who serve for long periods to be more closely aligned with management compared to directors with less tenure. The report of the Committee on Corporate Governance (Hampel, 1998) suggests that non-executive directors should put themselves forward for re-election every three years. In the US, Michigan state law excludes from the definition of independent any directors who have served on a company's board for an aggregate period of three years or more. Consequently, I examined the annual reports of companies in the sample for five years prior to the year immediately before the year

Table 6.1 - Definitions of variables

| | |
|-------------------|---|
| DIRS | Number of board members. |
| %NONEXEC | Proportion of board members who are non-executive. |
| %UNAFFIL | Proportion of board members who are unaffiliated ^a . |
| ADDIRS | Mean number of additional directorships held by each non-executive director ^b . |
| BOSS | Binary variable: = 1 if same individual occupies the positions of Chairman and Chief Executive Officer; = 0 otherwise. |
| FOUNDER | Binary variable: = 1 if BOSS is company founder; = 0 otherwise. |
| %CEOSHA | Proportion of company's issued share capital held by the CEO ^c . |
| %EXCEOSHA | Proportion of company's issued share capital held by executive directors excluding CEO ^c . |
| %EXECSHA | Proportion of company's issued share capital held by all executive directors ^c . |
| %NEXSHA | Proportion of company's issued share capital held by non-executive directors ^c . |
| %BLOCK | Proportion of company's issued share capital held by large external shareholders ^d . |
| %FININST | Proportion of company's issued share capital held by large external shareholders ^d who are institutional shareholders ^e . |
| %NFININST | Proportion of company's issued share capital held by large external shareholders excluding institutional shareholders. |
| %AFILSHA | Proportion of company's issued share capital held by large external shareholders who are affiliated ^f to the company. |
| %UNAFILSHA | Proportion of company's issued share capital held by large external shareholders who are unaffiliated ^f to the company. |
| MKTCAP | Market capitalisation at financial year-end immediately preceding the year of the bid. |
| SALES | Sales turnover for the financial year immediately preceding the year of the bid. |
| MKTBOOK | The ratio of market value of equity to book value of equity ^g . |
| ABNORMAL | Average annual abnormal returns for years 2-4 prior to the takeover year. |
| ROCE | Return on capital employed (profit before taxation divided by total net assets (%)). |
| GEAR | Capital gearing (long-term liabilities and bank overdrafts divided by (share capital and reserves) (%)). |

LIQUID

Liquidity: (current assets - stock divided by current liabilities) (%).

Sources:

Companies' annual reports and accounts, various issues of the Arthur Andersen Corporate Register, Datastream International and London Business School Share Price Database (LSPD).

Notes:

- ^a Unaffiliated directors are non-executives who have served as non-exccutives for less than five years.
- ^b Additional directorships represent directorships in other UK quoted companies (excluding investment trusts).
- ^c Refers to beneficial ownership only and excludes share options.
- ^d Large external shareholders are shareholders owing 5% or more of a company's issued share capital.
- ^e Institutional shareholders represents ownership by insurance companies, pcnsion funds and investment trusts.
- ^f Affiliated shareholders represent companies, institutions, and individuals with business or family ties with the company.
- ^g Both values are calculated at end of financial year preceding the year of bid.

of the takeover bid and categorised any non-executives serving for the whole of this period as unaffiliated (%UNAFFIL). Second, I include a variable representing the average number of additional directorships held by each non-executive director (ADDIRS). In the US, Gilson (1990) and Shivdasani (1993) utilise a similar variable to proxy for non-executive quality arguing that non-executive independence is likely to be reflected in the number of additional directorships each non-executive possesses. Only directorships held in other UK listed companies (i.e. companies quoted on the full market or on the Unlisted Securities market but excluding directorships in investment trusts), are included in calculating this variable. BOSS is a binary variable taking the value of 1 if the same individual occupies the position of company chairman and CEO. I also include a binary variable indicating instances where the individual occupying the positions of CEO and chairman is also the company's founder (FOUNDER).

Four variables are used to represent board ownership. I use separate variables to represent the proportion of equity owned by executive directors (%EXECSHA) and non-executive directors (%NEXSHA). I also segregate further the ownership of executive directors by including separate variables representing ownership of the CEO (%CEOSHA) and ownership of non-CEO executives (%EXCEOSHA). The variables representing director ownership include shares held beneficially by directors and do not include any share options held by board members. UK legislation requires all public companies to disclose the identity and ownership level of all shareholders owning in excess 5% of total equity (Companies Act 1989 has lowered this threshold to 3% but since the change only became operational in 1992 I apply the 5% level in this study). I use %BLOCK to measure the aggregate ownership of shareholders owning in excess of 5 per cent. In order to investigate further the role of large blockholders in the context of hostile takeovers, I segregate external ownership in two ways. I use separate variables to measure the proportion of total equity owned by institutional (%FININST) and non-institutional (%NFININST) shareholders, as well as the ownership of affiliated (%AFILSHA)

and unaffiliated (%UNAFILSHA) shareholders. As mentioned in chapter two, studies by Sudarsanam (1995) in the UK and Duggal and Millar (1994) in the US have suggested that institutional shareholders may behave differently to other shareholders in the course of hostile takeover contests. Shivdasani (1993) also usefully distinguishes between affiliated and unaffiliated shareholders in his study of hostile takeovers in the US. In deriving these variables, I have defined institutional ownership as insurance companies, pension funds and investment trusts. Affiliated shareholders represent other companies, institutions and individuals with family links with the business.

In addition to board composition and ownership variables, I also include a number of financial variables that are primarily used in assessing the size, performance and financial condition of hostile targets compared to non-targets. I use market capitalisation (MKTCAP) and sales turnover (SALES) to represent company size. I use three performance measures. First, I use MKTBOOK to represent the relationship between a company's market capitalisation and the book value of total net assets as reported in the balance sheet. Second, I use ABNORMAL to represent the average annual abnormal return for years two-four (inclusive) prior to the year the takeover was launched. In calculating this variable returns for the year immediately prior to the takeover bid were excluded in order to reduce the possibility of including an element of any bid premium. Third, I use ROCE as an accounting measure of performance. This variable is defined as profit before taxation divided by total net assets (%). Finally, since previous research has shown that companies that are lowly geared or highly liquid may be attractive takeover targets (Palepu, 1986; Barnes, 1990), I include GEAR to represent capital gearing (defined as long term liabilities + bank overdrafts/share capital + reserves) and LIQUID to represent liquidity (defined as current assets – stock/current liabilities).

Data used to compile the board composition and ownership variables has been obtained from a number of sources: the published *Annual Report and Accounts* of target and non-target companies as well as various issues of *The Stock Exchange Yearbook* and *The Price Waterhouse Corporate Register*. Financial data has been obtained from FAME, Datastream International, and the London Business School Share Price Database (LSPD).

6.2 INTERNAL GOVERNANCE COMPARISONS BETWEEN TARGETS AND NONTARGETS

Table 6.2 reports descriptive statistics and mean differences in board composition and ownership structure for all targets and the control group of non-targets. Table 6.3 reports similar comparisons after segregating the sample of targets on the basis of target management's reaction to the takeover bid. There are few differences in terms of board composition and leadership between all targets and non-targets. In the case of target firms, non-executives represent 35.64 per cent of board members while non-target firms have a corresponding figure of 34.98 per cent. 54 per cent of targets have different individuals in the roles of company chairman and CEO while 60 per cent of non-targets have different individuals in these two positions. None of these differences are significant. In table 6.3 boards of hostile targets have a greater number and a higher proportion of non-executives compared to both the matched sample of non-targets and friendly targets. The difference between hostile and friendly targets is statistically significant at the 1 per cent level while the difference between hostile targets and non-targets is marginally insignificant. No significant differences are found in the proportion of non-executive directors on the boards of friendly targets compared to the control group of non-targets. In terms of board leadership, hostile targets are more likely to have different individuals in the roles of company chairman and CEO than both the control group of non-targets and the sample of friendly targets. The differences in both instances are significant.

Table 6.2 - Board composition and ownership characteristics for a sample of UK takeover targets and a control sample of industry and size-matched non-targets in the period 1989-93^a

| Variables | Takeover targets (n=166) | | | | Matched non-targets (n=166) | | | | Means difference | |
|-----------|--------------------------|--------|-----|-------|-----------------------------|--------|-----|-------|------------------------|--|
| | Mean | Median | Max | Min | Mean | Median | Min | Max | t-statistic p-value | Kruskal- Wallis Test ^b p-value |
| DIRS | 7.41 | 7.0 | 2.0 | 17.0 | 7.42 | 7.0 | 2.0 | 17.0 | 0.945 | 0.913 |
| NONEXEC | 2.71 | 2.0 | 0.0 | 10.0 | 2.63 | 2.0 | 0.0 | 8.0 | 0.774 | 0.864 |
| %NONEXEC | 35.64 | 33.33 | 0.0 | 83.33 | 34.98 | 35.42 | 0.0 | 83.33 | 0.749 | 0.942 |
| BOSS | 0.46 | 0.0 | 0.0 | 1.0 | 0.40 | 0.0 | 0.0 | 1.0 | 0.269 | 0.268 |
| %CEOSHA | 3.80 | 0.29 | 0.0 | 43.82 | 4.14 | 0.92 | 0.0 | 31.44 | 0.669 | 0.058 |
| %EXCEOSHA | 3.50 | 0.24 | 0.0 | 38.05 | 4.69 | 0.69 | 0.0 | 49.94 | 0.173 | 0.017 |
| %EXECSHA | 7.30 | 1.59 | 0.0 | 49.88 | 8.83 | 4.07 | 0.0 | 49.94 | 0.224 | 0.038 |
| %NEXSHA | 1.66 | 0.07 | 0.0 | 26.37 | 2.77 | 0.09 | 0.0 | 49.06 | 0.063 | 0.248 |
| %BLOCK | 24.25 | 21.56 | 0.0 | 71.30 | 22.66 | 19.67 | 0.0 | 72.42 | 0.411 | 0.425 |

^a Data refers to the position at the end of the financial year immediately preceding the year of the bid.

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

Table 6.3 - Board composition and ownership characteristics for a sample of UK takeover targets and a control sample of industry and size-matched non-targets based on the nature of the bid.

| Variables | Hostile targets (n=53) | | Matched non-targets (n=53) | | Friendly targets (n=113) | | Matched non-targets (n=113) | | Means difference ^a Hostile vs. non-target | | Means difference ^a Friendly vs. non-target | | Means difference ^a Hostile vs. friendly | |
|-----------|---------------------------|--------|-------------------------------|--------|-----------------------------|--------|--------------------------------|--------|---|----------------------------------|--|----------------------------------|---|----------------------------------|
| | Mean | Median | Mean | Median | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b | t-statistic | Kruskal-Wallis Test ^b | t-statistic | Kruskal-Wallis Test ^b |
| DIRS | 7.66 | 7.0 | 8.08 | 8.0 | 7.29 | 7.0 | 7.12 | 7.0 | 0.428 | 0.305 | 0.555 | 0.548 | 0.403 | 0.625 |
| NONEXEC | 3.23 | 3.0 | 2.91 | 3.0 | 2.47 | 2.0 | 2.50 | 2.0 | 0.315 | 0.370 | 0.908 | 0.703 | 0.009 | 0.002 |
| %NONEXEC | 41.45 | 41.67 | 36.11 | 40.0 | 32.91 | 33.33 | 34.45 | 33.33 | 0.104 | 0.184 | 0.554 | 0.453 | 0.005 | 0.005 |
| BOSS | 0.46 | 0.0 | 0.58 | 0.0 | 0.50 | 0.0 | 0.31 | 0.0 | 0.019 | 0.020 | 0.003 | 0.003 | 0.076 | 0.079 |
| %CEOSHA | 1.09 | 0.05 | 3.44 | 0.83 | 5.07 | 0.77 | 4.47 | 1.01 | 0.007 | 0.003 | 0.574 | 0.779 | 0.000 | 0.000 |
| %EXCEOSHA | 0.69 | 0.06 | 3.69 | 0.66 | 4.82 | 0.58 | 5.16 | 0.69 | 0.000 | 0.000 | 0.781 | 0.718 | 0.000 | 0.000 |
| %EXECSHA | 1.78 | 0.15 | 7.13 | 3.09 | 9.89 | 3.42 | 9.63 | 4.08 | 0.000 | 0.000 | 0.873 | 0.943 | 0.000 | 0.000 |
| %NEXSHA | 1.24 | 0.04 | 2.29 | 0.05 | 1.86 | 0.09 | 2.99 | 0.14 | 0.268 | 0.505 | 0.133 | 0.351 | 0.299 | 0.144 |
| %BLOCK | 24.32 | 19.10 | 21.68 | 19.10 | 24.21 | 22.40 | 22.13 | 19.93 | 0.467 | 0.442 | 0.632 | 0.724 | 0.972 | 0.905 |

^a p-values.

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

Interestingly, friendly targets are less likely to separate these two roles than the control group of non-targets.

The discussion in chapter four suggested that internal governance and takeovers may either be complementary or alternative mechanisms of governance. I suggested that takeover bids may represent instances where strong internal governance structures have been put in place but have failed to monitor managers adequately. Alternatively, takeovers may represent instances where managerial control has been such that strong internal monitoring has been successfully resisted. Some researchers argue that segregating the sample of targets depending on managerial attitude is particularly important from a governance perspective since hostile takeovers are more likely to represent instances where managers have failed to pursue shareholder objectives (Morck et al, 1988; Shivdasani, 1993). The evidence presented here suggests that board composition and leadership is important when managerial attitude to the takeover is considered. The findings suggest, in terms of board composition and leadership at least, that hostile targets possess stronger than average internal governance characteristics. In this respect my results are consistent with the hypothesis that hostile takeover targets represent firms where strong internal governance characteristics exist, but perhaps have failed to adequately protect shareholders' interests. The absence of any significant differences in board composition between the sample of friendly targets and the control group of non-targets provides further support for this perspective. Even though a number of US studies have found greater non-executive representation in companies or States where takeover governance is restricted, the results presented here do not support the hypothesis that board composition and takeovers are alternative mechanisms of governance.

Table 6.2 shows that managers in target firms own a smaller proportion of company equity than their counterparts in non-target firms. The large variation between the mean and median

values for the managerial ownership variables suggests that managerial ownership is highly skewed so the nonparametric Kruskal-Wallis test is especially relevant when making comparisons between the samples. The median comparisons suggest that managerial ownership is significantly greater in the case of non-targets for all three variables even though the degree of significance of the differences varies between 2 per cent and 6 per cent. When the samples are segregated on the basis of managerial reaction in table 6.3, more significant differences emerge. All three managerial ownership variables show that managers of hostile targets own a significantly lower proportion of equity than their counterparts in both the control group of non-targets and friendly targets. The differences are particularly pronounced in the comparison between hostile and friendly targets. In table 6.2 the ownership of non-executive directors is higher in the case of non-targets compared to targets. However, the difference is only marginally significant. No significant differences are identified for non-executive ownership when the samples are segregated on the basis of managerial attitude. In table 6.2 the ownership stake of large external blockholders is 24.25 per cent in targets compared to 22.66 per cent in non-targets. However, the difference is not statistically significant. In table 6.3, blockholder ownership is greater in both of the target categories but the differences are not significant. These findings fail to identify a significant role for blockholders either in the likelihood of takeovers or in influencing management's reaction once a takeover bid is launched.

Table 6.4 contains summary statistics for targets and non-targets based on bid outcome. No significant differences exist in respect of non-executive representation between targets and non-targets based on bid outcome. In table 6.4, successfully acquired targets are significantly more likely to have the same individual occupying the positions of chairman and CEO than matched non-targets. In the case of unsuccessful acquisitions, targets are significantly less likely to

Table 6.4 - Board composition and ownership structure for a sample of UK takeover targets and a control sample of industry and size-matched non-targets based on bid outcome.

| Variables | Successfully acquired targets (n=134) | | Matched non-targets (n=134) | | Failed takeover targets (n=32) | | Matched non-targets (n=32) | | Means difference ^a Successful vs. non-target | | Means difference ^a Failed vs. non-target | | Means difference ^a Successful vs. failed | |
|-----------|---------------------------------------|--------|-----------------------------|--------|--------------------------------|--------|----------------------------|--------|--|----------------------------------|--|----------------------------------|--|----------------------------------|
| | Mean | Median | Mean | Median | Mean | Median | Mean | Median | t-statistic | Kruskal-Wallis Test ^b | t-statistic | Kruskal-Wallis Test ^b | t-statistic | Kruskal-Wallis Test ^b |
| DIRS | 7.49 | 7.0 | 7.48 | 7.0 | 7.09 | 7.0 | 7.19 | 7.0 | 0.980 | 0.994 | 0.863 | 0.759 | 0.376 | 0.511 |
| NONEXEC | 2.67 | 2.0 | 2.60 | 2.50 | 2.87 | 3.0 | 2.72 | 2.0 | 0.753 | 0.960 | 0.700 | 0.608 | 0.544 | 0.349 |
| %NONEXEC | 34.78 | 33.33 | 34.22 | 33.33 | 39.23 | 38.75 | 38.17 | 38.75 | 0.807 | 0.979 | 0.818 | 0.803 | 0.235 | 0.210 |
| BOSS | 0.48 | 0.0 | 0.32 | 0.0 | 0.34 | 0.0 | 0.72 | 0.0 | 0.006 | 0.006 | 0.002 | 0.003 | 0.146 | 0.151 |
| %CEOSHA | 4.01 | 0.26 | 4.24 | 0.78 | 2.92 | 0.33 | 3.72 | 1.46 | 0.799 | 0.180 | 0.636 | 0.100 | 0.443 | 0.616 |
| %EXCEOSHA | 3.85 | 0.24 | 5.15 | 0.80 | 2.06 | 0.26 | 2.78 | 0.47 | 0.209 | 0.046 | 0.559 | 0.188 | 0.139 | 0.344 |
| %EXECSHA | 7.86 | 1.77 | 9.39 | 4.07 | 4.97 | 0.83 | 6.49 | 4.10 | 0.295 | 0.123 | 0.492 | 0.118 | 0.145 | 0.089 |
| %NEXSHA | 1.52 | 0.06 | 2.53 | 0.09 | 2.28 | 0.09 | 3.76 | 0.13 | 0.106 | 0.261 | 0.360 | 0.727 | 0.379 | 0.557 |
| %BLOCK | 24.13 | 20.68 | 21.98 | 18.48 | 24.74 | 25.43 | 25.52 | 21.29 | 0.310 | 0.294 | 0.868 | 0.788 | 0.867 | 0.971 |

^a p-values.

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

exhibit CEO duality. However, the difference between successfully acquired targets and non-targets is not significant. These findings suggest that board composition and leadership do not play a significant role in determining bid outcome. In terms of the success or failure of takeover bids, I find little difference in the extent of managerial ownership between targets and non-targets.⁴ Only executive share ownership, excluding ownership of the CEO, shows any significant differences (successfully acquired targets have a significantly lower share ownership than the matched sample of non-targets). The proportion of equity held by non-executives is lower in the case of acquired targets compared to both unsuccessfully acquired targets and matched non-targets and is also lower in the case of unsuccessfully acquired targets compared to the matched non-targets. However neither of the differences are statistically significant. The ownership of external blockholders does not differ significantly between targets and non-targets when the outcome of the bid is taken into account.

6.3 INTERNAL GOVERNANCE COMPARISONS BETWEEN HOSTILE TARGETS AND NON-TARGETS

As mentioned in chapter four, studies of the role of takeovers in corporate governance increasingly focus on the mood of the bid - i.e. whether the bid is opposed by managers (hostile) or welcomed by managers (friendly). The main justification for focusing on hostile bids arises from the perception that examining takeovers as a homogenous group bundles together takeovers motivated by different reasons. In particular, it is widely believed that hostile bids are more likely to be motivated by governance concerns while friendly bids are perceived to represent companies getting together for reasons of synergy. Takeover bids opposed by target management are more likely to represent governance-motivated bids since opposing managers are deemed to adopt a hostile stance in an attempt to preserve their own positions at shareholders' expense. Consistent with this, I decided to examine the internal governance characteristics of hostile targets and the matched sample of non-targets in more

detail. In particular, I undertook a more comprehensive analysis of board composition as well as segregating further blockholder ownership. I also undertake prior performance comparisons between targets and non-targets in seeking to understand the influence of financial performance in governance-motivated takeover bids. In the subsequent analysis I focus in more detail on the 51 targets of hostile bids launched between 1989 and 1993 and the matched sample of non-targets identified in table 6.3.

Table 6.5 reports summary statistics for a selection of firm characteristics and performance measures. In respect of firm size, the mean market capitalisation is £320 million for the sample of hostile targets and £290 million for the non-targets. Average turnover for the sample of target firms is £400 million and £410 million for the non-targets. Since the two samples are matched for size, the mean and median turnover comparisons reveal no significant difference between the two samples. Table 6.5 also presents three measures of performance for the samples: market to book ratio, abnormal returns and return on capital employed. In terms of the market to book ratio, the mean and median comparisons reveal no significant differences between the samples. The average abnormal returns are slightly higher in the case of non-targets but neither the mean nor medians are significantly different between the two samples. Return on capital employed shows significant differences between the two groups with the sample of targets exhibiting significantly lower returns compared to the non-targets. If hostile takeovers are motivated by the potential for future gains arising from the correction of managerial failure, lower returns are expected for takeover targets. Finally, the mean and median comparisons in respect of gearing and liquidity show no significant differences between targets and the matched sample of non-targets.

Table 6.6 reports summary statistics and means differences in respect of board composition and ownership structure in the samples of hostile target and non-target firms. 41.3 per cent of

Table 6.5 - Selected firm characteristics and performance variables of hostile takeover targets and a control sample of industry and size-matched non-targets for the financial year preceding the bid.

| Variables | Hostile targets (n=51) | | | | Matched non-targets (n=51) | | | | Means difference ^a | |
|-------------|------------------------|--------|--------|--------|----------------------------|--------|--------|--------|-------------------------------|----------------------------------|
| | Mean | Median | Min | Max | Mean | Median | Min | Max | t-statistic | Kruskal-Wallis Test ^b |
| MKTCAP (£m) | 320.0 | 110.0 | 7.15 | 3100.0 | 290.0 | 55.0 | 6.29 | 4100.0 | 0.249 | 0.217 |
| SALES (£m) | 400.0 | 130.0 | 2.93 | 5100.0 | 410.0 | 130.0 | 1.03 | 4800.0 | 0.861 | 0.875 |
| MKTBOOK | 1.62 | 1.40 | -1.60 | 5.70 | 1.78 | 1.41 | -2.40 | 4.50 | 0.529 | 0.420 |
| ABNORMAL | 1.47 | -0.67 | -35.7 | 47.0 | 3.10 | 3.33 | -35.7 | 43.0 | 0.677 | 0.412 |
| ROCE | 12.15 | 11.44 | -27.40 | 36.10 | 18.64 | 19.19 | -16.40 | 83.70 | 0.014 | 0.009 |
| GEAR | 56.10 | 47.73 | 0.20 | 149.90 | 62.80 | 43.95 | 4.50 | 287.10 | 0.494 | 0.923 |
| LIQUID | 0.893 | 0.850 | 0.10 | 2.60 | 0.83 | 0.80 | 0.10 | 1.80 | 0.471 | 0.716 |

^a p-values

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

Table 6.6 - Board composition and ownership characteristics for a sample of hostile take-over targets and a control sample of industry and size-matched non-targets for the financial year preceding the bid.

| Variables | Hostile targets (n=51) | | | | Matched non-targets (n=51) | | | | Means difference ^a | |
|------------|------------------------|--------|-----|------|----------------------------|--------|-----|------|-------------------------------|----------------------------------|
| | Mean | Median | Max | Min | Mean | Median | Min | Max | t-statistic | Kruskal-Wallis Test ^b |
| DIRS | 7.71 | 7.0 | 3.0 | 17.0 | 8.16 | 8.0 | 4.0 | 17.0 | 0.403 | 0.278 |
| %NONEXEC | 41.30 | 41.67 | 0.0 | 80.0 | 35.28 | 40.0 | 0.0 | 60.0 | 0.056 | 0.133 |
| %UNAFFIL | 20.56 | 22.22 | 0.0 | 80.0 | 14.92 | 16.67 | 0.0 | 40.0 | 0.021 | 0.025 |
| ADDIRS | 0.46 | 0.33 | 0.0 | 3.3 | 0.57 | 0.40 | 0.0 | 2.5 | 0.369 | 0.403 |
| BOSS | 0.35 | 0.0 | 0.0 | 1.0 | 0.59 | 1.0 | 0.0 | 1.0 | 0.017 | 0.018 |
| FOUNDER | 0.10 | 0.0 | 0.0 | 1.0 | 0.29 | 0.0 | 0.0 | 1.0 | 0.012 | 0.013 |
| %CEOSHA | 1.13 | 0.06 | 0.0 | 7.5 | 3.57 | 0.87 | 0.0 | 31.4 | 0.007 | 0.002 |
| %EXCEOSHA | 0.72 | 0.06 | 0.0 | 6.2 | 3.83 | 0.74 | 0.0 | 24.0 | 0.000 | 0.000 |
| %EXECSHA | 1.85 | 0.22 | 0.0 | 12.9 | 7.41 | 4.31 | 0.0 | 39.2 | 0.000 | 0.000 |
| %NEXSHA | 1.29 | 0.04 | 0.0 | 17.2 | 2.38 | 0.07 | 0.0 | 35.7 | 0.267 | 0.453 |
| %FININST | 8.99 | 6.88 | 0.0 | 38.5 | 8.74 | 6.25 | 0.0 | 35.2 | 0.899 | 0.854 |
| %NFININST | 14.95 | 9.9 | 0.0 | 47.6 | 11.94 | 5.12 | 0.0 | 67.1 | 0.352 | 0.197 |
| %AFILSHA | 3.59 | 0.0 | 0.0 | 47.6 | 5.33 | 0.0 | 0.0 | 45.7 | 0.372 | 0.427 |
| %UNAFILSHA | 20.35 | 15.88 | 0.0 | 65.4 | 15.35 | 11.90 | 0.0 | 68.8 | 0.122 | 0.143 |

^a p-values

^b The Kruskal-Wallis Test is a nonparametric test of the null hypothesis that the two categories come from the same population.

directors in target firms are non-executive compared to 35.28% in non-targets. Utilising non-executive tenure as a measure of affiliation, I find that 20.56 per cent of directors in target firms are unaffiliated compared to 14.92 per cent unaffiliated directors in non-target firms. Non-executive directors in target firms possess an average of 0.46 additional directorships compared to non-executives in non-targets who possess an average of 0.57 additional directorships. Of the three board composition variables, both the proportion of non-executive and the proportion of unaffiliated directors show a significant difference between the two samples. 35 per cent of targets have the same person occupying the positions of CEO and chairman compared to 59 per cent of non-targets, while 10 per cent of targets have the company founder as CEO and chairman compared to 29 per cent of non-targets. The difference between the sub-samples is statistically significant for both these variables.

Further significant differences emerge between the samples in respect of ownership structure. The degree of executive share ownership is significantly greater in the case of non targets compared to targets. CEO ownership in targets is 1.13 per cent, which is significantly lower than the 3.57 per cent for non-targets. This result is closely mirrored in respect of non-CEO ownership where non-targets also possess a significantly larger stake. The ownership of non-executive directors is also lower in the case of takeover targets (1.29%) compared to non-targets (2.38%). However, the difference in the case of non-executive directors is not significant. The aggregate ownership of institutional shareholders in target firms is 8.99 per cent compared to 8.74 per cent for non-targets with corresponding non-institutional ownership stakes of 14.95 per cent and 11.94 per cent - neither differences are significant. Affiliated shareholders possess an average ownership stake in targets of 3.59 per cent while the ownership of unaffiliated shareholders is 20.35 per cent. The corresponding ownership figures for non-targets are 5.33 per cent and 15.35 per cent respectively. Neither of the blockholder ownership variables are statistically significant between the sub-samples.

The presence of a higher proportion of non-executive and unaffiliated directors on the boards of target firms suggests that targets possess stronger board governance compared to non-targets. This supports the view that hostile takeovers are utilised only when strong governance mechanisms exist but are ineffective. In this respect our univariate results are broadly similar to Shivdasani's (1993) findings in the US. If we assess non-executives' monitoring potential by the number of additional directorships held, non-targets seem to possess better quality non-executives and therefore supports the contention that hostile takeovers and board composition may be substitutes. Unlike my findings however, the mean number of additional directorships held by non-executive directors in Shivdasani's (1993) study is marginally significant. The comparisons in respect of board leadership suggest that the existence of CEO/chairman duality serves to prohibit takeovers - possibly bidders are discouraged by the presence of an entrenched CEO (which CEO/chairman duality may indicate). Furthermore, the fact that CEO/chairmen in non-targets are more likely to be the company founder, supports this interpretation. Similar to Shivdasani (1993) and Song and Walkling (1993) I find greater executive share ownership in non-target firms. This finding provides a useful insight into other studies that consistently report greater executive ownership in friendly as opposed to hostile bids and successful as opposed to unsuccessful bids. Viewed in this context, it appears that hostile bids are more likely to be launched when executives own a relatively insignificant proportion of equity - presumably in order to increase the bid's likelihood of success. My findings regarding unaffiliated shareholders mirror those of Shivdasani (1993) which suggests that hostile bids are more likely to occur when large shareholders are independent from management.

Table 6.7 reports Pearson correlation coefficients between the governance and size variables used in the study. Correlations are useful in the context of this section because they are capable of providing important insights on the relationship between the internal governance and ownership variables. In addition, the inclusion of the log of market capitalisation allows us to

Table 6.7 - Pearson correlations between board composition, ownership and size variables.

Panel A: Sample of hostile targets (n=51)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1. DIRS | 1.0 | | | | | | | | | | | | | | |
| 2. %NONEXEC | 0.12 | 1.0 | | | | | | | | | | | | | |
| 3. %UNAFFIL | -0.15 | 0.24 | 1.0 | | | | | | | | | | | | |
| 4. ADDIRS | 0.21 | 0.25 | -0.15 | 1.0 | | | | | | | | | | | |
| 5. BOSS | -0.16 | -0.20 | 0.12 | 0.02 | 1.0 | | | | | | | | | | |
| 6. FOUNDER | -0.23 | -0.13 | 0.12 | 0.06 | 0.45 | 1.0 | | | | | | | | | |
| 7. %CEOSHA | -0.20 | -0.13 | 0.19 | -0.08 | -0.03 | 0.28 | 1.0 | | | | | | | | |
| 8. %EXCEOSHA | -0.23 | -0.39 | 0.09 | -0.27 | 0.14 | 0.19 | 0.51 | 1.0 | | | | | | | |
| 9. %EXECSHA | -0.24 | -0.27 | 0.17 | -0.18 | 0.05 | 0.28 | 0.91 | 0.82 | 1.0 | | | | | | |
| 10. %NEXSHA | -0.20 | 0.17 | 0.11 | -0.19 | -0.01 | -0.07 | 0.28 | 0.34 | 0.35 | 1.0 | | | | | |
| 11. %FININST | -0.02 | -0.11 | 0.14 | -0.12 | -0.07 | -0.02 | -0.22 | -0.16 | -0.22 | -0.19 | 1.0 | | | | |
| 12. %NFININST | -0.01 | -0.15 | -0.07 | 0.03 | 0.15 | 0.10 | 0.16 | 0.05 | 0.13 | 0.04 | 0.05 | 1.0 | | | |
| 13. %AFILSHA | -0.01 | -0.04 | -0.06 | 0.08 | 0.22 | -0.02 | 0.02 | -0.01 | 0.01 | 0.05 | 0.02 | 0.46 | 1.0 | | |
| 14. %UNAFILSHA | -0.03 | -0.18 | 0.04 | -0.08 | -0.02 | 0.09 | 0.02 | -0.04 | -0.01 | -0.09 | 0.60 | 0.69 | -0.08 | 1.0 | |
| 15. LogMKTCAP | 0.64 | 0.18 | -0.26 | 0.19 | -0.03 | -0.23 | 0.44 | -0.32 | -0.45 | -0.39 | -0.01 | -0.18 | -0.15 | -0.09 | 1.0 |

Correlations \pm 0.40 (0.27) are significant at 1% (5%) respectively.

Panel B Sample of matched non-targets (n=51)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1. DIRS | 1.0 | | | | | | | | | | | | | | |
| 2. %NONEXEC | 0.06 | 1.0 | | | | | | | | | | | | | |
| 3. %UNAFFIL | 0.01 | 0.36 | 1.0 | | | | | | | | | | | | |
| 4. ADDDIRS | 0.27 | 0.30 | 0.34 | 1.0 | | | | | | | | | | | |
| 5. BOSS | -0.07 | -0.26 | 0.04 | -0.09 | 1.0 | | | | | | | | | | |
| 6. FOUNDER | -0.01 | -0.19 | 0.01 | -0.17 | 0.54 | 1.0 | | | | | | | | | |
| 7. %CEOSHA | -0.26 | -0.07 | 0.11 | -0.23 | 0.25 | 0.58 | 1.0 | | | | | | | | |
| 8. %EXCEOSHA | -0.10 | -0.26 | -0.28 | -0.26 | -0.02 | 0.18 | 0.23 | 1.0 | | | | | | | |
| 9. %EXECSHA | -0.23 | -0.21 | -0.08 | -0.31 | 0.16 | 0.49 | 0.80 | 0.77 | 1.0 | | | | | | |
| 10. %NEXSHA | 0.13 | 0.34 | -0.16 | 0.01 | -0.14 | 0.01 | 0.10 | 0.07 | 0.11 | 1.0 | | | | | |
| 11. %FININST | -0.26 | 0.10 | -0.05 | 0.04 | 0.11 | -0.14 | -0.12 | -0.06 | -0.12 | 0.09 | 1.0 | | | | |
| 12. %NFININST | -0.12 | -0.22 | 0.01 | -0.27 | 0.11 | 0.10 | -0.02 | 0.11 | 0.06 | 0.01 | -0.36 | 1.0 | | | |
| 13. %AFILSHA | 0.06 | -0.27 | -0.11 | -0.22 | 0.07 | 0.13 | 0.01 | 0.24 | 0.15 | 0.09 | 0.69 | 0.78 | 1.0 | | |
| 14. %UNAFILSHA | -0.35 | 0.02 | 0.05 | -0.13 | 0.15 | -0.08 | -0.10 | -0.08 | -0.12 | -0.01 | -0.31 | 0.46 | -0.04 | 1.0 | |
| 15. LogMKTCAP | 0.66 | 0.08 | 0.08 | 0.42 | -0.20 | -0.19 | -0.34 | -0.43 | -0.49 | -0.08 | -0.17 | -0.26 | -0.08 | -0.48 | 1.0 |

Correlations \pm 0.40 (0.27) are significant at 1% (5%) respectively.

analyse the way governance mechanisms alter depending on firm size. Panel A reports correlation coefficients for the sample of 51 hostile targets and panel B provides correlations for the matched sample of non-targets. In the case of hostile targets, there is a significant negative correlation between both the proportion of non-executives and the mean number of additional directorships and the ownership of executives (excluding CEO). There is a significant positive correlation between CEO ownership and the presence of the company's founder in the CEO/chairman role. There are positive correlations between the ownership of non-executives and all of the executive ownership variables. Company size is negatively correlated with all the director ownership variables. From a governance perspective, the correlations in table A do not suggest that hostile targets exhibit the kind of integrated correlations that the substitution hypothesis suggests (with the exception of weak evidence of a substitution between the use of non-executive directors and executive ownership).

In the case of non-targets, there are significant and positive correlations between the proportion of non-executive directors and both the proportion of unaffiliated directors and the mean number of additional directorships held by non-executives. This suggests that as the proportion of non-executives increases in non-targets, there is an increase in the quality and independence of the board. There is also a negative correlation between the proportion of non-executive directors and the ownership of unaffiliated blockholders. This suggests that as the ownership of unaffiliated blockholders decreases there is a corresponding increase in the use of non-executives. The mean number of additional directorships held by non-executives in non-targets is negatively correlated with executive ownership and non-institutional blockholders but positively correlated with size. From a governance perspective, these correlations are interesting since they suggest that non-executive quality is improved as executive ownership decreases and size increases. This suggests that, as the incentives for executives to pursue shareholder objectives decline, non-executive quality improves to compensate. Similarly, as

company size increases, and monitoring of managerial behaviour becomes more difficult for shareholders, non-executive quality improves to compensate.

Table 6.8 reports the results of a logit regression of takeover likelihood using board and ownership characteristics. The results of three logit models are shown. In model 1 the proportion of non-executive directors and the mean number of additional directorships is used to represent board monitoring, while external blockholder ownership is represented by the ownership of institutional and non-institutional shareholders. In model 2, the proportion of non-executive directors is replaced by the proportion of unaffiliated directors. I also include the presence of the firm founder as well as using the affiliated and unaffiliated shareholder variables to represent external blockholders. In model 3, I include two interactive variables representing the ownership of BOSS multiplied by CEO ownership and the ownership of non-executives multiplied by non-executive representation.

In terms of the monitoring potential of the board, neither the proportion of non-executive directors nor the proportion of unaffiliated directors has a significant impact on takeover likelihood. In all three regressions the mean number of additional directorships held by non-executives has a negative but marginally insignificant (9-10 significance) impact on takeover likelihood. Even though neither the presence of the same individual as CEO and chairman nor the presence of the company founder have a significant impact on the likelihood of a hostile bid, the ownership stake of individuals serving as CEO and chairman has a significant negative impact on the likelihood of a hostile bid. This suggests that the combination of CEO and chairman is more potent in discouraging a potential bid when the CEO/chairman also possesses a significant ownership stake in the company. The results in respect of board composition are broadly similar to Shivadasani's (1993) findings. Similar to the present study, Shivadasani (1993) finds that the mean number of additional directorships held by non-executives has a

Table 6.8 - Results of logit regressions of takeover likelihood using board composition, ownership characteristics, and control variables for a sample of hostile takeover targets and a control sample of industry and size-matched non-targets.

| Variables | Model I | | Model II | | Model III | |
|---|-------------|----------|-------------|---------|-------------|---------|
| | Coefficient | p-values | Coefficient | p-value | Coefficient | p-value |
| %NONEXEC | 0.0121 | 0.5075 | | | | |
| %UNAFFIL | | | 0.0338 | 0.1026 | 0.0340 | 0.1009 |
| ADDIRS | -0.6782 | 0.0928 | -0.5653 | 0.1424 | -0.5300 | 0.1705 |
| BOSS | -0.6264 | 0.2004 | | | | |
| FOUNDER | | | -0.3802 | 0.6268 | | |
| %CEOSHA | | | -0.1380 | 0.1753 | | |
| BOSS*%CEOSHA | | | | | -0.2627 | 0.0465 |
| %EXCEOSHA | | | -0.2245 | 0.0445 | -0.2414 | 0.0288 |
| %EXECSHA | -0.1918 | 0.0035 | | | | |
| %NEXSHA | -0.0332 | 0.5279 | -0.0154 | 0.7545 | -0.0109 | 0.8261 |
| %FININST | -0.0185 | 0.4511 | | | | |
| %NFININST | 0.0120 | 0.4510 | | | | |
| %AFFILSHA | | | 0.0015 | 0.9542 | -0.0018 | 0.9482 |
| %UNAFFILSHA | | | 0.0033 | 0.8303 | 0.0027 | 0.8607 |
| ROCE | -0.0442 | 0.0500 | -0.0434 | 0.0648 | -0.0427 | 0.0722 |
| Constant | 1.6337 | 0.1221 | 1.0350 | 0.1755 | 0.9968 | 0.1910 |
| Likelihood ratio index ^a | | 0.234 | | 0.216 | | 0.238 |
| Likelihood ratio statistic ^b | | 66.284* | | 58.78* | | 64.706* |

*Significant at 1%

^a The likelihood ratio index is equal to (1 - log likelihood at convergence/log likelihood at zero). It is the analog of R-square in multiple regression.

^b The likelihood ratio statistic is defined as: 2 x (log likelihood at convergence - log likelihood at zero). The statistic tests the null hypothesis that all model parameters are equal to zero. Under this hypothesis, the likelihood ratio statistic is asymptotically distributed as a chi-square. The degrees of freedom are equal to the number of parameters in the model.

negative impact on takeover likelihood (although Shivdasani's result is significant at 1%). Shivdasani (1993) also failed to find either the proportion of non-executive directors or the proportion of unaffiliated directors significantly impacting the likelihood of a hostile bid.

Similar to a number of recent studies on takeover activity, I find that director share ownership has an important role in explaining the likelihood of a hostile bid. In all three models the ownership stake of executive directors excluding the CEO has a negative and significant impact on takeover likelihood. This finding is consistent with both Song and Walkling (1992) and Shivdasani (1993) both of whom report evidence of a significant negative relationship between takeover likelihood and managerial ownership in the context of US takeovers. The ownership of non-executive directors does not appear to influence the likelihood of a hostile takeover bid. The external shareholder variables are not significant in any of the logit models. The absence of a significant relationship in respect of external affiliation is at variance with Shivdasani's (1993) US study where unaffiliated ownership was found to be positively associated with the likelihood of a hostile takeover bid. Finally, in all three logit models return on capital employed has a negative and significant impact on takeover likelihood. This provides further support for the governance role of hostile takeovers suggesting that hostile targets exhibit inferior accounting performance compared to non-targets.

Weisbach (1993) suggests that a useful method of discussing the results of logit regressions is to examine the predicted probabilities from the equations. Table 6.9 presents the estimated probabilities for the study. At the base case, where all the variables are their mean values, the probability of a hostile takeover is 45.6 per cent. Table 6.9 presents the probability of takeover when the explanatory variables are at their 10th and 90th percentile values. The results provide useful insights on the impact of changing governance measures on takeover likelihood. For example, as the number of additional directorships held by each non-executive director

Table 6.9 - Estimated probabilities of a hostile takeover as a function of board composition and ownership characteristics (probability of a hostile takeover with all variables at their means = 0.456)^a

| Variables | Value at 10 th percentile | Value at 90 th percentile | Probability at 10 th percentile | Probability at 90 th percentile |
|-----------|--------------------------------------|--------------------------------------|--|--|
| %NONEXEC | 16.961 | 57.143 | 0.392 | 0.512 |
| ADDIRS | 0.0 | 1.333 | 0.543 | 0.325 |
| BOSS | 0.0 | 1.0 | 0.529 | 0.375 |
| %EXECSHA | 0.014 | 13.806 | 0.670 | 0.126 |
| %NEXSHA | 0.0 | 7.285 | 0.471 | 0.411 |
| %FININST | 0.0 | 23.948 | 0.496 | 0.388 |
| %NFININST | 0.0 | 39.041 | 0.416 | 0.532 |
| ROCE | 1.737 | 28.152 | 0.566 | 0.393 |

^a The logit regression in Model I of Table 6.8 is used to estimate the probabilities.

increases from zero to about 1.33, the likelihood of a hostile takeover reduces from 54.3 per cent to 32.5 per cent. Similarly, having the same individual as CEO and chairman decreases the probability of a takeover bid from 52.9 per cent to 37.5 per cent. The strongest influence on takeover likelihood however, comes from the level of ownership of executive directors. By increasing executive share ownership from 0.014 per cent to 13.806 per cent, the probability of a hostile takeover reduces from 67 per cent to 12.6 per cent. Table 6.10 also illustrates the weak influence of non-executive directorships, non-executive share ownership and institutional ownership on the likelihood of a hostile takeover bid.

Even though the main objective of this study is to examine board composition and ownership in the context of takeover likelihood, an interesting extension is to see whether internal governance characteristics differ between targets of hostile bids that are successful and unsuccessful bids. Table 6.10 presents results of a univariate analysis of board, ownership and size characteristics for the successful and unsuccessful targets and the matched samples of non-targets. In terms of board composition and leadership, targets that retain their independence possess greater a proportion of non-executive directors compared to both the matched non-targets and the acquired targets. This difference is statistically significant in the case of the comparison with non-targets. Targets retaining independence also possess a greater proportion of unaffiliated directors compared to both non-targets and the acquired targets. These differences are statistically significant in both cases. There are no significant differences between the various categories of targets and non-targets in the mean number of additional directorships held by non-executives. Targets retaining their independence are significantly less likely to exhibit CEO/chairman duality than to non-targets. No such differences exist between targets and non-targets in the case of successful bids. This suggests that targets which successfully defend their independence have stronger board governance and leadership compared to non-targets.

Table 6.10 - Board composition and ownership comparisons for a sample of hostile takeover targets and a control sample of industry and size-matched non-targets based on the outcome of the bid.

| Variables | Successful takeovers (n=28) Targets Mean | | Unsuccessful takeovers (n=23) Targets Mean | | Successful targets vs. non-targets t-statistics | | Unsuccessful targets vs. non-targets t-statistic | | Means differences Unsuccessful targets vs. non-targets t-statistic | | Successful targets vs. unsuccessful targets t-statistic | | p-value |
|------------|---|--------|---|--------|---|-------|--|-------|---|-------|---|--|---------|
| | | | | | | | | | | | | | |
| DIRS | 8.0 | 8.821 | 7.348 | 7.348 | -1.044 | 0.301 | 0.000 | 1.000 | 0.847 | 0.401 | | | |
| %NONEXEC | 39.986 | 36.994 | 42.906 | 33.200 | 0.662 | 0.511 | 2.303 | 0.026 | -0.649 | 0.520 | | | |
| %UNAFFIL | 17.572 | 15.485 | 23.933 | 14.233 | 0.591 | 0.557 | 3.131 | 0.003 | -1.907 | 0.063 | | | |
| ADDIRS | 0.462 | 0.675 | 0.455 | 0.449 | -1.355 | 0.181 | 0.029 | 0.977 | 0.038 | 0.970 | | | |
| BOSS | 0.429 | 0.429 | 0.261 | 0.783 | 0.000 | 1.000 | -4.062 | 0.000 | 1.256 | 0.215 | | | |
| FOUNDER | 0.071 | 0.286 | 0.130 | 0.304 | -2.141 | 0.037 | -1.431 | 0.160 | -0.676 | 0.503 | | | |
| %CEOSHA | 0.938 | 3.047 | 1.372 | 4.210 | -2.199 | 0.032 | -1.799 | 0.084 | -0.714 | 0.479 | | | |
| %EXCEOSHA | 0.641 | 4.496 | 0.809 | 3.028 | -3.137 | 0.004 | -2.310 | 0.029 | -0.382 | 0.704 | | | |
| %EXECSHA | 1.580 | 7.543 | 2.181 | 7.238 | -3.183 | 0.003 | -2.630 | 0.014 | -0.658 | 0.513 | | | |
| %NEXSHA | 0.493 | 1.437 | 2.252 | 3.533 | -1.402 | 0.167 | -0.641 | 0.526 | -1.755 | 0.091 | | | |
| %FININST | 6.763 | 6.762 | 11.701 | 11.152 | 0.000 | 1.000 | 0.172 | 0.864 | -1.781 | 0.083 | | | |
| %NFININST | 13.314 | 10.303 | 16.943 | 13.937 | 0.744 | 0.460 | 0.578 | 0.566 | -0.828 | 0.412 | | | |
| %AFILSHA | 4.068 | 4.542 | 3.006 | 6.292 | -0.188 | 0.852 | -1.073 | 0.291 | 0.438 | 0.663 | | | |
| %UNAFILSHA | 16.010 | 12.524 | 25.638 | 18.797 | 0.875 | 0.385 | 1.373 | 0.177 | -1.977 | 0.055 | | | |
| ROCE | 11.849 | 16.347 | 12.504 | 21.419 | -1.427 | 0.159 | -2.086 | 0.044 | -0.210 | 0.834 | | | |
| LogMKTCAP | 8.245 | 8.069 | 7.756 | 7.629 | 0.935 | 0.354 | 0.803 | 0.426 | 2.834 | 0.007 | | | |

All the executive ownership variables are significantly larger in non-targets compared to targets regardless of bid outcome. However, no significant differences exist between the sub-samples of targets. None of the external ownership variables differ significantly between the sub-samples of targets and non-targets. However, successfully acquired targets possess a marginally lower proportion of both institutional and unaffiliated share ownership compared to targets retaining their independence. This finding provides some support for Black and Coffee's (1994) assertion that UK institutional shareholders are frequently supportive of incumbent management in hostile bids. Targets retaining their independence show significantly inferior performance compared to the matched sample of non-targets but no performance differences are identified between the two categories of targets. Successfully acquired firms are significantly larger than unacquired firms. This suggests that target management may find it more difficult to retain independence in larger firms where there are expected to a greater number of small shareholders.

6.4 CONCLUSIONS

The objectives of this chapter are two-fold. First, I set out to examine the interaction between internal and external control mechanisms by analysing board composition and ownership characteristics in the context of UK takeover activity. Second, I focus specifically on the relationship between internal governance and the likelihood of hostile takeovers since hostile takeovers are frequently perceived as an external governance mechanism of last resort. In pursuing these objectives I utilise a sample of UK takeover targets and a matched sample of non-targets for the period 1989-93. This allows me, not only to compare board and ownership characteristics of targets and non-targets, but also to segregate targets on the basis of managerial reaction and takeover outcome and in so doing, examine the internal governance characteristics of different categories of target.

In terms of board composition and leadership, I find greater non-executive representation on the boards of hostile targets compared to friendly targets but I find no differences based on bid outcome. I also find that hostile targets are more likely to have different individuals in the roles of chairman and CEO than both non-targets and friendly targets. Successfully acquired firms are less likely to separate the roles of chairman and CEO than targets of unsuccessful takeovers. These findings suggest that hostile targets exhibit strong board governance. This provides some support for the notion that hostile takeovers represent instances where strong internal governance may have failed to reconcile the interests of shareholders and managers and consequently hostile bids represent a governance mechanism of last resort. These findings should concern shareholders since, if hostile takeovers are pursued for governance reasons, increased non-executive representation on boards and the separation of the roles of chairman and CEO does not eliminate the need for takeover governance.

In terms of executive ownership my results are broadly consistent with a number of similar studies in the United States. I find that executives own a significantly lower proportion of equity in hostile targets compared to both matched non-targets and friendly targets. However, unlike a number of US studies, I find no evidence of differential managerial ownership regarding takeover outcome. My results provide some UK support for the notion that when managers own a significant proportion of equity takeovers are welcomed, while lower levels of managerial ownership leads to takeover resistance. This supports Baron's (1983) hypothesis that target management's reaction to a takeover bid depends on the trade-off between the compensation received as a result of selling their equity holdings to the bidder and the likely loss of compensation arising from any post-acquisition displacement. The lack of any significant differences between levels of managerial ownership and bid outcome suggests that bidders only launch takeover bids either with the approval of target management or when managerial ownership is sufficiently low not to influence the eventual outcome. My findings

suggest that the ownership stake of the largest single shareholder is significantly greater in the case of all targets compared to non-targets. When the bids are disaggregated on the basis of management's attitude, I find that the ownership of the largest shareholder in hostile targets is greater than in the sample of non-targets but does not differ significantly from the friendly sample.

The second section of this chapter examines the interaction between internal and external control mechanisms in a sample of hostile takeover targets and a control group of non-targets. An important innovation in this section is the further categorisation of the board composition, leadership and external ownership variables. When I categorise non-executives in respect of their affiliation with management (i.e. defining affiliated as those directors who have served for more than five years) I find a greater proportion of unaffiliated directors on the boards of target firms. I also find that non-targets are more likely to have the same individual serving as company chairman and CEO. Investigating this finding further, I find that in non-targets when CEO duality occurs, almost half the CEOs are company founders compared to only 25 per cent in the case of targets. This suggests that the presence of the company founder may discourage potential bidders from launching a hostile bid. In the logit regression examining the impact of internal governance on takeover likelihood, none of the board composition and leadership variables had a significant impact. However, CEO duality coupled with CEO ownership has a significant negative impact on the likelihood of a hostile bid.

It is interesting to note that the interaction of governance mechanisms differed between the samples of targets and non-targets. For example, I found that as the proportion of non-executives increases in targets, there is a corresponding increase in the proportion of unaffiliated directors and the mean number of additional directorships non-executives possess. There is also evidence that the mean number of additional directorships increases as executive

ownership decreases and size increases. This suggests that, as the incentives to pursue shareholder objectives decline, non-executive quality improves. Similarly, as company size increases and the monitoring of managerial behaviour becomes more difficult for shareholders, non-executive quality improves. Similar correlations are not present in the case of hostile targets.

As previously, the most significant difference between hostile targets and non-targets is executive ownership with executives in non-targets possessing significantly greater levels of equity. In the logit regression, executive share ownership has a negative and significant impact on the likelihood of a hostile takeover bid. The results presented here suggest that in the case of hostile takeovers, bidders are less likely to launch a takeover when executive ownership is significant. This interpretation is reinforced by the absence of a link between executive ownership and takeover outcome. Even though I differentiate large external shareholders between institutional and non-institutional and affiliated and unaffiliated, I find little evidence that large blockholders play a role in takeover likelihood. Interestingly, I find some evidence that institutional and unaffiliated shareholders may support managers in smaller targets to defeat unwanted bids. The univariate analysis finds that target firms exhibit a significantly lower return on capital employed compared to non-targets while the logit analysis finds that return on capital employed has a significant negative impact on the likelihood of a hostile bid. Finally, of the 51 hostile bids included in the analysis, 23 (45%) successfully retained their independence.

CHAPTER SEVEN

OWNERSHIP STRUCTURE AND INTERNAL GOVERNANCE IN UK INSURANCE COMPANIES: THE EMPIRICAL EVIDENCE

7.1 DATA DESCRIPTION AND VARIABLE DEFINITIONS

Details of the data sources for this chapter (including information on the design and circulation of the postal questionnaire) are provided in section 5.3 of chapter four. That section also provides a justification for utilising both cross-section and pooled datasets in my analysis of governance in insurance companies. Sections 7.1 to 7.4 of this chapter reports results of my empirical analysis of governance in insurance companies at the end of 1992 while section 7.5 reports the findings of my analysis of governance in insurance companies between 1984 and 1991.

Table 7.1 provides definitions of the variables used in this section of the study. Table 7.2 presents summary statistics on the characteristics of the companies responding to the postal questionnaire. The summary statistics are categorised into five sub-groups within table 7.2. Group one presents statistics on the general characteristics of the responding companies. For example, 35 per cent of respondents are mutual insurance companies 58.5 per cent of respondents are subsidiary companies, with a further 43.1 per cent of companies in the sample owned by non-UK parent companies. 42.3 per cent of companies transacted general insurance only, 31.7 per cent of respondents transacted only life insurance business, while a further 26 per cent are composite insurers - transacting both general and life insurance. The remaining variables represent the financial characteristics of companies in the sample and were obtained from each company's annual report and accounts for 1992. I include information representing general insurance investments, life insurance investments, and the percentage increase in investments between 1991 and 1992. I also include information on premium income generated from general insurance business, life insurance business, and total

Table 7.1 - Definitions of variables

1. Organisational and financial characteristics:

| | |
|----------|---|
| MUTUAL | Binary variable; = 1 if company is a mutal; = 0 otherwise. |
| SUBSID | Binary variable: = 1 if company is a subsidiary; = 0 otherwise. |
| OSPAR | Binary variable: = 1 if company is owned by a non-UK parent company; = 0 otherwise. |
| GENCO | Binary variable: = 1 if company specialises in general insurance business; = 0 otherwise. |
| LIFCO | Binary variable: = 1 if company specialises in life insurance business; = 0 otherwise. |
| COMPCO | Binary variable: = 1 if company transacts both general and life insurance; = 0 otherwise. |
| GENINV | General insurance investments in 1992. |
| LIFEINV | Life insurance investments in 1992. |
| TOTINV | Total investments in 1992. |
| %INCINV | Percentage increase in total investments in 1992 compared to 1991. |
| GENPREM | General insurance premiums in 1992. |
| LIFEPREM | Life insurance premiums in 1992. |
| TOTPREM | Total insurance premiums in 1992. |
| %INCPREM | Percentage increase in total premiums in 1992 compared to 1991. |

2. Board Characteristics:

| | |
|----------|---|
| DIRS | Number of board members. |
| NONEXEC | Number of board members who are non-executive. |
| %NONEXEC | Proportion of board members who are non-executive. |
| UNAFFIL | Number of non-executive directors who are unaffiliated ^a . |
| %UNAFFIL | Proportion of board members who are unaffiliated. |
| EXEXEC | Number of non-executive directors who were former company executives ^b . |
| %EXEXEC | Proportion of board members who were former company executives. |

| | |
|-------|--|
| BOSS | Binary variable: = 1 if the same individual occupies the positions of Chairman and Chief Executive Officer; = 0 otherwise. |
| ACOMM | Binary variable: = 1 if company has an audit committee; = 0 otherwise. |
| RCOMM | Binary variable: = 1 if company has a remuneration committee; = 0 otherwise. |

3. Board Sub-Committee Characteristics:

Audit Committee

| | |
|------------|--|
| AYEARS | Number of years the audit committee has been in existence. |
| AMEMBER | Number of members on the audit committee. |
| ADIRECTOR | Number of directors on the audit committee. |
| ANONEXEC | Number of non-executive directors on audit committee. |
| A%NONEXEC | Proportion of audit committee directors that are non-executive. |
| AUNAFFIL | Number of non-executives on audit committee who are unaffiliated. |
| A%UNAFFIL | Proportion of non-executives on audit committee who are unaffiliated. |
| ANECHAIR | Binary variable: = 1 if chairman of audit committee is a non-executive director; = 0 otherwise. |
| AUNAFCHAIR | Binary variable: = 1 if chairman of audit committee is an unaffiliated, non-executive director; = 0 otherwise. |

Remuneration Committee:

| | |
|------------|--|
| RYEARS | Number of years the remuneration committee has been in existence. |
| RMEMBER | Number of members on the remuneration committee. |
| RDIRECTOR | Number of directors on the remuneration committee. |
| RNONEXEC | Number of non-executive directors on remuneration committee. |
| R%NONEXEC | Proportion of remuneration committee directors that are non-executive. |
| RUNAFFIL | Number of non-executives on remuneration committee who are unaffiliated. |
| R%UNAFFIL | Proportion of non-executives on remuneration committee who are unaffiliated. |
| RUNAFCHAIR | Binary variable: = 1 if chairman of remuneration committee is a non-executive director; = 0 otherwise. |

RUNAFCHAIR Binary variable: = 1 if chairman of remuneration committee is an unaffiliated, non-executive director; = 0 otherwise.

4. CEO Characteristics:

CEOYEARS Number of years CEO has been in current position.

CEOINT Binary variable: = 1 if CEO was appointed from within the company; = 0 otherwise.

CEOPRIOR How many years had CEO worked for the company prior to being appointed to CEO position.

CEOAFFIL Binary variable: = 1 if CEO was appointed from an affiliated company^e; = 0 otherwise.

HPDSAL Salary received by the company's highest paid director as reported in 1992 financial statements.

5. Auditor-Client Relationship

AUDFEE Statutory audit fee disclosed in financial statements.

AUDYEARS Number of years the company has been audited by its current auditor.

NONAUDIT Binary variable: = 1 if auditor also provides non-audit services to company; = 0 otherwise.

ACCOUNT Binary variable: = 1 if auditor also provides accounting services to company; = 0 otherwise.

ACTUAR Binary variable: = 1 if auditor also provides actuarial services to company; = 0 otherwise.

MANAGE Binary variable: = 1 if auditor also provides management consultancy services to company; = 0 otherwise.

CORPFIN Binary variable: = 1 if auditor also provides corporate finance services to company; = 0 otherwise.

TAX Binary variable: = 1 if auditor also provides taxation services to company; = 0 otherwise.

MISC Binary variable: = 1 if auditor also provides non-audit services (not included in items specified above) to company; = 0 otherwise.

NOMAS the number of different types of non-audit services provided by auditor to company.

BIGSIX Binary variable: = 1 if auditor is one of the 'Big Six'^d accounting firms; = 0 otherwise.

SUBS Number of subsidiaries disclosed in financial statements.

SUBSUS Binary variable: = 1 if company possesses at least one subsidiary based on the US; = 0 otherwise.

Sources: Postal questionnaire and companies' annual report and accounts in 1992.

Notes:

- ^a Unaffiliated refers to non-executives who are not also executives of other companies within the same group (e.g. subsidiary or parent).
- ^b Ex-executive refers to non-executives who have previously served as executives of the company or as executives of an affiliated company (e.g. subsidiary or parent).
- ^c Affiliated CEO refers to instances where the CEO served as an executive of an affiliated company (e.g. subsidiary or parent) immediately prior to present appointment.
- ^d The 'big six' accounting firms in 1992 were Arthur Andersen, Coopers and Lybrand, Deloitte and Touche, Ernst and Young, KPMG and Price Waterhouse.

premium income from both insurance sources. I also include a measure of the per cent growth in premium income between 1991 and 1992. I also include information on the number of subsidiary companies owned by each company as well as indicating whether companies possessed a US-based subsidiary (subsidiaries).

An important objective of the questionnaire was to obtain insights into the composition of each company's main board of directors and the utilisation and composition of audit and remuneration committees by companies. Group two of table 7.2 provides summary statistics for the board characteristics. Boards in the sample possessed an average of 8.69 directors, 5.46 of which were non-executives. The proportion of directors that were non-executive is 59.9 per cent. While piloting the questionnaire, it became apparent that a number of non-executive board members in subsidiary companies were either executives of the parent company or another company in the same corporate group, or were former executives of the company. As a result, it was felt that the questionnaire should seek to distinguish these non-executives from directors who had no affiliation with the company. Consequently, the questionnaire categorised non-executive board members as being 'affiliated' or 'unaffiliated' depending on whether they are executives of another group company or not. In the sample of companies, an average of 4.1 directors are unaffiliated making a percentage of unaffiliated directors of 40.48 per cent. Furthermore, an average of 1.04 directors were former executives of the companies in which they are now non-executives. This represents 15.52 per cent of all board members. 15 per cent of companies in the sample have the same individual occupying the positions of company chairman and CEO.

39.8 per cent of companies in the sample possessed an audit committee in 1992 while 39 per cent possessed a remuneration committee. Group three on table 7.2 provides summary statistics on the membership of these two board sub-committees. Audit committees in our sample have been established an average of 5.9 years while remuneration committees have been in existence for 10.778

Table 7.2 - Descriptive Statistics

| Variables | Mean | Median | St. Dev. | Minimum | Maximum | No. |
|--|----------|---------|----------|---------|-----------|-----|
| 1. <u>Organisational and financial Characteristics</u> | | | | | | |
| MUTUAL | 0.350 | 0.0 | 0.479 | 0.0 | 1.0 | 123 |
| SUBSID | 0.585 | 1.0 | 0.495 | 0.0 | 1.0 | 123 |
| OSPAR | 0.431 | 0.0 | 0.497 | 0.0 | 1.0 | 123 |
| GENCO | 0.423 | 0.0 | 0.496 | 0.0 | 1.0 | 123 |
| LIFECO | 0.317 | 0.0 | 0.467 | 0.0 | 1.0 | 123 |
| COMPCO | 0.260 | 0.0 | 0.441 | 0.0 | 1.0 | 123 |
| GENINV (£m) | 409.000 | 33.000 | 1250.000 | 0.0 | 7060.000 | 123 |
| LIFEINV (£m) | 2700.000 | 150.000 | 6300.000 | 0.0 | 48000.000 | 123 |
| TOTINV (£m) | 3200.000 | 320.000 | 6900.000 | 3.000 | 50000.000 | 123 |
| %INCINV | 23.759 | 17.822 | 44.530 | -52.6 | 352.9 | 123 |
| GENPREM (£m) | 220.000 | 13.000 | 680.000 | 0.0 | 3800.000 | 123 |
| LIFEPREM (£m) | 380.000 | 21.000 | 880.000 | 0.0 | 7200.000 | 123 |
| TOTPREM (£m) | 600.000 | 88.000 | 1300.000 | 1.100 | 8300.000 | 123 |
| %INCPREM | 28.492 | 16.075 | 43.765 | -28.3 | 319.3 | 123 |
| 2. <u>Board Characteristics</u> | | | | | | |
| DIRS | 8.691 | 8.0 | 3.275 | 2.0 | 17.0 | 123 |
| NONEXEC | 5.463 | 5.0 | 3.388 | 0.0 | 15.0 | 123 |
| %NONEXEC | 59.928 | 66.667 | 25.571 | 0.0 | 100.0 | 123 |
| UNAFFIL | 4.106 | 3.0 | 3.806 | 0.0 | 15.0 | 123 |
| %UNAFFIL | 40.479 | 42.857 | 32.494 | 0.0 | 100.0 | 123 |
| EXEXEC | 1.041 | 0.0 | 1.544 | 0.0 | 9.0 | 123 |
| %EXEXEC | 15.522 | 0.0 | 24.116 | 0.0 | 100.0 | 123 |
| BOSS | 0.154 | 0.0 | 0.363 | 0.0 | 1.0 | 123 |
| ACOMM | 0.398 | 0.0 | 0.492 | 0.0 | 1.0 | 123 |
| RCOMM | 0.390 | 0.0 | 0.490 | 0.0 | 1.0 | 123 |

| Variables | Mean | Median | St. Dev. | Minimum | Maximum | No. |
|---|--------|--------|----------|---------|---------|-----|
| <u>3. Board Sub-Committee Characteristics</u> | | | | | | |
| 3.1 Audit Committee | | | | | | |
| AYEARS | | | | | | |
| AMEMBER | 5.911 | 5.0 | 5.282 | 1.0 | 25.0 | 45 |
| ADIRECTOR | 4.122 | 4.0 | 1.364 | 2.0 | 10.0 | 49 |
| ANONEXEC | 3.837 | 4.0 | 1.143 | 1.0 | 7.0 | 49 |
| A%NONEXEC | 3.327 | 3.0 | 1.329 | 0.0 | 7.0 | 49 |
| AUNAFIL | 85.544 | 100.0 | 24.275 | 0.0 | 100.0 | 49 |
| A%UNAFIL | 3.082 | 3.0 | 1.512 | 0.0 | 7.0 | 49 |
| ANECHAIR | 79.830 | 100.0 | 30.946 | 0.0 | 100.0 | 49 |
| AUNAFCHAIR | 0.898 | 1.0 | 0.306 | 0.0 | 1.0 | 49 |
| | 0.857 | 1.0 | 0.354 | 0.0 | 1.0 | 49 |
| 3.2 Remuneration Committee | | | | | | |
| RYEARS | | | | | | |
| RMEMBER | 10.778 | 6.0 | 18.392 | 1.0 | 112.0 | 45 |
| RDIRECTOR | 4.447 | 4.0 | 1.639 | 2.0 | 11.0 | 47 |
| RNONEXEC | 4.319 | 4.0 | 1.695 | 0.0 | 11.0 | 47 |
| R%NONEXEC | 3.723 | 4.0 | 1.790 | 0.0 | 10.0 | 47 |
| RUNAFIL | 82.144 | 100.0 | 24.977 | 0.0 | 100.0 | 47 |
| R%UNAFIL | 3.553 | 3.0 | 1.965 | 0.0 | 10.0 | 47 |
| RNEXCHAIR | 80.307 | 95.455 | 26.763 | 0.0 | 100.0 | 47 |
| RUNAFCHAIR | 0.872 | 1.0 | 0.337 | 0.0 | 1.0 | 47 |
| | 0.862 | 1.0 | 0.383 | 0.0 | 1.0 | 46 |

| Variables | Mean | Median | St. Dev. | Minimum | Maximum | No. |
|---------------------------------------|---------|---------|----------|---------|----------|-----|
| 4. <u>CEO Characteristics</u> | | | | | | |
| CEOYEARS | 5.480 | 4.0 | 5.170 | 1.0 | 24.0 | 123 |
| CEOINT | 0.582 | 1.0 | 0.495 | 0.0 | 1.0 | 122 |
| CEOPRIOR | 9.010 | 3.0 | 11.174 | 0.0 | 38.0 | 121 |
| CEOAFFIL | 0.171 | 0.0 | 0.378 | 0.0 | 1.0 | 123 |
| HPDSAL (£000) | 144.135 | 128.950 | 112.202 | 1.200 | 769.390 | 104 |
| 5. <u>Auditor-Client Relationship</u> | | | | | | |
| AUDFEE (£000) | | | | | | |
| AUDYEARS | 253.376 | 70.871 | 472.239 | 3.000 | 2518.000 | 119 |
| NONAUDIT | 20.445 | 10.0 | 28.756 | 0.0 | 157.0 | 119 |
| ACCOUNT | 0.846 | 1.0 | 0.363 | 0.0 | 1.0 | 123 |
| ACTUAR | 0.160 | 0.0 | 0.368 | 0.0 | 1.0 | 119 |
| MANAGE | 0.084 | 0.0 | 0.279 | 0.0 | 1.0 | 119 |
| CORPFIN | 0.227 | 0.0 | 0.421 | 0.0 | 1.0 | 119 |
| TAX | 0.034 | 0.0 | 0.181 | 0.0 | 1.0 | 119 |
| MISC | 0.714 | 1.0 | 0.454 | 0.0 | 1.0 | 119 |
| NOMAS | 0.176 | 0.0 | 0.383 | 0.0 | 1.0 | 119 |
| BIGSIX | 1.395 | 1.0 | 0.985 | 0.0 | 5.0 | 119 |
| SUBS | 0.810 | 1.0 | 0.394 | 0.0 | 1.0 | 121 |
| SUBUS | 7.377 | 3.0 | 17.018 | 0.0 | 153.0 | 122 |
| | 0.148 | 0.0 | 0.356 | 0.0 | 1.0 | 122 |

years on average. It is interesting to note that insurance companies appear to have had audit and remuneration committees in place well before the renewed interest in the establishment of such committees at the beginning of the 1990s (Cadbury, 1992; Cadbury, 1995). Both types of committee possess around four members, 85 per cent of whom are non-executive directors. In around 90 per cent of committees, the chairman is a non-executive director (and also typically an unaffiliated non-executive). Group four of table 7.2 provides some information on the characteristics of CEOs in our sample. On average, CEOs have been in their present positions for 5.48 years, ranging from appointments made during 1992 to a maximum tenure of 24 years. 58 per cent of CEOs were appointed from within their own companies - having served an average 9 years in the company prior to their present appointment. 17 per cent of CEOs were appointed from other companies within the same corporate group. I obtained information of CEO salaries from the company's annual report and accounts in 1992. In 1992, the highest paid directors in the sample earned an average salary of £144,135.

Group five of table 7.2 provides information on the relationship between companies in the sample and their statutory auditors. Companies in the sample paid an average audit fee of £253,376 ranging from a minimum of £3,000 to a maximum of £2,518,000. Companies have been with their auditors for an average of 20.445 years with one particular company being audited by the same accounting firm for 157 years. 84.5 per cent of companies in the sample also utilise their auditors for non-audit work. The questionnaire also sought information on the type(s) of non-audit work provided by auditors. For example, 16 per cent of companies use their auditors for account preparation work, 8.4 per cent for actuarial work, 22.7 per cent for management consulting, 3.4 per cent for corporate finance, 71.4 per cent for taxation and 17.6 per cent for work not covered by one the previous six categories. 81 per cent of companies in the sample employ auditors who are one of the 'big six' accounting firms.

7.2 THE GOVERNANCE ENVIRONMENT

An important objective of this study is to investigate whether proprietary and mutual companies exhibit different internal governance characteristics. Table 7.3 presents univariate comparisons between mutual and proprietary companies utilising the entire sample as well as comparisons for independent companies only. In terms of board size and composition, mutual companies possess larger boards and utilise a significantly greater proportion of both non-executive and unaffiliated directors than their proprietary counterparts. When the subsidiary companies are eliminated, mutual companies continue to show a greater non-executive and unaffiliated board representation than proprietary companies but there is no difference in board size. The difference in non-executive representation between mutual and proprietary companies provides support for the notion that mutual companies seek to compensate for weak ownership control by possessing stronger internal governance through the board of directors. In addition to the greater emphasis on non-executive directors by mutuals, these findings also suggest a far greater utilisation of non-executive directors by the insurance companies compared to quoted companies. For example, the data examined in chapters five and six of this thesis suggests that quoted companies possessed an average non-executive representation of about 41 per cent in 1992. The figures presented in table 7.3 shows corresponding figures of 73.2 per cent (mutuals) and 61.5 per cent (proprietary) for insurance companies. Table 7.3 shows some significant differences between mutual and proprietary companies in relation to the CEO variables when examining the whole sample. Mutuals are more likely to employ CEOs from their existing personnel and such appointees are likely to have more prior experience in the company than their counterparts in proprietary companies. However, when I examine independent companies only, none of these differences are significant.

Table 7.4 compares the presence and composition of board sub-committees between proprietary and mutual companies. Looking at the whole sample, mutuals have a higher proportion of both audit and remuneration committees than proprietary companies. However, when the subsidiary companies are

Table 7.3 - Internal governance comparisons between mutual and proprietary insurance companies.

| Variables | All companies (n=123) | | | Independent companies (n=51) | | |
|-----------|------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|--------------------------------|
| | Mutual Mean n=43 | Proprietary Mean n=80 | Means difference t-value | Mutual Mean n=32 | Proprietary Mean n=19 | Means difference t-value |
| DIRS | 10.279 | 7.838 | 4.342** | 10.844 | 10.526 | 0.321 |
| %NONEXEC | 68.741 | 55.191 | 4.478** | 73.120 | 61.495 | 1.849* |
| %UNAFFIL | 58.291 | 30.905 | 2.792** | 68.839 | 56.700 | 1.744* |
| %EXEXEC | 5.593 | 20.666 | -3.911** | 3.050 | 7.257 | -1.173 |
| BOSS | 0.093 | 0.188 | -1.506 | 0.031 | 0.053 | -0.349 |
| CEOTENURE | 6.140 | 5.125 | 1.025 | 6.156 | 5.316 | 0.613 |
| CEOINT | 0.767 | 0.481 | 3.319** | 0.781 | 0.737 | 0.348 |
| CEOPRIOR | 13.233 | 6.683 | 3.071** | 15.031 | 12.472 | 0.657 |
| CEOAFFIL | 0.047 | 0.238 | -3.301** | | | |
| ACOMM | 0.581 | 0.300 | 3.061** | 0.688 | 0.684 | 0.024 |
| RCOMM | 0.651 | 0.250 | 4.548** | 0.844 | 0.579 | 1.985* |

** Significant at 1%

* Significant at 10%

Table 7.4 - Characteristics of board sub-committees in mutual and proprietary independent companies

| Variables | Mutual Mean | Proprietary Mean | Means difference t-value |
|--------------------------------|------------------------|-----------------------------|-------------------------------------|
| <u>Audit Committee:</u> | n=22 | n=10 | |
| A YEARS | 6.136 | 6.600 | -0.289 |
| AMEMBER | 4.500 | 3.769 | 1.712* |
| A%NONEXEC | 90.152 | 95.897 | -1.234 |
| A%UNAFIL | 91.970 | 91.282 | 0.094 |
| ANEXCHAIR | 1.0 | 0.923 | 1.000 |
| AUNAFCHAIR | 1.0 | 0.846 | 1.477 |
| <u>Remuneration Committee:</u> | n=27 | n=9 | |
| RYEARS | 12.333 | 8.667 | 0.788 |
| RMEMBER | 4.185 | 5.400 | -1.579 |
| R%NONEXEC | 85.463 | 90.162 | -0.793 |
| R%UNAFIL | 88.750 | 90.162 | -0.282 |
| ANEXCHAIR | 0.963 | 0.900 | 0.590 |
| AUNAFCHAIR | 0.926 | 0.900 | 0.231 |

*Significant at 10%

Table 7.5 - Characteristics of the auditor-client relationship in mutual and proprietary insurance companies.

| Variables | All companies (n=119) | | | Independent companies (n=48) | | |
|-----------|------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|--------------------------------|
| | Mutual Mean n=43 | Proprietary Mean n=76 | Means difference t-value | Mutual Mean n=32 | Proprietary Mean n=16 | Means difference t-value |
| AUDYEARS | 34.581 | 12.447 | 3.458** | 42.969 | 14.813 | 3.357** |
| NONAUDIT | 0.791 | 0.875 | -1.155 | 0.906 | 0.842 | 0.637 |
| ACCOUNT | 0.209 | 0.132 | 1.051 | 0.219 | 0.250 | -0.233 |
| ACTUAR | 0.069 | 0.092 | -0.433 | 0.094 | 0.0 | 1.791* |
| MANAGE | 0.116 | 0.289 | -2.404** | 0.156 | 0.563 | -2.836** |
| CORPFIN | 0.047 | 0.026 | 0.540 | 0.031 | 0.063 | -0.447 |
| TAX | 0.698 | 0.724 | -0.297 | 0.750 | 0.563 | 1.251 |
| MISC | 0.209 | 0.158 | 0.680 | 0.281 | 0.250 | 0.227 |
| NOMAS | 1.349 | 1.421 | -0.381 | 1.531 | 1.688 | -0.427 |
| BIGSIX | 0.767 | 0.833 | -0.847 | 0.781 | 0.789 | -0.068 |

** Significant at 1%.

* Significant at 10%.

excluded, a significant difference remains only in respect of remuneration committees. 84.4 per cent of independent mutual companies utilise a remuneration committee compared to 57.9 per cent of proprietary companies. 68 per cent of independent companies (both mutual and proprietary) possess an audit committee. Table 7.4 compares the composition of both committees for independent mutual and proprietary companies. With the exception of size, there is very little difference in the committees' characteristics between the two corporate types. However, remuneration committees in mutual companies are typically larger (4.5 members) than corresponding committee in proprietary companies.

Table 7.5 compares characteristics of the auditor-client relationship between mutual and proprietary companies. Mutual companies appear to have longer relationships with their auditors than proprietary companies - the significant difference persists for both the whole sample and the independent sub-sample. No significant differences are identified in respect of the provision of non-audit services with the exception of management consulting services. Independent proprietary companies are more likely to employ their auditors to provide management consulting than their mutual counterparts. Both mutual and proprietary companies are equally likely to employ 'big six' auditors.

Table 7.6 presents Pearson correlations between the governance variables. Similar to the correlations presented in respect of quoted companies and takeover targets in chapters five and six, correlations are useful in helping to understand the interrelationship between different governance mechanisms employed by companies. Table 7.6 examines correlations in the whole sample of insurance companies, including correlations with subsidiary and parentage information. Mutuality is negatively correlated with subsidiary status and the proportion of former executives serving as non-executives. Mutuality is positively related to board size, the proportion of both non-executive and unaffiliated directors and the presence of board sub-committees. The negative association with

Table 7.6 - Pearson correlations amongst the governance variables (n=123 insurance companies).

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-----|
| 1. MUTUAL | 1.0 | | | | | | | | | |
| 2. SUBSID | -0.490 | 1.0 | | | | | | | | |
| 3. OSPAR | -0.397 | 0.732 | 1.0 | | | | | | | |
| 4. DIRS | 0.357 | -0.525 | -0.491 | 1.0 | | | | | | |
| 5. %NONEXEC | 0.235 | -0.272 | -0.194 | 0.285 | 1.0 | | | | | |
| 6. %UNAFFIL | 0.404 | -0.620 | -0.532 | 0.557 | 0.601 | 1.0 | | | | |
| 7. %EXEXEC | -0.292 | 0.382 | 0.325 | -0.394 | 0.120 | -0.460 | 1.0 | | | |
| 8. BOSS | -0.125 | 0.268 | 0.173 | -0.229 | -0.395 | -0.330 | 0.037 | 1.0 | | |
| 9. ACOMM | 0.274 | -0.495 | -0.473 | 0.561 | 0.195 | 0.403 | -0.249 | -0.210 | 1.0 | |
| 10. RCOMM | 0.392 | -0.612 | -0.561 | 0.566 | 0.202 | 0.529 | -0.328 | -0.204 | 0.643 | 1.0 |

Correlations of ± 0.23 and 0.18 are significant at 1% and 5% respectively.

subsidiary status is expected since subsidiary companies are largely organised on proprietary lines. The negative association with the utilisation of ex-executives as non-executives is interesting. This suggests that mutuals are anxious to have non-executives who possess no existing relationship with the business and presumably, are thereby more inclined to act independently from management. The positive relationship between mutuality and non-executive and unaffiliated non-executives reinforces the notion that mutuals are anxious to ensure that the board has a significant independent presence. This is also supported by the positive correlation between mutuality and the existence of a remuneration committee.

Both subsidiary status and overseas parentage is associated with smaller boards of directors, lower proportions of both non-executive and unaffiliated directors, a greater proportion of ex-executives serving as non-executives, less likelihood of CEO duality and less likely to possess board sub-committees. The negative correlation with non-executive and unaffiliated directors is anticipated since subsidiary boards are likely to contain members from the board of their parent organisation. Subsidiary companies are also less likely to possess separate board sub-committees that are more likely to be in existence at the parent company level. Board size is positively correlated with the proportion of both non-executive and unaffiliated directors as well as with the presence of audit and remuneration committees. This is interesting since it suggests that boards grow in size to facilitate more independent members - this evidence suggests that higher non-executive and unaffiliated representation is facilitated by adding additional directors rather than replacing executive directors with non-executives. Board size is negatively correlated with the use of ex-executives and the likelihood of CEO duality. Non-executive representation is negatively correlated with CEO duality and positively associated with board sub-committees. This suggests that the presence of a greater proportion of non-executives directors may influence both the existence of board sub-committees and the discouragement of CEO duality.

Table 7.7 - Pearson correlations amongst the governance variables (n=51 independent companies).

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|--------|--------|--------|--------|--------|--------|-------|-----|
| 1. MUTUAL | 1.0 | | | | | | | |
| 2. DIRS | 0.051 | 1.0 | | | | | | |
| 3. %NONEXEC | 0.261 | 0.232 | 1.0 | | | | | |
| 4. %UNAFFIL | 0.246 | 0.222 | 0.747 | 1.0 | | | | |
| 5. %EXEXEC | -0.204 | 0.178 | -0.132 | -0.071 | 1.0 | | | |
| 6. BOSS | -0.053 | -0.314 | -0.235 | -0.174 | -0.094 | 1.0 | | |
| 7. ACOMM | 0.003 | 0.398 | -0.109 | 0.017 | 0.033 | -0.081 | 1.0 | |
| 8. RCOMM | 0.294 | 0.362 | -0.032 | 0.065 | 0.114 | -0.114 | 0.574 | 1.0 |

Correlations \pm 0.370 and 0.280 are significant at 1% and 5% respectively.

Table 7.7 presents the results of similar correlations for the 51 independent companies in the sample. Mutuality is positively correlated with both the proportion of non-executive directors and the proportion of unaffiliated directors and negatively correlated with the proportion of former executives on the board. However, these three correlations are slightly insignificant. Mutuality is positively and significantly correlated with the existence of a remuneration committee. This evidence is consistent with mutual companies possessing stronger board governance than proprietary companies and providing some support for the notion that board governance and organisational structure are substitutes in the insurance industry. There is also a significant and negative correlation between board size and CEO duality and a marginally insignificant correlation between the proportion of non-executives and CEO duality. This suggests that larger and more independent boards are associated with a separation in the roles of CEO and chairman.

7.3 THE IMPACT OF GOVERNANCE ON PERFORMANCE

Central to the corporate governance debate is a desire to ensure that companies are administered in the interests of owners rather than in the interests of managers. In this sense, it is reasonable that researchers are interested in investigating the impact of different governance mechanisms on company behaviour. The objective of this section of the study is to investigate the impact of governance characteristics on the performance of UK insurance companies. When examining the full sample of companies, the Pearson correlation coefficients in table 7.6 identify strong intercorrelations between many of the internal and external governance mechanisms utilised by UK insurance companies. This suggests that certain mechanisms of governance tend to be adopted together and consequently are strongly correlated with each other. For example, we find that non-executive directors and the presence of board sub-committees are strongly correlated (correlations exceeding 0.5). This evidence suggests that, rather than examining the impact of individual mechanisms on performance, it may be more insightful to reduce the mechanisms examined into a smaller set of independent factors. In order to facilitate this I undertook a factor analysis of the

fourteen governance instruments. The extraction method utilised principal-components analysis with the varimax rotation to derive three orthogonal factors that together explained almost 60 per cent of the cumulative variance of the variables under analysis.

Table 7.8 reports the loadings for the three factors on each of the fourteen governance instruments. The loadings can be interpreted as weights that reflect the unique variance each factor contributes to the original variables, and are the key to understanding the meaning of each factor. The results presented in table 7.8 show that the governance instruments analysed in this study can be grouped into three uncorrelated categories, which can be interpreted loosely as: the extent of formal governance, board composition and leadership, and the appointment of the CEO. Factor 1 (which accounts for 34.5 per cent of the cumulative variance) loads most heavily on those instruments that constitute the more formal aspects of governance, including mutual status (+), subsidiary status (-), overseas parentage (-), and the existence of audit and remuneration committees (+). Factor 2 (which accounts for 14.5 per cent of the cumulative variance) loads most heavily on those instruments that represent the influence of non-executive directors, including the proportion of non-executive and unaffiliated directors (+), CEO/chair duality (-) and the presence of a non-executive chairman (+). Factor 3 (which accounts for 10.7 per cent of the cumulative variance) loads on characteristics concerning the appointment of the CEO, including whether the CEO was an internal appointment (+), the CEO's prior service in the company (+), and whether the CEO was appointed from an affiliated company (-).

Table 7.9 presents the results of three multivariate regressions utilised to investigate the impact of the three governance factors on company performance. Since most of the insurers in our sample are not quoted companies (many being mutual or subsidiaries), I use accounting rather than market measures of performance. Furthermore, the fact that mutual insurers do not report accounting profits means that alternative indicators of performance must be utilised. In order to differentiate the

Table 7.8 - Factor analysis of governance instruments for 123 UK insurance companies.

Factor Interpretation:

- Factor 1 Formal governance
- Factor 2 Board composition and leadership
- Factor 3 CEO appointment

Varimax Rotated Factor Matrix:

| Variables | Factor 1 | Factor 2 | Factor 3 |
|-----------|----------|----------|----------|
| MUTUAL | 0.607 | 0.059 | 0.185 |
| SUBSID | -0.804 | -0.175 | -0.246 |
| OSPAR | -0.753 | -0.125 | -0.241 |
| %NONEXEC | 0.274 | 0.756 | -0.159 |
| %UNAFFIL | 0.709 | 0.462 | 0.079 |
| %EXEXEC | -0.598 | 0.237 | -0.096 |
| BOSS | -0.097 | -0.722 | -0.219 |
| NEXCHA | 0.142 | 0.815 | -0.080 |
| ACOMM | 0.663 | 0.141 | 0.060 |
| RCOMM | 0.773 | 0.089 | 0.187 |
| CEOYEARS | 0.286 | -0.462 | -0.267 |
| CEOINT | 0.174 | -0.030 | 0.873 |
| CEOPRIOR | 0.215 | 0.060 | 0.809 |
| CEOAFFIL | -0.308 | -0.065 | -0.647 |

| Variables | Communality | Factor | Eigen value | % of variance | Cumulative % |
|-----------|-------------|--------|-------------|---------------|--------------|
| MUTUAL | 0.406 | 1 | 4.824 | 34.457 | 34.457 |
| SUBSID | 0.738 | 2 | 2.031 | 14.509 | 48.967 |
| OSPAR | 0.640 | 3 | 1.499 | 10.709 | 59.676 |
| %NONEXEC | 0.672 | | | | |
| %UNAFFIL | 0.722 | | | | |
| %EXEXEC | 0.432 | | | | |
| BOSS | 0.578 | | | | |
| NEXCHA | 0.690 | | | | |
| ACOMM | 0.463 | | | | |
| RCOMM | 0.640 | | | | |
| CEOYEARS | 0.366 | | | | |
| CEOINT | 0.794 | | | | |
| CEOPRIOR | 0.704 | | | | |
| CEOAFFIL | 0.518 | | | | |

Table 7.9 - Ordinary least squares regressions of the influence of governance instruments on the performance of UK insurance companies.

| Variables | Dependent variable = % increase in total investments in 1992 | | | Dependent variable = % increase in premium income in 1992 | | | Dependent variable = log of the highest paid director's salary in 1992 | | |
|----------------|--|---------|---------|---|---------|---------|--|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| Factor 1 | -5.440 | -1.219 | 0.225 | -3.079 | -0.691 | 0.491 | 0.066 | 1.846 | 0.068 |
| Factor 2 | -2.956 | -0.724 | 0.470 | -3.334 | 0.826 | 0.411 | -0.041 | -1.218 | 0.226 |
| Factor 3 | -4.748 | -1.114 | 0.268 | -1.868 | -0.433 | 0.666 | -0.046 | 1.378 | 0.171 |
| GENCOSP | 5.677 | 0.469 | 0.640 | -9.406 | -0.719 | 0.474 | 0.329 | 3.135 | 0.002 |
| LIFECOSP | 26.963 | 2.470 | 0.015 | 14.236 | 1.335 | 0.184 | 0.089 | 1.097 | 0.275 |
| LogTOTPRE | 2.494 | 0.398 | 0.691 | | | | | | |
| LogTOTINV | | | | -11.730 | -1.862 | 0.065 | 0.299 | 5.787 | 0.000 |
| Constant | -7.044 | -0.131 | 0.896 | 128.418 | 2.212 | 0.029 | 2.286 | 4.780 | 0.000 |
| F-statistic | 1.532 | | 0.174 | 1.459 | | 0.198 | 11.691 | | 0.425 |
| R ² | | | 0.075 | | | 0.071 | | | 0.425 |
| Observations | | | 120 | | | 120 | | | 101 |

impact of the governance factors on different aspects of company performance, I utilise three different performance indicators. In model I, performance is represented by the percentage increase in total investments between 1991 and 1992. This is used to represent 'owner-orientated' performance since policyholders will benefit from increases in the value of the company's investments. An increase in insurance investments is achieved when revenue (premiums, investment income and capital appreciation) exceeds expenses (claims, commission, administration expenses and taxation). In the case of composite insurance companies, the percentage increase in general and life investments are combined to avoid the problems arising from the artificial allocation of costs between the two classes of business (Young, 1990). In model II, performance is represented by the percentage increase in premium income between 1991 and 1992. This measure of performance is expected to be more 'manager-orientated' since corporate growth is frequently seen as an important objective of opportunistic managers (Marris, 1964). Finally, in model III, performance is measured by the remuneration of the highest paid director. Executive remuneration is used since it is expected to represent a direct measure of 'manager-orientated' performance.

As discussed earlier, factor 1 represents formal governance characteristics. Model I shows that this factor has an overall negative impact on investment growth, though the impact is not significant. In model II the impact is also negative but again, insignificant. However, factor 1 does exert a positive and significant impact on highest paid director's salary. This evidence suggests that, while individual components of factor 1 may impact performance, when taken together, the overall impact is not observable. This is also consistent with the notion of governance being a series of complements and substitutions with each company emphasising different mechanisms to suit their specific monitoring requirements. The finding that formal governance is associated with higher director remuneration is consistent with recent evidence from UK quoted companies suggesting, for example, that the presence of remuneration committees are associated with higher remuneration (Conyon and Peck, 1998). Factor 2 includes the role of non-executive directors. This factor exerts a

negative impact on all three of the performance measures but is significant in none of the models. Factor 3, which focuses on the characteristics of the CEO's appointment, also exerts a negative but insignificant influence on the three performance measures. I also include binary variables indicating whether companies are general or life insurance specialists in the three regressions. Life specialists return a greater increase in investments while general insurance specialists pay greater remuneration to their highest paid director. To control for the impact of company size, I also include size variables in the regressions. Size (measured by the log of premium income) does not exert a significant impact on investment growth. Size (measured by the log of total investments) has a negative and significant impact on premium growth. This is expected since larger companies are expected to grow at a slower rate than smaller companies. In model III, larger companies (measured by the log of total investments) seem to pay their highest paid director significantly more than smaller companies. Again, this finding is expected since research on quoted companies consistently identifies size as the most important determinant of executive remuneration (Conyon and Gregg, 1995).

A potential difficulty in seeking to understand the impact of governance mechanisms in UK insurance companies is the large number of subsidiary companies that exist. In the sample of 123 companies for example, 72 are subsidiaries. The inclusion of subsidiary companies is problematic since their governance characteristics may not be compatible with independent companies and hence their inclusion alongside independent companies may provide unreliable findings regarding the relationship between governance and performance. Consequently, in order to examine the impact of governance mechanisms on performance without the potential distortion of subsidiary companies, I repeat the regressions presented in table 7.9 but focussing only on independent companies. The exclusion of subsidiaries also significantly reduces the degree of intercorrelations between the variables, allowing me to include specific governance mechanisms in the subsequent regressions. However, I exclude variables %UNAFFIL and ACOMM from the regressions as they are highly correlated with %NONEXEC and RCOMM respectively (table 7.7).

Table 7.10 presents results of three regressions examining the impact of individual governance variables on three measures of performance. In model I, none of the governance variables has a significant impact on increases in investment. In model II, mutuality is associated with lower premium growth while life business only is associated with higher premium growth. If premium growth is perceived as representing 'manager-orientated' performance, the evidence from model II suggests that mutuals serve to restrain managerialism. In model II, mutuality exerts a significant and negative impact on the highest paid director's pay. Again this is consistent with the notion that mutuals restrain managerialism by restricting the amount of perquisites that executives enjoy. Consistent with the findings of Conyon and Peck (1998) in the case of quoted companies, the existence of a remuneration committee exerts a positive and significant influence on the highest paid director's salary. General insurance specialists pay their highest paid director significantly higher remuneration than other insurers. The results from model III also confirm the important influence of company size on executive remuneration. Total investments exert a positive and significant influence on the level of the highest paid director's salary. This confirms a number of studies of quoted companies that consistently suggest that executive remuneration is influenced by size rather than performance.

One of the interesting findings from the multiple regressions concerning executive remuneration is the impact of remuneration committees on the highest paid director's salary. In order to obtain further insights into this relationship, I decided to examine specifically the role of remuneration committee characteristics on executive remuneration in independent companies possessing a remuneration committee. The results of this investigation are presented in table 7.11. In the first regression, I examine the impact of traditional governance mechanisms on the level of remuneration received by the highest paid director in these companies. Consistent with the previous results, mutuality exerts a negative and significant impact on the level of pay. Similarly, company size and the fact that companies are specialist general insurers, exert a positive influence on remuneration.

Table 7.10 - Ordinary least squares regressions of the influence of governance instruments on the performance of independent UK insurance companies.

| Variables | Dependent variable = % increase in total investments in 1992 | | | Dependent variable = % increase in premium income in 1992 | | | Dependent variable = log of the highest paid director's salary in 1992 | | |
|----------------|--|---------|---------|---|---------|---------|--|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -2.675 | -0.511 | 0.612 | -18.858 | -2.206 | 0.033 | -0.201 | -2.770 | 0.009 |
| %NONEXEC | -0.112 | -1.070 | 0.291 | -0.082 | -0.468 | 0.642 | -0.001 | -0.665 | 0.511 |
| %EXEXEC | -0.111 | -0.492 | 0.625 | -0.403 | -1.089 | 0.282 | -0.003 | -0.896 | 0.377 |
| BOSS | -1.600 | -0.142 | 0.888 | 1.797 | 0.095 | 0.925 | 0.007 | 0.046 | 0.963 |
| RCOMM | 8.559 | 1.494 | 0.143 | -1.607 | -0.176 | 0.861 | 0.203 | 2.203 | 0.035 |
| CEOYEARS | | | | | | | 0.003 | 0.341 | 0.735 |
| GENCOSP | 3.214 | 0.463 | 0.646 | 4.333 | 0.315 | 0.755 | 0.218 | 1.754 | 0.089 |
| LIFECOSP | 3.177 | 0.588 | 0.560 | 18.104 | 2.041 | 0.048 | -0.034 | -0.410 | 0.684 |
| LogTOTPREM | 2.761 | 0.882 | 0.383 | | | | | | |
| LogTOTINV | | | | -0.152 | -0.028 | 0.978 | 0.151 | 3.011 | 0.005 |
| Constant | -6.686 | -0.232 | 0.818 | 31.865 | 0.567 | 0.574 | 3.838 | 7.364 | 0.000 |
| F-statistic | 1.073 | | 0.400 | 1.245 | | 0.298 | 4.095 | | 0.001 |
| R ² | | | 0.170 | | | 0.192 | | | 0.528 |
| Observations | | | 50 | | | 50 | | | 42 |

Table 7.11 - Ordinary least squares regressions of the influence of remuneration committee characteristics on executive remuneration in independent UK insurance companies (only includes companies possessing a remuneration committee in 1992).

| Variables | Model I | | | Model II | | |
|----------------|-------------|---------|---------|-------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.174 | -2.350 | 0.026 | -0.219 | -3.234 | 0.004 |
| %NONEXEC | -0.005 | -2.095 | 0.046 | | | |
| BOSS | -0.196 | -0.971 | 0.340 | | | |
| CEOYEARS | 0.007 | 0.933 | 0.359 | 0.009 | 1.284 | 0.212 |
| GENCOSP | 0.304 | 2.374 | 0.025 | 0.487 | 4.073 | 0.000 |
| LIFECOSP | -0.049 | -0.593 | 0.558 | -0.036 | -0.535 | 0.598 |
| LogTOTINV | 0.198 | 3.935 | 0.001 | 0.207 | 4.712 | 0.000 |
| RNEXCHAIR | | | | 0.308 | 1.691 | 0.104 |
| R%NONEXEC | | | | -0.002 | -1.167 | 0.255 |
| RYEARS | | | | -0.005 | -4.043 | 0.000 |
| Constant | 3.797 | 6.887 | 0.000 | 3.301 | 6.132 | 0.000 |
| F-statistic | 6.595 | | 0.000 | 9.189 | | 0.000 |
| R ² | | | 0.631 | | | 0.754 |
| Observations | | | 34 | | | 32 |

However, for this sample of companies, non-executive representation also exerts a negative and significant influence on the highest paid director's salary. This evidence suggests that, in companies possessing a remuneration committee, higher proportions of non-executive representation on the board of directors serves to pay their highest paid executive less than in companies where a remuneration committee exists but possess a lower non-executive presence. In model II, I replace the board composition and leadership variables with variables representing the composition, chairmanship and years since establishment of the remuneration committee. In model II, the negative impact of mutuality, and the positive impacts of general business only and size persist. Neither composition nor leadership of the remuneration committee has a significant impact on remuneration. However, I find that the number of years since the remuneration committee has been established has a negative and significant impact on the pay of the highest paid director. This may indicate that remuneration committees of long standing have put in place more structured models used to reward executives. Similar pay-for-performance mechanisms adopted by companies with more recently established remuneration committees may need further time to be reflected in the performance regressions.

7.4 THE IMPACT OF GOVERNANCE ON AUDIT FEES

In addition to exploring the influence of governance characteristics on performance, I am also anxious to investigate how internal and external governance characteristics influence auditors' pricing decisions in the insurance industry. An investigation of audit pricing in insurance companies is capable of contributing to the existing auditing pricing literature in a number of respects. First, existing research on audit pricing focuses almost exclusively on non-financial companies. There appears therefore, a need to examine whether similar factors influence the determination of audit fees in financial companies. Second, existing research typically examines audit pricing in the context of a cross-section of industrial companies - making no effort to focus on specific industries. Third, existing research focuses on examining the determinants of audit fees in proprietary companies. The

inclusion of mutual companies in my sample will provide an initial insight into auditors' pricing decisions in respect of companies without shareholder owners. Fourth, the availability of additional data concerning the existence and composition of audit committees allows me to examine the impact of audit committee characteristics on audit pricing. Finally, the availability of additional information on the type of non-audit services purchased by companies in my sample allows me to examine whether the nature of non-audit services provided influences audit fees.

Table 7.12 presents results of a regression of governance and other variables on the natural log of audit fees paid by companies in the sample. Since, this regression includes both independent and subsidiary companies, I utilise the same three factors as used in the performance regressions, to represent governance variables. In addition to the three governance factors, I also include variables representing; type of business undertaken, company size (natural log of total premium income), the number of subsidiaries, whether company has a US subsidiary, performance in 1992 (% increase in investments), whether auditor is a member of the 'big six' accounting firms, audit tenure and whether the auditor also provides non-audit services to the company. Even though all three factors exert a negative influence on audit fees, none of the factors has a significant influence. Insurers specialising either in life or general business pay lower fees to their auditors. This finding might indicate that specialist insurers are less complicated to audit and hence are rewarded with a lower fee. I find that company size has a positive impact on audit fees - a finding that is consistent with all previous studies of the determinants of audit fees. This is usually perceived to result from the additional effort (time) spent by auditors in undertaking an audit of a large organisation. The number of subsidiaries has a positive and significant impact on audit fees. The number of subsidiaries is perceived to indicate more complexity and hence a larger audit fee is required. The results fail to identify a significant role for the presence of a US-based subsidiary in influencing the level of audit fees paid by insurance companies.

Table 7.12 - Ordinary least squares regressions explaining the determinants of audit fees in independent UK insurance companies in 1992.

| Variables | All independent companies | | | Independent companies using auditors to do non-audit work | | |
|----------------|---------------------------|---------|---------|---|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.262 | -3.768 | 0.001 | -0.232 | -3.355 | 0.002 |
| %NONEXEC | 0.002 | 1.225 | 0.229 | 0.002 | 1.320 | 0.197 |
| BOSS | 0.287 | 1.767 | 0.086 | 0.233 | 1.153 | 0.258 |
| ACOMM | 0.139 | 1.981 | 0.056 | 0.070 | 1.029 | 0.312 |
| GENCOSP | -0.194 | -2.085 | 0.045 | -0.170 | -1.996 | -0.055 |
| LIFECOSP | -0.275 | -3.573 | 0.001 | -0.319 | -3.940 | 0.000 |
| LogTOTPRE | 0.576 | 9.687 | 0.000 | 0.607 | 10.520 | 0.000 |
| SUBS | 0.003 | 2.142 | 0.040 | 0.006 | 2.011 | 0.054 |
| SUBSUS | -0.173 | -2.109 | 0.043 | -0.193 | -2.504 | 0.018 |
| %INCINV | -0.001 | -0.686 | 0.497 | -0.001 | -0.841 | 0.407 |
| BIGSIX | 0.028 | 0.281 | 0.780 | 0.058 | 0.632 | 0.533 |
| LogAUDYEARS | 0.069 | 1.276 | 0.211 | 0.052 | 1.036 | 0.309 |
| NONAUDIT | 0.125 | 1.072 | 0.291 | | | |
| Constant | 0.210 | 0.417 | 0.679 | 0.070 | 0.145 | 0.886 |
| F-statistic | 46.159 | | 0.000 | 58.302 | | 0.000 |
| R ² | | | 0.948 | | | 0.960 |
| Observations | | | 46 | | | 41 |

Company performance has a negative and significant impact on the audit fee. The possibility of a negative relationship between company performance and audit pricing is interpreted in two ways by the existing literature. On the one hand, some writers see the additional premium charged to companies experiencing financial difficulties as a kind of insurance premium designed to compensate auditors for any future liability/reputation losses sustainable when a poorly performing company fails. On the other hand, some writers explain this relationship in terms of auditors needing to undertake more extensive testing when companies show poor performance in order to ensure that a very thorough audit has been undertaken. My findings provide no evidence that 'big six' auditors charge a premium for audits in the insurance sector as has been reported in a number of studies of non-financial companies. Furthermore, I find no evidence that auditors in the insurance industry pursue differential pricing strategies depending on the length of their relationship with the client. Some writers have produced evidence suggesting that auditors may undertake low-balling - a strategy whereby audits in the first years of a contract are deliberately low and the losses incurred in the earlier years are recovered in later years through more expensive audits. Finally, companies who also employ their auditors to do non-audit work pay higher audit fees. This is consistent with a number of existing studies.

As discussed above, the inclusion of both independent and subsidiary companies in the analysis may present misleading results. For example, the results in table 7.12 imply that audit fees for independent and subsidiary insurers are set similarly. However, it may be the case that a subsidiary company's audit fee represents an arbitrary division of a company's audit fee between its subsidiaries. Consequently, in table 7.13 I present the results of regressions examining the impact of governance and other selected variables on the audit fee paid by independent companies in the sample. I run separate regressions for all independent companies and for companies who use their auditors for non-audit services. In model I, mutuality has a negative and significant impact on audit fees. This finding suggests that auditors incur less cost in auditing mutual companies than

Table 7.13 - Ordinary least squares regression explaining the influence of type of non-audit services on audit fees paid by independent UK insurance companies in 1992.

| Variables | Coefficient | t-value | p-value |
|----------------|-------------|---------|---------|
| MUTUAL | -0.196 | -2.532 | 0.017 |
| BOSS | 0.279 | 1.215 | 0.235 |
| ACOMM | 0.007 | 0.093 | 0.926 |
| GENCOSP | -0.214 | -2.274 | 0.031 |
| LIFECOSP | -0.287 | -3.208 | 0.003 |
| LogTOTPRE | 0.580 | 10.469 | 0.000 |
| SUBS | 0.009 | 2.614 | 0.014 |
| SUBSUS | -0.246 | -2.715 | 0.011 |
| ACCOUNT | -0.152 | -2.087 | 0.046 |
| ACTUAR | -0.073 | -0.662 | 0.514 |
| MANAGE | -0.020 | -0.250 | 0.805 |
| CORPFIN | 0.134 | 0.889 | 0.382 |
| TAX | -0.034 | -0.416 | 0.680 |
| MISC | -0.022 | -0.295 | 0.770 |
| Constant | 0.629 | 1.320 | 0.198 |
| F-statistic | 49.847 | | 0.000 |
| R ² | | | 0.963 |
| Observations | | | 41 |

proprietary companies. This finding suggests that auditors of mutuals are aware of the lower likelihood of their work being investigated (e.g. pursuant to takeovers etc.) compared to audits of proprietary companies. Essentially, auditors may charge a lower insurance component of their fee than proprietary companies. In terms of the board variables, we find some evidence that CEO duality is associated with higher audit fees. This suggests that auditors charge a premium for auditors in companies where one individual possesses significant influence over board deliberations. It is also interesting that the presence of an audit committee is associated with significantly higher fees. This finding is consistent with audit committees introducing greater independence into the auditor-company relationship and this independence is likely to result in audit committees encouraging greater investigation and hence more expensive audits. As expected, company size and the number of subsidiaries both exert a positive impact on audit fees, while the presence of an US-based subsidiary has a negative impact on the audit fee. Business specialism has a negative impact on audit fees – regardless as to whether the company undertakes general or life business. However, it is noticeable that life insurance specialists pay an especially lower fee. When I examine the determinants of audit fees in independent companies that also use their auditors for non-audit work, mutuality, type of business, size, and the subsidiary variables remain significant.

In table 7.14, I re-run model II of table 7.13 but also including the type of non-audit service provided. Only account preparation has a significant impact on the level of audit fee charged. The findings in table 7.14 suggests that auditors charge lower audit fees when they undertake account preparation work for their audit clients. This finding suggests that audits are less expensive when auditors help management to prepare the initial accounts on which the audit is based. Of course, in these circumstances, we would have less intensive audits since the audit is a re-examination of the auditor's own work. None of the other types of non-audit work is significant. Finally, in table 7.15 I include audit committee characteristics to examine whether the characteristics of audit committees influence audit fees. Of the thirty companies possessing an audit committee, I find no support for the

Table 7.14 - Ordinary least squares regression explaining the influence of audit committee characteristics on audit fees paid by independent UK insurance companies in 1992.

| Variables | Coefficient | t-value | p-value |
|------------------|--------------------|----------------|----------------|
| MUTUAL | -0.195 | -1.936 | 0.067 |
| BOSS | -0.015 | -0.060 | 0.953 |
| GENCOSP | -0.381 | -2.801 | 0.011 |
| LIFECOSP | -0.394 | -3.531 | 0.002 |
| LogTOTPRE | 0.578 | 8.976 | 0.000 |
| SUBS | 0.001 | 0.947 | 0.355 |
| SUBSUS | -0.164 | -1.709 | 0.103 |
| ANEXCHAIR | 0.115 | 0.532 | 0.600 |
| A%NONEXEC | -0.005 | -0.160 | 0.874 |
| AYEARS | 0.001 | 0.077 | 0.939 |
| Constant | 0.651 | 1.076 | 0.295 |
| F-statistic | 31.854 | | 0.000 |
| R ² | | | 0.941 |
| Observations | | | 30 |

Table 7.15 Ordinary least squares regression of the determinants of audit fees in a sample of UK insurance companies in 1992.

| Variables | Coefficient | t-value | p-value |
|------------------|--------------------|----------------|----------------|
| Factor 1 | -0.038 | -1.340 | 0.183 |
| Factor 2 | -0.009 | -0.376 | 0.707 |
| Factor 3 | -0.021 | -0.775 | 0.440 |
| GENCOSP | -0.178 | -2.406 | 0.018 |
| LIFECOSP | -0.210 | -3.159 | 0.002 |
| LogTOTPRE | 0.498 | 11.325 | 0.000 |
| SUBS | 0.006 | 3.552 | 0.001 |
| SUBSUS | -0.046 | -0.551 | 0.583 |
| %INCINV | -0.001 | -2.099 | 0.038 |
| BIGSIX | 0.029 | 0.435 | 0.664 |
| LogAUDYEARS | -0.029 | -0.525 | 0.601 |
| NONAUDIT | 0.151 | 2.226 | 0.028 |
| Constant | 0.976 | 2.805 | 0.006 |
| F-statistic | 41.625 | | 0.000 |
| R ² | | | 0.835 |
| Observations | | | 111 |

contention that audit fees are influenced either by the independence, chairman or length of the audit committee.

7.5 OWNERSHIP, INTERNAL GOVERNANCE AND PERFORMANCE BETWEEN 1984-91

The variables used in this section of the chapter are defined in table 7.16 and summary statistics for each of the variables are presented in table 7.17. Of the 117 companies in the sample, 27 (23%) were mutual companies, 78 (66.3%) were subsidiary companies, while 48 of these subsidiaries (41.3%) were subsidiaries of overseas companies. In terms of the insurance business written, 60 (51.3%) companies specialised in general insurance, 38 (32.4%) companies specialised in life insurance, while the remaining 20 (17.1%) companies were composite insurers. I use both premium income and asset values to represent company size. The average premium income earned by companies in the sample was £296.9 million while the average asset value of companies was £1,570 million. I utilise the percentage increase in premium income and the percentage increase in asset value as performance proxies. The average increase in premium income year-on-year by companies in the sample was 10.18 per cent. The average increase in total assets was 9.95 per cent. Companies in the sample had an average of 9.214 directors, 5.715 (56.7%) of which were non-executive directors. 13.8 per cent of companies had the same individual occupying the positions of company chairman and CEO. Companies in the sample paid an average audit fee of £148,654 ranging from a minimum of £2,036 to a maximum of £1,944,728. Companies possessed an average of 5.83 subsidiaries, of which 4.07 were based in the UK and 0.39 were based in the US. 91.7 per cent of companies had a financial year-end date of 31 December while 75.3 per cent of the sample were audited by London-based auditors. Finally, the average remuneration of the highest paid director was £74,427.

Table 7.16 - Definitions of variables.

| | |
|-----------|--|
| MUTUAL | Binary variable: = 1 if company is a mutual; = 0 otherwise. |
| SUBSID | Binary variable: = 1 if company is a subsidiary; = 0 otherwise. |
| OSPAR | Binary variable: = 1 if company has a non-UK parent; = 0 otherwise. |
| GENCO | Binary variable: = 1 if company specialises in general insurance business; = 0 otherwise. |
| LIFECO | binary variable: = 1 if company specialises in life insurance business; = 0 otherwise. |
| COMPOS | Binary variable: = 1 if company transacts both general and life insurance business; = 0 otherwise. |
| GENPRE | Premium income from general insurance business. |
| LIFEPRE | Premium income from life insurance business. |
| TOTPRE | Total premium income. |
| %INCPRE | Annual percentage increase in premium income. |
| TOTASSET | Book value of assets. |
| %INCASSET | Annual percentage increase in book value of assets. |
| DIRS | Number of board members. |
| NONEXEC | Number of non-executive directors. |
| %NONEXEC | Proportion of board members who are non-executive. |
| BOSS | Binary variable: = 1 if same individual occupies the positions of Chairman and Chief Executive Officer; = 0 otherwise. |
| AUDFEE | Statutory audit fee disclosed in the financial statements. |
| SUBS | Number of subsidiaries disclosed in the financial statements. |
| OSSUBS | Number of non-UK subsidiaries disclosed in the financial statements. |
| UKSUBS | Number of UK subsidiaries disclosed in the financial statements. |
| USSUBS | Number of US subsidiaries disclosed in the financial statements. |
| DECEMBER | Binary variable: = 1 if financial year-end falls on 31 December; = 0 otherwise. |
| LONDON | Binary variable: = 1 if company has its head office based in London; = 0 otherwise. |
| HPDSAL | Salary paid to highest paid director - as disclosed in the financial statements. |

Source: Companies' annual reports and accounts for years 1984-1991.

Table 7.17 - Descriptive statistics

| Variables | Mean | Median | St. Dev. | Minimum | Maximum | No. |
|---------------|----------|---------|----------|---------|-----------|-----|
| MUTUAL | 0.230 | 0.0 | 0.421 | 0.0 | 1.0 | 936 |
| SUBSID | 0.663 | 1.0 | 0.473 | 0.0 | 1.0 | 936 |
| OSPAR | 0.413 | 0.0 | 0.493 | 0.0 | 1.0 | 936 |
| GENCO | 0.513 | 1.0 | 0.500 | 0.0 | 1.0 | 936 |
| LIFECO | 0.324 | 0.0 | 0.468 | 0.0 | 1.0 | 936 |
| COMPOS | 0.171 | 0.0 | 0.377 | 0.0 | 1.0 | 936 |
| GENPRE (£m) | 135.000 | 8.171 | 414.000 | 0.0 | 2830.000 | 936 |
| LIFEPRE (£m) | 161.000 | 0.0 | 380.000 | 0.0 | 3870.000 | 936 |
| TOTPRE (£m) | 296.909 | 46.749 | 654.632 | 0.229 | 4572.000 | 936 |
| %INCPREM | 10.184 | 7.240 | 33.738 | -94.6 | 388.0 | 817 |
| TOTASSET (£m) | 1570.000 | 165.000 | 3510.000 | 3.014 | 29900.000 | 936 |
| %INCASSET | 9.948 | 8.484 | 21.047 | -90.3 | 143.0 | 817 |
| DIRS | 9.214 | 9.0 | 3.618 | 2.0 | 25.0 | 932 |
| NONEXEC | 5.715 | 6.0 | 3.864 | 0.0 | 19.0 | 839 |
| %NONEXEC | 56.679 | 64.286 | 29.919 | 0.0 | 100.0 | 839 |
| BOSS | 0.138 | 0.0 | 0.345 | 0.0 | 1.0 | 925 |
| AUDFEE (£000) | 148.654 | 42.271 | 308.227 | 2.035 | 1944.722 | 936 |
| SUBS | 5.826 | 2.0 | 9.959 | 0.0 | 63.0 | 933 |
| OSSUBS | 1.753 | 0.0 | 5.397 | 0.0 | 35.0 | 933 |
| USSUBS | 0.389 | 0.0 | 1.348 | 0.0 | 10.0 | 933 |
| UKSUBS | 4.069 | 2.0 | 5.422 | 0.0 | 29.0 | 933 |
| DECEMBER | 0.917 | 1.0 | 0.275 | 0.0 | 1.0 | 933 |
| LONDON | 0.753 | 1.0 | 0.431 | 0.0 | 1.0 | 933 |
| HPDSAL (£000) | 74.427 | 64.874 | 52.008 | 0.600 | 393.407 | 779 |

Note: All monetary values are deflated using the RPI (1984 = 100)

Using a pooled database allows me to investigate changes in internal governance instruments over the 1984-1991 period. I do this in two stages. First, in table 7.18, I compare board size, non-executive representation and the existence of CEO duality over the eight years of the study. Second, In table 7.19 I compare board characteristics between independent mutual and proprietary companies both over the eight year period of the study and also at the beginning and end of the period under review (i.e. 1984 and 1991). The results in table 7.18 indicate a reduction in board size from 9.6 directors in 1984 to 8.72 directors in 1991. The results also show a reduction in the number of non-executive directors from 6.11 in 1984 to 5.46 in 1991. It appears therefore, that companies used fewer non-executives which explains the evolution of smaller boards over the period. In terms of non-executive representation, the proportion of non-executive board members has fallen from 58 per cent in 1984 to just below 56 per cent by 1991. However, this does not seem to be a significant decrease. It is also worth noting that over the period of the study, boards possessed a comfortable majority of non-executives. This is in contrast to large quoted companies which possessed non-executive representation of between 35 and 40 per cent during this period (as reported in O'Sullivan, 1997). Finally, table 7.18 also indicates a reduction in the prevalence of CEO duality by UK companies over the period of the study. In 1984, 16.7 per cent of companies in our sample had the same person occupying the positions of CEO and chairman. By 1991, this had fallen to 9.5 per cent. Again, it is worth noting that insurance companies appear significantly less likely to exhibit CEO duality over the period of the study than large quoted companies. O'Sullivan, (1997) reports CEO/chair duality in 32 per cent of quoted companies in 1991.

Comparisons of board characteristics between mutual and proprietary insurers has the potential to improve our understanding of the substitutions between internal and external governance mechanisms. In table 7.19 I focus on comparisons between independent companies only. Over the period of this study, proprietary companies had larger boards than their mutual counterparts (difference in means is significant at 10%). However, mutual companies possessed significantly

Table 7.18 - Mean values of board characteristics between 1984 and 1991.

| Year | DIRS | NONEXEC | %NONEXEC | BOSS |
|-------------|-------------|----------------|-----------------|-------------|
| 1984 | 9.6 | 6.109 | 58.083 | 0.167 |
| 1985 | 9.299 | 5.922 | 58.449 | 0.155 |
| 1986 | 9.190 | 5.721 | 56.727 | 0.139 |
| 1987 | 9.137 | 5.557 | 56.404 | 0.164 |
| 1988 | 9.239 | 5.651 | 56.078 | 0.138 |
| 1989 | 9.325 | 5.660 | 55.535 | 0.137 |
| 1990 | 9.198 | 5.664 | 56.428 | 0.113 |
| 1991 | 8.726 | 5.462 | 55.847 | 0.095 |

| Variables | 1984-91 | | | 1984 | | | 1991 | | |
|-----------|----------------|---------------------|-----------|----------------|---------------------|----------|----------------|---------------------|---------|
| | Mutual mean | Proprietary mean | t-value | Mutual mean | Proprietary mean | t-value | Mutual mean | Proprietary mean | t-value |
| DIRS | 10.975 | 11.783 | -1.812* | 11.077 | 11.529 | -0.379 | 11.208 | 10.857 | 0.252 |
| NONEXEC | 8.381 | 7.196 | 2.880*** | 8.920 | 6.938 | 1.629 | 8.333 | 6.692 | 1.322 |
| %NONEXEC | 76.368 | 57.570 | 7.383*** | 80.506 | 57.472 | 2.947*** | 74.037 | 54.444 | 2.629** |
| BOSS | 0.02 | 0.122 | -3.160*** | 0.0 | 0.118 | 1.461 | 0.042 | 0.071 | -0.360 |

*, **, *** Significant at 1%, 5% and 10% respectively.

more non-executive board members and a greater non-executive representation than their proprietary counterparts. For example, 78.36 per cent of mutual directors are non-executive compared to 57.75 per cent of proprietary directors. Furthermore, between 1984 and 1991 only 2 per cent of mutual companies exhibited CEO/chair duality while the corresponding figure for proprietary companies was 12.2 per cent. From a substitution perspective therefore, I find stronger internal governance in mutual companies and weaker internal governance in proprietary companies. This evidence is consistent with the notion of mutuals compensating for weaker external governance by possessing stronger internal governance than proprietary companies. Columns two and three of table 7.19 compare board characteristics between mutual and proprietary companies at the beginning and end years of the study period. In both 1984 and 1991 mutuals possessed a significantly higher proportion of non-executive board members than proprietary companies. However, apart from non-executive representation, no other significant differences exist between the two organisational types.

Tables 7.20 and 7.21 present Pearson correlations between the variables used in this study. Table 7.20 presents correlations for the whole sample while table 7.21 focuses on independent companies only. From a governance perspective, examining correlations are interesting since it has the potential to improve our understanding of the interrelationships between different mechanisms of monitoring utilised by companies. For example, in the independent sample, mutual status is positively correlated with non-executive representation and negatively correlated with CEO duality. These correlations are consistent with the notion that stronger board governance is utilised to compensate for the absence of strong external control. We also find that non-executive representation is negatively correlated with the presence of CEO duality. This suggests that dominant CEOs are associated with a lack of independent participation on the board of directors. Of course, it could also suggest more independent boards prevent one individual from exercising undue power and influence and consequently ensures that the two most important board positions are not held by the same person.

Table 7.20 - Pearson correlations (all companies)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-----|
| 1. MUTUAL | 1.0 | | | | | | | | | | | | | | | | | |
| 2. SUBSID | -0.686 | 1.0 | | | | | | | | | | | | | | | | |
| 3. OSPARENT | -0.459 | 0.599 | 1.0 | | | | | | | | | | | | | | | |
| 4. GENCO | -0.358 | 0.442 | 0.448 | 1.0 | | | | | | | | | | | | | | |
| 5. LIFECO | 0.398 | -0.289 | -0.275 | -0.711 | 1.0 | | | | | | | | | | | | | |
| 6. COMPOS | -0.033 | -0.211 | -0.272 | -0.421 | -0.315 | 1.0 | | | | | | | | | | | | |
| 7. LogTOTPRE | 0.309 | -0.454 | -0.439 | -0.643 | 0.301 | 0.459 | 1.0 | | | | | | | | | | | |
| 8. LogTOTASSET | 0.354 | -0.475 | -0.485 | -0.714 | 0.382 | 0.446 | 0.924 | 1.0 | | | | | | | | | | |
| 9. DIRS | 0.275 | -0.406 | -0.351 | -0.435 | 0.107 | 0.421 | 0.680 | 0.648 | 1.0 | | | | | | | | | |
| 10. NONEXEC | 0.406 | -0.442 | -0.300 | -0.342 | 0.067 | 0.337 | 0.543 | 0.522 | 0.781 | 1.0 | | | | | | | | |
| 11. %NONEXEC | 0.380 | -0.329 | -0.172 | -0.169 | 0.092 | 0.103 | 0.190 | 0.195 | 0.333 | 0.813 | 1.0 | | | | | | | |
| 12. BOSS | -0.191 | 0.169 | 0.069 | 0.062 | -0.059 | 0.015 | -0.054 | -0.045 | -0.184 | -0.280 | -0.273 | 1.0 | | | | | | |
| 13. SUBS | 0.057 | -0.308 | -0.320 | -0.401 | -0.050 | 0.580 | 0.684 | 0.632 | 0.600 | 0.481 | 0.169 | -0.082 | 1.0 | | | | | |
| 14. USSUBS | -0.085 | -0.192 | -0.217 | -0.279 | -0.153 | 0.553 | 0.535 | 0.479 | 0.493 | 0.395 | 0.118 | -0.070 | 0.920 | 1.0 | | | | |
| 15. USSUBS | -0.046 | -0.252 | -0.201 | -0.280 | -0.090 | 0.476 | 0.466 | 0.427 | 0.390 | 0.301 | 0.089 | -0.107 | 0.735 | 0.843 | 1.0 | | | |
| 16. UKSUBS | 0.187 | -0.373 | -0.371 | -0.459 | 0.062 | 0.515 | 0.722 | 0.682 | 0.610 | 0.489 | 0.191 | -0.081 | 0.921 | 0.694 | 0.510 | 1.0 | | |
| 17. DECEMBER | 0.090 | -0.041 | 0.172 | 0.183 | -0.249 | -0.008 | -0.006 | -0.029 | -0.057 | -0.004 | 0.016 | -0.072 | 0.073 | 0.082 | 0.087 | 0.052 | 1.0 | |
| 18. LONDON | -0.313 | 0.323 | 0.181 | 0.208 | -0.166 | -0.083 | -0.282 | -0.289 | -0.131 | -0.210 | -0.180 | 0.093 | -0.150 | -0.097 | -0.088 | -0.178 | 0.063 | 1.0 |

Correlation ± 0.10 (0.07) are significant at 1% (5%) respectively

Table 7.21 - Pearson correlation (independent companies)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 1. MUTUAL | 1.0 | | | | | | | | | | | | | | | |
| 2. GENCO | -0.125 | 1.0 | | | | | | | | | | | | | | |
| 3. LIFEKO | 0.424 | -0.520 | 1.0 | | | | | | | | | | | | | |
| 4. COMPOS | -0.359 | -0.317 | -0.646 | 1.0 | | | | | | | | | | | | |
| 5. LogTOTPRE | -0.120 | -0.412 | -0.148 | 0.533 | 1.0 | | | | | | | | | | | |
| 6. LogTOTASSET | -0.021 | -0.506 | -0.039 | 0.496 | 0.877 | 1.0 | | | | | | | | | | |
| 7. DIRS | -0.109 | -0.102 | -0.351 | 0.481 | 0.704 | 0.533 | 1.0 | | | | | | | | | |
| 8. NONEXEC | 0.173 | -0.076 | -0.269 | 0.364 | 0.556 | 0.448 | 0.766 | 1.0 | | | | | | | | |
| 9. %NONEXEC | 0.412 | 0.087 | -0.053 | -0.018 | 0.019 | 0.013 | 0.105 | 0.684 | 1.0 | | | | | | | |
| 10. BOSS | -0.211 | -0.124 | 0.048 | 0.058 | -0.075 | 0.025 | -0.276 | -0.396 | -0.440 | 1.0 | | | | | | |
| 11. SUBS | -0.363 | -0.018 | -0.391 | 0.593 | 0.671 | 0.534 | 0.463 | 0.279 | -0.061 | -0.096 | 1.0 | | | | | |
| 12. OSSUBS | -0.423 | -0.136 | -0.387 | 0.550 | 0.570 | 0.450 | 0.391 | 0.249 | -0.040 | -0.088 | 0.923 | 1.0 | | | | |
| 13. USSUBS | -0.364 | -0.211 | -0.252 | 0.467 | 0.503 | 0.435 | 0.326 | 0.196 | -0.053 | -0.084 | 0.806 | 0.906 | 1.0 | | | |
| 14. UKSUBS | -0.221 | -0.201 | -0.311 | 0.525 | 0.654 | 0.523 | 0.455 | 0.253 | -0.080 | -0.086 | 0.888 | 0.644 | 0.522 | 1.0 | | |
| 15. DECEMBER | 0.141 | 0.072 | -0.209 | 0.168 | 0.012 | 0.064 | -0.080 | -0.008 | 0.089 | -0.099 | 0.097 | 0.094 | 0.113 | 0.079 | 1.0 | |
| 16. LONDON | -0.236 | 0.067 | -0.045 | -0.010 | -0.210 | -0.266 | -0.003 | -0.186 | -0.175 | 0.054 | -0.122 | -0.106 | -0.054 | -0.111 | -0.032 | 1.0 |

Correlation \pm 0.14 (0.11) are significant at 1% (5%) respectively

Tables 7.20 and 7.21 highlight additional correlations that help us to understand better the characteristics of insurance companies. For example, mutuality is positively associated with companies specialising in the life insurance business and negatively associated with companies transacting a mixture of life and general insurance. This is consistent with much of Hansmann's (1985) explanation of the rationale for the existence of mutual insurers - to avoid the risk of a reallocation of company funds to shareholders at the expense of policyholders and the risk of artificially allocating funds between different insurance classes. Mutuality is also associated with less complex organisations – mutuality is negatively associated with all the subsidiary variables. This is consistent with Mayers and Smith's (1982) argument that mutual companies are likely to be organised on the basis of minimising the potential for managerial discretion. The correlations also highlight the association between company size and type of business written – companies specialising in general insurance business are negatively correlated with both of our size measures while composite insurers are positively correlated with size. As anticipated, we find all the subsidiary variables are positively correlated with size. However, again consistent with Mayers and Smith's (1982) hypothesis, mutuality is negatively correlated with all the subsidiary variables - this is consistent with mutual insurers adopting less complex organisational structures.

Tables 7.22, 7.23 and 7.24 present ordinary least square regressions examining the influence of internal and external governance characteristics on performance. In each table I present the results of two regressions - one examining the impact of the explanatory variables in respect of all companies in the sample, and the second focusing on independent companies only. As mentioned earlier, selecting suitable measures of performance for insurance companies is not straightforward. Consequently, I use a different measure of performance in each of the three tables. In table 7.22, I regress the explanatory variables on the percentage annual change in total assets. This is used to proxy for 'policyholder-orientated' performance since increases in assets is expected to benefit policyholders. In table 7.23, I use the annual percentage change in premium income to proxy for

Table 7.22 - Ordinary least squares regressions of the influence of governance mechanisms on the performance of UK insurance companies (dependent variable = % increase in total assets).

| Variables | All companies | | | Independent companies | | |
|----------------|---------------|---------|---------|-----------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -1.825 | -0.936 | 0.350 | 0.369 | 0.150 | 0.881 |
| %NONEXEC | -0.050 | -1.841 | 0.066 | -0.011 | -0.204 | 0.838 |
| BOSS | -1.636 | -0.728 | 0.467 | 2.828 | 0.634 | 0.527 |
| GENCO | -0.394 | -0.155 | 0.877 | 1.257 | 0.372 | 0.710 |
| LIFECO | 5.488 | 2.423 | 0.016 | 1.617 | 0.597 | 0.551 |
| Log TOTPRE | 0.860 | 0.720 | 0.472 | 0.586 | 0.372 | 0.710 |
| 1985 dummy | -4.394 | -1.632 | 0.103 | 2.264 | 0.643 | 0.521 |
| 1986 dummy | 7.337 | 2.738 | 0.006 | 8.677 | 2.462 | 0.014 |
| 1987 dummy | 0.204 | 0.077 | 0.939 | 4.943 | 1.416 | 0.158 |
| 1988 dummy | -2.669 | -1.002 | 0.317 | -1.990 | -0.570 | 0.569 |
| 1989 dummy | 3.860 | 1.450 | 0.147 | 9.599 | 2.733 | 0.007 |
| 1990 dummy | -18.768 | -7.069 | 0.000 | -20.807 | -5.932 | 0.000 |
| Constant | 6.810 | 0.636 | 0.525 | 3.538 | 0.235 | 0.814 |
| F-statistic | 11.311 | | 0.000 | 8.753 | | 0.000 |
| R ² | | | 0.158 | | | 0.292 |
| Observations | | | 737 | | | 267 |

Table 7.23 - Ordinary least squares regressions of the influence of governance mechanisms on the performance of UK insurance companies (dependent variable = % increase in premiums).

| Variables | All companies | | | Independent companies | | |
|----------------|---------------|---------|---------|-----------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | 1.735 | 0.538 | 0.591 | 5.871 | 1.652 | 0.100 |
| %NONEXEC | -0.031 | -0.710 | 0.478 | -0.059 | 0.774 | 0.440 |
| BOSS | 3.731 | 1.011 | 0.312 | 9.935 | 1.567 | 0.118 |
| GENCO | -7.735 | -1.749 | 0.081 | -2.589 | -0.515 | 0.607 |
| LIFECO | 5.464 | 1.485 | 0.138 | 2.190 | 0.568 | 0.570 |
| Log TOTASSET | -3.477 | -1.812 | 0.070 | 1.027 | 0.507 | 0.613 |
| 1985 dummy | -8.088 | -1.826 | 0.068 | 7.180 | 1.417 | 0.158 |
| 1986 dummy | 4.058 | 0.922 | 0.357 | 7.165 | 1.412 | 0.159 |
| 1987 dummy | 1.211 | 0.276 | 0.782 | 10.396 | 2.066 | 0.040 |
| 1988 dummy | -13.472 | -3.081 | 0.002 | -5.993 | -1.192 | 0.234 |
| 1989 dummy | 2.703 | 0.619 | 0.536 | 12.545 | 2.476 | 0.014 |
| 1990 dummy | -13.827 | -3.172 | 0.002 | -10.021 | -1.981 | 0.049 |
| Constant | 46.475 | 2.513 | 0.012 | -1.765 | -0.086 | 0.932 |
| F-statistic | 4.673 | | 0.000 | 3.878 | | 0.000 |
| R ² | | | 0.072 | | | 0.154 |
| Observations | | | 737 | | | 267 |

Table 7.24 - Ordinary least squares regressions of the influence of governance mechanisms on executive remuneration in UK insurance companies (dependent variable = log of highest paid director's salary).

| Variables | All companies | | | Independent companies | | |
|----------------|---------------|---------|---------|-----------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.075 | -2.345 | 0.019 | -0.120 | -4.984 | 0.000 |
| %NONEXEC | 0.565E-03 | 1.155 | 0.249 | -0.212E-02 | -4.006 | 0.000 |
| BOSS | -0.089 | -2.388 | 0.017 | -0.132 | -3.052 | 0.002 |
| GENCO | 0.233 | 5.554 | 0.000 | -0.065 | -1.861 | 0.064 |
| LIFECO | 0.152 | 4.184 | 0.000 | -0.388E-02 | -0.147 | 0.883 |
| Log TOTPRE | 0.377 | 18.713 | 0.000 | 0.169 | 10.608 | 0.000 |
| 1984 dummy | -0.199 | -4.012 | 0.000 | -0.180 | -4.856 | 0.000 |
| 1985 dummy | -0.166 | -3.417 | 0.001 | -0.156 | -4.194 | 0.000 |
| 1986 dummy | -0.195 | -4.052 | 0.027 | -0.149 | -4.046 | 0.000 |
| 1987 dummy | -0.106 | -2.210 | 0.489 | -0.089 | -2.427 | 0.016 |
| 1988 dummy | -0.033 | -0.692 | 0.524 | -0.071 | -1.951 | 0.052 |
| 1989 dummy | -0.030 | -0.638 | 0.961 | -0.053 | -1.467 | 0.144 |
| 1990 dummy | -0.230E-02 | -0.049 | 0.000 | -0.010 | -0.281 | 0.779 |
| Constant | 1.697 | 9.460 | 0.000 | 3.798 | 25.239 | 0.000 |
| F-statistic | 40.632 | | 0.000 | 30.775 | | 0.000 |
| R ² | | | 0.430 | | | 0.600 |
| Observations | | | 713 | | | 280 |

performance. This is generally seen as a suitable proxy for 'manager-orientated' performance since managerial discretion is often perceived to encourage managers to increase the size (rather than profitability) of their companies. Finally in table 7.24, I use the salary of the highest paid director to represent performance. This is seen in the literature as a more direct proxy for managerial discretion.

In the first column of table 7.22, mutuality has a negative impact on the percentage increase in assets but the impact is not statistically significant. The proportion of non-executives has a negative impact on asset growth (significant at 6%). CEO duality also has a negative impact but the impact is not statistically significant. Similarly, in the independent sub-samples, neither mutuality nor the board composition and leadership variables have a significant impact on change in assets. The absence of a significant impact by the proportion of non-executive directors in independent companies compared to the full sample, suggests that the significance in the full sample may be driven by affiliated directors (e.g. executives from other group companies) rather than true non-executives. In the full sample, life companies have a positive and significant impact on the rate of asset growth but this impact is not significant in the case of the independent sample. Neither the general company dummy nor company size have a significant impact on asset growth. In both columns, the 1986 (positive) and the 1990 (negative) year dummies have a significant impact on the percentage change in assets. In addition, in the case of independent companies, the 1989 year dummy also has significant positive impact. In table 8.8, a broadly similar picture emerges. In the case of the full sample, neither mutuality nor the board composition and leadership variables have an impact on premium growth. In the independent company sample, both mutuality and CEO duality have a positive (though marginally insignificant) impact on premium growth. In the full sample, both the general business dummy and company size have a negative and significant impact on growth. These findings are not replicated in the independent sub-sample. In respect of the year dummies, 1985, 1988 and 1990 have significant negative impacts in the full sample while 1990 has a

negative impact and 1987 and 1989 have negative impacts in the independent sub-sample.

In table 7.24, both columns show that mutuality has a negative and significant impact on the remuneration of the highest paid director. This is particularly so in the sample of independent companies. The proportion of non-executive directors also exerts a significant and negative influence on executive remuneration in independent companies, though similar findings are not reported in respect of the full sample of companies. This may reflect the potential for greater non-executive affiliation in the subsidiaries companies included in the full sample. Both columns in table 7.24 also show that CEO duality has a negative and significant impact on the remuneration level of the highest paid director. In terms of governance therefore, it appears that mutual managers do not take advantage of the weak external governance by paying themselves large salaries. This may be explained by the presence of a greater proportion of non-executives who may have a moderating impact on managers' discretionary tendencies. In both regressions, company size has a positive and significant impact on executive remuneration. This finding is consistent with findings of studies seeking to explain the determinants of executive remuneration in quoted companies. The regressions report conflicting findings in respect of the impact of business type on remuneration. In the full sample of companies, both life and general speciality exert a positive influence on remuneration. In the independent sample however, only general specialists exert a marginally significant, but negative, impact. It is interesting to note, that despite the indexing, the first four year dummies exert a negative and significant influence on the level of remuneration.

Tables 7.25, 7.26 and 7.27 repeat the regressions discussed earlier, but focus on life companies only. The focus of life companies can be justified for a number of reasons. First, the vast majority of mutuals operating the UK insurance market specialise in life insurance business. The exclusion of general specialists allows me to present a sharper examination of mutuality's role in influencing managerial behaviour. Second, the focus on life companies also eliminates potential differences in

Table 7.25 - Ordinary least squares regression of the influence of governance mechanisms on the performance of UK life insurance companies (dependent variable = % increase in total assets).

| Variables | All life companies | | | Independent life companies | | |
|----------------|--------------------|---------|---------|----------------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -2.928 | -1.166 | 0.244 | 1.675 | 0.513 | 0.609 |
| %NONEXEC | -0.047 | -0.950 | 0.343 | -0.030 | -0.458 | 0.647 |
| BOSS | 0.686 | 0.198 | 0.843 | 2.326 | 0.486 | 0.627 |
| COMPOS | -5.348 | -2.182 | 0.030 | -0.917 | -0.317 | 0.751 |
| Log TOTPRE | -0.009 | -0.005 | 0.996 | 0.511 | 0.257 | 0.797 |
| 1985 dummy | -3.517 | -0.894 | 0.372 | -0.093 | -0.023 | 0.982 |
| 1986 dummy | 5.018 | 1.277 | 0.202 | 7.372 | 1.796 | 0.072 |
| 1987 dummy | 3.577 | 0.919 | 0.359 | 3.925 | 0.969 | 0.334 |
| 1988 dummy | -2.920 | -0.752 | 0.452 | -3.292 | -0.814 | 0.417 |
| 1989 dummy | 7.665 | 1.975 | 0.049 | 10.066 | 2.491 | 0.014 |
| 1990 dummy | -18.107 | -4.699 | 0.000 | -21.833 | -5.410 | 0.000 |
| Constant | 18.567 | 1.371 | 0.171 | 6.974 | 0.400 | 0.689 |
| F-statistic | 6.244 | | 0.000 | 7.498 | | 0.000 |
| R ² | | | 0.154 | | | 0.289 |
| Observations | | | 388 | | | 214 |

Table 7.26 - Ordinary least squares regressions of the influence of governance mechanisms on the performance of UK life insurance companies (dependent variable = % increase in premiums).

| Variables | All life companies | | | Independent life companies | | |
|----------------|--------------------|---------|---------|----------------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | 1.655 | 0.405 | 0.685 | 5.885 | 1.314 | 0.190 |
| %NONEXEC | -0.070 | -0.881 | 0.379 | -0.025 | -0.262 | 0.794 |
| BOSS | 5.788 | 1.029 | 0.304 | 10.853 | 1.605 | 0.110 |
| COMPOS | -5.490 | -1.396 | 0.164 | -2.834 | -0.678 | 0.498 |
| Log TOTASS | -3.271 | -1.342 | 0.180 | 1.894 | 0.786 | 0.433 |
| 1985 dummy | -4.412 | -0.690 | 0.490 | 3.255 | 0.555 | 0.579 |
| 1986 dummy | 8.984 | 1.408 | 0.160 | 1.997 | 0.340 | 0.734 |
| 1987 dummy | 13.519 | 2.135 | 0.033 | 6.850 | 1.178 | 0.240 |
| 1988 dummy | -11.077 | -1.756 | 0.080 | -10.052 | -1.731 | 0.085 |
| 1989 dummy | 15.266 | 2.420 | 0.016 | 13.638 | 2.345 | 0.020 |
| 1990 dummy | -7.766 | -1.240 | 0.216 | -13.367 | -2.302 | 0.022 |
| Constant | 46.231 | 2.101 | 0.036 | -7.058 | -0.309 | 0.758 |
| F-statistic | 4.030 | | 0.000 | 3.513 | | 0.000 |
| R ² | | | 0.105 | | | 0.160 |
| Observations | | | 388 | | | 214 |

Table 7.27 - Ordinary least squares regressions of the influence of governance mechanisms on executive remuneration in UK life insurance companies (dependent variable = log of highest paid director's salary).

| Variables | All life companies | | | Independent life companies | | |
|----------------|--------------------|---------|---------|----------------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.039 | -1.067 | 0.286 | -0.087 | -2.974 | 0.003 |
| %NONEXEC | 0.114E-02 | 1.549 | 0.122 | -0.247E-02 | -4.106 | 0.000 |
| BOSS | 0.031 | 0.629 | 0.529 | -0.136 | -3.192 | 0.002 |
| COMPOS | -0.141 | -3.938 | 0.000 | 0.028 | 1.046 | 0.297 |
| Log TOTPRE | 0.369 | 15.386 | 0.000 | 0.160 | 8.776 | 0.000 |
| 1984 dummy | -0.196 | -3.176 | 0.002 | -0.179 | -4.491 | 0.000 |
| 1985 dummy | -0.173 | -2.856 | 0.005 | -0.150 | -3.773 | 0.000 |
| 1986 dummy | -0.190 | -3.144 | 0.002 | -0.143 | -3.640 | 0.000 |
| 1987 dummy | -0.113 | -1.885 | 0.060 | -0.077 | -1.985 | 0.048 |
| 1988 dummy | -0.033 | -0.545 | 0.586 | -0.059 | -1.534 | 0.127 |
| 1989 dummy | -0.032 | -0.539 | 0.590 | -0.037 | -0.963 | 0.337 |
| 1990 dummy | -0.032 | -0.534 | 0.594 | -0.449E-02 | -0.117 | 0.907 |
| Constant | 1.853 | 9.397 | 0.000 | 3.852 | 24.471 | 0.000 |
| F-statistic | 27.687 | | 0.000 | 25.244 | | 0.000 |
| R ² | | | 0.449 | | | 0.580 |
| Observations | | | 420 | | | 231 |

respect of our dependent variables, particularly premium income and assets growth. The results in tables 7.25, 7.26 and 7.27 broadly reflect the findings in the earlier tables when general companies were also included.

Table 7.28 presents the results of regressions seeking to that examine the impact of external and internal governance characteristics on audit pricing in the insurance industry. As mentioned in chapter four, the potential impact of companies' internal governance on auditor effort is particularly interesting since less auditor effort is expected to be required in 'well governed' companies. In addition, the presence of mutuals provides an extra dimension to the relationship - how does the absence of external shareholders and the takeover market influence auditor effort and ultimately auditors' pricing strategies. Column one of table 7.28 presents results for all companies in the study while column two focuses only on independent companies.

In both regressions, mutuality has a negative impact on the level of audit fee charged. This is significant at the 1 per cent level. The proportion of non-executive directors also exerts a negative and significant influence in both regressions. CEO duality does appear to have a significant impact on auditors' pricing decisions. A number of interpretations may explain these findings. First, auditors may charge lower fees to mutuals in view of the lower risk of detection of any errors. This argument follows the notion that audit fees comprise both a component for time and expertise spent on the audit and an additional component to serve as 'insurance' against the risk of the auditors incurring a subsequent loss arising out of the detection of poor quality auditing. From an insurance view, this evidence suggests that auditors, mindful of the low risk of company takeover and hence the diminished probability of any errors being detected, charge a lower insurance component to mutuals compared to proprietary insurers. Second, the negative impact of non-executive directors suggests that financial statements in mutual companies are rigorously monitored by a greater non-executive presence and hence auditors audit with more confidence. This suggests less need for exhaustive

Table 7.28 - Ordinary least squares regressions explaining the determinants of audit fees in UK insurance companies between 1984 and 1991.

| Variables | All companies | | | Independent companies | | |
|----------------|---------------|---------|---------|-----------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.219 | -8.352 | 0.000 | -0.162 | -4.959 | 0.000 |
| SUBSID | -0.063 | -2.615 | 0.009 | | | |
| OSPARENT | 0.013 | 0.654 | 0.514 | | | |
| GENCO | -0.162 | -5.858 | 0.000 | -0.197 | -4.750 | 0.000 |
| LIFECO | -0.135 | -5.217 | 0.000 | -0.180 | -5.055 | 0.000 |
| LogTOTPRE | 0.458 | 30.082 | 0.000 | 0.503 | 22.056 | 0.000 |
| %INCASS | -0.163E-02 | -4.262 | 0.000 | -0.121E-02 | -1.622 | 0.106 |
| %NONEXEC | -0.110 | -3.932 | 0.000 | -0.287E-02 | -4.465 | 0.000 |
| BOSS | -0.552E-02 | -0.237 | 0.813 | -0.021 | -0.380 | 0.704 |
| SUBS | 0.013 | 11.948 | 0.000 | | | |
| UKSUBS | | | | 0.017 | 6.086 | 0.000 |
| OSSUBS | | | | 0.778E-02 | 3.238 | 0.001 |
| DECEMBER | 0.066 | 2.144 | 0.032 | -0.084 | -1.670 | 0.096 |
| LONDON | -0.294 | -0.191 | 0.849 | -0.014 | -0.590 | 0.556 |
| 1985 dummy | -0.059 | -2.156 | 0.031 | 0.018 | 0.442 | 0.659 |
| 1986 dummy | -0.432 | -1.566 | 0.118 | -0.986E-02 | -0.231 | 0.817 |
| 1987 dummy | -0.379 | -1.390 | 0.165 | -0.020 | -0.480 | 0.632 |
| 1988 dummy | -0.688E-02 | -0.252 | 0.801 | 0.101E-02 | 0.024 | 0.980 |
| 1989 dummy | -0.412 | -0.151 | 0.880 | 0.383 | 0.091 | 0.928 |
| 1990 dummy | -0.024 | -0.854 | 0.394 | -0.017 | -0.377 | 0.706 |
| Constant | 1.368 | 10.570 | 0.000 | 1.227 | 5.857 | 0.000 |
| F-statistic | 273.542 | | 0.000 | 160.848 | | 0.000 |
| R ² | | | 0.873 | | | 0.917 |
| Observations | | | 736 | | | 266 |

Table 7.29 - Ordinary least squares regressions explaining the determinants of audit fees in UK life insurance companies.

| Variables | All life companies | | | Independent life companies | | |
|----------------|--------------------|---------|---------|----------------------------|---------|---------|
| | Coefficient | t-value | p-value | Coefficient | t-value | p-value |
| MUTUAL | -0.206 | -6.467 | 0.000 | -0.183 | -4.571 | 0.000 |
| SUBSID | -0.079 | -2.874 | 0.004 | | | |
| OSPARENT | -0.575E-02 | -0.187 | 0.852 | | | |
| COMPOS | 0.155 | 6.347 | 0.000 | 0.225 | 6.407 | 0.000 |
| LogTOTPRE | 0.525 | 27.743 | 0.000 | 0.470 | 19.608 | 0.000 |
| %INCASS | -0.140E-02 | -3.060 | 0.002 | -0.101E-02 | -1.308 | 0.192 |
| %NONEXEC | -0.203E-02 | -4.462 | 0.000 | -0.267 | -3.636 | 0.000 |
| BOSS | 0.067 | 2.116 | 0.035 | -0.507 | -0.951 | 0.343 |
| SUBS | 0.011 | 9.318 | 0.000 | 0.010 | 7.027 | 0.000 |
| DECEMBER | 0.068 | 2.182 | 0.030 | -0.097 | -1.981 | 0.049 |
| LONDON | -0.047 | -2.381 | 0.018 | -0.037 | -1.460 | 0.146 |
| 1985 dummy | 0.895E-02 | 0.256 | 0.798 | 0.018 | 0.405 | 0.686 |
| 1986 dummy | -0.318E-02 | -0.091 | 0.927 | 0.013 | 0.290 | 0.772 |
| 1987 dummy | -0.012 | -0.343 | 0.732 | 0.322 | 0.073 | 0.942 |
| 1988 dummy | 0.020 | 0.582 | 0.561 | 0.024 | 0.537 | 0.592 |
| 1989 dummy | 0.804E-02 | 0.233 | 0.816 | 0.014 | 0.317 | 0.752 |
| 1990 dummy | -0.019 | -0.560 | 0.576 | -0.010 | -0.215 | 0.830 |
| Constant | 0.750 | 4.698 | 0.000 | 1.356 | 6.418 | 0.000 |
| F-statistic | 195.388 | | 0.000 | 141.995 | | 0.000 |
| R ² | | | 0.900 | | | 0.915 |
| Observations | | | 388 | | | 214 |

testing and results in a lower fee. Third, an alternative interpretation suggests that mutual insurers are less complex than their proprietary counterparts. Traditionally, the audit pricing literature has suggested a positive association between complexity and the level of audit fee charged by auditors. An examination of the correlations in tables 7.20 and 7.21 suggests that mutuals are less complex organisations (as measured by the numbers of subsidiaries).

In addition to the governance variables, table 7.28 provides additional insights in the determination of audit fees in the insurance industry. Business specialisation has a negative impact on fees – regardless whether it is a life or a general insurance specialist. This finding applies to both samples. Subsidiary insurers also pay significantly lower audit fees. Similar to all previous studies of audit fees, company size is positively associated with the amount of audit fee charged. Indeed, size is the biggest single influence on auditors' pricing decisions. The second most influential factor is the number of subsidiaries - my proxy for complexity. In the independent sub-sample, I include separate variables to represent UK and overseas subsidiaries. Both variables exert a significant positive impact on the audit fee. This finding coupled with the earlier result in respect of business specialisation suggests that less complexity is rewarded with a lower fee. Table 7.29 presents the results of similar regressions focusing only on life insurance companies. Overall, the findings for life companies are broadly similar to those reported in the case of all insurers in table 7.28.

7.6 CONCLUSIONS

The objective of this chapter has been to examine the utilisation and impact of internal governance mechanisms by mutual and proprietary insurance companies. In order to achieve this objective I used two sets of data. First, I undertook a postal questionnaire survey, targeted at company secretaries, which was designed to provide a detailed insight into companies' utilisation of internal governance mechanisms. Second, I undertook a comprehensive analysis of companies' annual reports and accounts for an eight-year period. The postal questionnaire covered the situation in 1992

while the pooled database covered the period 1984-91. These dates were deliberately chosen to allow me to investigate insurers' utilisation of governance instruments prior to the widespread adoption of the Cadbury (1992) recommendations by UK companies.

One of the most striking findings of the chapter is the high quality of internal governance employed by insurance companies. For example, 73 per cent of directors in independent mutual companies were non-executive with proprietary companies having a corresponding figure of 61 per cent. The comparable figure for non-executive representation in the sample of quoted companies was 41 per cent. Furthermore, between 3 and 5 per cent of insurers have CEO duality - the corresponding figure for quoted companies is 28 per cent. Within the high quality of board governance in insurance, I find that mutual insurers have a significantly higher proportion of non-executives and a lower incidence of CEO duality than proprietary insurers. The difference in non-executive representation applies to both the cross-section and pooled datasets, while the difference in CEO duality applies only in respect of the 1984-91 period. When I further distinguish between affiliated and unaffiliated non-executives, mutual companies also possess a higher proportion of unaffiliated membership. The questionnaire survey allowed me to obtain detailed information on the existence and composition of audit and remuneration committees. A high proportion of independent insurers possessed these committees in 1992. For example, 68 per cent of both mutual and proprietary insurers possessed an audit committee while the figures for the presence of a remuneration committee were 84 per cent and 58 per cent respectively.

Overall, the evidence presented in this chapter suggests that mutual and proprietary insurers exhibit different board characteristics. Mutual companies possess more independent boards and are more likely to possess remuneration committees than proprietary companies. This is consistent with expectations since mutuals are expected to utilise stronger internal governance to compensate for the absence of governance through external blockholders and takeovers. In addition, the greater

presence of remuneration committees in mutual companies emphasises mutuals' desire to ensure greater independence in an area where the potential for conflict between policyholders and managers is high. Correspondingly, I find a greater willingness on the part of proprietary insurers to utilise former executives as non-executives. This is interesting since it is consistent with the notion that the appointment of non-executives in proprietary companies may not be influenced solely by monitoring demands but also motivated by company and industry expertise.

Having identified differences in the internal governance environment in mutual and proprietary companies, the next stage was to investigate whether the differences in internal and external control influenced company behaviour. I use a number of performance measures designed to reflect both policyholder and manager-orientated performance. In the regressions using growth in assets and premiums, I find no evidence that either internal or external governance is associated with variations in performance. The absence of a clear impact suggests that, while mutuals and proprietary insurers utilise a different mix of governance instruments, the overall performance of the two types of companies broadly similar. This evidence is consistent with companies utilising various combinations of governance mechanisms to suit their specific monitoring requirements.

I also examine the impact of governance on executive remuneration in insurance companies. In both the cross-section and pooled datasets, the remuneration of the highest paid executive is significantly lower in mutual companies. In the pooled data, non-executive representation and CEO duality also exert a significant negative impact on remuneration. I also find that the existence of a remuneration committee is associated with higher remuneration. These results provide a number of interesting insights on the determinants of executive remuneration in insurance. For example, Mayers and Smith (1993) justify the negative impact of mutuality on the basis that CEOs in mutual companies operate in a less sophisticated corporate environment than their counterparts in proprietary companies and consequently are rewarded with lower remuneration. My cross-section comparisons

show that mutual CEOs are more likely to be appointed internally and likely to have had longer prior service in the company than proprietary CEOs. This suggests that mutual managers follow different career patterns than their counterparts in proprietary companies and this may also contribute to the remuneration differential between the two categories of CEOs. From a governance perspective, the negative impact of non-executive representation on remuneration is encouraging since it suggests that executive remuneration is constrained by higher levels of non-executives on the board. The finding that the existence of a remuneration committee is associated with higher remuneration is consistent with the findings of a number of recent studies of quoted companies. When I focus on executive remuneration in companies with a remuneration committee, both mutuality and non-executive representation continue to exert a negative impact. I also find that the longer the committee has been in existence, the lower is the remuneration of the highest paid director.

Finally, I use both datasets to examine the influence of internal and external governance characteristics on auditors' pricing decisions in insurance. I find that mutuality has a significant negative impact on the level of audit fee paid by insurers. In the earlier discussion I suggested that auditors of mutual insurers may face a reduced need to exert effort since the absence of takeovers and other forms of corporate restructuring suggests that future investigations into the auditor's work is unlikely. In addition, this may also reduce the risk premium component of audit fees. The evidence presented suggests that this may indeed be the case. In the pooled data, the proportion of non-executive directors exerts a negative impact on audit fees. This finding is contrary to my earlier findings in respect of quoted companies where greater non-executive representation had a positive impact on audit fees. The evidence here is consistent with the notion that auditors believe that companies with higher non-executive representation are less likely to have made errors in the preparation of their annual report and accounts and consequently reduced testing and effort is required by auditors. Viewed in this way, non-executive monitoring and auditor effort are substitute mechanisms of governance in insurance.

CHAPTER EIGHT

CONCLUSIONS

This thesis has two main objectives. The first objective has been to examine the relationship between different governance mechanisms employed by UK quoted companies. Existing research typically seeks to examine the use and impact of individual governance instruments without considering the potential for complementarity or substitutability amongst the instruments themselves. In practice however, we observe quoted companies employing a mix of governance mechanisms such as, non-executive directors, managerial ownership as well as exhibiting some degree of external shareholder concentration. This behaviour suggests a need to identify the extent to which internal governance mechanisms are interdependent as well as seeking to identify the impact of governance combinations on company behaviour. The second objective of the thesis is to examine the interrelationship between internal and external governance. For example, governance researchers frequently suggest that takeovers are an important source of external control in quoted companies. Essentially, it is perceived that companies that fail to maximise shareholder wealth are likely to become takeover targets as potential bidders recognise the opportunity to utilise the company's assets more effectively. An interesting issue therefore, is whether takeovers and internal governance (e.g. non-executive directors) are substitute governance mechanisms in that takeovers seek to compensate for weak or ineffective internal controls.

The opportunity to obtain an additional insight on the relationship between internal and external governance is provided by the insurance industry where mutual and proprietary companies successfully co-exist. From an external governance perspective, mutuals differ from proprietary companies in that the functions of owner and customer are merged and consequently, mutual companies are neither subject to takeovers nor the possibility of individual policyholders establishing a significant ownership stake. This suggests that mutual insurers may require particularly strong

internal governance to compensate for weakened external governance. Of interest therefore, is whether mutual and proprietary insurers exhibit different internal governance characteristics and if so, what is the impact of this on company behaviour. In this chapter I explain how my thesis has set out to achieve these objectives as well as summarising the principal findings of my empirical analysis.

8.1 GOVERNANCE IN QUOTED COMPANIES

In designing my governance database, I was conscious of the changes that have taken place in the internal governance of UK companies in the aftermath of the publication of Cadbury (1992). For example, Cadbury's (1992) recommendation that quoted companies should possess a minimum of three non-executives and avoid having CEO duality were subsequently adopted as best practice by the London Stock Exchange and have been widely complied with as a result (Cadbury, 1995; Conyon and Mallin, 1997; O'Sullivan, 1999; O'Sullivan, 2000). At the same time however, a number of changes to UK corporate disclosure were introduced by the 1989 Companies Act which became effective in the early 1990s. In order to take advantage of these changes, and at the same time, minimise any 'Cadbury contamination' I decided to base my study on companies' disclosures in respect of the 1992 financial year. Since an important objective of my study is to examine the extent of interrelationships between governance mechanisms I obtained board composition, leadership, and internal and external ownership information for a sample of 441 of the largest quoted companies in the UK at the end of 1992.

An important innovation of my study is to include measures of the monetary value of internal and external ownership in addition to fractions of ownership. A potential weakness of existing research is the exclusive focus on fractions of ownership to proxy for managerial and external ownership since fractions do not control for the value of equity shareholders have at risk in the company. This study argues that monetary value is a more appropriate measure of managerial and executive

monitoring incentives since shareholders' monitoring incentives are likely to be positively related to the amount of their monetary investment. The empirical analysis examined four aspects of governance in quoted companies: the interrelationship between governance instruments; the impact of governance on performance; the role of directors' and officers' insurance in governance and the impact of governance on audit quality.

An important objective of my examination of the interrelationship between governance mechanisms was to provide some insights on the extent to which governance mechanisms are substitutes or complements in the overall monitoring strategies pursued by companies. My expectation was that as monitoring through the possession of significant ownership becomes more costly (Demsetz and Lehn, 1985), shareholders are likely to pursue monitoring through alternative governance mechanisms such as; increasing the proportion of non-executives, separating the roles of chairman and CEO and encouraging greater managerial ownership. Similarly, I argue that board governance and managerial ownership are likely to be substitute governance mechanisms since companies are unlikely to pursue the additional and costly monitoring through increased non-executive representation if shareholder interests are already being pursued by owner-managers (Rediker and Seth, 1995).

Since company size is widely accepted as an important influence on companies' governance choices (Rediker and Seth, 1995), I began my analysis by comparing the utilisation of different governance mechanisms between sub-samples of the largest and smallest companies (measured by market capitalisation) in the sample. This shows significant differences in the utilisation of governance mechanisms. For example, larger companies possessed a higher proportion of non-executive directors, a lower incidence of CEO duality, lower levels of managerial ownership and lower levels of external blockholder ownership than smaller companies. When I undertook a similar comparison using the monetary value of ownership, larger companies are associated with greater values of both executive and blockholder ownership. This suggests that when fractions of ownership are used to

proxy shareholder monitoring, external shareholdings and non-executives are substitutes and managerial ownership and non-executive representation are also substitutes - findings consistent with both Rediker and Seth (1995) and Whidbee (1997) in the case of US companies. However, when monetary value is utilised to proxy shareholder monitoring, external shareholdings and non-executive representation may actually be complements while external shareholdings and executive ownership may also be complements.

In order to obtain further insights on the interrelationship between governance mechanisms, I examined correlation coefficients between the variables using both fractions and values of ownership. Whether fractions or values of ownership are used, the proportion of non-executive directors is positively correlated with company size and negatively correlated with executive ownership. These findings suggest that company size and non-executive monitoring are substitutes while executive ownership and non-executives are also substitute mechanisms of monitoring employed by UK companies. I find no significant correlations between blockholder (including institutional) ownership and non-executive representation. However, when ownership values are used, I find that the ownership of non-executive directors is positively and significantly correlated with both non-executive representation and institutional ownership. It may be that non-executives with significant equity holdings are perceived to be better monitors on behalf of shareholders since their equity stakes encourages them to pursue shareholder interests in board deliberations. The evidence is consistent with institutional shareholders specifically utilising non-executives with significant amounts of personal wealth invested in equity to monitor company executives on the institutions' behalf.

I also run a series of regressions examining the impact of both fractions and value of ownership on non-executive representation. In all regressions, executive ownership exerts a significant negative impact on the proportion of non-executives on company boards. The ownership of non-executive directors exerts a significant positive impact. There is weak evidence that the ownership of financial

institutions has a negative impact on non-executive representation, especially in larger companies. It appears therefore, that in companies where executives possess either significant fractions of ownership or have significant monetary investments in their companies, there is likely to be a reduced non-executive presence on the board. There is some evidence that the value of institutional investment is positively related to non-executive ownership. This suggests that, while institutional shareholders do not influence the degree of non-executive representation on boards, they may favour the appointment of non-executives with a significant equity interest in the company. I also find that companies with CEO duality possess significantly fewer non-executive directors than non-duality companies. However, CEOs in CEO duality companies typically own significantly greater fractions and value of ownership than their counterparts in non-duality companies. The finding that CEOs in duality companies also possess significant equity in their companies suggests that they retain a strong incentive to ensure that shareholder interests are pursued.

Finally, I examine the impact of board governance and ownership on both accounting and market measures of performance. When fractions of ownership are used, I find weak evidence that CEO ownership has a negative impact on accounting performance while the ownership of executives other than the CEO has a positive impact, particularly in the case of larger companies. Using a market measure of performance, I find that the ownership of external blockholders has a negative impact when all companies are included. When I segregate the sample into large and small samples, the ownership of financial institutions has a negative impact on the performance of smaller companies. However, I find no evidence that the proportion of non-executive directors, CEO duality or the ownership of non-executives exert a significant impact on either the accounting or market measures of performance. When I include the monetary value of ownership however, my regressions reveal more interesting results. For example, the monetary value of executive ownership has a positive impact on both the accounting and market measures of performance. The ownership value of both blockholder and institutional ownership also exert a positive impact on both the accounting and

market performance measures. These findings suggest that, when the monetary value of shareholders' investment is taken into account, greater executive and blockholder ownership serve to reconcile the interests of shareholders and managers in UK companies.

The second objective of this section of my thesis was to examine the potential role of directors' and officers' (D&O) insurance in the governance of UK companies. This was motivated by the writings of a number of US researchers who identified D&O insurance's monitoring potential (Holderness, 1990; Daniels and Hutton, 1993). The theoretical discussion suggested that D&O insurance may have a role in corporate governance for three reasons. First, it was argued that D&O insurance may be used as a substitute source of monitoring when company size makes direct monitoring of managers too expensive for external shareholders. Second, it was suggested that D&O insurance may complement non-executive monitoring. Third, it was suggested that companies have a reduced need for the additional monitoring that D&O insurance is expected to provide when executives possess a significant proportion of equity.

My empirical results provide broad support for the first two of these expectations but less support for the latter. Specifically, I find that company size is an important influence on the likelihood that companies possess a D&O insurance policy. This is consistent with the suggestion that companies, where shareholder monitoring is likely to be most difficult (and costly), are more likely to utilise D&O insurance as an alternative monitoring mechanism. Furthermore, I find evidence that external blockholders (including institutional investors) have higher monetary investments in insured companies. This may suggest that such shareholders seek to protect their investment by encouraging companies to acquire the additional monitoring that D&O insurance is likely to bring. I find strong evidence that D&O insurance and non-executive representation are complementary governance mechanisms used by UK companies. In my univariate comparisons, insured companies possess a significantly higher proportion of non-executives compared to uninsured companies. Furthermore, in

the logit regressions, non-executive representation exerts the strongest single influence on the likelihood of a company possessing a D&O policy. Whether measured by fractions or value, executive ownership is significantly greater in uninsured compared to insured companies. This is consistent with the notion that executives who possess significant equity interests in their companies are unlikely to require the additional monitoring of D&O insurance. However, in the logit regressions, none of the executive ownership variables exert a significant influence on the likelihood of D&O insurance.

The third objective of this part of the thesis was to examine the impact of board composition and ownership on audit quality - and ultimately audit fees. The theoretical discussion suggested that; (1) greater non-executive representation is likely to result in more expensive audits; (2) increased managerial ownership is likely to help realign the interests of shareholders and managers and consequently result in less extensive auditing; and (3) as external shareholder diffusion increases, shareholders are expected to increase their reliance on auditing as a monitoring device and consequently audit effort is likely to be inversely related to the ownership of external shareholders.

In my empirical analysis, I find that the proportion of non-executive directors has a positive impact on audit fees. There are likely to be a number of reasons for this. First, the greater independence that non-executives are expected to bring to the company's negotiations with its auditors, possibly through the auspices of audit committees, are likely to place greater emphasis on audit quality rather than seeking to minimise cost. Second, greater non-executive participation in the audit process is also likely to result in separate discussions regarding non-audit work and consequently auditors are under less pressure to minimise effort and costs in relation to the audit in order to improve their prospects of securing lucrative non-auditor work from the company. Third, non-executives in large companies may actively encourage more extensive auditing to complement their own monitoring activities. This is similar to the earlier finding of a positive relationship between non-executive

representation and the likelihood of D&O insurance. I also find that the ownership of executive directors exerts a significant negative impact on audit fees in the sample. This is consistent with the notion that where executives possess significant equity stakes in their companies, such companies are less inclined to deliberately prepare inaccurate financial statements. The greater alignment of the interests of shareholders and managers in such companies suggests a reduced need for intensive auditing. I find no evidence that the ownership of external blockholders exerts a significant impact on audit fees. From a governance perspective, the findings on the impact of non-executive directors on audit effort is reassuring in that greater levels of non-executive representation result in more extensive auditing which in turn is expected to result in more reliable financial statements and related disclosures.

8.2 INTERNAL GOVERNANCE AND TAKEOVERS

A second objective of the thesis was to examine the relationship between board composition, internal and external ownership in the context of takeovers. The main motivation for this section of the study was to explore whether takeovers substitute for inferior internal governance. In this respect, takeovers may be expected to represent a governance mechanism of last resort. Alternatively, I am interested to investigate whether takeovers occur in companies where strong governance is in place but has failed to ensure that shareholder objectives are pursued. I undertook this examination in two stages. First, I set out to examine the interaction between internal and external control mechanisms by analysing board composition and ownership characteristics in the context of UK takeover activity. Second, I focus specifically on the relationship between internal governance and the likelihood of hostile takeovers since hostile takeovers are more likely to be motivated by governance concerns. In order to undertake this analysis I use a sample of 166 takeover targets and a matched sample of non-targets in the period 1989-1993. In choosing the period for the study, I was anxious to focus on the governance environment prior to the widespread adoption of the Cadbury (1992) recommendations to avoid any contamination of companies' governance characteristics. I then undertake a separate

analysis of the hostile bids and matched non-targets.

In terms of board composition and leadership, I find greater non-executive representation on the boards of hostile targets compared to friendly targets but I find no differences based on bid outcome. I also find that hostile targets are more likely to have different individuals in the roles of chairman and CEO than both non-targets and friendly targets. Successfully acquired firms are less likely to separate the roles of chairman and CEO than targets of unsuccessful takeovers. These findings suggest that hostile targets exhibit strong board governance. This provides some support for the notion that hostile takeovers represent instances where strong internal governance may have failed to reconcile the interests of shareholders and managers and consequently hostile bids represent a governance mechanism of last resort. These findings should concern shareholders since, if hostile takeovers are pursued for governance reasons, increased non-executive representation on boards and the separation of the roles of chairman and CEO does not appear to eliminate the need for takeover governance.

In terms of executive ownership my results are broadly consistent with a number of similar studies in the United States. I find that executives own a significantly lower proportion of equity in hostile targets compared to both matched non-targets and friendly targets. However, unlike a number of US studies, I find no evidence of differential managerial ownership regarding takeover outcome. My results provide some UK support for the notion that when managers own a significant proportion of equity takeovers are welcomed, while lower levels of managerial ownership leads to takeover resistance. This supports Baron's (1983) hypothesis that target management's reaction to a takeover bid depends on the trade-off between the compensation received as a result of selling their equity holdings to the bidder and the likely loss of compensation arising from any post-acquisition displacement. The lack of any significant differences between levels of managerial ownership and bid outcome suggests that bidders only launch takeover bids either with the approval of target

management or when managerial ownership is sufficiently low not to influence the eventual outcome. My findings suggest that the ownership stake of the largest single shareholder is significantly greater in the case of all targets compared to non-targets. When the bids are segregated on the basis of management's attitude, I find that the ownership of the largest shareholder in hostile targets is greater than in the sample of non-targets but does not differ significantly from the friendly sample.

The second section of the study of takeovers examines the interaction between internal and external control mechanisms in a sample of hostile takeover targets and a control group of non-targets. An important innovation in this section is the further categorisation of the board composition, leadership and external ownership variables. When I categorise non-executives in respect of their affiliation with management, I find a greater proportion of unaffiliated directors on the boards of target firms. I also find that non-targets are more likely to have the same individual serving as company chairman and CEO. Investigating this finding further, I find that in non-targets when CEO duality occurs, almost half the CEOs are company founders compared to only 25 per cent in the case of targets. This suggests that the presence of the company founder may discourage potential bidders from launching a hostile bid. In the logit regression examining the impact of internal governance on takeover likelihood, none of the board composition and leadership variables had a significant impact. However, CEO duality coupled with CEO ownership has a significant negative impact on the likelihood of a hostile bid.

It is interesting to note that the interaction of governance mechanisms differed between the samples of targets and non-targets. For example, I found that as the proportion of non-executives increases in non-targets, there is a corresponding increase in the proportion of unaffiliated directors and the mean number of additional directorships non-executives possess. There is also evidence that the mean number of additional directorships increases as executive ownership decreases and size increases. This suggests that, as the incentives to pursue shareholder objectives decline, non-executive quality

improves. Similarly, as company size increases and the monitoring of managerial behaviour becomes more difficult for shareholders, non-executive quality improves. Similar correlations are not present in the case of hostile targets.

The most significant difference between hostile targets and non-targets is executive ownership with executives in non-targets possessing significantly greater levels of equity. In the logit regression, executive share ownership has a negative and significant impact on the likelihood of a hostile takeover bid. The results presented here suggest that in the case of hostile takeovers, bidders are less likely to launch a takeover when executive ownership is significant. This interpretation is reinforced by the absence of a link between executive ownership and takeover outcome. Even though I differentiate large external shareholders between institutional and non-institutional and affiliated and unaffiliated, I find little evidence that large blockholders play a role in takeover likelihood. Interestingly, I find some evidence that institutional and unaffiliated shareholders may support managers in smaller targets to defeat unwanted bids. The univariate analysis finds that target firms exhibit a significantly lower return on capital employed compared to non-targets while the logit analysis finds that return on capital employed has a significant negative impact on the likelihood of a hostile bid. This provides some support for the notion that hostile bids are motivated by governance considerations. Finally, of the 51 hostile bids included in the analysis, 23 (45%) successfully retained their independence. This reminds us of the pivotal role target managers play in the takeover process.

8.3 INTERNAL GOVERNANCE IN MUTUAL AND PROPRIETARY INSURANCE COMPANIES

The objective of this section of the thesis has been to examine the utilisation and impact of internal governance mechanisms by mutual and proprietary insurance companies. In order to achieve this objective I used two sets of data. First, I undertook a postal questionnaire survey designed to provide

a detailed insight into companies' utilisation of internal governance mechanisms. Second, I undertook a comprehensive analysis of companies' annual reports and accounts for an eight-year period. The postal questionnaire covered the situation in 1992 while the pooled database covered the period 1984-91. These dates were deliberately chosen to allow me to investigate insurers' utilisation of governance instruments prior to the widespread adoption of the Cadbury (1992) recommendations by UK companies.

One of the most striking findings of this section of the thesis is the high quality of internal governance employed by insurance companies. For example, 73 per cent of directors in independent mutual companies were non-executive with proprietary companies having a corresponding figure of 61 per cent. Furthermore, only between 3 and 5 per cent of insurers have CEO duality. Within the high quality of board governance in insurance, I find that mutual insurers have a significantly higher proportion of non-executives and a lower incidence of CEO duality than proprietary insurers. The difference in non-executive representation applies to both the cross-section and pooled datasets, while the difference in CEO duality applies only in respect of the 1984-91 period. A high proportion of independent insurers possessed audit and remuneration committees in 1992. For example, 68 per cent of both mutual and proprietary insurers possessed an audit committee while the figures for the presence of a remuneration committee were 84 per cent and 58 per cent respectively.

Overall, the evidence presented in this section suggests that mutual and proprietary insurers exhibit different board characteristics. Mutual companies possess more independent boards and are more likely to possess remuneration committees than proprietary companies. This is consistent with expectations since mutuals are expected to utilise stronger internal governance to compensate for the absence of governance through external blockholders and takeovers. In addition, the greater presence of remuneration committees in mutual companies emphasises mutuals' desire to ensure greater independence in an area where the potential for conflict between policyholders and managers is

particularly high. I find a greater willingness on the part of proprietary insurers to utilise former executives as non-executives. This is interesting since it is consistent with the notion that the appointment of non-executives in proprietary companies may not be influenced solely by monitoring demands but may also be motivated by non-executives' company and industry expertise.

Having identified differences in the internal governance environment of mutual and proprietary companies, the next stage was to investigate whether the differences in internal and external control influenced company behaviour. I use a number of performance measures designed to reflect both policyholder and manager-orientated performance. In the regressions using growth in assets and growth in premiums, I find no evidence that either internal or external governance is associated with variations in performance. The absence of a clear impact suggests that, while mutuals and proprietary insurers utilise a different mix of governance instruments, the overall performance of the two types of companies is broadly similar. This evidence is consistent with companies utilising various combinations of governance mechanisms to suit their specific monitoring requirements.

I also examine the impact of governance on executive remuneration in insurance companies. In both the cross-section and pooled datasets, the remuneration of the highest paid executive is significantly lower in mutual companies. In the pooled data, non-executive representation and CEO duality also exert a significant negative impact on remuneration. I also find that the existence of a remuneration committee is associated with higher remuneration. These results provide a number of interesting insights on the determinants of executive remuneration in insurance. For example, Mayers and Smith (1992) justify the negative impact of mutuality on the basis that CEOs in mutual companies operate in a less sophisticated corporate environment than their counterparts in proprietary companies and consequently are rewarded with lower remuneration. My cross-section comparisons show that mutual CEOs are more likely to be appointed internally and likely to have had longer prior service in the company than proprietary CEOs. This suggests that mutual managers follow different career

patterns than their counterparts in proprietary companies and this may also contribute to the remuneration differential between the two categories of CEOs. From a governance perspective, the negative impact of non-executive representation on remuneration is encouraging since it suggests that executive remuneration is constrained by higher levels of non-executives on the board. The finding that the existence of a remuneration committee is associated with higher remuneration is consistent with the findings of a number of recent studies of quoted companies.

Finally, I use both datasets to examine the influence of internal and external governance characteristics on auditors' pricing decisions in insurance. I find that mutuality has a significant negative impact on the level of audit fee paid by insurers. In the earlier theoretical discussion I suggested that auditors of mutual insurers may face a reduced need to exert effort since the absence of takeovers and other forms of corporate restructuring suggests that future investigations into the auditor's work is unlikely. In addition, this may also reduce the risk premium component of audit fees. The evidence presented suggests that this may indeed be the case. In the pooled data, the proportion of non-executive directors exerts a negative impact on audit fees. This finding is contrary to my earlier findings in respect of quoted companies where greater non-executive representation had a positive impact on audit fees. The evidence here is consistent with the notion that auditors believe that companies with higher non-executive representation are less likely to have made errors in the preparation of their annual report and accounts and consequently reduced testing and effort is required by auditors. Viewed in this way, non-executive monitoring and auditor effort are substitute mechanisms of governance in insurance.

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INSURANCE COMPANY QUESTIONNAIRE

CONFIDENTIAL

**University of Nottingham Insurance Centre
School of Management and Finance
University of Nottingham
University Park
Nottingham
NG7 2RD**

**Tel: 0602 515268
Fax: 0602 515262**



IMPORTANT: PLEASE READ BEFORE COMPLETING QUESTIONNAIRE

- (a) This questionnaire refers to the 1992 financial year only.
- (b) For the purposes of this questionnaire, Director refers to members of the main board of directors only, and is not intended to include those persons whose job title may include 'Director' but who do not serve on the company's main board.
- (c) Non-Executive refers to main board Directors who do not also hold an executive position in the under-mentioned company.
- (d) Unaffiliated refers to Non-Executive main board Directors who are not also executives of other companies within the same group (eg. subsidiary or parent).
- (e) For the purposes of this questionnaire, the Audit Committee is a sub-committee of the main board of directors which provides a forum for communication between the external auditors and directors/senior company management
- (f) For the purposes of this questionnaire, the Remuneration Committee is a sub-committee of the main board of directors which makes recommendations on (and/or determines) the remuneration of directors and senior executives.
- (g) Whilst this questionnaire concentrates on the situation at the end of your 1992 financial year, please feel free to indicate where the responses may have changed in respect of 1993

If you would like to receive a summary of the survey results, please enter your name and job title below.

Name of Respondent.....

Job Title.....

Tel No.....

If you have any queries in completing this questionnaire, please contact

Mr. Noel O'Sullivan
ABI Research Fellow
University of Nottingham Insurance Centre
School of Management & Finance
University of Nottingham
Nottingham, NG7 2RD

Tel 0602-515268
Fax 0602-515262



A. BOARD OF DIRECTORS

1. How many Directors (including the Chairman) were on the Company's main board? 4
2. How many of the Directors on the main board were Non-Executive? 3
3. How many of the Non-Executive Directors were Unaffiliated? 1
4. How many of the Non-Executive directors have previously served as executives of the company, or as executives of an affiliated company (eg subsidiary, parent or holding company)? 2
5. Was the company Chairman a Non-Executive Director? ☒ Yes ☐ No
6. Was the company Chairman an Unaffiliated Director? ☒ Yes ☐ No

B. BOARD COMMITTEES

7. Please indicate which of the following Committees existed at the end of 1992

Audit Committee

☒ Yes ☐ No

Remuneration Committee

☒ Yes ☐ No

- | | <u>Audit Committee</u> | <u>Remuneration Committee</u> |
|--|------------------------|-------------------------------|
| 8. When were the respective Committees established? | 19/___ | 19/___ |
| 9. How many members did the Committees have? | ___ | ___ |
| 10. How many of the Committee members were Directors? | ___ | ___ |
| 11. How many of the Directors were Non-Executive? | ___ | ___ |
| 12. How many of the Directors were Unaffiliated? | ___ | ___ |
| 13. Was the Committee chairman a Non-Executive Director? | Yes/No | Yes/No |
| 14. Was the Committee chairman an Unaffiliated Director? | Yes/No | Yes/No |



C. CHIEF EXECUTIVE

15. At the end of the 1992 financial year, for how long had the Chief Executive been in his/her position? 8 Years
16. Was the Chief Executive appointed from within the company? Yes ☒ No
- (a) If Yes, for how long had the Chief Executive worked in the company prior to his/her appointment? Years
- (b) If No, was the Chief Executive appointed from an affiliated company (eg. subsidiary, parent or holding company)? Yes ☒ No
17. At the end of the 1992 financial year, was the Chief Executive a member of the Board of Directors? ☒ Yes ☐ No
18. At the end of the 1992 financial year, was the Chief Executive also the company Chairman? Yes ☒ No
- If No, in which year was the separation of the roles of Chairman and Chief Executive first introduced? 1985

D. AUDITOR

19. For how many consecutive years, prior to 1992, has your company been audited by the same audit firm? 4 Years
- (NB: A change in audit firm name due to a merger does not represent a change of auditor)
20. Has your company dispensed with the requirement to re-appoint auditors annually, as provided by The Companies Act 1989? Yes ☒ No



21. Did your audit firm also provide non-audit services to the company during the 1992 financial year?

Yes/No

If Yes, please indicate the services provided:
(please tick appropriate box(es))

- (a) Non-Audit Accounting
(b) Actuarial Services
(c) Management Advisory Services
(d) Corporate Finance
(e) Taxation
(f) Other

☐
☐
☐
☐
☒
☐

If Other, please specify: _____

22. At the end of the 1992 financial year, did your company have an Internal Audit Department?

Yes/No

If Yes, in what year was the Internal Audit Department established?

1990

23. How many staff were employed in the Internal Audit Department?

3

24. Who does the Internal Audit Department report to?
(please tick appropriate box(es))

- (a) The Audit Committee
(b) The Board of Directors
(c) The Chairman
(d) The Chief Executive
(e) The Finance Director
(f) Other

☐
☐
☐
☐
☐
☒

If Other, please specify: GROUP CHIEF EXECUTIVE

THANK YOU FOR YOUR COOPERATION

