

**University of Strathclyde**

**Department of Accounting and Finance**

**Corporate Governance in the UK Post-Cadbury**

**Patrick McColgan**

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# **Corporate Governance in the UK Post-Cadbury**

## **Abstract**

This thesis examines the corporate governance structures of UK companies following the publication of the Cadbury Committee's Report on the financial aspects of corporate governance in 1992. New evidence is provided on the role of managerial control, board structure and equity issuance in company decision making with respect to the adoption of a corporate governance code of best practice, CEO replacement and appointment decisions, and corporate restructuring. These findings shed new light on the interaction of corporate governance systems, the factors that drive changes in these structures, and the role of corporate governance in discrete corporate tasks.

Initially the factors affecting company's decisions on whether to comply with the report's recommendations on non-executive director representation and separating the roles of the Chief Executive and the Chairman of the Board are examined. This study then examines the role of governance structures in three separate discrete tasks; (i) the likelihood of forced top executive turnover and the origin of the replacement CEO, (ii) the role of governance structures in CEO selection, based on the performance consequences of top management change, and (iii) the relationship between governance and firm responses to a large decline in operating performance.

The evidence presented in this thesis contributes to the growing research on board structure and capital market discipline. Specifically, changes in board structure were driven largely by changes in managerial control and equity issuance, which has

implications for the likelihood and the potential effects of the global move towards corporate boards that are dominated by outside directors. Furthermore, new evidence is provided on the various tasks in which different corporate governance structures play an important economic role. Capital markets are involved in various types of company decisions whereas board structure is found to play a role only in CEO replacement decisions.

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## **1. Corporate governance in the UK post-Cadbury**

This thesis examines the corporate governance structures of UK companies following the publication of the Cadbury Committee's Report on the 'financial aspects of corporate governance' in 1992, hereafter referred to as the Cadbury Report (1992). The report called on companies to appoint minimum numbers of non-executive directors and to separate the roles of the Chief Executive Officer (CEO) and the Chairman of the Board.

The findings of this thesis suggest that owner-specific characteristics and equity issuance decisions played just as important a role in corporate governance changes as the firm-specific characteristics of individual companies. Compliance with the Cadbury Report's (1992) recommendations was also highly correlated with these owner-specific and capital market variables.

Equity issuance and board structure characteristics are found to play a role in CEO replacement decisions. Higher representation on company boards by outside directors and splitting the roles of the Chairman and the CEO increase the likelihood of forced replacement, but not necessarily in poorly performing companies. It is only when poorly performing companies issue equity that managerial discipline is focused on poor performers. Outside directors increase the likelihood of a replacement CEO being appointed from outside the company, while placings of new equity lead to internal succession decisions.

Forced CEO turnover follows significant declines in operating performance and poor stock price performance, but there is no evidence that operating or stock price performance improves post-turnover. The stock market reacts positively to announcements of voluntary turnover and outside CEO succession, but negatively to



announcements of forced CEO turnover. In general, corporate governance structures play little predictable role in CEO selection based on post-turnover changes in performance. However, there is evidence that CEO appointments from companies with smaller corporate boards and higher levels of institutional blockholdings result in adverse post-turnover stock price and operating performance.

Finally, following a large decline in operating performance, leverage, takeover threats and equity issuance play an important role in operational responses and managerial replacement decisions. However, there is no evidence that board structure plays a significant part in company responses.

The remainder of this chapter is structured as follows. Section 1.1. provides a short discussion of the relevant proposals from the Cadbury Report (1992) that motivate this analysis. Section 1.2. provides a summary of the various reactions to the report and the extent of compliance with the proposed recommendations. A discussion of the governance codes that have been published subsequent to Cadbury is given in section 1.3. while section 1.4. provides a short summary of the empirical findings of this thesis. Finally, section 1.5. discusses the main outline of this thesis.

### ***1.1. The Cadbury Report***

The Cadbury Report (1992) was published in response to a series of accounting and financial scandals at UK listed companies where management had failed to prevent, or even contributed to, financial mismanagement. Of particular interest to this research are the report's recommendations that companies should separate the positions of the Chairman and the CEO and employ a minimum of three non-executive directors, two of whom should be independent of management. Dahya, McConnell and Travlos (2002) summarise the other main recommendations of the report as (i) full disclosure of the pay of the chairman and the highest paid director, (ii) shareholder approval on any executive directors' contract exceeding three years, (iii) that executive director's pay be set by a sub-committee of the board which is comprised primarily of non-executive directors, and (iv) directors should establish an audit sub-committee, again comprised mainly of non-executives, to report on the effectiveness of the company's system of internal control.

The report has been superseded by further codes of best practice published by the City Institute of Smaller Companies [CISCO] (1993), Greenbury (1995), Hampel (1998) and Higgs (2003) committees. However, it was the Cadbury Report (1992) which set the ball rolling on corporate governance reform in the UK and it is this that provides the focus of my research.

The purported aim of these recommendations was to increase board monitoring of company executives by providing a greater independent perspective than was currently available. Also, splitting the positions of the CEO and the Chairman was aimed at preventing any one individual from dominating the board of directors.



Dahya and McConnell (2004) suggest that the ultimate aim of altering board structures is to encourage better decision making by directors.

Writing shortly after the Cadbury Report's publication, Keasey and Wright (1993) suggested that its proposals rely upon improved information for shareholders, continued self-regulation and a strengthening of auditor independence. As with all codes of best practice, the proposals are not legally binding.

Since 1993 the London Stock Exchange (LSE) has required that listed companies provide a statement of compliance in their financial statements and non-compliance must be disclosed along with reasons. Dahya et al. (2002) suggest that this provides a backbone to the proposals enshrined in the report. They also note that at publication the report was released with a warning that failure to voluntarily adopt the report's recommendations would likely lead to legal reform to make the proposals mandatory.

## ***1.2. The response to Cadbury***

The publication of the Cadbury Report (1992) attracted a high degree of criticism from groups of investors who either felt that it went too far or did not go far enough. For example, Short, Keasey, Wright and Hull (1999) argue that the reforms were too prescriptive, overly focus on the accountability or monitoring aspects of governance, and risk damaging managerial enterprise. Dahya et al. (2002) also discuss criticism of the Cadbury Report as suggesting that competitive forces will establish an optimal balance between managerial enterprise and the monitoring of company management.

On the other hand, some commentators responded to Cadbury by criticising its voluntary approach and called for more stringent enforcement of its proposals. These calls have been given some support by the number of follow-up reports on corporate governance standards that have been published subsequent to Cadbury. The reports of the Greenbury (1995), Hampel (1998), and in particular Higgs (2003) committees have each provided further proposals for the structure of UK boardrooms.

Based on the findings of Young (2000), Dahya et al. (2002) and Weir, Laing and McKnight (2002) the majority of UK listed companies have increased their component of non-executive directors and have become more willing to split the roles of the Chairman and the CEO. These studies suggest that non-executives now make up between 40% and 50% of the board of directors in UK companies, a rise of between 10% and 15%. Also, between 80% and 90% of listed companies now separate the roles of the Chairman and the CEO. However, Buckland (2001) finds that very few newly listed companies are able to comply with the report's

recommendations, in particular the requirement that two of these non-executives should be independent of management.

### ***1.3. Future corporate governance reforms***

In the years following the publication of the Cadbury Report (1992) a number of subsequent codes of best practice have been published. The Greenbury Report (1995) provided guidelines for the setting and reporting of director remuneration. The report sets out formal guidelines for the reporting of various forms of compensation for all board directors, rather than the Cadbury Report's (1992) standard of only the Chairman and the highest paid director. In addition, Short et al. (1999) note that both Cadbury and Greenbury have attempted to place the emphasis for setting director compensation on remuneration or compensation committees that are comprised of non-executive directors.

The Hampel Report (1998) further strengthened the disclosure requirements for listed companies, insisting that the majority of non-executive directors should be independent and that companies must disclose which non-executives are not. In addition, non-executives should now make up at least one third of the board. Companies should also appoint a senior non-executive director to whom any concerns can be conveyed, and use nomination committees to appoint new directors to the board. Finally, boards should continue to establish remuneration committees comprised of independent non-executive directors to set executive directors' pay.

The report of the Higgs Committee was published in 2003 in the wake of spectacular collapses in the share price of many UK companies, most notably Marconi, and regulatory pressure following the accounting scandals at Enron and Worldcom in America. Prior to its publication there was a general consensus in the financial press that the report would re-affirm existing governance policies and



suggest additional training for non-executive directors. However, when the first draft of the report was published it produced a number of sweeping governance reforms.

Specifically, the report proposed that companies should no longer be allowed to employ the same person in the positions of the Chairman and the CEO, rather than simply recommending this step. Additionally, CEOs should not be allowed to succeed to the position of Chairman when they step down. Finally, excluding the company Chairman, independent non-executive directors should comprise at least half of the board of directors. As was anticipated, the report also recommended improved training for non-executive directors. The decision to prevent departing CEOs from remaining with the company as Chairman has proved highly controversial, as many companies use this process to provide a smooth transition for monitoring the performance of the newly appointed CEO and providing them with a sounding board for their plans. The rationale for the proposal was to prevent the retiring CEO from controlling the company from behind the scenes. The inclusion of more independent non-executives has also been greeted with scorn by investors who fear that Britain is moving towards a US board structure, where it is common practice for company boards to be comprised mainly of non-executive directors. Yet, empirical research to be discussed later does not suggest that on the whole outside directors increase firm value.

The publication of Greenbury (1995) and Hampel (1998) overlap the sample period that is analysed in the empirical chapters of this thesis. However, it is not felt that this should severely bias this research in any way. The main role for non-executives in the Greenbury Report (1995) was on board sub-committees, which are not studied in this thesis and companies that were already in compliance with the

Cadbury Report's (1992) recommendations could meet compliance with Greenbury's (1995) board sub-committee representation requirements. Finally, the Hampel Report (1998) reaffirmed many of the proposals from Cadbury, in addition to proposing that non-executives should comprise at least one third of the board. Since the report was published in 1998 and the governance data used in this study ends in December 1997, the Hampel Report's proposals should not severely influence the decisions of companies during the sample period used in this research. This issue will be discussed in further detail in the conclusions of this thesis.

#### ***1.4. Issues investigated in this dissertation***

This thesis examines four main empirical issues concerning corporate governance structures in the UK following the publication of the Cadbury Report (1992). These are:

1. What are the factors affecting changes in managerial ownership and company board structures, and in particular compliance with the main proposals of the Cadbury Report (1992)?
2. What is the role of corporate governance in the likelihood of forced changes to the company's CEO and how do these factors affect the origin of their replacement?
3. What are the performance causes and consequences of various managerial replacement decisions and what role does governance play in the quality of CEO selection decisions?
4. What role, if any, does corporate governance play in the responses of UK companies to a large decline in operating performance?

This section provides a short summary of these chapters.

##### ***1.4.1. What are the factors affecting changes in managerial ownership and company board structures, and in particular compliance with the main proposals of the Cadbury Report (1992)?***

Several past studies have examined the determinants of the use of individual and groups of corporate governance systems. These have included firm size, risk, growth opportunities, and industry regulation amongst many other factors. Other



research has examined the role of external control mechanisms and owner-specific variables, such as takeover activity, equity issuance and CEO turnover in changes to corporate governance systems. Finally, in the UK both Young (2000) and Dedman (2000) examine firm-specific factors in the role of Cadbury compliance decisions.

Chapter five attempts to tie these streams of research together by extending past UK research to examine not only the role of firm-specific characteristics in compliance, but also the role of owner-specific factors, such as CEO turnover and whether the CEO is the firm's founder, and the equity issuance process. In addition, current research has examined compliance by using various points in time, which creates difficulties in measuring the exact point of the compliance decision. The continuous data set used in this sample helps to limit the extent of these problems.

This study reports that changes in ownership and board structure are highly correlated with one another and are determined by corporate performance, owner-specific characteristics and equity issuance to a greater extent than they are determined by changes in firm-specific characteristics. Consistent with the original hypothesis, owner-specific characteristics, corporate performance and equity issuance decisions play at least as important a role in Cadbury compliance decisions as do firm-specific characteristics.

#### *1.4.2. What is the role of corporate governance in the likelihood of forced changes to the company's CEO and how do these factors affect the origin of their replacement?*

Chapter six examines the role of internal and external corporate governance systems on the likelihood that the company's CEO is removed from their job, and that an outside successor is appointed to replace them. Dahya et al. (2002) find that



compliance with the Cadbury Report's recommendation of employing at least three non-executive directors increases the sensitivity of forced CEO turnover to company performance. In contrast, during a pre-Cadbury time period, Franks, Mayer and Renneboog (2001) find that non-executive directors actually insulate poorly performing executive directors from the threat of removal in UK companies, and that managerial removal in poorly performing firms is most likely when these companies return to the capital markets to issue equity.

I find that forced CEO turnover is more likely following poor performance as measured by stock price returns, dividend cuts and omissions, and the reporting of negative pre-tax income. Outside directors and splitting the roles of the CEO and the Chairman increase the probability of forced turnover, but this is not limited to poorly performing firms. The sensitivity of CEO turnover to company performance is greatest when companies return to the capital market to issue new equity. Evidence is also presented that external CEO succession is more likely as outside director representation on company boards increases and following forced CEO turnover. Finally, placings of new equity increase the likelihood that a new CEO is appointed from within the current management team.

#### *1.4.3. What are the performance causes and consequences of various managerial replacement decisions and what role does governance play in the quality of CEO selection decisions?*

Two central theories underlie the forced replacement of a company's top manager. Under the 'scapegoat' theory proposed by Khanna and Poulsen (1995) managers are forced out following poor performance that is outside their control. It follows that under this theory the market reaction to CEO turnover is negligible

unless the announcement contains any new information to the market, and forced turnover should not be associated with predictable improvements in company performance. According to the alternative 'improved management' hypothesis of Huson, Malatesta and Parrino (2004), CEOs are responsible for their firm's poor performance and are removed as a result. The motive for replacing the CEO is to appoint a replacement of superior quality, and as a result, the market should react positively to announcements of forced turnover and operating performance should improve as a result.

Examining the performance consequences of CEO turnover decisions also provides a laboratory for further evaluating the importance of corporate governance systems. If a predictable relationship can be found between internal or external monitoring systems and performance changes following turnover, this provides further evidence on the costs and benefits of these structures.

Chapter seven shows that forced CEO turnover follows significant declines in various measures of company performance prior to turnover. While the stock price reacts positively to announcements of normal turnover and outside succession, it reacts negatively to announcements of forced turnover. Further analysis indicates that forced turnover is followed by large changes in operating performance, announcement period abnormal stock price returns and long-run abnormal stock price performance, whether positive or negative. Finally, the only consistent evidence of a relationship between governance and post-turnover performance indicates that those firms with smaller corporate boards and higher institutional blockholdings make poor CEO selection decisions.

*1.4.4. What role, if any, does corporate governance play in the responses of UK companies to a large decline in operating performance?*

Past studies of corporate restructuring following poor performance by John, Lang and Netter (1992), Ofek (1993), Kang and Shivdasani (1997) and Denis and Kruse (2000) posit a role for corporate governance in the restructuring actions that companies make in response to a decline in their accounting and/or stock price performance. In particular, leverage, blockholdings and corporate control activity increase the likelihood of downsizing in a firm's asset base and employment, cutting dividends and restructuring existing debt, and changes in company management, depending on the sample of companies under examination. No previous role has been found for company board structure in firm responses.

Chapter eight documents the responses of UK companies to a large decline in operating performance. Sample firms respond by reducing their asset base, laying off employees, expanding internally and externally and replacing management. Higher leverage increases the probability of downsizing operations without also expanding, as does corporate control activity. Control activity also increases the likelihood of forced CEO turnover and director appointments and departures. While equity issuance increases the magnitude of board restructuring, it also provides managers with more funds to expand their operations. Finally, there is no evidence that board structure plays a role in firm responses to the decline in performance.

The chapter concludes by examining operating performance changes following the original decline in performance. Evidence is found of significant increases in raw and industry adjusted performance, but based on sample matching techniques for



measuring performance changes, there is no significant evidence of performance improvements following various types of corporate restructuring actions.



### ***1.5. Structure of dissertation***

The remainder of this thesis is structured as follows. Chapter 2 discusses the basic agency problem between company shareholders and managers. Chapter 3 discusses a variety of proposed and empirically investigated solutions to the problem, including the board of directors which forms the focus of the Cadbury Report (1992) and much of the subsequent governance reforms in UK companies.

Chapter 4 describes the sample data that is used in this analysis and provides a discussion of the variables analysed in future empirical chapters. Chapters 5 through 8 investigate each of the empirical issues discussed in this chapter in turn. Finally, chapter 9 summarises this thesis and discusses potentially fruitful areas for future research.

## **2. Agency conflicts between shareholders and managers**

Since the seminal work of Jensen and Meckling (1976) in proposing a theory of the firm based upon conflicts of interest between various contracting parties – namely shareholders, corporate managers and debtholders – a vast literature has developed in explaining both the nature of these conflicts, and the means by which they may be resolved.

A major focus of the Cadbury Report (1992) was to strengthen the role of control mechanisms that limit the extent of these agency conflicts. These structures are reviewed in chapter 3 of this thesis. However, in order to fully understand what the report is designed to achieve, it is important to understand the basic agency problem that exists between company managers and shareholders.

To fully summarise all of the research that has been conducted in the field of agency conflicts would be almost impossible. What is attempted here is to provide a summary of the major research that has taken place in the key topics that have emerged with respect to the causes of agency conflicts.

Section 2.1. of this chapter examines the nature of the agency relationship that exists between company managers and shareholders, and the agency costs which arise as a result. Section 2.2. provides a discussion of the main areas of divergence between the interests of managers and shareholders.

## **2.1. Agency costs**

Jensen and Meckling (1976) define the agency relationship as a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf. As part of this, the principal will delegate some decision-making authority to the agent. In the classical principal-agent problem, managers assume the role of the agent who acts on behalf of the company's shareholders, the principals. The basic agency problem arises because of the separation of decision management, carried out by the company's managers, from the bearing of residual risk by the company's shareholders. Shleifer and Vishny (1997) describe the agency problem as referring to the difficulties faced by financiers in assuring that their funds are not expropriated or wasted on unattractive projects. Within this framework shareholders are assumed to derive purely financial benefits from ownership of their equity investments.

Agency problems cannot be costlessly controlled because of the impossibility of perfectly contracting for the actions of an agent whose decisions affect both his own welfare and the welfare of the principal [Brennan (1995b)]. Shleifer and Vishny (1997) argue that because complete contracts between managers and shareholders are infeasible, shareholders must allocate residual control rights for given circumstances, where these are typically retained by the company's managers who are best qualified to use them.

Since management control the firm, they have the ability to realise private benefits of control that are unavailable to the company's shareholders. Jensen and Meckling (1976) argue that this inefficiency is reduced as managerial incentives to take value-maximising decisions are increased. They suggest that agency costs arise



because providing managers with the appropriate incentives to act in the best interests of company shareholders imposes costs on the principals.

As with any other costs, agency problems will be captured by financial markets and reflected in a company's share price. Agency costs can be seen as the value loss to shareholders arising from the cost of minimising divergences of interest between company shareholders and corporate managers. Jensen and Meckling (1976) define agency costs as the sum of monitoring costs, bonding costs, and residual loss.

### *2.1.1. Monitoring costs*

The actions of company management are monitored on the understanding that they are judged on the extent to which they have maximised some observable measure(s) of shareholder wealth. Monitoring costs are expenditures paid by the principal to measure, observe and control an agent's behaviour. They may include the cost of audits, writing executive compensation contracts, and ultimately the cost of hiring and firing top managers. Initially the principal pays these costs, but Fama and Jensen (1983) argue that they will ultimately be borne by an agent, as their compensation will be adjusted to cover these costs.

Legislation and codes of best practice may also impose certain aspects of monitoring. UK companies are required to provide statements of compliance with the Combined Code on corporate governance that has resulted from the reports of the Cadbury (1992), Greenbury (1995), Hampel (1998) and Higgs (2003) committees. The Code emphasises the monitoring role of control systems that are believed to reduce agency conflicts between shareholders and managers. Non-compliance must

be disclosed and explained, and the attention brought by these disclosures represents an additional source of monitoring to company management.

Denis, Denis and Sarin (1997a) contend that effective monitoring will be restricted to certain groups or individuals. Such monitors must have both the necessary expertise and the financial incentive to monitor company management. In addition, these monitoring parties must provide a credible threat to management's control over the firm.

Burkart, Gromb and Panunzi (1997) provide a more cautious view of monitoring, arguing that too much will constrain managerial initiative. They argue that monitoring will be costly because managerial discretion provides benefits to shareholders where managers provide human capital to the company that shareholders do not generally possess. The optimum level of monitoring will be specific to an individual company's contracting environment [Himmelberg, Hubbard and Palia (1999)]. Some critics of the Cadbury Report (1992) and other published codes of best practice have felt that this increased level of monitoring may act as a deterrent to managerial entrepreneurship [Short, Keasey, Wright and Hull (1999)].

### *2.1.2. Bonding costs*

Given that agents ultimately bear monitoring costs, they are likely to set up structures that will see them act in shareholder's best interests, or compensate them accordingly if they don't. The costs of establishing and adhering to these systems are known as bonding costs [Jensen and Meckling (1976)].

Bonding costs are borne by the agent, but are not always financial. They may include the cost of additional information disclosures to shareholders, but

management will obviously have the benefit of implementing these structures themselves. Agents will stop incurring bonding costs when the marginal reduction in monitoring costs equals the marginal increase in bonding costs.

Denis (2001) argues that the best solution to the agency problem is to provide managers with a contract to bond them to do exactly as shareholders would wish in any given state of nature. However, as she notes this is infeasible due to the impossibility of contracting for all possible future states and the excessive costs of even attempting to do so. Such a contract would also assume that shareholders are actually aware of what the optimum decision is in any given state, but if this were the case then shareholders would be less inclined to hire professional managers in the first instance. In practice, bonding therefore provides a means for ensuring that managers do some of the things that shareholders would prefer by writing less than perfect contracts.

### *2.1.3. Residual loss*

Despite monitoring and bonding, the interests of managers and shareholders are still unlikely to be fully aligned. Therefore, there are still agency losses arising from conflicts of interest. These losses are defined by Jensen and Meckling (1976) as residual loss. This essentially represents the value of output lost because the cost of full enforcement of contracts exceeds the benefits from doing so [Fama and Jensen (1983)].

Since managerial actions are unobservable ex-ante, to fully contract for every state of nature is impractical. The result of this is an optimal level of contracting with a given level of residual loss. This may be viewed as representing a trade-off



between overly constraining management and providing them with the discretion to pursue their own self-serving corporate policies.

## *2.2. Sources of agency conflicts*

Agency problems arise from conflicts of interest between two parties to a contract, and as such, are almost limitless in nature. However, theoretical and empirical research has developed in four key areas – moral hazard, earnings retention, risk aversion, and time-horizon. The next section aims to provide a discussion of these major themes and the empirical research that has been conducted in these areas. The discussion provided in this section focuses almost exclusively on theoretical and empirical research that has been conducted in market-based economies where legal protection of investors is strong. Shleifer and Vishny (1997) argue that expropriation of shareholders in such systems is generally more subtle, whereas in less developed economies expropriation tends to be more blatant and obvious, resulting in large premiums for controlling ownership stakes which can minimise the likelihood of expropriation.<sup>1</sup>

### *2.2.1. Moral hazard agency conflicts*

Jensen and Meckling (1976) first proposed a moral hazard explanation of agency conflicts. Assuming a situation where a single manager owns the firm, they develop a model whereby his incentive to consume private perquisites, rather than investing in positive net present value (NPV) projects, increases as his ownership stake in the company declines. This framework is easily applied in companies where ownership structure is diverse and corporate managers do not own the majority of

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<sup>1</sup> See Shleifer and Vishny (1997), La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) and Denis and McConnell (2003) for a more complete discussion of the role of the legal system and the resulting degree of investor protection in agency conflicts between company managers and shareholders. Market based economies such as the UK and US generally fall under the heading of ‘common law’ based legal systems, which La Porta et al. (1998) describe as offering the highest degree of legal protection to investors.

their company's shares. This is more often than not the case in market-based contracting economies, such as the UK and the US.

Shleifer and Vishny (1989) argue that rather than not investing, managers may alternatively choose to excessively invest in assets best suited to their own personal skills. The value of these investments will be higher to the firm's shareholders under the incumbent manager than under the next best replacement candidate, even when these investments are not value maximising to shareholders. Such investments increase the value to the firm of the individual manager and increase the cost of replacing them, allowing managers to extract higher levels of compensation from the company and providing them with greater discretion over future policies.

Moral hazard problems are likely to be more paramount in larger companies [Jensen (1993)]. While larger firms attract more external monitoring, increasing firm size expands the complexity of the firm's contracting nexus almost exponentially. This will have the effect of increasing the difficulty of monitoring, and therefore, increase the cost of doing so. Furthermore, Jensen (1986) argues that in larger, more mature companies, free cash flow problems will heighten the difficulties created by moral hazard. Where managers have such funds at their disposal, without any strong requirements for investment, the scope for private perquisite consumption is vastly increased, as it becomes more difficult to monitor how corporate funds are utilised.

Moral hazard problems are also related to a lack of managerial effort. While it is difficult to directly measure such shirking of responsibilities by directors, Rosenstein and Wyatt (1994) find that company stock prices decline upon the announcement of the appointment of an executive director to the board of another



company. This is consistent with diminishing managerial effort being damaging to company value.

### *2.2.2. Earnings retention agency conflicts*

Denis (2001) argues that moral hazard based agency theories are of relatively lesser importance than other theories of conflicts of interest between managers and shareholders. Brennan (1995b) also contends that moral hazard based theories oversimplify the agency problem as one of effort aversion. Grandiose managerial visions and cash distribution to shareholders may be of greater concern to company shareholders. Here, the problem of over-investing may be more paramount than that of perquisite consumption and the resulting under-investment.

Studies of compensation structure have generally found that director remuneration is an increasing function of company size,<sup>2</sup> providing management with a direct incentive to focus on size growth, rather than growth in shareholder returns [Jensen (1986)]. Jensen also contends that managers prefer to retain earnings, whereas shareholders prefer higher levels of cash distributions, especially where the company has few internal positive NPV investment opportunities. He defines free cash flow as those funds generated by the company's existing assets in excess of those required to finance all available positive NPV investment opportunities. Since by definition this cash should not be used for further investment opportunities, managers may either retain such funds in securities that generate a reasonable return to investors or pay them out to the company's shareholders.

Chief Executive Officers (CEOs) and top management in general benefit from retained earnings because size growth grants them a larger power base, greater

prestige, and an ability to dominate the board of directors and award themselves higher levels of remuneration [Jensen (1986, 1993)]. This reduces the amount of firm-specific risk within the company, and therefore, strengthens executive job security. Shleifer and Vishny (1989) also suggest that committing free cash flow to manager-specific investments raises the cost of replacing the incumbent manager, and allows them to extract higher levels of remuneration and power from the company. Demsetz and Lehn (1985) also contend that a given level of control over the company requires a lower equity stake as the relative size of a firm increases.

However, finance theory dictates that investors will already hold diversified portfolios, and as a result, earnings retention and further corporate diversification may be incompatible with their interests. Empirical evidence suggests that such strategies are ultimately damaging to shareholder wealth. Lang and Stulz (1994) and Berger and Ofek (1995) find that the value of companies operating in multiple lines of business is lower than the theoretical value of the component parts of the individual businesses units. Lang, Poulsen and Stulz (1995) develop a financing hypothesis of asset sales where they argue that managers value size and their control over firms, and will sell assets only when alternative financing sources are too expensive. In examining the stock price reaction to the announcement of such sales, they find that when the proceeds are retained and reinvested there is a significantly negative reaction. However, when the proceeds are returned to financial claimants these announcements elicit a significantly positive abnormal stock price reaction. Denis et al. (1997a) also find that companies which subsequently reverse diversification strategies are more likely to have negative excess values, based on comparing the market value of the firm to the theoretical sum of its parts as stand

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<sup>2</sup> See for example Jensen and Murphy (1990) and Conyon and Murphy (2000).



alone companies. Overall, these findings suggest that managerial discretion over free cash flow is value destroying for company shareholders.

Morck, Shleifer and Vishny (1990) also find evidence that company managers overpay when they make acquisitions because they pursue their own private objectives over the goal of shareholder wealth-maximisation. Such acquisitions reduce shareholder wealth, as is reflected in the negative stock price reaction for bidding companies on the date of the bid announcement. Specifically, purchases of companies for purposes of unrelated diversification, acquiring growth opportunities, and acquisitions made by poorly performing companies elicited the worst stock price reaction. Each of these forms of acquisition provides private benefits to bidding company management, which do not necessarily accrue to their shareholders.

Earnings retentions also reduce the need for outside financing when managers require new funds for investment projects. However, despite the potential costs of raising new capital,<sup>3</sup> external markets provide a potentially important monitoring function in constraining grandiose managerial investment policies [Easterbrook (1984)]. Earnings retention reduces the likelihood of external monitoring forces encouraging management to undertake value-maximising decisions.

### *2.2.3. Time horizon agency conflicts*

Conflicts of interest may also arise between shareholders and managers with respect to the timing of cash flows. Shareholders are assumed to be concerned with all future cash flows of the company into the indefinite future, as these are reflected in the current share price. However, management may only be concerned with company cash flows for their term of employment, leading to a bias in favour of



short-term projects with high accounting rates of return at the expense of long-term positive NPV investments.

The extent of this problem is heightened as top executives approach their retirement, or have made plans to leave the company. Dechow and Sloan (1991) examine research and development (R&D) expenditures as top executives approach retirement and find that these tend to decline. R&D expenditures represent an accounting expense that reduces performance-related executive compensation in the short-term, and since retiring executives won't be around to reap the benefits of such investments, this could explain the above findings.

Such a problem may also lead to management using subjective accounting practices to manipulate earnings prior to leaving their office, in an attempt to maximise performance-based bonuses [Healy (1985)]. However, any attempt to uncover evidence of such manipulations is problematic because management have incentives to both increase and reduce reported income due to both earnings management and poor performance related incentives.

Pourciau (1993) examines accounting accruals and write-offs surrounding 'non-routine' CEO turnover, i.e. where managers have been forced from their position. She finds evidence that managers use accruals and write-offs to actually reduce reported income, rather than to increase reported profits. Murphy and Zimmerman (1993) also examine a series of discretionary accounting practices and expenditures surrounding CEO turnover. They conclude that changes in these policies arise due to poor performance, rather than attempts to manage earnings. In contrast to Dechow and Sloan (1991), they find little evidence that managers seek to manage reported earnings when they approach their retirement age.

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<sup>3</sup> See Myers (1984) for a discussion of such costs.

#### *2.2.4. Managerial risk aversion agency conflicts*

Conflicts relating to managerial risk aversion arise because of portfolio diversification constraints. Fama (1980) argues that company managers rent a substantial fraction of their wealth – namely their human capital stock – to the company that employs them. The rental rates for their human capital depend upon the success or failure of the company during their tenure.

Should private investors wish to diversify their holdings they can do so at little cost. However, company managers are more akin to individuals holding a single stock in the company that employs them. As such, shareholders can be considered as being concerned with only systematic risk, whereas company managers are concerned with both systematic and firm-specific risk. Denis (2001) comments that the majority a company director's human capital is tied to the firm they work for, and therefore, their income is largely dependent upon the performance of their company. As such, they may seek to pursue investment and financing policies that minimise the risk of their company's stock [Jensen (1986)].

Himmelberg et al. (1999) find evidence consistent with this, using a panel data set they find that increases in idiosyncratic stock price risk are correlated with reductions in managerial ownership. However, Demsetz and Lehn (1985) find that ownership by large shareholders is a quadratic function of various measures of company risk. Ownership initially increases with risk and then declines at higher levels. They attribute the initial increase to the greater control potential from higher ownership concentration in companies operating in 'noisier' environments.

The risk aversion problem is heightened when executive pay is composed largely of a fixed salary, or where managers' specific skills are difficult to transfer

from one company to another. In addition, risk increasing investment decisions may also increase the likelihood of bankruptcy. Such a corporate event will severely damage a manager's reputation, making it difficult to find alternative employment opportunities. For example, Gilson (1989) finds that managers of companies that experienced long-run poor performance and financial distress, and who lost their job as a result, were subsequently unable to find employment as the CEO of another exchange-listed company.

Managerial risk aversion will also affect the financial policy of the firm. Higher debt is expected to reduce agency conflicts, Jensen (1986), and also carries potentially valuable tax shields [Myers (1984)]. However, Brennan (1995b) argues that risk averse managers will prefer equity financing because debt increases the risk of default and bankruptcy.

#### *2.2.5. Summary of agency conflicts*

Within the agency framework conflicts arise from divergences in the interests of any two parties to a contract. As a result, they are almost limitless in nature. For this discussion to attempt to fully cover these conflicts would be impossible, however, what is dealt with is some of the main research which has been conducted into the area of agency conflicts. Different researchers have argued over the severity of each of the different types of conflicts described above. Research by Jensen (1986) and Himmelberg et al. (1999) amongst others stresses the importance of a firm's individual contracting environment in determining the importance of such problems. A summary of the agency problems discussed in this section is provided in table 2-1.



It is possible that the publication of the Cadbury Report (1992) and its successors has resulted in a change to the basic nature of agency conflicts within UK companies. However, uncovering this would not be an easy task given the difficulty in directly observing the underlying conflicts between shareholders and managers. What is most likely is that the Cadbury Report (1992) has had some effect on the control systems that are designed to reduce agency conflicts between shareholders and managers. A review of these structures is provided in chapter 3 of this thesis.

**Table 2-1 – The nature of agency conflicts**

The table summarises the discussion on the nature of agency conflicts between company shareholders and managers and the empirical evidence that exists on the extent of these conflicts. A full discussion of these conflicts and evidence is provided in section 2.2. of this thesis.

Conflict	Theoretical Arguments	Empirical Evidence
<i>Moral Hazard</i>	<p>Managers may consume private perquisites rather than investing [Jensen and Meckling (1976)]</p> <p>Managers invest in projects specific to their skills to increase their value to the company [Shleifer and Vishny (1989)]</p> <p>Moral hazard problems increase with the size of the company and free cash flows [Jensen (1986, 1993)]</p>	<p>There is a negative stock price reaction to the announcement of an executive director being appointed as an outsider on another company's board of directors [Rosenstein and Wyatt (1994)]</p>
<i>Earnings Retention</i>	<p>Managerial desires to retain earnings for corporate power and prestige may cause large shareholder wealth losses [Brennan (1995b)]</p> <p>Director remuneration increases with firm size and may create a preference for size growth over shareholder wealth maximisation [Jensen (1986, 1993)]</p> <p>Managers prefer earnings retentions and may invest purely for diversification purposes [Jensen (1986, 1993)]</p> <p>Earnings retentions reduce the need to raise external finance, and therefore, the likelihood of monitoring by external capital markets [Easterbrook (1984)]</p> <p>A given level of managerial control requires a smaller ownership stake as firm size increases [Demsetz and Lehn (1985)]</p>	<p>Pay increases with firm size [Jensen and Murphy (1990), Conyon and Murphy (2000)]</p> <p>Managers making acquisitions may pursue their own private objectives and waste free cash flow on negative NPV investments [Morck et al. (1990)]</p> <p>The value of diversified companies is less than the theoretical value of the company as a series of single segment businesses [Lang and Stulz (1994), Berger and Ofek (1995)]</p> <p>The market reaction to the announcement of asset sales is negative when the proceeds are retained and reinvested, but is positive when the proceeds are returned to financial claimants [Lang et al. (1995)]</p> <p>Diversified companies who experience large losses are most likely to reverse their diversification practices [Denis et al. (1997a)]</p>
<i>Time Horizon</i>	<p>Managers are concerned only with cash flows during the period of their employment and this may lead to manipulation of the accounting system and favouring short-term projects over long-term investments with higher NPVs [Healy (1985)]</p>	<p>R&amp;D declines as executives approach retirement [Dechow and Sloan (1991)]</p> <p>Accruals and changes in discretionary spending surrounding CEO turnover are driven by poor performance rather than earnings management [Murphy and Zimmerman (1993), Pourciau (1993)]</p>

**Table 2-1 continued**

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<i>Risk Aversion</i>	<p>Corporate managers are concerned with total risk because they are undiversified while shareholders are concerned only with systematic risk because they hold diversified portfolios [Fama (1980), Denis (2001)]</p> <p>Managers will attempt to reduce their personal exposure to risk through corporate diversification and will prefer lower levels of debt even when this is beneficial to the company [Jensen (1986)]</p> <p>Despite the benefits of debt, managers prefer equity financing as debt increases the likelihood of default [Brennan (1995b)]</p>	<p>Increased risk originally leads to an increase in ownership concentration due to the benefits of control potential in risky firms, but eventually increased risk reduces ownership concentration due to managerial risk aversion [Demsetz and Lehn (1985)]</p> <p>There is an inverse relationship between changes in idiosyncratic stock price risk and changes in managerial ownership [Himmelberg et al. (1999)]</p> <p>CEOs who lose their jobs following financial distress are subsequently unable to attain similar jobs with exchange-listed firms [Gilson (1989)]</p>
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### **3. Corporate governance as a solution to the agency problem**

Despite the existence of agency problems between shareholders and managers, the modern corporation, with the diffused share ownership that leads to such conflicts has remained popular amongst both managers and outside investors alike. This can be attributed largely to the evolution of internal and external governance systems that are aimed at controlling such problems. This survey aims to summarise the main literature that has developed on the topic. By no means does this section provide a comprehensive list of all the research that has been conducted in this field, its main aim is to discuss selected research that is relevant to the future empirical chapters in this thesis. It should also be noted that there is generally a high degree of interaction between each type of mechanism within firms.

Short, Keasey, Wright and Hull (1999) argue that governance has two broad dimensions. The first of these involves the general monitoring of managerial performance and ensuring that they are accountable to the company's shareholders. Secondly, they argue that governance should encompass mechanisms for motivating management to maximise the value of shareholder's wealth. Governance frameworks arise due to the nature of incomplete contracting within companies. However, they argue that the term governance has generally come to embrace the devices that act to control the behaviour of corporate managers, but the purpose of doing so should also be to promote efficiency within the company. Good governance must emphasise the mix between each of these, rather than emphasising accountability over enterprise.

In a similar vein, Shleifer and Vishny (1997) suggest that a practical solution to the agency problem is to provide a highly contingent long-term incentive contract.

This typically involves some measure of performance that is correlated with the quality of managerial decisions and/or a credible threat to take action based on an observable signal. The specifics of this contract are determined by the firm's individual contracting environment.

When discussing various aspects of governance researchers have typically categorised specific systems in relation to whether they provide general monitoring of company management or furnish these managers with financial incentives to act in shareholders' best interests. In addition, monitoring has frequently been segregated according to whether it is internal or external. While these definitions are at times blurry, specific systems are labelled in accordance with which group they tend to fall in to.

Himmelberg, Hubbard and Palia (1999) argue that firms will tend to substitute various mechanisms depending on unobservable (to the econometrician) characteristics of the firm's contracting environment. Since this contracting nexus varies from one firm to the next, what is optimal for one need not be optimal for another. Within this context, Agrawal and Knoeber (1996) argue that if one specific mechanism is utilised to a lesser degree, others may be used more, resulting in equally good decision-making and performance. The use of any given internal governance system should be increased until the marginal costs and benefits to the firm are equal. However, external governance mechanisms need not be chosen to maximise the value of an individual firm.

Denis (2001) argues that two conditions must ensue for an effective governance mechanism. Firstly, does the device serve to narrow the gap between managers' and shareholders' interests? Secondly, does the mechanism then have a

significant impact on corporate performance and value? Where firms are in equilibrium with respect to their internal governance systems, then no meaningful relationship between any individual mechanism and corporate performance will be seen to exist. Agrawal and Knoeber (1996) and Himmelberg et al. (1999) reach similar conclusions.

This discussion that follows in the remainder of this chapter focuses on the major internal and external monitoring, and incentive systems that are believed to reduce agency conflicts between shareholders and managers. However, this list is by no means exhaustive. In particular, the discussion does not cover the recent literature that explores the role of legal systems on cross-country differences in corporate governance and the resulting effects on managerial decisions and firm value.<sup>4</sup>

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<sup>4</sup> For a full discussion of these issues see Roe (1990), Jensen (1993), Black and Coffee (1994) and La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998). Denis and McConnell (2003) provide a recent summary of this developing literature which covers empirical studies of individual economies and the more recent literature which examines cross country differences driven by the varying strength of legal protection provided to investors.



### ***3.1. The market for managerial labour***

The market for managerial labour provides an external monitoring mechanism that rewards and penalises management for their performance with past and present employers. Internal labour markets that reward management through promotion and wage revisions also provide a source of internal monitoring and incentives for internal company managers. Fama (1980) argues that corporate managers will be compensated in accordance with the market's estimation of how well they are aligned to shareholder's interests, based on prior performance with other companies.

#### ***3.1.1. Conditions for external monitoring from labour markets***

Fama (1980) provides three conditions for the managerial labour market to operate efficiently in setting executive compensation, and therefore appropriately rewarding management for their performance. Firstly, the manager's talents and tastes for private consumption on the job aren't known with certainty, are likely to change through time and can be determined by the managerial labour market from information on past and present performance. The original analysis appears to focus on Jensen and Meckling (1976)'s moral-hazard agency problem. However, Fama's (1980) analysis can easily be extended to impute managerial preferences for firm size maximisation (earnings retention problems), their age and the amount of time they are likely to spend with the firm (time horizon), and private wealth and preferences for diversification (risk aversion).

The second condition is that the managerial labour market can efficiently process information into its valuation of management. However, information gathering costs will result in an equilibrium level of monitoring, where different

parties hold different amounts of information, and have different incentives to monitor management.

Finally, Fama (1980) argues that the weight of the wage revision process must be sufficient to resolve any problems with managerial incentives. Fama accepts that, due to market imperfections, this model won't result in full ex post settling up where managers will always be rewarded for the level of alignment they achieve with the interests of company shareholders. Jensen and Murphy (1990) also suggest that equilibrium in the managerial labour market will prevent large wage revisions following poor performance.

Much of the subsequent literature on labour market discipline suggests that internal and external career concerns are greatest among younger managers. As management approach retirement they are generally assumed to be unconcerned with future employment prospects, which creates the time horizon problem discussed in the previous chapter. However, Brickley, Linck and Coles (1999) argue that career concerns may not end at executive retirement. If managers are concerned about their post-retirement employment prospects, and the availability of such opportunities is related to performance prior to executive retirement then labour market discipline can still be an important consideration amongst retiring executives.

### *3.1.2. Theoretical evidence on the determinants of CEO turnover*

Perhaps the most heavily researched area in managerial labour market discipline has involved the causes and consequences of changes in the top company officer, more commonly referred to as studies of Chief Executive Officer (CEO) turnover. Studies of this ilk have typically begun with some definition of top



management. The language used in this thesis will refer to 'CEO turnover' as studies that have examined a change in the top company officer. Studies of changes in the 'top management team' typically examine changes in the CEO in addition to the Chairman of the Board and the President, where such positions exist. In the UK the top officer is generally taken to be the Chief Executive (Officer) where such a position occurs. Where no such position exists, a subjective definition is made on whether the Managing Director (MD) or the company Chairman is the top officer. Studies of the top management team in the UK have typically focused on the individuals defined as the CEO and the Chairman.

In addition to deciding whether to study CEO turnover or top management turnover, theoretical and empirical research has also attempted to differentiate between whether the manager departed voluntarily or was forced from their position. Such studies have labelled 'forced' turnover using headings such as 'disciplinary', 'non-routine' or 'forced.' Top management changes that are not 'forced' are labelled as 'normal', 'voluntary' or 'routine.' Since labour market discipline should be focused on managers who have left their company against their own choice, such definitions provide a means of filtering out these managers. Definitions of 'normal' turnover have also been used to examine events surrounding planned CEO retirements, as well as providing a benchmark against which to evaluate company decision-making following forced CEO departures. The criteria for defining forced turnover typically focuses on the age of the departing manager, whether they remain with the company, whether they obtain employment elsewhere, death/illness, and the amount of notice between the announcement of their departure and the date when they actually leave their position. The common practice has been to examine news



reports from various sources surrounding the announcement of such managerial changes.

Several recent studies have also sought to examine the difference between CEOs who are appointed from within the company and those who are appointed from outside the company. Appointments from within are labelled as 'internal' or 'inside' successions, whilst those from outside the company are labelled as 'outside' or 'external' CEO succession choices. Definitions of outside succession have typically used some time limit, generally one year with the company, for defining the newly appointed CEO as an external successor. In addition, 'outside' directors who are appointed as the new CEO may or may not be classified as external CEO successors depending on the individual study.

Khanna and Poulsen (1995) and Huson, Malatesta and Parrino (2004) develop alternative theories of forced managerial replacement. Khanna and Poulsen (1995) discuss a scapegoat theory of CEO turnover where managers lose their jobs following poor corporate performance, which is not necessarily their fault. Under this theory, there are no benefits to managerial replacement decisions, and as such, these changes should not be associated with predictable changes in company performance or stock price reactions. Alternatively, Huson et al. (2004) propose an improved management hypothesis of CEO turnover. This posits that management is responsible for their company's poor performance and is replaced as a result. Forced managerial replacement would therefore be associated with expected improvements in performance and be greeted positively by the stock market.

Warner, Watts and Wruck (1988) argue that stock prices reflect information about company performance and that such information will be used by labour

markets in evaluating managerial performance. These authors also argue that relative performance will also be used when evaluating company management. Overall, these arguments suggest that a negative relationship should exist between relative company performance and the incidence of forced CEO turnover decisions.

Parrino (1997) discusses the factors affecting CEO succession and the choice of an internal replacement or an external replacement. He hypothesises a negative relation between company performance and the incidence of outside succession since external CEOs will be appointed to reverse inefficient business practices. Alternatively, where firm-specific knowledge is required to implement new policies successfully, insiders will more readily possess this knowledge. He argues that outside succession will be more likely in homogenous industries where such knowledge is more easily transferable. In addition, succession costs will reduce the likelihood of forced CEO turnover in heterogeneous industries because of the difficulty in finding a successor. Further to this, forced turnover will be less sensitive to performance when available performance measures are noisier. He argues that relative performance evaluation can provide a more precise performance measure in homogeneous industries, and allow monitors to act more easily on such information.

Huson et al. (2004) argue that outside appointments must also be associated with significant increases in expected performance. Such successions are damaging to the effort incentives of lower level management, and therefore, external candidates must display superior potential to that of the internal talent pool that is available.

In a similar vein, Berry, Bizjak, Lemmon and Naveen (2002) hypothesise that firm level diversification will increase the cost of replacing an incumbent CEO



because the labour pool of qualified CEOs is relatively small and any replacement will need to be of a higher quality. These arguments are similar to those of Shleifer and Vishny (1989) who argue that management may choose specific investments in order to increase their value to the company, and therefore, raise the cost of replacing them. Berry et al. (2002) hypothesise that firms will replace a CEO only when the expected benefits outweigh the costs even when company performance is poor.

Finally, Hermalin and Weisbach (2003) discuss the role of information disclosure in the causes and consequences of CEO turnover. They argue that the market reaction to announcements of forced turnover will be positive when it is based on publicly available information, but negative when based on privately held information. Privately held information released surrounding forced CEO turnover announcements typically encompasses profit warnings and other negative information which would result in the forced departure of the incumbent CEO.

### *3.1.3. Empirical evidence on the causes and consequences of CEO turnover*

Regardless of the data examined, one of the most consistent empirical results in the corporate governance literature is an inverse relationship between relative performance and the probability of forced CEO turnover [Shleifer and Vishny (1997)]. Empirical confirmation of this has been found by Coughlin and Schmidt (1985), Warner et al. (1988), Weisbach (1988), Denis and Denis (1995), Kang and Shivdasani (1995, 1996), Denis, Denis and Sarin (1997b), Parrino (1997), Huson Parrino and Starks (2001), and Huson et al. (2004). However, Warner et al. (1988) find that it is only management who perform extremely poorly that lose their jobs, and that it generally takes a prolonged period of poor performance to result in forced



turnover. These studies also provide mixed evidence of underperformance prior to voluntary CEO changes, but the extent of any underperformance is significantly less pronounced than that witnessed at firms which experience forced CEO turnover.

Event studies of the stock price reaction to announcements of top management change provide evidence on the extent to which company performance is expected to change following the replacement of the incumbent manager. Earlier studies of the stock price reaction to CEO turnover announcements generally provided limited evidence that the market reacts positively, and that such effects were more pronounced for forced turnover and those announcements involving an external successor [i.e. Warner et al. (1988) and Weisbach (1988)]. However, the later studies of Denis and Denis (1995), Huson et al. (2001), and Kang and Shivdasani (1996) find a consistently positive stock price reaction to such announcements, where Huson et al. (2001) note that the significance of these announcements has increased over time. Announcements of voluntary turnover and turnover of top management excluding the CEO have generally elicited a positive stock price reaction, but there is limited evidence as to the statistical significance of these results.

Studies of external succession have generally indicated that the market reacts more favourably to announcements of external CEO succession than where a new CEO is appointed from within the current management team [i.e. Borokhovich et al. (1996)]. In addition, where forced turnover is followed by internal succession the market reacts negatively to the announcement, but the market reacts positively when forced turnover is followed by an outside CEO appointment.

Finally, studies of labour market discipline have also sought to examine the performance consequences of CEO replacement decisions. The findings of empirical

US research have generally indicated that operating performance improves significantly following announcements of forced CEO replacement decisions, and also that voluntary CEO turnover leads to more modest improvements in operating performance [Denis and Denis (1995) and Huson et al. (2004)]. In addition, Huson et al. (2004) find that improvements in operating performance are significantly greater following the appointment of an outside CEO successor.

Furthermore, forced CEO turnover has generally been found to result in corporate downsizing activities relative to companies that have experienced voluntary turnover and industry benchmarks [i.e. Denis and Denis (1995), Denis, Denis and Sarin (1997a) and Huson et al. (2004)].

In general, the above evidence is consistent with an improved management hypothesis where companies remove existing CEOs only when the calibre of their replacement is higher than that of the incumbent [Huson et al. (2004)].

A further branch of research on CEO turnover has sought to examine the characteristics of companies that influence the likelihood of forced turnover, external succession and the stock price reaction to announcements of turnover. Much of this literature is covered in the remainder of this chapter, but some of the firm-specific characteristics will briefly be discussed here.

Generally, CEO turnover is less likely in companies where the incumbent CEO has significant power within the company, as measured by their status as a founder or family board member. The stock price reaction to the departure of such executives is generally greater than that witnessed for the departure of non-family top officers [Johnson, Magee, Nayarajan and Newman (1985), and Huson et al. (2001)]. These authors conclude that the characteristics of the managerial labour market and



employment contracts produce significant differences between the stream of net benefits that shareholders can expect from the incumbent manager and that which they may expect from their replacement.

In addition, forced CEO turnover has generally been found to be more likely in smaller firms, and increases in likelihood with the precision of measures of firm performance and the availability of replacement CEO candidates [Denis et al. (1997b) and Parrino (1997)]. It is likely that larger firms have more complex contracting environments, which increases the noise of firm performance measures that may be used to evaluate managerial performance. In addition, the calibre of top management required to run larger firms will be higher than that required for smaller companies, which will in turn increase the cost of CEO replacement and reduce its likelihood [Berry et al. (2002)]. Kang and Shivdasani (1995) also find that recently appointed top executives are less likely to be removed from their position, indicating that new CEOs are not held responsible for their firm's poor performance.

External CEO succession is also more likely in small firms, companies that do not operate a formal managerial succession policy, and in firms that have experienced forced CEO turnover [Borokhovich et al. (1996), Parrino (1997), and Berry et al. (2002)]. Borokhovich et al. (1996) suggest that external succession benefits shareholders following the forced replacement of the incumbent CEO where changes in firm policies are necessary to enhance shareholder's wealth.

#### *3.1.4. UK labour market analysis*

Dahya, Lonie and Power (1998), Dedman and Lin (2002), Conyon and Florou (2003), Dedman (2003) and Dahya and McConnell (2004) examine top management



turnover in UK firms. Consistent with previous US research, forced turnover occurs in responses to poor stock price and operating performance.

However, following routine top management turnover Dahya et al. (1998) find that companies experience significant increases in operating performance, but non-routine turnover is followed by further declines in operating performance. Dedman and Lin (2002) find a further decline in operating performance in the first year following CEO turnover announcements, which is then followed by an increase in performance.<sup>5</sup> These studies also provide conflicting evidence on the stock price reaction to managerial turnover. Dahya et al. (1998) find a positive stock price reaction to announcements of non-routine top management turnover, and a negligible stock price reaction to announcements of routine turnover. Dedman and Lin (2002) find that the market reacts negatively to announcements of CEO firings.

Dedman and Lin (2002) also note very poor levels of information disclosure amongst UK companies, with less than half of their sample officially announcing these changes through *FT Extel News Reports*. They also find that firms typically announce other information at the same time as their announcement of CEO changes, regardless of the reason. However, companies were more likely to officially announce CEO retirements and less likely to report splits in the joint CEO/Chairman position or succession of the current CEO to the position of Chairman.<sup>6</sup> They also

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<sup>5</sup> The authors do not report the statistical significance of these changes in operating performance.

<sup>6</sup> The authors explain this as being consistent with literature on management of information disclosure. An alternative explanation concerning the disclosure of further information is that companies have 'information days' where they tend to disclose news. This would also be consistent with no significant difference between various types of information events and turnover announcements. For example, consider a company announcing the official retirement of their CEO on the same day as they announce their annual results. At the same time, another company announces poor final results and at the same time their CEO has been fired as a result of this poor performance. In addition, the lack of disclosure for succession and split decisions may reflect the fact that no one is actually joining or leaving the company and that such events reflect a re-shuffling of management positions.

find that announcement period abnormal stock price returns are significantly worse for companies not officially announcing this news, where the only data on CEO turnover announcements is available from the *Financial Times*.

Dedman and Lin (2002) hypothesise that their results may be explained by a thin labour market in the UK where high calibre successors are not readily available. They also find very strong negative reactions to company announcements where the only source of information was the annual report, suggesting that investors are highly suspicious of such companies, fearing that they have something important to hide.

Dedman (2003) finds that current year stock price performance is negatively related to the likelihood of non-routine CEO departures both pre and post-Cadbury, whilst penultimate year stock returns are associated with non-routine departures only in the pre Cadbury period. She concludes that the relationship between CEO turnover and performance in the final year of tenure is strengthened post Cadbury, indicating that the UK labour market has become more efficient post Cadbury.

Dahya and McConnell (2004) find that outside CEO appointments are more likely when turnover has been forced, when the firm has been performing poorly, and in smaller firms. Consistent with previous US research, the market reaction to outside CEO appointments is significantly greater than for inside appointments.

Florou (2002) examines the interaction between changes in the CEO of UK companies and the likelihood that the Chairman of the Board also departs. The rationale for doing so is based on the common practice of UK companies of separating these functions. She argues that the Chairman fulfils an important role in the appointment and removal of CEOs. Analysis indicates that when the CEO is forced from their position the Chairman is six times more likely to also leave the



company, and Chairmen are also four times more likely to be forced out when they were involved in the selection of the CEO who has been forced to depart. However, there is no evidence that Chairmen are more likely to depart following voluntary turnover and departure is unaffected by whether the Chairman was an executive or non-executive director. Florou concludes that because the Chairman plays a significant role in the decision making process at the firm and the composition of the board, their replacement enables subsequent board and corporate restructuring.

### *3.1.5. Other aspects of managerial labour markets*

Studies of top executive changes have been the most actively researched area of labour market discipline in corporate finance. Alternative studies have examined more novel, but equally interesting aspects of how labour markets process and use information in defining job prospects and rewarding executives for performance.

Gilson (1989) finds that external labour markets use evidence on past performance in defining job opportunities and compensation levels for company executives. Based on assumptions of discounts rates and retirement ages, he finds that managers of financially distressed firms who lost their jobs suffered a PV loss of \$1.3 million in salary and bonuses.<sup>7</sup> Furthermore, none of the managers who lost their jobs in his sample of distressed companies were subsequently employed by exchange-listed companies in the future. Kaplan and Reishus (1990) also find that managers in company's who have cut dividends were less likely to receive roles as outside directors in other companies, as they are perceived as poor managers.

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<sup>7</sup> While comparatively small by today's standards, Gilson's study was based between 1979 and 1984 at a time when executive compensation packages were much smaller in real terms [Murphy (1999)]. Furthermore, his analysis does not include the value of any equity-based compensation.



In a similar fashion, Coles and Hoi (2003) examine the decision by the board of directors in Pennsylvania companies to retain or reject the antitakeover provisions contained in a State Senate Bill and the subsequent service by those board members as directors. They find evidence that non-executive directors serving on boards that rejected some or all of the Bill's provisions gain external directorships in the three years following the passing of the Bill. Furthermore, when executive directors dominate the board and these directors reject some or all of the reforms they are 30% more likely to retain their position with the firm in the following three years. The authors conclude that the decision to opt-out of the state antitakeover legislation has power to explain future labour market prospects for directors.

Brickley et al. (1999) examine the role of labour market discipline on executives who are approaching their retirement. Retiring executives may derive large financial benefits from non-executive positions within their current employment and from external directorships and consultancy roles. Significantly, they find that the probability of a retiring CEO remaining with their company post retirement is positively related to accounting and stock price performance during the last years of their tenure. Also, the likelihood of the CEO holding future outside directorships with other companies is positively related to their accounting performance with the company prior to their retirement as an executive director. The results suggest that firms consider merit and ability when selecting outside directors, and that post retirement job prospects may help mitigate the time horizon conflict between managers and shareholders when senior executive directors approach their planned retirement.

### *3.1.6. How effective is labour market discipline?*

It appears that managerial labour markets do play a role in penalising managers for decisions that have deviated from the goal of shareholder wealth maximisation. However, the arguments of Jensen and Murphy (1990) and the findings of Warner et al. (1988) and Conyon and Florou (2003) suggest that perhaps it may only be effective in disciplining the poorest performing managers. In discussing product market competition, Jensen (1993) describes it as best a blunt instrument due to the slowness with which financial distress and bankruptcy occurs within companies. The findings of Warner et al. (1988) and Conyon and Florou (2003) highlight the extreme levels of poor performance that are required to induce the forced removal of a poorly performing top executive. As such, labour markets may also be easily criticised on the basis that they are too slow to enact any changes in poorly performing companies.

### ***3.2. The market for corporate control***

In theory, the takeover market or 'the market for corporate control' as it is also known serves as the ultimate disciplinary mechanism for poorly performing managers by allowing the transfer of control of the firm's assets to a more efficient management team. The extent to which this is achieved in practice is discussed here.

However, before proceeding it should be noted that the takeover market encompasses one part of the external monitoring that is provided by 'capital markets' in general. Other capital market transactions include the issuance of equity and debt by companies and the partial purchase of companies, otherwise known as block share trades and acquisitions. Within these systems there is a degree of interdependence. For example, Jensen (1993) discusses the role of junk bond financing in providing capital for many of the 'bust-up' takeovers that were prevalent in America during the 1980's. Following failed takeover attempts, 'raiders' may retain large partial stakes in a company and use these to exercise control [Denis and Serrano (1996)], or managers may raise debt in order to bond themselves to reorganisation plans that create the financial gains which the failed takeovers would have produced [Safieddine and Titman (1999)].

#### ***3.2.1. The market for corporate control as a solution to the agency problem***

Takeovers may serve to correct the earnings retention conflict between shareholders and management. Jensen (1986) argues that takeovers occur in response to breakdowns of internal control systems in firms with substantial free cash flows and organisational policies that are wasting resources. In short, where management is using resources inefficiently. Where managers fear that they may



lose their jobs following takeovers they may react by investing cash flows in more efficient investment projects, or by returning this cash to the firm's shareholders.

Jensen (1993) cites the role of the 1980's takeover market in America as vital in reducing the excess capacity that had developed as a result of the conglomerate merger waves of the 1960's and 70's. Even the mere threat of an external control threat can discourage managers from taking steps that deviate from shareholder wealth maximisation. These threats also increase the incentives of internal control systems to monitor company management, as takeovers also provide a threat to replace internal monitors if they are ineffective [Denis et al. (1997b)].

In their review article, Shleifer and Vishny (1997) summarise evidence on the US takeover market as suggesting that poorly performing companies are more likely to become the subject of takeover pressure and that managers of poorly performing target companies are more likely to be fired. The process of these takeovers involves the bidder making an offer to the dispersed shareholders of the target. Upon acceptance the bidder acquires control of the target and can replace the inefficient incumbent managers with replacements of superior calibre. The inefficient business practices of the departed management team create profit opportunities for potential bidders or 'raiders,' and bid premiums provide a means of returning cash to the shareholders of the target companies [Denis (2001)].

In his model of managerial turnover, Novaes (2002) suggests that raiders can contribute to CEO turnover by forcing the incumbent manager to undertake a value-increasing reorganisation plan. These raiders perform an important information collection role when they assess the profitability of any takeover attempt. This information relates to the quality of the incumbent manager.

### *3.2.2. A disciplinary mechanism for poorly performing management*

Jensen and Ruback (1983) find that shareholders in successful takeover targets realise substantial wealth increases, indicating a potential for improved performance that the previous management had failed to utilise. The finding of high bid premiums accruing to targets of successful takeover attempts is a consistent feature of the empirical literature on corporate takeovers. As such, successful takeovers do provide one means of returning cash to target company shareholders.

The primary study of the disciplinary role of corporate takeovers is that of Martin and McConnell (1991). These authors identify two main motives for takeover; efficiency gains and disciplining poorly performing management. They find that the performance of disciplinary takeovers, defined as occurring where top management depart following the takeover, was no worse than the market average, but worse than their industry average. Targets of disciplinary takeovers also significantly underperform the targets of non-disciplinary takeovers. These authors find that CEO turnover in target firms increases following a takeover. This is consistent with the takeover market playing an important role in disciplining managers who fail to maximise shareholder wealth.

Further analysis shows that the turnover rate for top management of target companies is indifferent between bids that were friendly and those that were hostile, i.e. the bid was initially opposed by managers of the target company. Also, there is no difference in the pre-bid performance of hostile and friendly bids. They argue that classifying takeovers on the basis of friendly versus hostile does not distinguish between whether the bids were disciplinary or non-disciplinary, at least for their sample of companies.



Threats from the market for corporate control have also been found to play an important role in CEO replacement decisions [Denis and Denis (1995) and Denis et al. (1997b)], forcing companies to reverse poorly performing diversification strategies and sell under performing assets [Lang, Poulsen and Stulz (1995), Denis et al. (1997a), and Kang and Shivdasani (1997)], and in driving changes to ownership and board structure within companies [Denis and Sarin (1999)]. A general conclusion of these studies has been that threats from the market for corporate control contribute to the process of corporate restructuring by facilitating changes to the control rights within an organisation.

In addition to the studies above, previous empirical research has also suggested that failed takeover attempts may influence managerial decision-making and control. Denis and Serrano (1996) report a high incidence of CEO turnover in targets of failed takeover attempts where that targets had performed poorly and bidders had retained a block shareholding within the firm. Additionally, Safieddine and Titman (1999) find that many targets of failed takeover attempts significantly increased their leverage following the bid. These companies were also more likely to reorganise their assets, cut employment levels and realise increases in industrial focus. Following this, failed targets significantly outperformed a benchmark proxy in the following 5 years.

### *3.2.3. The UK market for corporate control*

Franks and Mayer (1996) argue that the UK takeover market is similar in its level of activity to the US market. This can largely be attributed to the diffused ownership structures that characterises UK and US companies. At the same time,



they argue that the UK has stricter legislation on takeover defences. For example, the Takeover Code in the UK strictly forbids companies from adopting poison pills once a takeover bid has been launched. Black and Coffee (1994) also argue that UK firms generally are less active in their use of takeover defences, largely due to monitoring from institutions.

In addition to this, Faccio and Lasfer (1999) argue that disclosure requirements of 3% for block shareholders in the UK, compared to 5% in the US, provide management with greater awareness of potential bidders. This increases management's ability to initiate steps designed to block takeovers without violating any legislative practices. Short et al. (1999) argue that the active use of takeover markets in the UK, as compared to economies operating with relationship-based systems of governance, may lead to poor internal innovation and less technical progress.

In the UK there is a takeover threshold of 30%. Any individual or organisation breaching this is required to immediately make an offer for the remaining shares at a minimum price, which is set at the highest price paid by the offeror during the preceding twelve months [Short and Keasey (1999)].<sup>8</sup> Furthermore, any investor with a stake of greater than 15% must disclose any takeover plans they have for the company [Franks, Mayer and Renneboog (2001)]. These same authors also argue that legal differences between the US and UK raise the costs of partial control to investors in the UK, and therefore, create a preference for full control through acquisition rather than partial control, which is popular amongst active investors in

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<sup>8</sup> The exception to this is the purchase of share stakes in firms that are experiencing financial distress. In such cases application can be made for the bid threshold to be waived.

American companies. It is unclear what implications this may have for the role of takeovers in disciplining the managers of poorly performing UK companies.

In their UK analysis of the disciplinary function of the market for corporate control, Franks and Mayer (1996) find that hostile takeovers are associated with higher levels of board turnover and corporate re-structuring than accepted bids. However, levels of asset restructuring were highest in targets of unsuccessful bids, indicating that the threat of takeover alone was able to encourage managers to initiate the restructuring that bidders would have undertaken had they been successful, and is thus consistent with the theoretical arguments of Jensen (1993) and Novaes (2002). Franks and Mayer (1996) find little evidence of a difference in the bid premiums or prior performance of hostile and non-hostile takeovers, suggesting that takeovers which result in control changes are not the result of poor performance arising from managerial failure in UK companies.<sup>9</sup>

Franks and Mayer's (1996) findings are supported in a further analysis of the role of disciplinary mechanisms on poorly performing management in the UK. By tracking a random sample of companies over a five year period, Franks et al. (2001) again find that whilst takeovers produce a significant increase in executive board turnover, this is not necessarily associated with poor past performance. Univariate analysis reveals that over an extended period of time the incidence of takeovers was higher in a sub-sample of very poorly performing firms, suggesting that the disciplinary effect of corporate takeovers may take a long time to come to fruition.

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<sup>9</sup> However, Franks and Mayer's (1996) study can be criticized for its limited two-year sample period and its definition of hostile takeovers as a means of investigating managerial discipline. Martin and McConnell (1991) define disciplinary turnover as occurring where the CEO leaves their company shortly following a takeover and find that disciplinary targets underperform non-disciplinary targets. However, as noted earlier, when they examine disciplinary takeovers on the basis of hostility by the target management they find that a hostile versus friendly classification scheme does not distinguish between whether takeovers were disciplinary or non-disciplinary.



Dahya et al. (1998) find high rates of corporate control activity following non-routine top management turnover in comparison to cases where turnover had been voluntary. Within this group, control activity was most prevalent when the dismissed executive had been insulated from monitoring efforts through high equity ownership. The factors that contributed to these departures beyond poor performance are uncertain, but it does appear that the market for corporate control may have been ineffective in exerting discipline until the entrenched manager had been removed from their position.

Weir, Laing and McKnight (2002) find evidence that industry level takeover activity has a positive impact on corporate value. This is suggestive of takeover market activity bidding up the prices of companies that are likely targets, and therefore creating wealth gains for target company shareholders. Alternatively, high industry level merger activity may arise from consolidation and value creation through the removal of excess capacity. Either way, shareholders of target companies appear to benefit from takeover activity within their industry.

Weir and Laing (2002) analyse the governance characteristics of a sample of friendly takeovers of UK companies during 1997 and 1998. They find that target companies are characterised by low growth prospects. However, their operating performance is no worse than a matched sample of companies that remained independent over their sample period. This again rejects the hypothesis that takeovers occur in response to poor performance within UK companies.

Short and Keasey (1999) suggest that this lack of a disciplinary effect for corporate takeovers in the UK arises from the infrequent use of takeover defences. In US companies, the costs to bidders that such defences impose may result in only



the poorest performing companies becoming takeover targets, where the potential gains for reversing poor performance will outweigh the costs that takeover defences impose for bidding companies. The empirical findings of existing UK studies tend to support Short and Keasey's hypothesis, with no evidence of a focused disciplinary role for the market for corporate control in the UK.

#### *3.2.4. The failings of the market for corporate control*

While the above evidence suggests that takeovers can and do perform an important role in reducing managerial inefficiencies within US companies, although not necessarily in the UK, there is also a body of evidence suggesting that this is not always the case. This research can be segregated into studies that question the extent to which takeovers actually discipline management, evidence on the extent to which takeovers are a consequence of agency problems rather than a cure, and other evidence that highlights the excessive costs in mounting takeovers and the political opposition to takeovers.

Beginning with the literature that questions the disciplinary role of corporate takeovers, Mikkelsen and Partch (1997) find that the level of takeover market activity may be an important factor in determining whether this mechanism is effective in disciplining management. They find a significant relation between top management turnover and firm performance during an active takeover period, but no such relation during an inactive period.

However, Denis and Kruse (2000) examine the incidence of corporate restructuring decisions during both an active and inactive takeover period. Similar to Mikkelsen and Partch (1997), they find a significant drop in the incidence of

takeover activity amongst their sample of companies suffering a performance shock, and they report little evidence that alternative forms of shareholder activism became more pronounced during their inactive takeover period. However, they find that the general decline in takeover activity is not associated with a significant difference in the likelihood of CEO turnover between the two sample periods. While Denis and Kruse (2000) report that takeover activity increases the likelihood and the magnitude of corporate restructuring, they do not find that either the likelihood or the magnitude of such restructuring is greater during their active takeover period. These authors conclude that the decline in managerial discipline from an active to an inactive takeover period does not lead to fewer value-enhancing restructurings.

Similarly, Huson et al. (2001) find no evidence that the likelihood of performance related top management turnover changes over time. These results also hold for the relationship between past performance and the likelihood of outside CEO succession. Overall, the findings of these studies provide mixed evidence that levels of capital market activity influence the likelihood of managerial discipline.

Literature that examines takeovers as a consequence of agency problems, rather than a cure, can be traced back to Jensen's (1986) original arguments on the types of failure that takeovers are deemed to correct and Roll's (1986) hubris hypothesis of corporate takeovers. Jensen (1986) argues that takeovers occur in companies that are wasting resources on negative NPV investments, citing diversification strategies as a prominent example. Roll's (1986) arguments suggest that managers of companies that have performed well in the past become infected by 'hubris' and start to believe that they are capable of creating value through acquisitions. Roll suggests that there are no real gains from takeovers and that



bidders systematically overpay for targets, thus transferring wealth from their own shareholders to target company shareholders.

Morck, Shleifer and Vishny (1990) find that managers of bidding companies overpay in acquisitions because they pursue their own private agendas. Specifically, acquisitions of high growth companies and for purposes of unrelated diversification reduce the value of bidding companies, but create private benefits of control for their management. In addition, these authors find that poorly performing bidding company managers also make bad acquirers as they attempt to expand into new lines of business that they may be more successful in running.

Literature that falls outside of these two categories has offered a range of possible explanations as to why takeovers may not act to efficiently discipline poorly performing managers. Jensen and Ruback (1983) suggest that the threat of takeover won't be enough to ensure complete coherence between managerial actions and shareholder wealth. This can be attributed to the costs of organising takeovers, and in particular the high bid premiums. Target management may actively seek to reduce the probability of takeover since they result in loss of personal wealth and reputation.

Jensen (1993) argues that control market discipline in US companies had faded by the beginning of the 1990's due to antitakeover legislation. As such, companies are now less willing to address issues of excess capacity that are contributing to large shareholder wealth losses in US corporations. Antitakeover legislation in America has stemmed from managerial opposition and the large job losses that occur as part of corporate restructuring efforts following takeovers [Shleifer and Vishny (1997)]. Where these restructurings have been successful, company managers have been rewarded through lucrative compensation contracts, which have only heightened the



political costs of takeovers when companies are creating value through employee layoffs and the resulting cost savings.

Denis (2001) notes that takeovers also require highly liquid capital markets, which results in their prevalence only in market based economies. Due to the costs and time consumption involved in takeovers, she suggests that takeovers will only be effective in disciplining management for severe deviations from shareholder goals. Also, as internal control systems and incentive structures have improved over time the need for external control from the takeover market may also diminish.

### *3.2.5. How effective is the market for corporate control in disciplining management?*

The evidence above is largely inconclusive concerning the effectiveness of the market for corporate control in disciplining corporate managers. It is generally seen as a last resort, only when target managers have been performing very poorly. This is perhaps attributable to the high costs and disruption associated with a company being taken over. In addition, based on studies of the control market in the UK, takeovers do not perform a disciplinary role outside of the US.

### **3.3. Large shareholders**

Research on large shareholders and their monitoring of management has been growing rapidly in recent years as investors become more aware of the power that could potentially be exercised by pension funds and other financial institutions who make up the largest individual group of shareholders in the UK.

Large shareholders form part of the general monitoring provided by capital markets, and as such their monitoring of management is external. However, whereas the level of takeover activity and the calibre of replacement top managers is largely outside the firm's control, this is the case to a much lesser degree with large shareholders. Burkart, Gromb and Panunzi (1997) hypothesise that incumbent management will select an ownership structure that will ensure their ability to retain control of the firm at the initial public offering (IPO). In their model managers are prepared to accept a lower offering price when they sell part of their holdings, in return for remaining in control of the company. Brennan and Franks (1997) find confirmation of this in their sample of UK IPOs, noting that underpricing appears to be motivated by manager's desire to ration shares and limit the ability of external shareholders to form large blocks of shares. These models provide a theory of large shareholder ownership that is motivated by managerial preferences.

Demsetz and Lehn (1985) argue that ownership structure will be determined by the nature of the firm's contracting structure; including risk, amenity benefits, firm size and the use of other governance systems. Finally, Holderness (2003) discusses models where large shareholders enter and exit in a similar manner to raiders during takeover contests when internal monitoring and incentive systems have failed. In these models, large shareholders provide a means of correcting managerial failure.

The empirical literature of the role of large shareholders in corporate governance has used a variety of labels to describe the type of shareholder that is under examination. Jensen (1993) describes an activist investor as a party which holds a substantial debt and equity position in a company, in a manner associated with leveraged buyout (LBO) corporations. Smith (1996) labels financial institutions that engage in corporate governance as activists and Bethel, Liebskind and Opler (1998) label activist investors as large shareholders who enter and exit companies with the aim of bringing about changes in managerial control.

Most studies of large shareholders use the term 'blockholder' to describe a large shareholder. A blockholder is defined in accordance with minimum disclosure requirements for shareholders according to domestic Company Law, which requires that these shareholdings be reported in company annual reports. In the UK blockholders are defined as any individual shareholder that holds 3% or more in a single company. In the US this threshold is 5%. More recent empirical studies have also used private data sources for measuring institutional shareholdings that are not inhibited by these disclosure limits. When referring to these studies the term 'shareholdings' will be used.

As previously mentioned, terms such as activist have varied in use between different studies. In this section four main groups of large shareholders will be categorised. Firstly, there are financial or institutional investors. These will include banks, insurance companies, pension funds, money managers, etc. Black and Coffee (1994) note that even within this commonly labelled group the incentives of investors vary dramatically, but it has been common practice to refer to them collectively and this will be the mode of discussion used here. Another group of



large shareholders are those labelled as affiliated. These include retired directors, relatives of board members, large shareholders with trading relationships with the company, and other such groups who are likely to side with management in the event of any conflict. Strategic investors are those with no ties to company management, but neither are they interested in influencing management policy or corporate governance in general. Strategic investors most commonly include other corporations who invest simply to earn a return by holding another company's stock. Finally, activist investors are those who aim to influence managerial policy through partial control of the company, in a similar way in which corporate raiders influence policy following takeovers. In some governance studies, the definition of blockholders is based simply between affiliated and unaffiliated or 'outside' blockholders. In these cases, outside blockholders are made up of all blockholders excluding those who are affiliated with management.

### *3.3.1. The determinants of large shareholdings*

Prior to discussing the role of block shareholdings on performance and other observable events, this section begins with a short discussion of the determinants of large shareholdings and how they interact with other governance systems.

Evidence on the determinants of large shareholdings has generally indicated that ownership concentration is higher amongst firms listed on major stock market indices, but that a negative relationship exists between ownership concentration and industry regulation, firm size, managerial ownership, and risk [Demsetz and Lehn (1985), and Agrawal and Knoeber (1996)]. The finding that ownership is more concentrated in companies that trade on major exchanges results from the passive

index strategies that are employed by many pension fund managers. Industry regulation offers an alternative source of monitoring, thus reducing the need for large shareholder monitoring and the potential benefits that may accrue to such monitors. In addition, risk aversion will prevent blockholders from owning large share stakes in larger companies and those characterised by higher stock price volatility. Demsetz and Lehn (1985) also find that ownership is more concentrated amongst companies that offer greater amenity potential for major investors, citing sporting companies as a prominent example of such companies.

In addition, Denis and Sarin (1999) find that corporate control activity, including block share purchases, typically precedes large changes in ownership and board structure. These active investors achieve their goals in three main stages; (i) they purchase a large stake in the company, (ii) the block purchaser appoints their representative to the company board and the initial directors either resign or are forced from office, and (iii) the company initiates a program of asset restructuring designed to improve performance.

### *3.3.2. The benefits of being large*

Ordinary shareholders may not have the time, skill, or the interest to monitor managerial activities. Since they own a small portion of their portfolio firm's total shares there may be a free-rider problem, whereby it is not in their interests to monitor management while others will also derive the benefits from this. The existence of large block investor(s) may overcome this problem, as they possess more skill, more time, and a greater financial incentive to overcome this free-rider problem and closely monitor management [Shleifer and Vishny (1997)].



Jensen (1993) also contends that internal governance mechanisms such as company boards may act more efficiently in the presence of information provided by external control markets. He also argues that the demise of the market for corporate control during the early 1990's creates an opportunity for large shareholders, and in particular, institutional investors to become more active on corporate governance matters. However, both Roe (1990) and Jensen (1993) discuss the wide range of political barriers in place that prevent institutional shareholders from becoming active monitors of company managers in America.

Blockholder pressure also deters managers from pursuing diversification strategies. Since large investors may already hold diversified portfolios, further risk-reductions are not of interest to them. In his review article, Holderness (2003) states that blockholders are prevalent in over half of US companies, indicating a large incentive to play a role in corporate control. He also argues that blockholders are concerned with the shared benefits of control, where decisions taken by blockholders will maximise firm value, and at the same time, they may also be concerned with the private benefits of control which are not available to minority shareholders. However, that is not to say that such benefits are mutually exclusive.

The shared benefits of control that can be exerted by blockholders are derived from the superior management or monitoring which may result from the substantial collocation of decision rights and wealth effects that come from block ownership [Holderness (2003)]. He cites the presence of blockholders on corporate boards, and the positive stock price reaction to both the accumulation of new blocks and the trade of existing blocks of shares as evidence of the shared benefits of control [Mikkelson and Ruback (1985)]. Burkart (1995) also finds that blockholders create value for



ordinary shareholders during takeover contests by contesting the bid and being able to increase the bid premium.

Empirical research on the role of outside blockholders has generally found that they play an important role in precipitating forced CEO removal [Denis and Denis (1995), Denis and Serrano (1996), Denis et al. (1997b), Kang and Shivdasani (1997)], increasing the likelihood of an external CEO appointment [Kang and Shivdasani (1997)], and in reducing the extent of, and reversing, poorly performing corporate diversification strategies [Denis and Serrano (1996), Denis et al. (1997a), Kang and Shivdasani (1997), and Bethel et al. (1998)]. Targeting by these investors has generally been found to occur following poor performance by the incumbent management team [Denis et al. (1997b), and Bethel et al. (1998)].

To date the research surveyed has focused on blockholders, with specific reference to whether they were an 'outside', 'affiliated', or some other blockholder. More recent empirical research has focused on targeting by institutional shareholder groups and/or the role of institutional ownership, as opposed to institutional blockholdings, on discrete tasks. A brief summary of this research is provided here.

The studies of Wahal (1996), Smith (1996) and Carleton, Nelson and Weisbach (1998) highlight a number of empirical consistencies on the causes and consequences of targeting by institutional investors. Target firms tend to be industry leaders, but are poor performers at either the industry or the firm level. Targeting is also more likely in companies where institutional ownership is high, but levels of managerial control are relatively low. This evidence indicates that institutions target companies where they feel that they have a good chance of being able to successfully negotiate. The decision to focus targeting on industry leaders is driven by the profile that such

firms enjoy, and a hope that other firms will follow these larger companies in adopting good corporate governance policies.

Institutions have generally been able to successfully negotiate over their governance proposals with the target company. However, the stock price reaction to targeting is highly dependant on the issue that the firm is being targeted with respect to, and there is no evidence that operating or stock price performance improves following targeting.

Parrino, Sias and Starks (2003) argue that selling shares may be a preferable action for institutions that are dissatisfied with managerial performance. Sales can have an impact on company decisions through their impact on the firm's share price and they also reduce the value of managerial share ownership and human capital by providing a negative signal to other investors. The authors find a large decline in institutional ownership prior to CEO turnover, and that greater selling by institutions increases the likelihood of both forced CEO turnover and outside succession. Huson et al. (2004) also find that higher levels of institutional ownership lead to better CEO selection decisions based on post-turnover changes in operating performance.

Overall, the above discussion posits a positive role for blockholders in corporate governance, while the literature on institutional investors and their role in governance has so far provided mixed results. However, one fact that does emerge is that institutions can and do have an influence on company decision-making.

### *3.3.3. Passiveness and self-serving blockholders*

While the above discussion suggests a positive role for large shareholders in corporate governance, they also may impose costs on ordinary shareholders. Shleifer



and Vishny (1997) argue that firms or individuals holding large blocks of shares in other companies may pursue their own interests at the expense other shareholders. Similarly, Denis (2001) contends that while blockholders seek to increase firm value, they may also attempt to enjoy benefits not available to other shareholders.

Holderness (2003) defines such advantages as the private benefits of control. Blockholders may use their voting power to consume company resources that are not shared with minority shareholders. He cites the premiums that large blocks of shares trade at as evidence that holders must have some private benefits that are unavailable to minority shareholders.

Pound (1988) suggests that institutional investors may be subject to conflicts of interest due to trading relationships with firms in which they invest. Institutions vote their shares at their own discretion and they may opt to vote with management to protect other business ventures. For example, an insurer may provide the company with services in addition to holding a large fraction of its shares.

Shleifer and Vishny (1997) argue that blockholders may suffer from a lack of portfolio diversification, which could exacerbate any risk aversion conflict between other shareholders and firm management. They also note that coalitions between blockholders may be required in some circumstances to significantly influence managerial policy. The cost of collectivism in practice is not small, and many coalitions suffer from their own free-rider problems [Black and Coffee (1994)].

Black and Coffee (1994) also contend that institutions may not participate in corporate governance since their stake may represent only a tiny fraction of their overall portfolio. Passive investment strategies are typically less costly for fund managers. Also, these managers are aware that participating in governance may put



them in the position of a company insider who is privy to price sensitive information, and as such, they would be unable to trade immediately on the basis of any governance enhancements they had participated in. In addition, Wahal (1996) and Carleton et al. (1998) contend that many large pension funds use indexed strategies and are unwilling to sell large stakes for fear of being forced to trade at substantial discounts to the current market price.

The above arguments are based on the principal that large shareholders may not monitor managers. However, Burkart et al. (1997) also suggest that large shareholders could reduce the incentives of an agent to take a long-term perspective when the threat of dismissal is high. Here, monitoring from large shareholders may exacerbate the time horizon problem. They suggest that dispersed ownership acts as a commitment device for large investors not to interfere with managers.

Empirical evidence on the negative or passive role played by large shareholders comes from a variety of sources. Holmstrom and Tirole (1993) find that large blocks reduce the liquidity of a stock and the supply of information to the market. Burkart (1995) finds that counter-bidding by incumbent blockholders reduces the probability of a takeover, even when this is in the best interests of ordinary shareholders. Furthermore, Denis and Kruse (2000) and Huson et al. (2001) find no evidence that institutional targeting substitutes for a decline in takeover activity during an inactive takeover period.

#### *3.3.4. Blockholders and the UK institutional framework*

Denis (2001) argues that a country's legal system appears to be a fundamental determinant of how its governance system evolves. While equity ownership is

largely diffuse in both the UK and US, the UK market does provide some striking differences that have implications for the effectiveness of blockholder monitoring.

Roe (1990) discusses the legal barriers that US institutions face in building up large stakes in companies. However, UK firms are not subject to such restrictions, allowing them to build higher equity stakes and participate more in corporate governance. Additionally, Faccio and Lasfer (1999) discuss how the legal duties of blockholders in the UK are less stringent than those of their US counterparts. US institutions may be subject to legal proceedings for a breach of duty if they fail to disclose their future plans, which is not a potential problem for UK institutions.

Black and Coffee (1994) also suggest that the geographical clustering of UK financial institutions in London may allow for more informal coalitions between blockholders and contend that much of the monitoring carried out by UK institutions is done behind closed doors. They suggest that the close proximity of UK institutions combined with limited regulation reduces the co-ordination and free-rider problems that hinder cohesive monitoring by groups of US financial institutions. They also argue that there is very little evidence of UK financial institutions overly monitoring managers by meddling in the day-to-day affairs of companies or attempting to expropriate minority shareholders.

The more stringent rights provisions in the UK may lead to existing shareholders exerting greater power over company management when these managers require external financing. Any issue of new equity of greater than 5% in the UK must be in the form of a rights issue, which strengthens the hand of existing shareholders who have first option to purchase this equity in their ability to impose discipline on company management [Black and Coffee (1994)].



The above arguments point to greater significance in the role of blockholders within the governance framework of the UK corporate sector. This could lead to increased monitoring of managerial decisions, but at the same time, greater power on the part of blockholders may lead to higher levels of self-serving behaviour.

However, Short and Keasey (1999) note that many US institutions are governed by ERISA legislation that requires them to vote at company meetings. UK institutions have generally been criticised for their lack of participation at such meetings. Dedman (2000) also notes that the Institutional Shareholders Committee in the UK encouraged its members to take a more active role in corporate governance following the publication of the Cadbury Report (1992).

Furthermore, Short and Keasey (1999) suggest that the disclosure of block shareholdings is a much speedier process in the UK. Shareholders purchasing a stake of greater than 3%, and changes of more than 1% in such stakes, must be notified to the firm within 2 days of the purchase. In contrast, disclosure within 10 days of the purchase of a 5% stake, along with the filing of a Schedule 13D statement with the Securities and Exchange Commission (SEC) is required for US purchasers. Any changes in such stakes should be disclosed 'promptly.' This increased disclosure in the UK may enhance the potential for managerial entrenchment since it provides management with greater awareness of a control threat.

Furthermore, Franks et al. (2001) argue that minority protection laws in the UK reduce the controlling abilities of dominant shareholders. The UK has strict laws on trading relationships between parent and subsidiary companies, which specify that directors of both companies must be independent of one another. Minority shareholders have the right to be consulted upon and approve any transactions



between controlling shareholders and the company. Such laws increase the costs of partial stakes in a company, especially for large blockholders and potential raiders. Also, the generally liberal view of takeovers in the UK may lead to a lesser role for active investors in UK corporate governance.

Short et al. (1999) contend that fund managers will have little time for managing individual stocks beyond the very worst performers, and that such funds are also characterised by their own principal-agent conflicts between stakeholders and the fund manager. Also, some institutions may be more active than others, for example pension or mutual fund managers may be more active than banks or insurance companies. They conclude that institutional monitoring will depend upon the characteristics of the institution and their specific governance environment.

Short and Keasey (1997) argue that since fund managers are judged on relative performance as opposed to absolute performance, their incentive to engage in corporate governance activities is diminished. Where individual fund managers bear the full costs of contacting portfolio companies to resolve a dispute, their competitors will capture a fraction of the benefits of intervention, creating a free-rider problem. Voting procedures and statements of intent create their own problems for fund managers who would have to consult all of their trustee clients and explain any deviations from their stated voting intentions, even when these have been in the best interest of their clients.

This problem goes straight to the root of the issue of mandatory voting for institutions. Mandatory voting is likely to be beneficial only for internally managed pension funds that do not suffer from their own agency problems between the fund's trustees and the hired fund manager. Where this agency relationship exists, the

classic information asymmetry problem where every state of nature cannot be contracted for arises. Mandatory voting would force fund managers into making ill-informed decisions, which may or may not be in their client's interests.

Shleifer and Vishny (1997) also suggest that problems in defining good governance hinder mandatory voting policies. The findings of Carleton et al. (1998) of a negative stock price reaction when companies are targeted on the issue of board diversity provides some evidence of this. Finally, as Black and Coffee (1994) note, the job of a fund manager is to pick stocks, not to second-guess company policies which they have little skill in analysing.

The remainder of this section briefly outlines the results of empirical research into block shareholders and institutional investors in the UK. Dedman (2003) finds evidence that non-routine CEO departures are more likely in UK companies in the presence of high levels of institutional blockholdings. However, the strength of this relationship does not change following the publication of the Cadbury Report (1992). In contrast to this, Dahya et al. (1998) find that higher institutional blockholdings significantly reduce the likelihood of non-routine top management turnover, although they do increase the likelihood of routine turnover. Franks et al. (2001) find that neither existing blockholders nor purchasers of new blocks exert discipline on poorly performing company directors. Indeed, in a sub-sample of poorly performing companies they show that increases in institutional ownership are associated with significantly lower levels of executive board turnover.

Weir and Laing (2002) also find that higher ownership by financial institutions increases the likelihood of a company being acquired. Such companies were not associated with poor prior performance, and as such, the bid premium represents



shareholder wealth maximization. Furthermore, Faccio and Lasfer (1999) present evidence that companies with high levels of block ownership are associated with greater proportions of non-executive directors and are more likely to split the functions of the CEO and the company Chairman. In their analysis of stock price reactions to director appointments in the UK, Lin, Pope and Young (2003) find a positive market reaction in smaller firms when affiliated directors (including appointees of blockholders) are appointed to the board.

Short, Zhang and Keasey (2002) find that the presence of a financial blockholder leads to higher dividend payouts, as compared to companies without the presence of such institutional blockholders. High dividend payouts place greater reliance for investment funding on external capital markets, which are effective monitors of company management [Easterbrook (1984)]. Alternatively, larger dividends may force managers to pay out cash flow that would be better utilised by being re-invested in positive NPV investments, where available.

### *3.3.5. Studies of large shareholdings and firm value*

In his literature review on block share ownership, Holderness (2003) cites two main difficulties in studying the relationship between a governance system and firm value. Firstly, studies are based on an examination of the relationship between the system and the exchange price of a stock, rather than its actual value. When blocks of shares trade they typically do so at a substantial premium to the market-clearing price, which distorts the results of any study seeking to find a relationship.

Secondly, he asks the reader to consider a case where there is a positive empirical relationship between blockholdings and firm value. This may arise for one



of three reasons. These are (i) because there is a causal relationship between ownership structure and firm value, (ii) higher firm value may lead to a more concentrated ownership structure, or (iii) because there are systematic differences between firms with high and low ownership and it is these differences that cause the differences in firm value. The second outcome has been referred to as endogeneity or reverse causation, while the third possibility is commonly labeled as the unobserved heterogeneity problem. The combined effect of these problems severely biases much of the early work on the relationship between any governance system and firm value, and even recent empirical research cannot appear to agree on any specific method of correcting the problem. The remainder of this section provides a brief overview of some of the studies that have attempted to uncover a relationship between large shareholders and corporate value or performance within a static framework.

Demsetz and Lehn (1985) find no relationship between ownership concentration and accounting profit rate while McConnell and Servaes (1990) find a positive relationship between institutional ownership and corporate value, but no such relationship between blockholder ownership and value. Agrawal and Knoeber (1996) find no evidence of a relationship between either institutional ownership or blockholdings and firm value. Anderson and Reeb (2003) find a negative relationship between the ownership of unaffiliated blockholders and company performance, as proxied by both ROA and Tobin's Q. However, the strength of this relationship becomes insignificant when using instrumental variables-two stage least squares (IV-2SLS) regressions to account for endogeneity.

In their analysis of UK pension fund holdings, Faccio and Lasfer (2000) find that companies invested in by such funds are significantly lower valued, and that

over time both industry-adjusted operating performance and Tobin's Q decline within companies invested in by these pension funds. Also, fund holdings don't lead to compliance with the recommendations of the Cadbury Report (1992), nor do these funds sell their under-performing stakes. Furthermore, Faccio and Lasfer (1999) find that block ownership is associated with lower corporate value, while Weir et al. (2002) find no relationship between blockholdings and firm value.

Whether a relationship exists between large shareholders and firm value is unclear. Problems of endogeneity and heterogeneity make life difficult for the empirical researcher in this area. As such, there appears to be more value in examining the role of large shareholders on discrete tasks such as CEO turnover, accepting and contesting takeover bids, financial policy, director remuneration, etc. The results of these empirical studies provide us with information for making judgements on when large shareholders may provide value for ordinary shareholders and when they may attempt to expropriate minority shareholders by consuming private benefits of control.

### *3.3.6. Summary and the need for greater distinction of blockholders*

From the above evidence, the influence of blockholders on corporate value is at best debatable. Holderness (2003) summarises that there is little conclusive evidence on the role of blockholders in corporate governance, but what evidence does exist would suggest that minority shareholders should not fear them. This is particularly the case when legal protection of minority shareholders is strong, as is the case in the UK and the US [La Porta et al. (1998)].

Activist blockholders may be of benefit in influencing corporate governance, however, there is also evidence that these blockholders may become as self-serving as the management they are supposed to monitor. In addition, various types of blockholders each have their own individual incentives and further empirical research is required to distinguish between these different groups. Within this, rather than focusing on financial companies as a cohesive group, greater care should be taken to examine the different incentives and agency relationships that exist within these institutions, and what the resulting affect is on their incentive to monitor management.



### ***3.4. Corporate financial policy***

The financial policies of companies can have strong implications for agency controls, arising from their impact on investment policies. In a similar fashion to large shareholder monitoring, agency based models of capital structure choice vary from static monitoring of company management to dynamic models where capital structure changes in response to economic conditions. Likewise, models of dividend policy and equity repurchases have examined their agency implications, and the choice between these as alternative solutions to agency problems.

Theories of existing debt posit that creditors monitor company management and are able to affect company policy when firms default or attempt to renew existing credit facilities. Financial policy also becomes important when companies seek to issue equity or debt to raise new finance. Here, monitoring from capital markets allows new and existing investors an opportunity to bring about necessary changes in managerial control in exchange for providing the company with new funds. Finally, payout policy has obvious implications for shareholder returns and provides an observable signal of managerial performance. Higher cash payouts also remove cash from the discretion of managers. Changes in payout policy may therefore bring about changes in the monitoring of company management.

This section begins with a discussion of the agency costs and benefits of debt. It then moves on to discuss empirical evidence on the direct relationship between leverage and corporate value. A discussion of the equity payout policy implications of agency theory is then provided, along with theory and evidence on the security issuance process within an agency framework. The section ends with a brief summary of the agency implications of financial policy.

### *3.4.1. Monitoring and bonding from debt financing*

This section provides a brief overview of capital structure theories within an agency framework. However, capital structure choice is a topic within its own merit and a fuller discussion of other aspects of capital structure can be found in Novaes (2002), Zwiebel (1996), and in particular Harris and Raviv (1991).

Jensen and Meckling (1976) were the first to propose an agency-based theory of capital structure. They theorise that the agency benefit of debt is to increase the fractional ownership share of management for a given level of investment. In their model, increased equity ownership by managers reduces the moral hazard agency problems of managerial shirking and perquisite consumption.

Jensen (1986) argues that the existence of debt in the firm's capital structure acts as a bonding mechanism for managers. By issuing debt, rather than returning cash to shareholders, managers contractually bind themselves to pay out cash flows. The need to disperse free cash flow arises in his model due to managerial preferences for internally financed growth in firm size. The bankruptcy costs of debt, the personal embarrassment arising from default, and the loss of power when control rights are transferred to creditors act as effective incentive mechanisms in forcing managers to operate efficiently. This function is particularly important in firms with low internal growth prospects and high free cash flows. Debt therefore, is modelled as a contract where the threat of default keeps cash flowing from debtors to creditors.

Jensen (1989) also argues that higher leverage increases the efficiency of the bankruptcy process because it encourages lenders to negotiate and preserve value by keeping the firm as a going concern. Gearing increases the speed with which firms react to poor performance by abandoning projects and replacing managers.



Brennan (1995b) discusses models of capital structure choice where the role of a firm's debt is to ensure its socially optimal liquidation. Since managers derive private benefits of control they will be unwilling to liquidate even when this is in the best interests' of shareholders. Higher levels of debt can improve the liquidation decision by making default more likely [Harris and Raviv (1991)]. Jensen (1993) also suggests that the bankruptcy process provides a means of optimally rewriting contracts following the inefficiencies that have caused bankruptcy originally.

In control transactions, Jensen (1986) argues that the role of debt is not permanent in a firm's capital structure. Rather, its role is to create the crisis that forces firms to restructure and pay down debt with the proceeds, leading to a more efficient organisation in the long run. Similarly, Jensen (1993) discusses the role played by junk bond financing during the bust-up takeovers of the 1980's in reducing obstacles to takeovers, such as firm size. High levels of debt pre-committed the bidder to disposing of non-core assets upon completion of the takeover.

Shleifer and Vishny (1997) argue that the legal protection of creditor rights is typically more effective because breaches of debt contracts are more easily verifiable than breach of a duty of care to shareholders. Lenders gain power when companies default or need to regularly renew short-term financing.

The above models are based on static theories of capital structure, where lenders become active when necessary. Recent theories of capital structure examine debt within a dynamic framework and are based on managers' preference to remain in control of their companies. This research focuses on the role of changes in leverage as a signal of managerial quality and their commitment to resolving agency problems. Zwiebel (1996) argues that managers prefer not to have debt but will gear



up in order to declare their commitment to maximise shareholder wealth and deter a potential takeover threat. In this model, managers with good reputations do not need to rely on debt financing to deter a control threat.

Novaes (2002) develops this theory, suggesting that the decision to increase leverage comes at a cost to managers. In his model, increasing leverage still commits the company to a restructuring plan. However, higher levels of debt signal that the manager is of low quality and has something to be concerned about, thus increasing the likelihood that shareholders will remove them anyway. Consistent with Zwiebel, increasing leverage deters the threat of a takeover, but in this model it also increases the likelihood of CEO turnover for low quality managers.

The empirical literature surveyed here focuses largely on the role of debt on a number of discrete and observable tasks. These include, restructuring decisions, asset sales and CEO turnover. The choice of papers surveyed is largely dictated by the decision to focus on agency-based explanations of debt, and in particular its role in managerial discipline.

Leverage and banking relationships have been found to play an important role in corporate restructuring and managerial replacement following poor performance [Gilson (1989), Ofek (1993), Lang et al. (1995), and Kang and Shivdasani (1995, 1997)], and in precipitating financial distress, which in turn has been found to play an important role in driving value enhancing corporate restructuring [Gilson (1989), Denis et al. (1997a), and Denis and Kruse (2000)]. Leverage has also been found to play an important role in constraining growth in firms regarded as having few positive NPV investment opportunities [Lang, Ofek and Stulz (1996)], and in precipitating corporate restructuring programmes following a failed takeover attempt

[Safieddine and Titman (1999)]. Finally, Ang, Cole and Lin (2000) find that measures of agency costs decline with the strength of lender monitoring activity.

Recent empirical research has also sought to examine the determinants of leverage ratios with respect to other systems of corporate governance, and the role of changes in leverage on other governance structures. Part of this research is also surveyed here, however, it should be noted that the determinants of leverage ratios and the choice between equity and debt issuance are still generally unresolved.<sup>10</sup>

Jensen, Solberg and Zorn (1992) and Agrawal and Knoeber (1996) find a positive relationship between firm size and leverage ratios. This arises where larger companies are most likely to have significant collateral against which to secure their borrowings. Jensen et al. (1992) also find that leverage is inversely related to business risk, growth prospects and profitability, which is consistent with the theoretical determinants of leverage put forward in the alternative trade-off and pecking order models of capital structure put forward by Myers (1984). These relate to manager's desire for financial slack and the potential bankruptcy costs of debt.

In terms of the relationship between governance and leverage, Jensen et al. (1992) find that higher levels of managerial ownership lead firms to employ lower levels of corporate leverage, whereas Agrawal and Knoeber (1996) find the opposite affect. Higher ownership may increase managerial risk aversion, causing directors to select a lower level of leverage, but may also encourage management to select a capital structure that maximises firm value. Demsetz and Villalonga (2001) actually find the opposite affect, where they report that higher levels of debt lead to lower

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<sup>10</sup> Jung, Kim and Stulz (1996) and Shyam-Sunder and Myers (1999) provide alternative evidence on the relevance of agency and pecking order models in companies' security issuance decisions. Graham and Harvey (2001) survey the Chief Financial Officers (CFOs) of US companies and provide evidence on the importance of a number of alternative theoretical determinants of capital structure choice.



levels of managerial ownership. Both Agrawal and Knoeber (1996) and Denis and Sarin (1999) find a positive relationship between leverage and the fraction of outside directors that comprise the board, but Denis and Sarin (1999) find that changes in leverage and board independence are negatively correlated. The results of these cross-sectional findings suggest that lender monitoring leads companies to appoint more outside directors to their board.

Despite its similarities to America in terms of being a market based economy, studies of leverage in UK companies may prove fruitful given the lack of a liquid market for publicly traded debt, which results in bank financing being the dominant form of lending for UK companies. This provides banks with the opportunity to develop close relationships with their client companies in a similar fashion to that discussed by Kang and Shivdasani (1995, 1996, 1997) for Japanese companies. The lack of a public debt market should also reduce the free-rider problem of lender monitoring when creditors are a diverse group with relatively small financial claims. For example, Ofek (1993) finds that privately held debt increases the likelihood of corporate restructuring decisions, while public debt does not.

Lasfer, Sudarsanam and Taffler (1996) find that asset sales by UK companies result in large increases in shareholder wealth, which is stronger in the presence of lender monitoring and financial distress. Franks et al. (2001) and Dedman (2003) find conflicting evidence on the importance of leverage in managerial turnover following poor performance, where Franks et al. (2001) find a positive relationship and Dedman (2003) fails to report evidence of such a relationship. Finally, Dedman and Lin (2002) find that the stock price reaction to announcements of CEO turnover is greater when the departing CEO had increased the risk of their firm through



increases in leverage prior to their departure. This appears consistent with the theoretical model of Novaes (2002), where increases in leverage provide a signal of low managerial quality.

### *3.4.2. The costs of debt financing*

While leverage brings many benefits within an agency framework it also brings costs to companies. Increasing debt brings higher levels of debt-related agency and bankruptcy costs. The optimal capital structure should be where the marginal costs of debt equal its marginal benefits, and this is the point where the value of the firm is maximized.<sup>11</sup> Jensen and Meckling (1976) discuss the asset substitution problem that occurs at higher levels of debt. When the threat of default is high, shareholders have incentives to gamble with debtholders funds. Since, lenders anticipate this in advance, they will impose covenants in loan contracts and demand a higher interest rate when they provide companies with funds.

Warner (1977) discusses the direct and indirect bankruptcy costs of debt. The direct costs deal with the legal and administrative costs of bankruptcy, while indirect costs relate to the disruption to the firm's continuing business operations and the loss of value in the firm's assets if the company is liquidated. These costs increase with the level of debt because higher leverage increases the probability of bankruptcy.

Stulz (1990) also argues that, while debt may reduce the risk of over-investment, there will always be a danger that it could lead to under-investment due to the costs of raising new finance. As argued by Myers (1984), companies may be

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<sup>11</sup> Myers (1984) discusses an alternative to the agency or tradeoff model of capital structure. He suggests a 'pecking order' theory, where capital structure is determined by a desire to avoid diluting the wealth of existing shareholders. In the most basic form of this theory, managers will prefer to finance investments using internal cash flows initially, then debt and finally equity.

forced to forego positive NPV investments due to the financial and adverse selection costs of issuing new equity.

Shleifer and Vishny (1997) also suggest that creditor rights are difficult to enforce when the firm has multiple creditors or classes of creditors, each with different claims to the firm's assets. Conflicts between these groups reduce the efficiency of the bankruptcy process and the firm's ability to negotiate with lenders following default.

Finally, Zwiebel (1996) is critical of the general corporate governance literature in its assumption that some invisible force leads managers to taking on an optimal level of debt. He suggests that no such force actually exists and that managers will have a free reign over their capital structure choice in the absence of a crisis. To this extent, debt is ineffective as a monitoring mechanism because it is selected by managers and is altered only when they deem it necessary. Denis (2001) also argues that the gearing up of companies in response to poor performance suggests that debt is effective for disciplining management only in a crisis situation.

### *3.4.3. The relationship between leverage and firm value*

Studies of leverage and corporate value are plagued by the problems of endogeneity and unobserved heterogeneity discussed by Holderness (2003) in examining the relationship between corporate governance and firm value. The following section provides a short summary of the main empirical findings on the relationship between leverage and firm value.

Davies, Hillier and McColgan (2004) report evidence of a positive relationship between leverage and firm value. Mehran (1995), Agrawal and Knoeber (1996),



Short and Keasey (1999), and Weir et al. (2002) find no relationship between leverage and value, while Vafeas and Theodorou (1998), Demsetz and Villalonga (2001), and Anderson and Reeb (2003) find evidence of a generally negative relationship between leverage and firm value.

However, consistent with the findings of Lang et al. (1996), the role of leverage may be dependant on the characteristics of the firm's operating environment. McConnell and Servaes (1995) and Faccio and Lasfer (1999) report a negative relationship between leverage and firm value in a sample of high growth companies, but McConnell and Servaes (1995) find a positive relationship between leverage and value in companies with low growth prospects. Low growth companies are those most likely to be characterised by the free cash flow problems that Jensen (1986) offers debt as a potential solution for, whereas debt may overly constrain investment within companies that have high growth prospects.

In addition, Demsetz and Villalonga (2001) attribute a negative relationship between leverage and value to the strength of inflationary pressures during their sample period, rather than the effect of leverage on firm value per se. They argue that debt sold during an earlier period imposes a risk that interest obligations will be paid back with less valuable money if there has been relative inflation.

From the above evidence the impact of leverage on firm value is unclear. As discussed earlier, problems of endogeneity and heterogeneity make finding any causal relationship very difficult. The value of leverage will also change in accordance with tastes, the growth prospects of the firm and other aspects of its contracting environment which creates agency problems, whether the debt is public or private, and whether the interest rate is floating or fixed. Further examination of



these issues may cast new light on the costs and benefits of debt, and its overall impact on firm value. However, even doing so may still prove fruitless in direct studies of value and leverage due to empirical estimation problems.

#### *3.4.4. Using payout policy to reduce agency conflicts*

The study of payout policy has been one of the most actively researched in corporate finance. In addition to agency theories of cash distributions to shareholders, researchers have proposed signalling, tax, substitution, cash-flow permanence, growth, and irrelevance theories of payout policy and the choice between alternative methods of distributing cash to shareholders. This section aims to provide a brief summary of the main agency related arguments on dividend policy.

Dividends and equity repurchases provide a means of returning surplus cash to company shareholders. However, Jensen (1986) argues that cash payouts to equity holders do not carry the same legally binding obligation to make payments as debt, making them a less efficient means of forcing managers to pay out cash-flows. It appears though that this line of argument underestimates the pressures involved in maintaining dividends and the penalties for cutting them.<sup>12</sup>

Easterbrook (1984) proposes two alternative agency based theories of dividend policy. Firstly, he suggests that higher dividend payouts increase the need for companies to return to the capital markets to finance new investment opportunities. The monitoring brought by capital markets is similar to that in Jensen's (1986) model of debt, whereby managers receive a lower price for their securities if investors are unconvinced about the benefits of the planned investment opportunity. Easterbrook

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<sup>12</sup> For a discussion of the signaling potential of changes in dividend policy see Miller and Rock (1985).

also proposes that retaining cash reduces the risk of the firm's debt, resulting in a wealth transfer from shareholders to debtholders who have contracted for a given level of risk and required return.

Jensen (1993) posits that equity repurchases provide a valuable means of distributing excess cash to company shareholders for companies in declining industries with few available positive NPV investment opportunities. However, Bagwell and Shoven (1989) suggest that managers will prefer to payout cash in the form of dividends because open market equity repurchases may change the ownership structure of the company and reduce their control as a result.

Jensen et al. (1992) examine the determinants of dividend policy within a 3SLS regressions framework. They find that the dividend payout ratio is negatively related to growth prospects and investment rates, and is positively related to profitability. Higher growth prospects and investment are likely to be characteristics of companies that retain earnings for future investment, rather than paying them out to shareholders in the form of dividends, while higher profitability increases the amount of cash that companies have available to return to shareholders. In addition, they find that dividend payouts are negatively correlated with leverage and managerial ownership. It is possible that leverage and dividends may be substitutes in bonding managers to return cash to shareholders, or alternatively that higher leverage increases business risk, which in turn increases the incentives of managers to retain cash within the firm. Similar arguments can be made for the relationship between managerial ownership and dividend payouts, where these may be substitute monitoring structures, or alternatively, higher levels of control allow management to retain earnings for future investment purposes, and to reduce the risk of their own-firm



investment. The authors conclude that financial policy is determined by managerial control, and not vice versa.

#### *3.4.5. Security issuance and managerial discipline*

To this point, the research summarised has focused on debt as a control mechanism that is already in place, and the choice between alternative means of returning cash to shareholders. The final aspect of financial policy within the agency framework occurs when companies return to the capital markets to raise new equity, debt or hybrid securities.

Easterbrook (1984) argues that capital market monitoring forces managers towards value maximising strategies, rather than personal utility maximisation. If managers have a reputation for abusing shareholder's funds they will be unable to raise sufficient capital to fund their investment needs. Similarly, Shleifer and Vishny (1997) suggest that managerial reputation may play an important role in the ability of companies to raise new financing at the lowest possible cost of capital.

Having decided to issue new securities, firms are faced with the choice of debt or equity. This choice will be determined by the company's position with respect to its optimal capital structure (as in the trade-off theory), manager's desire for financial slack and the firm's debt capacity (under the pecking order theory) or the trade-off between a manager's desire to remain equity financed and their need to send a signal of their commitment to a restructuring plan (as in managerialist theories).

To date, the empirical research on capital market discipline from security issuance has focused on equity issuance, while the choice between alternative forms of debt financing, and its role in managerial discipline remains an area for future



research.<sup>13</sup> Having made the decision to issue equity, companies are faced with the choice between rights offerings, where rights to purchase new shares are distributed to existing shareholders on a pro-rata basis, or public offerings, where equity is issued to new shareholders.

Kothare (1997) examines rights offerings and public equity issuance in a sample of US companies, and their resulting effects on stock liquidity and ownership structure. She finds that liquidity increases following public issues but decreases following rights offerings, leading to a preference for public offerings. The change in liquidity following public offerings is driven by the decline in ownership concentrated in the hands of managers and blockholders following public offerings, whereas ownership concentration actually increases following rights offerings. She suggests that companies with concentrated ownership, who are less concerned about trading costs because they tend to have long-term investment horizons, more often use rights offerings in America. Larger companies with dispersed ownership exhibit a preference for public equity issues because their stocks are more actively traded and the reduced liquidity has a greater impact on their share price.

In contrast to the US, rights offerings are the predominant means of issuing equity for UK firms. However, since 1986 companies have also been allowed to conduct placings as a means of raising new equity finance. Slovin, Sushka and Lai (2000) describe these as a non-rights method of flotation in which an underwriter purchases an equity offering from the issuing firm on the spot at a fixed price, and sells the shares to clients, typically institutions, and other outside investors. In this

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<sup>13</sup> Denis and Mihov (2003) examine the choice between public debt, non-bank private debt, and bank debt for a sample of US companies. They find that the credit history of the issuing company is a much more consistent determinant of the choice of debt issue than managerial ownership, which is used to proxy for managerial discretion.

respect they describe placements as being comparable to firm commitment public offerings in the US. They also find that placings tend to be used by smaller companies to raise similar relative amounts of equity, but funds raised are smaller in absolute terms than the amounts raised by companies conducting rights offerings.

Sloven et al. find that equity markets greet announcements of placings positively, whereas announcements of rights offerings elicit a significantly negative stock price reaction. Firms conducting placings have higher equity ownership than companies using rights offerings to raise new finance, and the placing leads to a decline in managerial and blockholder ownership. However, rights offerings typically have a high take up and result in little change to ownership structure.

This contrasts with Kothare (1997) who finds that rights offerings are more common in US companies with concentrated ownership. Slovin et al. (2000) also find that the stock price reaction to announcements of placings appears to be a positive function of ownership concentration prior to the equity issue. The authors conclude that differences in the role of underwriters imply that placings of equity by UK firms provide a greater degree of certification of the issuing firm's quality than firm commitment offerings in the US. High quality firms appear to choose placings to mitigate the adverse selection problems intrinsic in seasoned equity issuance.

Black and Coffee (1994) discuss the role of equity issuance in managerial discipline for managers of UK companies. Companies must seek shareholder approval at the annual general meeting (AGM) in order to waive pre-emption rights for existing shareholders each year. They suggest that the real power of financial institutions within corporate governance in the UK lies in their ability to cause the failure of any attempt to raise new equity capital through a rights offering, and in



their ability to veto any attempt to financially restructure distressed companies. These rules provide a low cost strategy for institutions to engage in governance, which has the unique feature of forcing the issuer to negotiate with shareholders, rather than the reverse. They also suggest that deep-discounted rights offerings are very rare because they lead to a dilution of existing shareholder's wealth unless they are taken up or sold. Financial institutions have been particularly active in revolting against any attempts of this manner to reduce their voting rights.

UK pre-emption guidelines dictate that any equity issue of greater than 5% of share capital in any one-year and a three year rolling average of 7.5% must be in the form of a rights issue. For pre-emption rights to be waived a super-majority vote of 75% is required and discounts on new equity issues are limited to 10% of the market price at the date of the announcement. This allows ordinary shareholders a greater ability to monitor managerial decision-making in such situations.

Franks et al. (2001) find that equity issues provide a significant means of disciplining management in poorly performing UK companies. Specifically, executive board turnover rates increase following equity issuance and in some cases this is focused amongst poorly performing companies. In explaining this they argue that institutions may remain passive during the general course of business, perhaps due to the potentially negative publicity and the cost of organizing other shareholders. However, it is when the company begins to search for additional funds that these institutions take an active role in company decision making. They conclude that new equity issues provide a strong opportunity for shareholders to restructure their company's board of directors.



### *3.4.6. Summary of financial policy*

The theory and evidence described above posits an important role for company financial policy in corporate governance. Perhaps more so than most areas of governance, financial policy is difficult to isolate within an agency framework, as there are still so many unexplored explanations for why companies choose one capital structure or dividend policy over another.

The virtue of debt in reducing the free cash flow available to managers has been championed by Jensen (1986, 1989, 1993), but excessive use has resulted in financial difficulties for many companies in the past. Likewise, dividend payments and equity repurchases return cash to shareholders and remove it from potentially inefficient managers, but excessive payouts reduce financial flexibility and the downsides of equity repurchases are still not fully understood. Finally, while equity issuance can and does increase scrutiny on company management, it is costly to do so and may result in companies foregoing investment opportunities as a result [Myers (1984)]. In addition, creditor intervention following default and security issuance by distressed companies arise following extremely poor performance, which may suggest that financial policy provides monitoring only in a crisis situation.

Company managers determine financial policy and the extent to which managerial discretion dictates these policies is a research area that has yet to be fully explored empirically. In addition, the choice between alternative forms of security issuance and its role in managerial discipline represents a valuable research area. For example, the choice between debt and equity issuance, public and private debt issuance, rights offerings and public offerings, and their role in managerial discipline all represent valuable research opportunities.

### ***3.5. Corporate boards***

In theory, the board of directors is elected by shareholders at the company's AGM. If these directors wish to stay in their jobs they should avoid large deviations from the goal of shareholder wealth maximisation. The board of directors, therefore, is viewed as the primary internal monitoring mechanism of company management

Corporate boards are a legal requirement for listed companies, with minimum limits on the number of directors serving based on the size of the company. However, beyond the most basic legal requirements, the law has little to say about the role of corporate boards [Denis (2001)]. Despite fulfilling a basic legal requirement, board sizes range from very small to very large, employing directors in a variety of roles as decision makers, and both advisors to, and monitors of, these decision makers. Different companies also employ different leadership structures for their boards and appoint a variety of tasks to numerous specialist sub-committees.

In their literature review, Hermalin and Weisbach (2003) summarise the empirical literature on company boards as answering three key questions. Firstly, how do board characteristics such as size or composition affect profitability? How do these characteristics affect the observable actions of the board? Finally, what factors affect the makeup of the board and how do they evolve over time?

#### ***3.5.1. The role of the board of directors***

Corporate boards should act as monitors in disagreements amongst internal managers and carry out tasks involving serious agency problems, such as setting executive compensation and hiring and firing managers [Fama and Jensen (1983)]. In theory the board of directors should benefit small shareholders who are powerless



to oppose company management because the board has the expertise and the ability to monitor managerial decision-making.

Hermalin and Weisbach (2003) suggest that boards have evolved as a market-based solution to the contracting problem within organisations. The economic function of the board is determined by the organizational problems that they help to resolve. Since the agency problem is resolved by providing managers with the appropriate incentives to maximise shareholder wealth, these authors suggest that the board of directors has evolved as the mechanism whose role it is to provide managers with these incentives and ensure that contracts are structured optimally.

Recently there has been a move towards greater formal division of the board's duties through sub-committees. These involve the appointment of specific directors to individual tasks, such as investment, audit, nomination, etc. where these groups meet separately from the main board to discuss their own aims and objectives.

Despite their purported aims, company boards have attracted perhaps the largest single amount of criticism of any governance system due to their perceived inability to actively monitor company management. The most poignant and detailed of these criticisms comes in Jensen's (1993) Presidential Address.

Jensen is highly critical of board culture, particularly the emphasis on courtesy and politeness at the expense of candid discussion. Many boards, he argues, lack the financial expertise to convert the goal of long-run value maximisation into a viable operating strategy. He suggests that boards become complacent when things are going well, and as a result are unable to act when management systems start to falter.

Much of the criticism on corporate boards stems from the CEO's ability to control them. Mace (1971) argues that the CEO tends to dominate the director



nomination process, and will choose directors most in line with their own preferences. In many American corporations, where the roles of the CEO and the Chairman are combined, the CEO determines the information provided to the board and its agenda. This limits the board's ability to monitor the CEO. Jensen (1993) suggests that CEOs do not really want to invite monitoring and the resulting criticism of their control. As a result, the selection process for directors may not be as rigorous as it should otherwise be and the shared objective of board meetings may simply be to get them over and done with. This results in a major crisis being required to induce changes in managerial control. Hermalin and Weisbach (2003) hypothesise that the CEO has an incentive to 'capture' the board in order to keep their job. On the other hand, the remaining directors have the incentive to maintain their independence.

One of the most obvious shortcomings of the boards of directors lies in agency theory itself. In the model of Jensen and Meckling (1976) the board of directors may be viewed as principals to monitor company management, who perform the role of agents. Directors perform the principal role on behalf of shareholders who lack the incentives, skill and coordination to monitor management. However, as Hermalin and Weisbach (1991) note, directors are themselves agents, each deriving both costs and benefits from their decision to monitor the CEO.

Empirical research confirming the shortcomings of board monitoring is provided by Warner et al. (1988), Weisbach (1988) and Conyon and Florou (2003) amongst others, who find that only extremely poor performance leads to top management having shorter tenures in their positions. In addition, Denis and Denis (1995) find modest performance increases following top management turnover, but

find that such changes are precipitated by external control events rather than changes in the composition of the company's board.

Shivdasani and Yermack (1999) document evidence of CEO control in the director nomination process. They find that when the CEO is directly involved in director appointments, companies are more likely to appoint non-employee directors who are affiliated with management, and are less likely to appoint independent directors who will monitor managers. They also find that the stock price reaction to the announcement of a non-employee director's appointment is significantly greater when the CEO is not involved in the director nomination process, and that the appointment of an affiliated director by the CEO is greeted negatively by the stock market. They conclude that CEOs seek to acquire influence over the selection of new directors and that directors chosen under these conditions contribute to a deterioration in the board's monitoring of the CEO.

Despite much criticism of company boards, Hermalin and Weisbach (2003) argue that while they may not be first best efficient as a solution to the agency problem, this is not the same as arguing that some form of outside regulation is required to improve managerial monitoring. They hypothesise that boards may be a second best solution to the various agency conflicts within an organisation, where the board of directors has evolved as one potential control mechanism to reduce agency conflicts between shareholders and managers.

### *3.5.2. The choice between inside and outside directors*

Having decided to examine the role of company boards, researchers have then frequently examined the effects of different board structures. Most commonly this



has involved a distinction between executive directors and non-executive directors. Executives are company employees who fulfil a specific role on boards, such as CEO, finance director, operations director, head of a division, etc. These directors are also labelled as 'insiders' and in much of the governance literature they take the role of the agent from Jensen and Meckling's (1976) original agency theory model.

Non-executives or non-employee directors are part-time board members who perform a non-operational role. They may contribute to board meetings through their expert opinion as strategic advisors, provide political clout for the company, provide gender/ethnic balance, act as a representative for a large stakeholder, or act as monitors of company management.

Much of the board structure literature has also sought to distinguish between different non-executives in accordance with how closely they are tied to company insiders. 'Grey' or 'affiliated' non-executives are classed as so because they may be former inside directors, related to insiders, have excessive tenures as non-executives, have trading relationships with the company or its inside directors, or have been appointed by the current CEO, amongst many other reasons. Each of these facets may reduce their impartiality as monitors of management. 'Outside', 'unaffiliated' or 'independent' directors are non-executives who do not meet the requirements to be classed as greys, and are therefore deemed to be more willing to monitor managers. These outside directors take the form of the principal, or at least their representatives on corporate boards, in Jensen and Meckling's (1976) agency model.

Fama and Jensen (1983) argue that effective corporate boards should be composed largely of outside independent directors holding managerial positions in other companies. They argue that effective boards should separate the problems of



decision management and decision control. Outside directors, they contend, are able to separate these functions and exercise decision control, since reputational concerns, and perhaps any equity stakes, provide them with sufficient incentives to do so.

Weisbach (1988) contends that these outside directors have incentives to develop reputations as experts in decision control, and that the value of their human capital will decline if they fail to act effectively in situations requiring them to be active in governance. He suggests that inside directors have their career path tied to that of the CEO and are unlikely to challenge a poor performer.

Jensen (1993) argues that the CEO should be the only inside director on the board, with others called on request. Outsiders should be able to meet independently and be given the opportunity to observe succession candidates to enhance their understanding of board processes. He argues that inside directors cannot contribute critically to board meetings due to the fear of reprisal from the CEO. However, Bhagat and Black (2000) propose that a reasonable number of inside directors may add value through better strategic decisions and by allowing for better monitoring of future CEO candidates. Insiders are conflicted but well informed, whereas independent directors are not conflicted but may be uninformed about the company.

Borokhovich et al. (1996) discuss the role of board composition in CEO selection. They argue that inside directors will prefer to appoint new CEOs internally because they will be the leading candidates for the position. Insiders will also be less likely to alter existing policies or to restructure other board positions.

Klein (1998) suggests that much of the value from inside and outside directors lies in their role on board sub-committees. She suggests that insiders provide specialised expert information, which is valuable when they serve on investment,

strategic and financing committees. On the other hand, audit, nomination and remuneration committees alleviate agency problems by contributing to the monitoring of management and by designing appropriate compensation structures to provide financial incentives for inside directors.

As mentioned above, the empirical literature on board composition has attempted to answer a number of questions with respect to its effect on firm value. This section continues with a brief discussion of the stock price reaction to the appointment of inside and outside directors. The role of board composition on discrete tasks is then examined along with the determinants of board composition. Finally, this discussion of empirical literature on board composition looks at the relationship, if any, that exists between board composition and firm value.

Rosenstein and Wyatt (1990) find that a firm's stock price rises significantly upon the appointment of an outside director to the board, where the greatest price increase accrues to shareholders in small firms. Subsequently, Rosenstein and Wyatt (1997) find that the stock price reaction to the appointment of inside directors is generally insignificant, but is highly dependent upon the existing composition of the board and the ownership of the existing management team. These findings are generally consistent with Hermalin and Weisbach (2003) who suggest that changes in board composition are designed to correct disequilibria in the existing board structure, and should be greeted positively by the market.

As discussed previously, studies of board structure and discrete tasks have been one of the most frequently examined issues in the empirical literature on company boards. The literature surveyed here pays particular attention to the role of boards in CEO selection decisions, which is motivated by the research carried out in future



empirical chapters. However, a vast amount of further research has also been carried out on other discrete tasks that company boards are involved in. The literature reviews of both Bhagat and Black (1999) and Hermalin and Weisbach (2003) provide detailed discussions of these articles.

The primary study of the role of board composition in CEO turnover is Weisbach (1988), who finds that CEO turnover is more sensitive to company performance when the board of directors is dominated by outside directors. However, Yermack (1996) and Denis et al. (1997b) fail to find evidence of such a relationship, although Denis et al. (1997b) find some evidence of this in a sub-sample of smaller companies, suggesting that the role of board composition in CEO turnover may be at least partially dependant upon the characteristics of the firm's operating environment. Huson et al. (2001) find mixed evidence on this issue, depending on whether they examine non-executive or outside directors.

In addition, Borokhovich et al. (1996), Kang and Shivdasani (1996) and Huson et al. (2001) find evidence that the likelihood of outside CEO succession is an increasing function of the fraction of outside directors serving on company boards. Finally, Huson et al. (2004) find some evidence of increased performance following CEO turnover where the new CEO was appointed by a board that was comprised by a majority of outside directors.

Mehran (1995) finds a positive relationship between the fraction of total CEO pay that is equity based and the fraction of outside directors serving on company boards. However, Yermack (1996) finds no such relationship, while Core, Holthausen and Larcker (1999) actually find that total CEO pay is increasing with the fraction of outside directors on the board and measures of the extent to which the



CEO may have been able to 'capture' these outside directors, such as interlocks, the number of further directorships that these outsiders have, and whether they were appointed by the current CEO.

Finally, Denis and Kruse (2000) find no evidence that board composition affects the likelihood of managerial control threats following a decline in operating performance. These findings may suggest that board composition plays an important role only in monitoring roles, but is unimportant in operational decision-making.

Hermalin and Weisbach (2003) discuss the determinants of board composition, which are also likely to suffer from the problem of joint endogeneity discussed previously. They argue that tightly held firms in which founders are still active and the CEO has a large fractional ownership share will have insider dominated company boards. However, larger and older firms are more likely to have professional management with low ownership stakes and outsider-dominated boards. Denis and Denis (1994), Agrawal and Knoeber (1996) and Denis and Sarin (1999) have found empirical confirmation of this. The negative relationship between managerial control and board independence may arise due to managerial entrenchment, and the resulting ability to stack the board with inside directors. However, it is also possible that managerial ownership and outside directors provide substitute monitoring mechanisms, and that where managers own a significant fraction of their firm's equity it becomes optimal for them to act as their own monitors because they are also the residual risk bearers [Fama and Jensen (1983)].

Empirical research has also found that board independence is a positive function of firm size, and is negatively related to growth opportunities either at the firm or the industry level [Denis and Sarin (1999), Bhagat and Black (2000)]. Larger

firms are likely to be characterised by greater agency conflicts and will require greater monitoring from outside directors to control these problems. In addition, poor growth prospects are likely to be characteristics of companies that have high levels of free cash flows (see Jensen (1986)), and will require a more independent board to control these problems.

Studies of changes in board composition have consistently found that outside directors are appointed to and depart from the board following poor performance, but that in general board independence increases following poor performance [Hermalin and Weisbach (1988), Kang and Shivdasani (1997), and Bhagat and Black (2000)]. This occurs where poor performance increases the bargaining power of independent directors relative to the CEO, and allows for further monitoring of an under performing top officer. Denis and Sarin (1999) also find evidence of mean reversion in board independence over time, and that changes in board independence are rare outside of changes in managerial control.

Both Hermalin and Weisbach (1988) and Denis and Denis (1999) document the importance of CEO succession in changes in board composition, where insiders are added to and depart from the board prior to turnover, and outside directors are appointed to the board following the appointment of the new CEO. This arises where insiders are appointed as potential CEO successors, while others depart once it is clear that they will not be promoted to the top officer position. Increased board independence following the appointment of a new CEO arises where outsiders are brought in to monitor the performance of the recently appointed CEO, who at this point will have limited power to influence the director selection process.



Hermalin and Weisbach (1991) propose that arguments suggesting that certain types of governance structures are preferable to others imply that some companies have adopted a sub-optimal governance structure. However, since each firm has its own agency problems, they will also have their own solution, and as such, there should be no observable correlation between board independence and firm value. Despite these arguments, these authors and a number of subsequent researchers have attempted to uncover evidence of a direct relationship between board composition and firm value.

Hermalin and Weisbach (1991), Mehran (1995), and Anderson and Reeb (2003) find no evidence of a relationship between outside director representation and firm value. However, Agrawal and Knoeber (1996) report evidence of a negative relationship, whereas Yermack (1996) and Bhagat and Black (2000) report mixed evidence, depending on the estimation methods and the measure of firm value used.

However, further research suggests that the simple inside vs. outside director definition may mask more intricate relationships that exist between board structure and firm value. Klein (1998) finds a positive relationship between the presence of inside directors on investment and financing sub-committees of the board and firm performance. In addition, both Mehran (1995) and Bhagat and Black (2000) find that greater share ownership by outside directors is correlated with higher firm value. These findings suggest that the role of board composition may lie in having the appropriate directors on board sub-committees, and that providing outside directors with strong financial incentives may increase their motivation to monitor firm management and increase shareholder wealth.



The above evidence appears to suggest a positive role for outside directors in certain crisis situations, and in specific monitoring decisions. However, based on the evidence presented above, outsider directors appear slow to react outside of a crisis situation, and their ability to contribute to the day-to-day operations of companies appears limited.

Bhagat and Black (1999) propose a variety of reasons for this, many of which have been discussed above. They also suggest that outsiders may lack not only independence, but also accountability to shareholders. Consistent with Klein (1998), they propose that outside directors may only be able to add value when embedded in the appropriate committee structures. Outsiders may also lack the financial incentives to monitor and may make relatively poor monitoring decisions because of their limited information. Also, many outside directors may not actually be independent due to interlocking relationships with other directors, i.e. two company CEOs each sit on the others' board as a so-called outside director.

They argue that an optimal board will have knowledgeable, incentivized inside directors, and independent directors who might become better informed. They also argue that outside directors could be given stronger financial incentives to monitor managers. Jensen (1993) also makes a similar point, suggesting that most outside directors lack the financial incentives to actively monitor management. Bhagat and Black (1999) conclude that the optimal board may actually contain a mixture of inside, outside and even affiliated directors who each bring different attributes to the board, resulting in a trade-off between executive incentives and board independence.

### *3.5.3. Separating the positions of the Chairman and the CEO*

Jensen (1993) calls for corporate boards to separate the functions of the Chairman of the Board and the CEO. Agency theory posits that separating the functions of decision management and decision control will help to reduce the scope for agency conflicts by reducing managerial discretion. He argues that the role of the Chairman is to run board meetings and to oversee the hiring, firing, evaluation and compensation of the CEO. Combining these roles makes this separation impossible, and reduces the availability of independent evaluation of the CEO's performance since CEOs themselves will select which information is provided to other directors. Since the board is believed to be the ultimate monitor of the company's management, having a solitary top officer is akin to the CEO marking his own homework.

Dahya and Travlos (2000) also argue that outside Chairmen can provide an external perspective to the company that may be important to the development of organisational goals and objectives, and strengthens the link between the company and its environment. Proponents of separating the top officer position suggest that it adds balance to the board and reduces the discretion of an overly ambitious CEO.

Alternatively, Brickley, Coles and Jarrell (1997) argue that agency theory tends to ignore the costs of monitoring a non-CEO Chairman. This individual may not act to maximise shareholder wealth and pursue his or her own self-serving agenda. Separate Chairmen may also lack the financial and human capital invested by the CEO. Separating these roles increases information costs since the CEO holds valuable firm-specific information that is important for the Chairman's role.

They also discuss a unitary CEO as being an important part of the overall process of management succession within many companies, as part of the process of



passing the baton from a retiring to a new CEO. When a unitary top officer is approaching retirement they will give up the CEO position but keep the position of company Chairman. This allows for easy monitoring of the new CEO and if they perform well they are awarded the title of Chairman. However, if they perform poorly they are said to drop the baton during this period of transition, and the close monitoring provided by the Chairman allows for easy replacement.

Further costs of separating these positions may include diluting the CEO's power to provide effective leadership and creating rivalry amongst the Chairman and the CEO. Also, having two public company spokespersons may create confusion and even opportunistic behaviour for outsiders. Finally, it becomes difficult to apportion blame when the company has two separate top officers.

Dahya and Travlos (2000) posit that there will be an optimal board structure for each company based on minimising the agency costs associated with leadership structure. In addition to the arguments of Brickley et al. (1997) they suggest that separating the top officers positions curtails innovation, and that a 'star performer' CEO should be unburdened by the need to share power with another top officer. Dahya and Travlos (2000) also argue that alternative leadership structures and their importance will depend on the use of outside directors and other aspects of board independence. They conclude that the optimal leadership structure for companies will vary over time, over industries, and with the use of alternative governance and incentive mechanisms that are currently in place within firms.

Empirically, Brickley et al. (1997) report that only 2.57% of US companies have a truly independent Chairman who has no previous connections to the company in other positions. These outside Chairmen appear to have significant tenures with



the firm and high ownership to help control information and agency problems, and these firms also tend to be relatively small in comparison to other companies.

Based on the tenure of top management holding various leadership titles, the authors report evidence that is consistent with a baton passing process of managerial succession. While unitary leaders are paid higher levels of compensation, this may not necessarily be evidence of entrenchment where holding the joint position of the CEO and the Chairman is evidence of a successful top officer [Canyon and Murphy (2000)]. Finally, the authors present evidence of a significantly negative stock price reaction to announcements of the Chairman reclaiming the title of the CEO, where this is consistent with the departing CEO having dropped the baton.

Finally, Palmon and Wald (2002) find that the costs and benefits of various leadership structures will be dependant upon the size of the company. They report evidence that a unitary top officer best serves small firms, who are characterised by fewer agency problems. Larger firms, where the contracting nexus is inherently more complex, benefit from the monitoring of the CEO that is brought by having an separate company Chairman.

#### *3.5.4. Board size*

In addition to board composition and leadership structure, a further variable of interest for empirical researchers has been the size of board of directors, measured as the number of directors serving on it. While it may appear obvious that stacking the board with more and more qualified experts will increase firm value so long as the cost of their compensation package does not outweigh the marginal benefits they bring to the company, this is not the case. This section begins with a brief discussion

of the theoretical rationale for limiting board size. It then moves on to discuss the role of board size in discrete tasks, the determinants of board size and changes in board size, and finishes with a brief summary surveying research which has examined the direct relationship between board size and firm value.

Jensen (1993) argues that corporate boards are less effective as they grow in size. Larger boards may be slower to react to decisions that require an immediate course of action. Also, he argues that as more directors are added, boards lose their ability to be direct and decisive in their operation. Directors also become less candid in their ability to be critical of one another, thus making for less efficient decision-making and easier control by the CEO. Yermack (1996) also suggests that larger boards will produce a bias against risk taking.

Yermack (1996) finds that the sensitivity of CEO turnover to corporate performance is inversely related to board size, i.e. larger boards are less likely to remove a poorly performing CEO. He also finds that smaller boards are associated with higher CEO pay-performance sensitivities, indicating that smaller boards are more likely to award CEOs compensation contracts that provide a stronger link between CEO pay and shareholder returns. Finally, he finds a significantly positive stock price reaction to reductions in board size and a significantly negative reaction to increases in board size. Similar to Yermack, Core et al. (1999) find that total CEO pay is an increasing function of board size.

Kang and Shivdasani (1995) find that smaller corporate boards are more likely to appoint a new President from outside the company in Japanese firms. However, Huson et al. (2001) find no evidence that board size is related to the likelihood of forced CEO turnover or external succession in their sample of US companies.



Similar to research on board composition, a body of research has also attempted to examine the determinants of board size and the factors that lead to changes in board size. Denis and Sarin (1999) find that board size is an increasing function of firm size, firm age and leverage. It is likely that larger and older firms will require more directors with more expertise to run their company. There is no *a priori* rationale as to why highly levered companies should have larger boards, but it is possible that higher leverage causes companies to appoint more directors to their board as part of the lender monitoring process. These authors also report evidence of mean reversion in board size, where companies with larger boards experience declines in board size over time, perhaps in response to the growing criticism of companies who employ too many directors. These authors also report that board size is negatively related to growth prospects, suggesting that firms with greater investment opportunities require smaller boards to facilitate quicker decision-making, and are less concerned with the agency problems of free cash flow suffered by low growth companies.

Both Yermack (1996) and Eisenberg, Sundgren and Wells (1998) find that directors are appointed to and depart from the board following poor performance. However, the overall size of the board does not change in response to poor performance. Along with Denis and Sarin (1999), these authors report that CEO succession results in an increase in rates of director appointments and departures, and large changes in board size. This appears consistent with Hermalin and Weisbach's (1988) suggestion that directors will be added to the board to compete for the position as CEO, and those who are aware that they will not be promoted are likely to depart the board before and after the appointment of the new CEO.



Finally, Both Yermack (1996) and Eisenberg et al. (1998) find evidence of a negative relationship between board size and corporate value in samples of large and small companies respectively. Eisenberg et al. (1998) suggest that coordination and communication problems are created as board size increases at lower levels than predicted by Jensen (1993). However, Bhagat and Black (2000) find that the strength of any relationship between board size and firm value is highly dependant upon the performance measure under consideration, and question the general applicability of Yermack's (1996) analysis to other samples of companies.

#### *3.5.5. The Cadbury Report from an agency perspective*

This section starts with a brief recap of the proposals from the Cadbury Report (1992) and evaluates these reforms with respect to the governance literature described above. A discussion is also provided of subsequent arguments on the role of the Cadbury Report and board structure in general within UK corporations.

As discussed earlier, the Cadbury Report on the financial aspects of corporate governance was published in December 1992. The two most actively researched proposals from this report were that companies should separate the roles of the Chairman and the CEO, and that companies should employ a minimum of three non-executive directors to staff their audit committee, of whom two should be independent of management. The report also proposed better disclosure of director pay and systems of internal control, which provides shareholders with better information to evaluate managerial performance.

From an agency theory perspective, the aim of the report appears to be to increase board oversight and improve the monitoring of company management by

bringing a more independent presence to corporate boards. Increased disclosure of director pay, internal control systems and directors themselves also provides outside parties with better information to evaluate company management. Buckland (2001) argues that Cadbury encourages non-executives to perform the role of decision control in their monitoring of company management. Their role as experts in decision control is institutionalised through their presence on audit, nomination and remuneration committees. Stipulating that the majority of non-executives should be free from personal and business ties that may affect their independence achieves the separation of decision management and decision control.

The decision to separate the functions of the CEO and the Chairman was aimed at ensuring that no one individual could dominate the board of directors. It has also been common practice for UK companies to employ a non-executive director in this position, which should further add to their ability to objectively monitor the CEO. The proposal to separate the roles of the CEO and the Chairman appears consistent with Jensen's (1993) argument that these functions should remain separate where the Chairman should be the ultimate monitor of the CEO.

The importance of these reforms may lie in the extent to which alternative theories of managerial control are dominant in practice. In the optimal governance structure literature, i.e. Agrawal and Knoeber (1996) and Himmelberg et al. (1999), the increase in board oversight imposes costs on companies that are already operating at their optimal governance structure. These firms will rebalance these structures by altering other aspects of their internal control systems. However, managerialist theories of capital structure choice, i.e. Zwiebel (1996) and Novaes (2002), posit that managers do not implement value maximising governance



structures. Managerial control and information asymmetries prevent monitors from forcing directors to alter sub-optimal governance structures. However, the proposals of the Cadbury Report (1992) bring an additional source of discipline on management and reduce their ability to stack the board in their favour. Based on these arguments, Cadbury can be seen as a means of reducing managerial control under a managerialist theory of corporate governance, where this improved monitoring of decision-making should enhance shareholder wealth.

As mentioned earlier, the governance reforms proposed in the Cadbury Report (1992) have not been without their critics. Short et al. (1999) contend that the Hampel Report (1998) represented an important departure from the narrow Cadbury view of corporate governance. Unlike Cadbury, Hampel recognises that enterprise should not be sacrificed in the name of accountability. They also argue that accountability in itself will not bring a company success, and that good governance must be based on principles, rather than prescription, which they suggest that the Cadbury Report (1992) has been guilty of. They argue that outside directors may harm company value by their negative effect on enterprise. These directors may be characterised by myopic behaviour in their monitoring of management and may also have a lack of information on the long-term prospects of the business.

Cadbury was also vocal in recommending the use of audit and other board sub-committees that should be comprised mainly, and preferably solely, of non-executive directors. The value of this can be seen in Shivdasani and Yermack's (1999) study, which highlights the negative consequences of involving the CEO in the director selection process. However, Short et al. (1999) argue that executive directors still serve on these committees and that they are also very problematic to set-up for small



companies. While firms are required to report on the effectiveness of internal control systems for accountability purposes, they hypothesise that these systems should also be required to provide information on opportunities for creating value.

Franks et al. (2001) contend that non-executives in UK companies are still less likely to monitor management than their US counterparts. They argue that since there have been very few cases of UK directors being sued for failing to act upon their fiduciary duties, the incentive for such directors to monitor is removed.

In addition, the proposal that companies should separate the functions of the CEO and the Chairman of the Board appears to ignore the costs of separating these roles discussed by Brickley et al. (1997). These include conflict and information problems between separate top officers, the agency costs of a self-serving Chairman, the potential disruption to the managerial succession process, and the lack of a clear leadership structure.

Short et al. (1999) argue that US research that appears to have driven the recommendations of Cadbury cannot be easily applied to the UK. UK markets differ in their higher concentration of institutional ownership, ability for behind the scenes negotiations by institutions, the nature of takeover defences and the existing ratio of insiders to outsiders on company boards. In this setting, Cadbury's proposals may have forced companies to shy away from their existing optimal mix of internally administered and externally imposed governance structures.

### *3.5.6. Cadbury compliance and empirical board structure research in the UK*

Evidence presented by Vafeas and Theodorou (1998), Dedman (2000), Young (2000), Buckland (2001), Dahya et al. (2002), Weir et al. (2002), Peasnell, Pope and

Young (2003), and Dahya and McConnell (2004) indicates that the Cadbury Report (1992) has had a substantial affect on the board structure of UK listed companies.

The representation of non-executive directors on company boards has increased from somewhere between 30 and 40% to between 40 and 50%, an increase of between 10 and 15% depending upon the study examined. Pre-Cadbury, approximately two thirds of listed companies split the roles of the Chairman and the CEO and by the late 1990's this had increased to just below 90%. However, based on the evidence of Buckland (2001), compliance appears to be a problem for smaller, newly listed companies, particularly the requirement that a majority of non-executives should be independent of management. The studies of Vafeas and Theodorou (1998), Young (2000) and Weir et al. (2002) use large companies as their starting point and find that approximately 15% of all non-executives are affiliated with management. However, when samples begin to include smaller companies this rate may grow substantially. Finally, Young (2000) finds that the increased use of non-executive directors was most pronounced for companies that were regarded as being underrepresented by these directors prior to the publication of Cadbury. The next part of this discussion focuses on the factors that have led to Cadbury compliance, and any resulting changes in governance structures following adoption.

Research by Dedman (2000), Young (2000), and Peasnell et al. (2003) suggests that measures of managerial control are negatively related to measures of board independence, and the likelihood of subsequent compliance with the two main recommendations of the Cadbury Report (1992). There is some evidence that poor past performance increases the likelihood of compliance, while firms who had previously split the roles of the CEO and the Chairman or employed at least three



non-executives appear more willing to comply with the report's other main recommendation.

Of the firm-specific characteristics of a firm's operating environment, it has generally been reported that firm size and growth prospects are positively and negatively related to measures of board independence and the likelihood of Cadbury adoption. As discussed previously, poor growth prospects are likely to be characteristics of companies with high levels of free cash flow, which would require additional levels of board oversight to control. In addition, the complexity of the firm's contracting nexus, and the political costs of non-compliance with the Cadbury Report (1992), are likely to increase with firm size [Dedman (2000)].

The remainder of this section discusses the role of board structure in discrete tasks and the relationship between board structure and firm value. Where appropriate reference is also made to when the analysis was conducted in relation to the Cadbury Report's publication.

In their pre Cadbury analysis, Dahya, Lonie and Power (1996) find that the stock market responds favourably to the announcement of splitting the positions of the CEO and the company Chairman and negatively to the decision to combine these roles, suggesting that investors view a unitary leadership structure as being damaging to investors. Lin et al. (2003) also examine the stock price reaction to the appointment of non-executive directors to UK companies. They suggest that the market reaction to the appointment of outside directors generally depends upon the extent of agency problems within companies and the characteristics of the appointee, rather than on a simple definition of outside directors. The market tends to react in a relatively sophisticated manner to the appointment of outside directors.



Studies of the role of board structure in CEO turnover have proved a major focus of the research aimed at investigating the role of the Cadbury Report (1992) in company decision-making. In pre-Cadbury analysis, both Dahya et al. (1998) and Franks et al. (2001) report evidence that splitting the roles of the CEO and the Chairman increases the likelihood of forced CEO turnover, but that this effect is not sensitive to firm performance. However, these studies fail to find any evidence that non-executive directors play an important role in increasing the likelihood of managerial replacement.

Dahya et al. (2002) and Dedman (2003) examine the impact of the Cadbury Report (1992) on the likelihood of forced CEO turnover by conducting a pre and post analysis. While Dahya et al. (2002) find that Cadbury adoption increased the sensitivity of forced CEO turnover to firm performance for companies adopting the proposals of the report, Dedman (2003) finds no such evidence amongst her overall sample of companies. In addition, Dahya et al. (2002) find no evidence that splitting the roles of the CEO and the Chairman affects the likelihood of forced CEO turnover, while Dedman (2003) finds that forced turnover is more likely amongst companies that had separated these positions. Finally, Dahya and McConnell (2004) find that UK firms were more likely to appoint a new CEO from outside of the company following the publication of Cadbury, and that external succession increases in likelihood with the fraction of outsiders that comprise the board.

While studies of managerial replacement have been the main focus of the role of board structure in discrete tasks, Weir and Laing (2002) focus on the role of board structure in the likelihood of corporate takeovers. They find that acquired firms were characterised by higher levels of unaffiliated non-executive directors. While these

results support the general proposals of the Cadbury Report (1992), the authors also find that companies with a unitary CEO and Chairman were more likely to be acquired under the terms of a friendly takeover. The authors contend that following Cadbury, the presence of a dual CEO is ambiguous for shareholder wealth because companies who maintain this position are likely to be those whose best interests are served by a single top officer.

The final strand of literature surveyed here examines the direct relationship between UK company board structure and firm value. The studies of Vafeas and Theodorou (1998), Buckland (2001) and Weir et al. (2002) fail to uncover evidence of a positive relationship between board independence, as measured by outside director representation on company boards and the separation of the roles of the CEO and company Chairman, and firm value. Indeed, there is some evidence that greater levels of board independence lead to inferior corporate performance.

In a similar manner to McConnell and Servaes' (1995) study of leverage and firm value for low and high growth companies, Lasfer (2002) examines the differing role of board structure amongst companies with varying growth prospects. He reports evidence that low growth companies benefit from greater non-executive director representation and splitting the roles of the CEO and the Chairman, whereas these control structures reduce value in companies with greater investment opportunities. This is consistent with the theory that low growth companies with potentially higher levels of free cash flows benefit from the increased oversight brought by having a larger fraction of the board comprised by outside directors and splitting the roles of the CEO and the Chairman.



### *3.5.7. Managerial decision-making and the nature of company boards*

More so than almost any other corporate governance mechanism, the board of directors has attracted attention from critics, policy makers, academics and the financial press. In the past 11 years four new formal codes of best practice have been published in Britain which set out guidelines on what boards should and should not do, and in particular how these boards should be structured. Despite this, there is still little clear-cut evidence that this has led to better decision-making and shareholder wealth gains.

Perhaps the single greatest difficulty in research on board structure is that we do not yet have enough of a formal understanding of what the board of directors is designed to achieve. For example, models of debt suggest that creditors monitor when the company defaults and the need to service debt reduces the agency costs of free cash flow. Models of market discipline suggest that external capital markets can alter managerial control when necessary. However, beyond Fama and Jensen's (1983) proposal the boards should deal with situations that involve serious agency problems by structuring incentive contracts and Jensen's (1993) criticism of board ineffectiveness, formal theories of the role of company boards are lacking. Hermalin and Weisbach (2003) note that this void has been filled by an array of empirical research, but this still does not tell us what agency problems company boards provide a solution to.

Hermalin and Weisbach (2003) hypothesise that board structure is endogenously determined by amongst other factors, past performance and the bargaining power between the CEO and independent directors. They point out that an important dynamic element to the board-CEO relationship is missing from most



principal-agent models because the preferences of the principal (the board) change over time with changes in the board's structure. Furthermore, standard principal-agent frameworks don't incorporate the problem of agents choosing their own principals, which is certainly the case on some boards of directors [Shivdasani and Yermack (1999)].

While the existence of truly independent outside directors, separate Chairmen and CEOs, and small board sizes are important in separating the functions of decision management and decision control, what should be emphasised is a search for quality in the monitoring of managerial decision-making, in whatever form this manifests itself. In addition, the criticism aimed at the Cadbury Report (1992) and the empirical findings of Agrawal and Knoeber (1996) and Bhagat and Black (2000) of a negative relationship between firm value and board independence suggest that we must not forget the trade off between managerial monitoring and enterprise.

### **3.6. *Managerial remuneration***

The structure and size of executive compensation contracts can have a large impact in aligning the interests of shareholders and management. In contrast to the incentives provided by internal and external monitoring forces discussed previously, remuneration provides incentives by financially compensating managers in accordance with their success or failure with the company.

Tying the wealth of managers to directly observable measures of company performance gives these managers a goal to work towards in increasing shareholder wealth. However, executive pay is becoming a more and more sensitive issue for shareholders as the pay gap between executives and ground force labour increases over time. In addition, excessive compensation during periods of downsizing and employee layoffs increases political pressure on companies to limit the size of their executive's wage packets.

Murphy (1999) argues that when assessing executive compensation it is important when and where you are examining it. He finds a great deal of heterogeneity in compensation over different firms, industries, countries, and particularly over time. The bull market of the 1990's saw huge increases in executive remuneration, driven by the value of portfolios of executive stock options.

This section begins with a brief summary of the basic forms of director compensation available to companies. Evidence on the incentives, or lack thereof, of various forms of compensation are then discussed, along with evidence on how managerial pay is determined. Finally, the section concludes with a short overview of pay practices in the UK and summary remarks.

### *3.6.1. Modes of compensation*

Compensation generally takes four forms;<sup>14</sup> basic salary, accounting-based performance bonuses, executive stock option schemes and long-term incentive plans. Baker, Jensen and Murphy (1988) argue that the level of pay determines where managers work, but the structure of the compensation contract determines how hard they will work. Effective compensation contracts should provide management with sufficient incentives to make value maximising decisions at the lowest possible cost to the company's shareholders.

Executive's basic salaries are determined by the managerial labour market, along with other factors including the size of the firm, past performance, growth opportunities, the existence of other monitoring and/or incentive structures, and the manager's position in the 'corporate ladder.' This component of total pay is important in providing a guaranteed payment, which risk-averse managers will place a high value upon. In addition, it has become common practice to express other aspects of compensation as a multiple of base salary.

Basing bonuses upon accounting measures of performance provides an improved mechanism for aligning management's interests with those of the company's shareholders because this form of pay varies to a greater extent with company performance. Murphy (1999) argues that most companies pay these bonuses but are relatively vague about disclosing what basis they are awarded upon, arguing that such information is price sensitive. These bonuses typically involve three main components. Firstly, they state a performance measure such as pre-tax

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<sup>14</sup> In fact, there are perhaps limitless forms of executive compensation. Other elements may include pension contributions, stock grants, and the use of increasingly controversial severance packages. However, the major academic research in this area, as summarized by Murphy (1999), has centered on these four key elements of compensation and this is what shall be discussed here.



earnings or sales growth. They also set performance standards based on past performance or a comparison against a peer group of companies. Finally, the scheme will set the pay-performance structure based on the range of targets and the bonus payable under different levels of performance [Murphy (1999)].

Jensen and Murphy (1990) find that for every \$1,000 change in shareholder wealth created by a US company's CEO, they receive a corresponding 2 cents change in this and next year's cash based compensation of salary and bonus. The authors suggest that the incentives available from salary and cash based accounting bonuses will be minimal given the positions of responsibility that CEOs are in.

The use of stock options in executive compensation plans are seen as the one of the most effective means of tying the interests of managers and shareholders, as they are viewed as a substitute for managerial shareholdings. Such options give management the right to buy company stock at a fixed price at given times in the future. The greater the increase in firm value, the higher the value of these options, and the greater the profit managers can make upon exercising them.

The final method of executive compensation to be discussed is that which comes from long-term incentive plans (LTIPs). Although they generally take many forms, their common feature in the UK is an award of stock in the company upon the achievement of long-term performance criteria, such as EPS growth above a given percentage in the following five years. In the US, they generally take the form of restricted stock or multi-year accounting-based bonus plans. LTIPs tend to be granted at a zero, or nominal exercise price. Similar to stock options, LTIP grants are generally termed under the classification of 'equity-based compensation.'

Jensen and Murphy (1990) estimate that the total CEO wealth consequences associated with salary revisions, outstanding stock options and the threat of dismissal, are 75 cents for every \$1,000 change in firm value that the CEO has contributed to creating. They conclude that their results are inconsistent with agency models of director pay because their empirical relations are too small to suggest that CEOs are being sufficiently incentivized given their status within corporations.

### *3.6.2. Compensation based incentives*

Jensen and Murphy (1990) contend that equilibrium in managerial labour markets will prevent large cuts in basic salary for poorly performing managers. Indeed, Murphy (1999) argues that the inability to cut director's salary for poor performance, combined with the ease with which increases are awarded following superior performance, has contributed to a general ratcheting effect in director salaries over time. This effect is partly to blame for the public criticism of excessive director remuneration in recent years.

Similarly, Healy (1985) argues that paying executives' bonuses on the basis of accounting variables provides an incentive for management to directly manipulate the accounting system, and favour projects with short-term accounting returns at the expense of long-term positive NPV investments. Bonuses related to company sales may further encourage earnings retention and firm size growth, which doesn't necessarily equate with shareholder wealth growth. Accounting bonuses may also lead to a focus on the determining variables of these compensation plans, leading managers to neglect other important aspects of their company's performance.



Murphy (1999) argues that the performance standards set under such bonus schemes are typically based on past performance or against peer groups. However, the structure of these schemes is set by the company's directors and is easily manipulated. Finally, managers will typically know in advance what year-end earnings will be and may reduce their effort if they have already achieved their performance standards or have little chance of making them. Dechow and Sloan (1991) report that research and development (R&D) expenditures decline prior to the retirement of a CEO. Cutting R&D prior to CEO retirement allows these directors to maximise reported profits and the value of any accounting performance based bonuses they receive. Based on these criticisms, accounting based bonus schemes appear at best a clumsy means of providing managerial incentives and may actually exacerbate an executive time-horizon problem.

Despite these arguments, Coughlin and Schmidt (1985) find that the rate of annual change in CEO salary and bonus is positively correlated with past stock price performance for CEOs below the normal retirement age. However, given the extreme performance required to induce relatively small changes in cash-based pay, the financial incentives provided by salary and bonus appear small.

Denis (2001) suggests that in addition to providing managers with better incentives, executive stock option grants add convexity to the managerial compensation function and reduce the extent of risk aversion, which may become a consideration as managerial ownership increases. Under option pricing theory the value of stock options increases with the risk of the firm's underlying assets. Consistent with this, Agrawal and Mandelker (1987) find that the option holdings of managers making investment decisions that increase both the variance of the firm's



stock returns and the company's gearing ratio are higher than those of managers in companies which make risk-reducing investment and financing decisions.

Empirical research on the role of director pay in company decision making has focused on the role of various forms of compensation in various investment and financing decisions. Morgan and Poulsen (2001) find that company stock prices react positively to the announcement of new equity based compensation packages, particularly where these are targeted at the firm's CEO. In addition, Mehran (1995) finds a positive relationship between the fraction of total CEO pay that is equity based and firm value.

Fenn and Liang (2001) find that higher levels of executive stock options create a preference for equity repurchases over dividend payouts, but that there is no relationship between equity based pay and total cash payouts to shareholders. While rates of capital gains tax are generally lower than rates of personal taxation, Murphy (1999) is critical of the preference that stock options create for repurchases over dividends. This preference arises where the value of executive share options declines with the present value of future dividend payments on the stock. Finally, Datta, Iskandar-Datta and Raman (2001) find that managers at companies with higher levels of equity based pay make better acquisition decisions in relation to firms that are not as active in using equity based compensation packages for company management.

Despite these apparent benefits, stock option plans are often criticised because they can reward managers for average performance during periods of rising stock markets. Murphy (1999) also notes that very few companies index their option schemes to resolve this problem. Option plans may also encourage managers to invest in overly risky projects and may even provide a disincentive to managers

when their company's share price drops and options become deeply out of the money.

Murphy (1999) also argues that stock options cost the company more to grant than they are actually worth to the executives. He states that options should only be granted when their incentive effect on management is greater than the difference between the cost to the company and their value to the executive. Furthermore, he argues that the popularity of options is not so much due to any incentive effects but because they allow for income to be deferred for tax purposes by the executives and are practically invisible from company profit and loss accounts.

Both Ofek and Yermack (2000) and Zhou (2001) report evidence that executive stock option grants do not encourage managers to increase their ownership stakes in their company. Managers with even moderate levels of ownership in their company sell shares upon the exercise of their options in order to maintain a target level of ownership. Stock options result in an increase in equity ownership only for managers with low levels of shareholdings in their company in the first instance. While share sales allow managers to achieve better portfolio diversification, option packages do not appear to be resulting in an increase in managerial equity ownership.

While these studies suggest that stock options do not provide management with stronger incentives in the form of higher managerial ownership that is not to say that they do not provide financial incentives in general. Stock options allow managers to gain financially by profiting on the difference between the underlying stock price and the exercise price of the option. This allows options to provide managers with financial incentives from their exercise and sale, without necessarily providing incentives from increased ownership.



From an alternative perspective, Brennan (1994, 1995a) argues that monetary incentives alone will be insufficient in aligning the interests of managers and shareholders. Indeed, Baker et al. (1988) concede that executive compensation contracts are unlikely to ensure complete coherence between managerial decisions and shareholder's wealth, since at some point management will yield to behavioural notions such as fairness and ethics, which don't enter into the agency framework.

Agency theory posits that shareholders should provide managers with monetary incentives to work harder and make decisions in their best interests. However, Brennan (1994) argues that if this is the case, then your company needs a new manager. Agency theories of director pay tend to overlook such arguments and focus on the notion that it is in shareholders' best interests to contract with managers, on the basis that the ethical conscious of management cannot be relied on to prevent managers from stealing company wealth. The inability of agency to recognise these considerations may be a factor in the finding of low pay-performance sensitivities.

### *3.6.3. The determinants of executive compensation*

CEO's are often criticised for setting their own pay, however, Murphy (1999) argues that pay is typically set by outside directors who obtain information from their company's human resources department and pay consultants. He argues that such committees do exercise due diligence in setting pay but will typically side with a CEO over small differences of opinion. The remainder of this section outlines empirical evidence on the determinants of director pay.

One of the most consistent pieces of empirical evidence on the determinants of CEO compensation is that pay increases with firm size [Jensen and Murphy (1990),



and Smith and Watts (1992)]. Smith and Watts (1992), Yermack (1995), and Kole (1997) find evidence that levels of director pay and the use of various forms of performance-based compensation packages are increasing with growth prospects, and are lower in regulated industries. Growth prospects require managers with higher levels of talent, and require executives to be provided with incentives to take risky investment decisions. Similarly, industry regulation reduces the amount of talent and risk taking required by company management, and such managers generally will receive lower levels of compensation. Kole (1997) concludes that standard definitions of director pay as being performance sensitive or insensitive are overly narrow, and that in practice compensation contracts are fine-tuned to suit the individual needs of companies.

Several studies have also found the executive compensation contracts are partially determined by the use of other corporate governance structures within firms. Smith and Watts (1992) find that higher levels of leverage and divided payouts reduce the use of performance related compensation for company executives. Mehran (1995) finds that the fraction of total CEO compensation that is equity based is negatively related to levels of managerial and blockholder ownership, but is increasing with the fraction of the board that is comprised by outside directors. Finally, Core et al. (1999) find that total CEO pay is increasing with the fusion of the roles of the CEO and the company Chairman, board size, the fraction of outside directors that comprise the board, and the fraction of outsiders who are considered to be affiliated with company management. In total these findings suggest that the structure of executive pay is determined at least in part by the structure of existing incentive and monitoring systems within the firm. However, the findings of Core et

al. (1999) suggest that inefficient internal governance practices may lead to higher levels of director pay, where executive compensation becomes as much a symptom of agency problems within the firm, as it is a potential solution to these problems.

#### *3.6.4. Executive compensation in the UK*

In the UK disclosure requirements for executive compensation have lagged somewhat behind the US. It is only recently following the publication of the Cadbury (1992), Greenbury (1995) and Hampel (1998) Reports that any reasonable and consistent disclosure of UK executive compensation has occurred. Prior to these reports, disclosure of director's remuneration was poor in comparison to US companies, particularly in relation to equity-based compensation.

The disclosure requirements of Greenbury are far more stringent than those of US companies. Conyon and Sadler (2001) discuss how Greenbury requires full disclosure for a Black-Scholes style option valuation for both current and past option grants paid to the company's directors. This is in contrast to US disclosure requirements, which require full information for only the current option grant. In addition, US companies must report on the intrinsic value of all unexercised options. However, these authors suggest that this results in only options that are in the money having a value placed upon them by US corporations.

These authors summarise the disclosure requirements of the Greenbury Report (1995) as forcing companies to report (i) the number of shares under option at the beginning and end of the year, (ii) the number of options granted, exercised and lapsed during the year, (iii) the exercise price of all options, (iv) the dates for which the options may be exercised and the expiration date, (v) the cost of the options (if



any), (vi) the market price of the shares at the date of exercise for options exercised during the year, and (vii) a summary of any performance criteria on which exercise of the options is conditional. Firms that reveal information for conditions (i) through to (v) are said to be providing full information disclosure.

Alternatively, companies may provide (i) the total number of share options held, (ii) the weighted average exercise price of the stock of unexercised options held, and (iii) the maturity date of the longest unexercised option. Such companies are said to provide disclosure in concise form.

While these codes have increased the disclosure of director pay, they have also made recommendations as to the appropriateness of various forms of compensation contracts. Specifically, the Greenbury Report (1995) is highly supportive of LTIP grants that are performance contingent and referenced to appropriately benchmarked companies. The report suggests that although stock options provide management with strong financial incentives to perform, they tend to reward relatively poorly performing management in times of rising stock markets. However, Short et al. (1999) are critical of LTIPs due to their over complexity, which may actually act to disincentivise managers.

Short et al. (1999) also argue that Greenbury and Hampel attempt to place the responsibility for setting executive compensation in the hands of non-executive directors serving on compensation or remuneration committees. The Hampel Report (1998) even went so far as to suggest that these non-executives should be provided with equity-based pay themselves in order to increase their monitoring incentives. However, these board sub-committees tend to use compensation surveys in determining pay, and Short et al. (1999) argue that the use of these surveys



contributes to a general ratcheting effect in director pay. Also, remuneration committees may only provide a means to legitimise excessive director pay. They also argue that the risk-bearing aspect of director compensation should not be ignored when setting director pay, whereas model codes may be guilty of attempting to set a standard package for all companies. These authors suggest that firm-specific risk should be negatively related to levels of performance-based compensation.

Finally, the Greenbury Report (1995) proposes that directors should have limited tenures in their positions, and that directors should require frequent re-election to the board. This is to prevent the granting of excessively long-term contracts that increase the cost of dismissing management following poor performance.

In a comparative analysis of executive compensation in the UK and the US, Conyon and Murphy (2000) report that UK CEOs receive a larger fraction of their total compensation in the form of salary and cash based bonuses, whereas executive stock options comprise the largest fraction of total CEO pay in the US. This gulf in the use of executive stock options between the two countries leads to US executives receiving total compensation packages that are 150% greater than those received by UK CEOs. The authors attribute this difference to the different culture between the UK and US in relation to the impact that regulation has had on forms of executive compensation. While increased regulation has sought to cap levels of director pay in the UK, the response to US regulation has been to strengthen the relationship between director pay and company performance through the increased use of option packages for company executives. In addition, corporation tax in the UK creates a preference for cash based compensation, whereas stock options are favoured in the

US due to their invisibility from the profit and loss account and limits on the tax deductibility of cash based compensation.

Finally, Conyon, Peck, Read and Sadler (2000) report that the performance criteria attached to UK stock options are more stringent than those for executives in US companies, but that these performance criteria are still relatively lax. These authors present interview data which suggests that LTIPs may prove demotivating for managers because the performance criteria are often complex and difficult to understand.

### *3.6.5. Is managerial remuneration effective in reducing agency conflicts?*

The above evidence tends to suggest that executives are indeed rewarded in accordance with how well they perform for their shareholders. In addition, the use of equity based compensation appears to be an improved mechanism, in relation to cash based compensation, for encouraging managers to make value maximising decisions.

However, Murphy (1999) is critical of the general principal-agent framework that compensation is evaluated within. He argues that effort aversion should not be as important a consideration as encouraging decisions that increase value and discouraging those that destroy value. He concludes that there is very little direct evidence that stock-based incentives increase company performance, but he argues that since pay-performance sensitivities are publicly available they will already be impounded in stock prices. As such, it is perhaps not surprising that no consistent evidence exists from cross-sectional evaluations of pay and performance.

Perhaps more significantly for the doubters of the effectiveness of executive compensation as a means of appropriately rewarding top management is the

consistent finding that by far the most important determinant of director pay is company size. As such, managers face a potentially overwhelming incentive to expand firms beyond their optimal level in order to maximise compensation.



### ***3.7. Managerial share ownership***

The final method of reducing agency conflicts to be discussed in this chapter is managerial share ownership. Jensen and Meckling (1976) argue that as the ownership of the company by inside managers increases, so to does their incentive to invest in positive NPV projects and reduce private perquisite consumption. Ownership provides incentives to managers by tying their wealth on a one-to-one basis with the company's shareholders. Where managers capture a larger fraction of the gains from their decision making their incentive to increase shareholder wealth increases.

However, the incentive benefits of increased managerial ownership come with the increased control afforded to management through higher shareholdings. Shleifer and Vishny (1997) suggest that the largest value destruction by company managers occurs when shareholders are better served by replacing the incumbent manager. Higher ownership allows managers to remain in their position and heightens the extent of agency problems within the company. In addition, the control afforded by higher managerial ownership suggests that director shareholdings will be a significant determinant of other aspects of internal governance.

The remainder of this section begins with a discussion of the financial incentives provided to managers through increased share ownership. A discussion of the managerial entrenchment problem is then given, followed by a discussion of the problems of endogeneity and unobserved heterogeneity in the relationship between ownership and corporate performance, and also a summary of the determinants of managerial ownership. Finally, the section concludes with a summary of empirical research on the costs and benefits of managerial ownership in UK companies.

### *3.7.1. Ownership incentives*

A number of empirical studies have attempted to verify the theoretical arguments of Jensen and Meckling (1976) by examining the role of managerial ownership in company decision making.

Evidence of the financial incentives provided by managerial ownership is provided by Benston (1985), who finds that equity holdings tie managerial wealth to the value of their company. In addition, Kaplan (1989) finds evidence of increased operating performance and corporate restructuring actions that enhance shareholder wealth following management buyouts (MBOs). In these companies the same management are managing the same assets, providing evidence of the strong financial incentives provided by equity ownership for company management.

Evidence of the positive role that managerial equity ownership may play in investment decisions is provided by Agrawal and Mandelker (1987) and Denis et al. (1997a). In addition, both Lang et al. (1995) and Fenn and Laing (2001) find evidence of a positive relationship between managerial equity ownership and cash distributions to company shareholders following asset sales and amongst companies with high levels of free cash flow respectively.

Finally, Ang et al. (2000) find that managerial equity ownership and control are correlated with higher levels of operating efficiency in a sample of privately held US companies. These authors suggest that such companies provide a means of investigating the zero agency cost base case of Jensen and Meckling (1976) where a sole manager owns and controls the company. The authors conclude that their results support the theories put forth by Jensen and Meckling (1976) and Fama and Jensen (1983) concerning ownership structure and organisational efficiency.



### *3.7.2. Managerial entrenchment*

However, there is evidence that inside ownership may lead to the problem of managerial entrenchment. This occurs where management gains so much power within the firm that they are able to pursue their own interests at the expense of outside shareholders [Fama and Jensen (1983)]. With greater voting power managers can make decisions that maximise their private utility from the company, even when this results in lower or negative returns from their stockholdings.<sup>15</sup>

Stulz (1988) models entrenchment as occurring from a lack of external market discipline where it is more difficult to remove managers when they control large portions of the company's stock. Existing management may be able to drive bid premiums up to the point where bidders no longer view the target as a positive NPV investment, and hostile bids are less likely to occur in the first instance as a result of this. Denis et al. (1997b) propose that ownership by company directors reduces the likelihood of internal control systems being able to exert discipline on management. Faccio and Lasfer (1999) also contend that managerial entrenchment may result in the CEO creating a board that is unlikely to monitor.

A frequent empirical test of managerial entrenchment has involved examining the relationship between the incidence of managerial control threats and director shareholdings. This section provides a brief discussion of this empirical literature.

The entrenchment effects of managerial equity ownership have been examined with respect to top management turnover [Gilson (1989), Denis et al. (1997b), Denis and Kruse (2000), and Huson et al. (2001)], the incidence of targeting by external

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<sup>15</sup> In some models of agency theory managerial entrenchment is examined as a conflict between shareholders and managers in the same way as risk aversion or moral hazard. However, entrenchment arises from managerial control, which increases with their fractional ownership. Entrenchment can



capital markets [Denis et al. (1997b), Bethel et al. (1998), and Carleton et al. (1998)], and in the likelihood of corporate restructuring actions following a decline in performance [Ofek (1993)]. Additionally, Denis et al. (1997b) find that the stock price reaction to the announcement of non-routine CEO turnover is increasing with the fractional share ownership of the departing CEO. The above evidence is consistent with the managerial entrenchment hypothesis where higher director ownership increases their control over the firm's resources and insulates them from threats to their control.

However, while Huson et al. (2001) find that forced CEO turnover is less likely in the presence of high levels of CEO ownership, they also report that the likelihood of both forced CEO turnover and external CEO succession is increasing with the ownership of non-CEO members of the company's board. This suggests that the financial incentives of company management will be highly dependant upon the individual directors and the issue under examination.

Finally, Jensen et al. (1992), Denis and Denis (1994), and Denis and Sarin (1999) find that higher levels of managerial ownership lead to lower levels of board independence, lower cash distributions to shareholders, and less reliance on external capital markets for borrowing requirements.

### *3.7.3. Endogeneity and heterogeneity in the insider ownership – corporate value relation*

More so than most aspects of governance, managerial ownership is endogenous to corporate performance / value. Managers choose their ownership levels in

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result in a variety of different agency costs being imposed by management, and is therefore discussed with particular reference to managerial ownership.

accordance with the expected utility they derive from their investment, where the value of their firm forms part of the utility function. For example, at the IPO Burkart et al. (1997) hypothesise and Brennan and Franks (1997) empirically confirm that managers are willing to accept a lower offering price for their shares in order to oversubscribe the issue and limit the ability of large shareholders to form controlling blocks.

Demsetz and Lehn (1985) contend that a company's ownership structure should be thought of as an endogenous outcome that reflects the influence of the company's shareholders and the firm's contracting environment. Dispersed ownership has the obvious disadvantage of increased managerial shirking where managers reap all the benefits and suffer only a fraction of the cost of failing to take decisions that maximise expected shareholder returns. However, there must be some advantage to diffused ownership, otherwise the corporate form would have become extinct long ago. The following section provides a summary of empirical literature which has examined the determinants of managerial ownership.

One of the most consistent findings in the empirical corporate governance literature is of a negative relationship between firm size and managerial shareholdings [Demsetz and Lehn (1985), Cho (1998), and Denis and Sarin (1999)]. This arises where risk aversion and wealth constraints prevent management from holding large equity stakes in larger companies.

Demsetz and Lehn (1985) find evidence of a curvilinear relationship between risk and ownership concentration amongst large shareholders, where the original increase in ownership for increasing levels of risk is attributed to the control potential afforded by increased levels of ownership in firms operating in a noisy environment,



while the decline at higher levels of risk is attributed to risk aversion on the part of controlling shareholders. These authors also report that ownership concentration is lower in regulated industries where the control potential from increased ownership concentration is lower due to regulatory monitoring. Subsequently, Demsetz and Villalonga (2001) find that managerial ownership is an increasing function of market risk, but is unrelated to firm-specific risk, which they are unable to offer an explanation for. However, Himmelberg et al. (1999) find that changes in idiosyncratic stock price risk are negatively correlated with changes in managerial ownership, which is suggestive of managerial risk aversion.

Mixed evidence is provided on the role of industrial focus, growth prospects, leverage, and other aspects of a firm's governance environment in impacting levels of managerial ownership [see Jensen et al. (1992), Denis and Denis (1994), Cho (1998), Denis and Sarin (1999), Himmelberg et al. (1999), and Demsetz and Villalonga (2001)]. In addition, while Cho (1998) and Bhagat and Black (2000) find that higher firm performance is correlated with higher levels of managerial ownership, Denis and Sarin (1999) and Demsetz and Villalonga (2001) find the opposite effect. The positive relationship between firm value and ownership is attributable to managers holding higher equity stakes in highly valued companies with good investment opportunities, while a negative relationship may exist as a result of share sales following good performance or management increasing their equity ownership in response to a threat to their control following poor performance.

Denis and Denis (1994), Denis and Sarin (1999), and Anderson and Reeb (2003) find evidence of the importance of owner-specific characteristics as a determinant of managerial equity holdings. The presence of family / founders on the



company's board is correlated with higher levels of managerial equity holdings, while changes in the day-to-day involvement of these board members and general changes in CEO control are strong determinants of changes in managerial equity ownership. These authors also report that changes in the firm-specific characteristics of a firm's operating environment are not strong predictors of changes in managerial equity ownership.

Finally, Kothare (1997) and Denis and Sarin (1999) report evidence on the importance of capital market activity in driving changes to managerial ownership. Kothare (1997) finds that rights offerings generally have a high take up rate and result in little change to ownership structure. However, public equity offerings reduce the concentration of managerial and blockholder equity ownership within the company. In addition, Denis and Sarin (1999) find that external control threats from large blockholders and takeovers result in large changes in managerial ownership. These authors conclude that changes in ownership facilitate corporate restructuring by altering the structure of decision rights within an organisation.

A number of empirical studies have also attempted to uncover evidence of a direct relationship between managerial equity ownership and firm value. Demsetz and Lehn (1985) fail to find evidence of a linear relationship between ownership concentration and firm value.

However, several studies have tested for non-linearities when examining the direct relationship between ownership and corporate value. These studies generally attribute declining firm value as managerial ownership increases over certain ranges to the onset of managerial entrenchment. Examples of these studies are Morck et al. (1988), McConnell and Servaes (1990) and Hermalin and Weisbach (1991), who

each document evidence of a non-monotonic relationship between managerial equity ownership and corporate value.<sup>16</sup>

Subsequently, a number of empirical studies have attempted to control for the endogeneity of managerial ownership and firm value using a number of empirical techniques to control for the potentially misspecifying effects of this problem. The studies of Agrawal and Knoeber (1996), Cho (1998), Himmelberg et al. (1999), Bhagat and Black (2000), Demsetz and Villalonga (2001), and Coles, Lemmon and Meschke (2002) suggest that after controlling for endogeneity in the managerial ownership – firm value relationship, then no direct relationship exists between these variables.

However, Core and Larcker (2002) find that companies which adopt target ownership plans for company management, which result in an increase in equity holdings by these managers, experience significant increases in operating and stock price performance following the implementation of these plans. In addition Anderson and Reeb (2003) find evidence of a positive relationship between the equity holdings of family board members and the inherent value of their firms, which is robust to controls for the endogeneity of managerial ownership and firm value.

#### *3.7.4. Entrenchment and the UK institutional framework*

The US and the UK are largely similar in terms of their contractual nexus, both characterized by market-based contracting environments, highly liquid stock markets

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<sup>16</sup> Morck et al. document two turning points where value increases between 0% and 5% and at levels of ownership greater than 25%. Between 5% and 25% value declines with ownership. McConnell and Servaes document a quadratic relationship where value increases initially and then declines at ownership levels of 49% and 38% in 1976 and 1986 respectively. Hermalin and Weisbach report three turning points at 1%, 5%, and 20%, where performance first increases, then decreases, increases again, and finally, decreases.



and diffuse ownership structure [Faccio and Lasfer (1999)]. However, these authors also discuss a variety of factors that may influence the extent to which UK managers may become entrenched. These include institutional collaborations, takeover market differences and differences in the fiduciary duties of non-executive directors.

This section begins with a brief discussion of the role of managerial ownership in company decision making, before moving on to the determinants of managerial ownership in UK companies, and finally, concludes by discussing literature that examines the relationship between managerial ownership and firm value in UK firms.

Consistent with previous US research, UK studies have found evidence of a negative relationship between managerial shareholdings and the likelihood of non-routine CEO turnover, where turnover is insensitive to company performance at even moderate levels of managerial shareholdings [Dahya et al. (1998), Franks et al. (2001), Dahya et al. (2002), Conyon and Florou (2003), and Dedman (2003)]. In addition, Dahya et al. (1998) find that the stock price reaction to the announcement of top management turnover is an increasing function of the ownership of the departing top officer. Collectively, these studies provide evidence of managerial entrenchment arising from higher levels of director shareholdings. However, Conyon and Florou (2003) also suggest that this relationship may arise where the decline in the value of managerial shareholdings is sufficient to discipline managers following poor performance.

Additionally, Faccio and Lasfer (1999), Young (2000) and Peasnell et al. (2003) find evidence of a U-shaped relationship between managerial shareholdings and the fraction of company boards that are comprised by non-executive directors.



This may arise due to managerial entrenchment at increasing levels of managerial shareholdings, with the increase in board independence at the highest levels of ownership attributable to an internally generated demand for increased monitoring. However, further analysis by Peasnell et al. (2003) suggests that the exact form of this relationship is best proxied by a log function of managerial ownership, which is suggestive of a diminishing substitution effect between managerial shareholdings and the demand for outside directors. In addition, Dedman (2000), Young (2000) and Peasnell et al. (2003) find that the likelihood of Cadbury compliance is negatively related to levels of managerial ownership.

Short et al. (2002) also report evidence of a negative relationship between large managerial equity holdings and dividend payout ratios. While this may be reflective of managerial entrenchment at higher levels of director ownership, it is also possible that managerial ownership and dividend payouts may be substitute monitoring mechanisms.

Finally, Weir and Laing (2002) report that companies acquired under the terms of a friendly takeover had significantly higher levels of managerial shareholdings than a control sample of non-acquired firms. They suggest that managerial shareholdings provide financial incentives for directors to accept substantial bid premiums.

Having examined the role of managerial ownership in company decision making, several empirical studies have sought to examine the factors that drive changes in managerial ownership. Slovin et al. (2000) find that placings lead to a decline in managerial shareholdings, whereas rights offerings generally have a high take up rate and result in little change to director ownership.

Additionally, Franks et al. (2003) find that the largest reductions in director shareholdings occur prior to companies going public, and are driven by the acquisition of other companies that were financed through stock. They suggest that the stock market makes a relatively modest contribution to the growth in a firm's equity capital when compared to that witnessed when firms were privately held. However, they do find that market listings and the ability to issue equity through public offerings play an important role in the dispersion and mutation of managerial ownership, which are measures of controlling shareholder coalitions.

Finally, several studies have attempted to examine the direct relationship that may exist between managerial shareholdings and firm value. Both Faccio and Lasfer (1999) and Short and Keasey (1999) find evidence of a cubic relationship between managerial shareholdings and firm value, which is consistent with the US findings of Morck et al. (1988).<sup>17</sup> They suggest that management may become entrenched at higher levels of insider ownership in the UK, which they attribute to different legal procedures and investor types between the two countries. Davies et al. (2004) find evidence of a highly non-linear relationship between managerial ownership and firm value, where value originally increases with ownership, then decreases, increases again, decreases again, and finally, increases with ownership at the highest levels of director shareholdings. Additionally, Vafeas and Theodorou (1998) and Weir et al. (2002) find mixed evidence on the relationship between managerial shareholdings and firm value.

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<sup>17</sup> In their overall sample, Faccio and Lasfer find an insignificant relationship between ownership and firm value. The evidence reported here relates to their sub-sample of companies with growth prospects above the median firm for their overall sample of companies, as measured by the firm's P/E ratio.

Finally, Lasfer (2002) finds that for firms with high growth prospects the relationship between managerial ownership and firm value is curvilinear in a similar manner to McConnell and Servaes (1990). However, for low growth companies the relationship is positive and linear. Lasfer concludes that low growth firms benefit fully from governance incentives which reduce the agency costs of free cash flow.

### *3.7.5. Uncertainty of the benefits of managerial ownership*

The above evidence on the benefits of managerial share ownership tends to generally be mixed. While the theoretical arguments for increased incentives are unquestionable, evidence suggests that insider ownership may also come at the cost of entrenchment. Many factors can influence the relationship between insider ownership and corporate value, and recent evidence tends to suggest that causality may even operate in the opposite direction.



### ***3.8. Summary of corporate governance systems as a solution to the agency problem***

This chapter has provided a detailed summary of seven of the major governance systems that have been proposed and empirically tested as potential solutions to the agency conflict between shareholders and company managers discussed in chapter 2. As the evidence summarised notes, each of these systems appears to have its individual good and bad points, depending on the event under examination, the presence of existing governance structures, and company performance, amongst other factors.

Research by Agrawal and Knoeber (1996) and Himmelberg et al. (1999) suggests that companies select optimally between internal control systems depending on their individual contracting environment. However, managerialist theories of governance posit that managerial control allows directors to select the sub-optimal use of governance structures in accordance with their own preferences and tastes.

As can be seen, research on solutions to the agency problem has far outstripped research on the extent of agency problems themselves. Herein lies one of the greatest criticisms of corporate governance research. Hermalin and Weisbach (2003) suggest in the context of corporate boards that we do not fully understand which agency conflicts the board is designed to resolve. This reasoning is easily applied to the various governance systems discussed in this chapter. For example, we have hypothesised that director pay can align the financial interests of shareholders and managers, but which managers are these incentives most important to? In addition, leverage is important in reducing the extent of free cash flow problems, but how can it interact with other governance systems to minimise other agency conflicts?

Following on from this, we are only recently beginning to gain a full understanding of the determinants of governance systems, and in particular their interdependence with one another. The interdependence of governance systems is of particular interest to the Cadbury Report (1992) because theories which posit that firms adopt optimal governance structures suggests that companies are forced to alter other aspects of their control systems following the report's publication. Alternatively, managerialist theories of governance suggest that while companies may contract optimally in the first instance, continuous re-contracting is infeasible in practice and managers will choose the use of governance systems to suit their own preferences. Under managerialist theories, the Cadbury Report (1992) may be viewed as an exogenous shock that strengthens internal governance practices, and adopting firms should realise improvements in board oversight of managerial decision-making.

The Cadbury Report (1992) sets out guidelines for improving the governance of UK listed companies. However, as the research discussed earlier suggests, we know that board structure is important in some aspects of managerial decision making, but not in others. A fuller understanding of the operational and monitoring areas where board structure is and is not important warrants further investigation in light of the governance reforms proposed by Cadbury.

Finally, current studies of managerial labour market discipline in the UK suffer from problems in measuring performance changes surrounding managerial turnover. The studies of Dahya et al. (1998) and Dedman and Lin (2002) examine operating and stock price performance both before and after top management changes. However, recent empirical work by Barber and Lyon (1996, 1997) provides

improved measures of long-run accounting and stock price performance, which may shed new light on the role of UK labour markets in top management changes.

Each of the issues discussed above is to be investigated in the forthcoming empirical chapters of this thesis.



## **4. Sample data description**

Prior to commencing with the empirical content of this thesis, this chapter will provide a discussion of the data sample that is used in this analysis. This will begin with a discussion of how the sample has been constructed, and then move on to provide definitions of the variables analysed, before finally providing descriptive statistics for the sample itself.

The remainder of this chapter is structured as follows. Section 4.1. describes the construction of the original sample. Section 4.2. provides definitions of the variables that are used in this analysis. Section 4.3. provides descriptive statistics for the sample companies, and examines the time-series properties of they key variables analysed in this thesis, namely: company board structure, ownership structure, equity issuance, and CEO turnover. Finally, section 4.4. provides a brief summary of this chapter.

#### **4.1. Sample construction**

The data used in this thesis tracks the governance and financial characteristics of a sample of UK companies over the period 1992 to 1998. The live and dead files from *Datastream* are used to collect a sample of non-financial UK companies listed on the London Stock Exchange (LSE) starting from a base year of 1992. From this list, firm sales are collected for each year from 1992 until 1998 to ensure that data is available for sample firms prior to collecting data directly from annual reports.

Firms are excluded from this initial sample where they do not survive until 1994 for the collection of governance variables. This condition attempts to ensure that compliance or non-compliance with the Cadbury Report (1992) did not arise in response to the immediate danger of firm failure or being the subject of takeover activity. From 1995 onwards, companies drop out of the sample as they are delisted.

For the remaining firms, company annual reports are used to collect data on the corporate governance characteristics of sample companies. Annual reports are collected from *Thomson Financial Services' Global Access*, which hosts PDF copies of company annual reports going back until 1993. Where no change has occurred in a company's corporate governance structure between the financial years ending in 1992 and 1993, then corporate governance data is collected for 1992 from the 1993 annual report. Where changes have occurred, annual reports are collected directly by contacting the companies if they are still in existence, or from the libraries at the University of Strathclyde and Manchester Business School. This selection process produces a final sample of 683 non-financial UK companies from 1992 through to 1994, after which companies drop out of the sample as they become delisted. Table 4-1 provides a breakdown of the time series of companies examined in this thesis.

## **4.2. *Sample definitions***

This section provides definitions of the variables that are to be used in this thesis. Discussion of the motivation for particular corporate governance variables is left until the literature section of each empirical chapter of the thesis. However, discussion of the motivation for the use of each control variable is provided here.

### **4.2.1. *Defining top management within sample companies***

*(1) Defining the company CEO:* Governance studies typically take the CEO or equivalent as the top officer. A recent controversy has revolved around who is the top officer in UK companies. Past US research indicates near uniformity in the practice of awarding the top company officer the title of CEO. In the absence of this title, researchers use the company President, and finally, an Executive Chairman. Both Franks, Mayer and Renneboog (2001) and Dahya, McConnell and Travlos (2002) take the Chief Executive to be the top officer and the Executive Chairman in their absence.<sup>18</sup> However, both Dedman (2003) and Conyon and Florou (2003) argue that historically UK companies have used the title of Managing Director (MD) to denote their top officer. Within this sample a large number of companies allocate the title of MD to an executive director in the absence of a Chief Executive.

The selection procedure for identifying the company's top officer is therefore as follows. Where the company reports a Chief Executive (Officer) this person is deemed to be the top officer. In their absence, and in the presence of an MD, the annual report is examined for evidence of a Managing Director's review of

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<sup>18</sup> Dahya et al. (2002) treat the Managing Director as a member of the senior management team, but in the event that the company employs a non-executive Chairman and no Chief Executive, the Managing Director is taken to be the company's top officer. Franks et al. (2001) are not specific in their definition of the CEO, but note that their sample contains a number of companies with a non-executive Chairman.



operations, information contained in the director's report, the report of the compensation committee, and disclosure with respect to whether the positions of the Chairman and the MD have been split in accordance with the Cadbury Report (1992). Based on this, a decision is made as to whether the MD is the top officer. When there is no Chief Executive or MD, the company's Executive Chairman is taken to be the top officer. Hereafter, the top officer is referred to as the CEO.<sup>19</sup>

(2) *Defining CEO turnover:* CEO turnover is deemed to occur where the name of the top officer changes from one year to the next, as reported in the company's annual report. Managerial turnover data is collected for the years 1993 to 1998, and is related to corporate governance characteristics in the previous financial year.

Further details of the events surrounding CEO turnover are collected from a range of sources. These are *The Financial Times*, reports from the *UK Regulatory News Service* provided by *FT Extel News Reports*, *McCarthy's News Information Service*, *Lexis-Nexis*, and company annual reports.

This thesis uses the treatment of Huson, Parrino and Starks (2001) for classifying turnover as forced. If reports indicate that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some equivalent, then turnover is defined as forced. For the remaining announcements, turnover is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring, but does not announce this until at least six months prior to the change.<sup>20,21</sup>

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<sup>19</sup> In cases where there is a joint top officer as defined above the company is deleted from the sample.

<sup>20</sup> There are 34 cases of turnover where information is incomplete, with the most frequent cause being a lack of information on the age of the departing CEO. For consistency with the existing empirical literature these cases are treated as forced. This issue is revisited in later testing.

*(3) Defining outside CEO succession:* The definition of outside CEO succession is similar to that used by Borokhovich, Parrino and Trapani (1996). If the new CEO joined the company within the previous 12 calendar months they are considered to be an external successor. It is unlikely that the performance of a newly appointed director with the company over such a short time period would warrant promotion to the position of CEO, suggesting that directors promoted within this period were appointed with the expectation of being elevated to the CEO position [Kang and Shivdasani (1995)]. Added to this are the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as internal appointments.

#### *4.2.2. Corporate governance variables*

*(1) Board structure:* Data on board characteristics are collected from annual reports. *Split* is an indicator variable that takes the value of one where the company separates the roles of the Chairman and the CEO, and zero otherwise.

Outside directors are defined as non-executives without any financial or personal ties to company management. These are inferred where the non-executive is related to any of the firm's executive directors, has a tenure exceeding ten years with the firm, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the annual report, including related party transactions and affiliations with the firm's

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<sup>21</sup> The criteria of 6 months between the first announcement of CEO turnover and the actual departure date for filtering out voluntary CEO changes is somewhat arbitrary. The theory behind this filter is that sufficient time between the announcement and the departure date gives the company time to appoint a successor, and is therefore suggestive of an orderly managerial succession process.



advisors.<sup>22</sup> 'Grey' directors are non-executives who fail to meet the criteria for being classified as outsiders. Inside directors are those who are full-time executive members of the board, and board size is the number of directors serving on the board at the financial year-end.

Given the subjective definition that must be made when classifying non-executive directors as outsiders, future testing is employed for both outside and non-executive directors on company's boards. The empirical analysis within this thesis largely focuses on the fraction of the board that is comprised by either outside or non-executive directors.

When specifically examining compliance with the recommendations of the Cadbury Report (1992), a number of further dummy variables are examined based on my own interpretation of how companies may have complied with the various proposals put forward in the report. *Simple Independent* is a variable set equal to one where the company meets the criteria of employing at least three non-executive directors on the company's board, and zero otherwise. *True Independent* is set equal to one where the company meets the criteria for *Simple Independent*, with the additional constraint that the majority of non-executive directors are deemed as outsiders, and zero otherwise. *Simple Comply* is set equal to one where the company meets the recommendation of employing at least three non-executives and splitting the roles of the CEO and the Chairman, and zero otherwise. Finally, *True Comply* is an indicator variable set equal to one where the company meets the requirements for *Simple Comply*, with the additional constraint that the majority of non-executives are outsiders, and zero otherwise.

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<sup>22</sup> In some cases the tenure of non-executives or past employment as an executive director is not disclosed in the annual report. Where this is the case, past editions of the *London Stock Exchange Yearbook* are examined for evidence of the director's past employment with the firm.



*(2) Ownership characteristics:* Data on ownership by the company's CEO and the board as a whole is taken from annual reports. This is defined as their fractional ownership based on common equity shares held under voting control. Such shares include all beneficial holdings and any non-beneficial holdings through family trusts. Excluded from this are non-beneficial holdings that are not held through such trusts, including pension fund and other trustee holdings. This definition is used because the exact control of non-family trustee holdings is often difficult to determine and changes in their control may occur due to factors outside the control of directors. Ownership is split between that held by the entire board, that held by the CEO, and that held by non-CEO board members, depending on the issue under examination.

A *Family / Founder* variable is included to proxy for whether the company is controlled by a founder of family CEO. Due to problems of disclosure on this matter, this variable takes the value of one if any of the following criteria are met; (1) the annual report discloses the CEO as a member of the firm's founding family, (2) the CEO shares their name with that of the company, or (3) the CEO shares their name with another member of the board, and zero otherwise.<sup>23</sup>

The final aspect of ownership structure to be considered in this thesis is the disclosable ownership of financial institutions. Financial blockholdings is a variable used to proxy for the ownership of financial institutions with a stake of greater than 3% that is disclosable in the company's annual report under UK company law.

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<sup>23</sup> It should be noted that in practice this variable underplays the role of family control within this sample of companies. The practice of splitting the roles of the CEO and the Chairman in UK companies may lead to a number of cases where either an Executive or Non-Executive Chairman who fits the criteria for being classed as a family / founder board member plays a stronger role in company decision making than is suggested by the presence of a CEO, who in practice may not actually run the company in the manner suggested by their operational title. In addition, there is also a possibility that companies will be family held, where family members have a significant role within the company, despite their lack of day-to-day involvement in the company's board of directors.

### 4.2.3. *Equity issuance characteristics*

*Acquisition*, *Placing* and *Rights* are indicator variables set equal to one where the company has made a new equity issue through acquisition, placing or a rights offering during the current financial year, and zero otherwise. In the context of chapters 5, 7 and 8, acquisitions, placings and rights offerings are examined individually. In chapter 6, *Equity Issuance* is a dummy variable employed to signify either a rights offering or a placing of new equity during the year of CEO turnover.

Data on new issues of equity capital are taken from the ‘Capital History’ section of *FT Extel Company Information Cards*. Data is restricted to issues involving at least 5% of the company’s issued share capital prior to the issue.<sup>24</sup>

The mechanics of rights issues or offerings in the UK are similar to those that US corporations infrequently employ, where rights are initially distributed on a pro-rata basis to the company’s existing shareholders. Any rights not taken up are sold to new shareholders in the stock market and the proceeds are returned to existing shareholders [Slovin, Sushka and Lai (2000)]. Slovin et al. (2000) define the process of placings in the UK as “a fixed-price offering in which an underwriter acquires shares directly from an issuing firm, and then sells the shares to outside investors, primarily institutions, without a commission.” In this sense, these authors compare placings by UK companies to firm commitment offerings by US corporations.

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<sup>24</sup> The 5% cut-off is somewhat arbitrary, but is used to restrict the inclusion of acquisitions to those that are materially significant to the sample companies. The 5% figure is based on UK pre-emption guidelines which limit companies to raising no more than 5% of their share capital each year by any method other than a rights issue [Franks et al. (2001)].



#### 4.2.4. Other firm characteristics

(1) *Company performance*: In much of the testing employed in this analysis company performance is examined as a determinant of company decision making and corporate governance structures. Within this context a number of accounting and market based performance measures are examined.

Accounting performance is primarily examined on the basis of return on assets (ROA). ROA is measured as earnings before interest and taxes (EBIT) for the financial year divided by the book value of assets at the beginning of the accounting period. Industry adjusted ROA (IROA) is measured as the ROA of the sample company minus the median ROA for all companies within the same FTSE level 4 industry group.<sup>25</sup> As a further measure of extreme accounting performance in examining CEO turnover, a dummy variable is set equal to minus one where the company reports negative pre-tax income, and zero otherwise.

To measure market based performance the company's stock return for the financial year is used. To adjust this for market conditions, the return for the *FTSE All Share Index* over the corresponding period is deducted from each firm's stock price returns. As a further measure of extreme performance, a dummy variable is set equal to minus one where the company cuts or omits its ordinary dividend payment.

Hermalin and Weisbach (1988) and Yermack (1996) provide evidence of how company board structure changes in response to firm performance. Cho (1998) and Demsetz and Villalonga (2001) find evidence of a positive and negative relationship between firm value and managerial shareholdings respectively. Finally, Warner,

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<sup>25</sup> Level 4 classifications are generally consistent with the level of definition used in a 2-digit SIC code.



Watts and Wruck (1988) amongst others find evidence of a negative relationship between company performance and the incidence of forced CEO turnover.

(2) *Firm size:* In much of the testing employed in this thesis firm size is examined as a control variable in multivariate regressions. Firm size is proxied using the book value of company assets, annual firm sales, and the market value of equity. The choice between each of these variables is generally motivated by the desire for comparability between each chapter and a closely related previous empirical study. It should be noted that each of these variables has its own shortcomings.<sup>26</sup>

Firm size has been found to influence a number of governance characteristics in previous empirical studies. Denis and Sarin (1999) find a negative relationship between firm size and director share ownership, and a positive relationship between firm size and both board size and board independence. It is expected that risk aversion and wealth constraints will prevent managers from owning large equity stakes in large firms. In addition, the complexity of a firm's contracting environment, and the resulting agency costs, are likely to increase with firm size, leading to a greater demand for board independence in such companies. Furthermore, Denis, Denis and Sarin (1997b) find evidence of a negative relationship between firm size and the likelihood of non-routine CEO turnover.

(3) *Firm leverage:* Leverage is analysed primarily as the ratio of total debt-to-assets. Debt-to-assets is calculated as total debt (including any hybrid instruments) divided by the book value of total assets at the accounting year-end. In further

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<sup>26</sup> Proxying for firm size using market values introduces an aspect of capital structure choice and growth prospects that may bias their ability to proxy for size. Sales may suffer from cyclical variations, where large (small) firms are able to report relatively small (large) sales values in any given year. In addition, using profit and loss figures creates problems in companies that have changed their accounting period from one year to the next, and as a result report these figures for more or less than a 12 month accounting period. Finally, accounting conventions and valuation techniques between different companies may heavily influence asset valuations.

testing, debt is split between short and long-term loans, where the definition is split between loans with maturities of less than or greater than 5 years. Intertwined with this are measures of corporate liquidity, which are examined using the working capital ratio of current assets to current liabilities, and the interest coverage ratio of earnings before interest and taxes (EBIT) divided by the reported interest charge in the company's profit and loss account for the financial year-end. In further testing, the borrowing ratio of the book value of debt-to-equity, and the capital gearing ratio of total debt plus preferred stock divided by total capital employed plus short-term borrowing minus total intangibles, are used as alternative measures of leverage.

Leverage has been discussed by Jensen (1986) as a measure of monitoring on company management. Denis and Sarin (1999) find evidence of a negative relationship between managerial ownership and leverage, which is suggestive of either alternative monitoring structures within an optimal governance structure, or risk aversion where high ownership managers choose to employ lower levels of debt. In addition, Gilson (1989) and Franks et al. (2001) find evidence of a positive relationship between leverage and the incidence of top management turnover.

*(4) Other firm-specific variables:* The age of the firm is collected from *FT Extel Company Information Cards* and is measured from the year of incorporation. It is expected that younger firms will have higher levels of managerial ownership, and perhaps a board that is characterised by lower independence from the CEO. Denis and Sarin (1999) find that firms that have experienced declines in director ownership are significantly younger than companies that did not. In addition, they also find a positive relationship between company board size and firm age.



Diversification at the firm level is measured on the extent to which a firm's revenue is concentrated within a small number of industries. This is measured using a sales based Herfindahl Index calculated from revenue data from 3-digit SIC industry classifications.<sup>27</sup> The degree to which companies are diversified will most likely be an important determinant of company board structures. To the extent that diversified companies require a more diverse pool of managerial talent and greater monitoring of firm activities, it is to be expected that diversified companies have larger corporate boards, with a larger degree of board independence.

Company growth prospects may also be an important determinant of firm level governance structures. Companies with poor growth prospects are described by Jensen (1986) as having higher levels of free cash flow. To the extent that monitoring is required to reduce management's ability to waste these cash flows, then a negative relationship between growth prospects and the extent of managerial monitoring devices is to be expected. In cross sectional testing company growth prospects are proxied as the market-to-book value (MTBV) ratio, calculated as the market value of equity divided by the book value of total assets. In examining time-series variation in company governance characteristics, the ratio of depreciation-to-assets is used to examine growth prospects. This is preferable in this type of analysis because the MTBV contains both an element of company growth prospects and an

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<sup>27</sup> Comment and Jarrell (1995) denote the formula for calculating the Herfindahl Index as:

$$F_{jt} = \sum_{i=1}^{N_{jt}} \left( X_{ijt} / \sum_{i=1}^{N_{jt}} X_{ijt} \right)^2$$

where  $F_{jt}$  is the index value measuring the degree to which revenues are concentrated in just a few industries. This is calculated across  $N_{jt}$  segments for the  $j$ th firm in the financial year  $t$  as the sum of the squares of each segment  $i$ 's sales as a proportion of total sales.  $X_{ijt}$  is the revenue attributable to each segment.



element of company performance. Yermack (1996) examines the depreciation-to-assets ratio as an alternative measure of growth prospects in robustness testing.<sup>28</sup>

Firm-specific risk is measured as the variance of the company's daily stock returns over its accounting year. Higher levels of risk may act as a deterrent to company directors holding large equity stakes in companies that they manage. Alternatively, Demsetz and Lehn (1985) suggest that higher risk makes for a noisier operating environment within companies, which provides greater benefits of control for management with higher equity stakes. To the extent that a noisier operating environment requires greater monitoring of managerial activities, it is possible that a relationship may also exist between company board structure and stock price risk.

Industry effects may also be prevalent within an examination of the determinants of CEO turnover and corporate governance determinants. For example, it is expected that regulated industries have their own source of monitoring of company management, and are therefore less dependant on other forms of monitoring. In this thesis industry is measured on the basis of FTSE level 4 industry codes. In the majority of cases industry is controlled for by the use of dummy variables set equal to one where a company falls within a given level 4 industry group, and zero otherwise. The exception to this is where adjustment for industry is made to ROA as described previously.

Demsetz and Lehn (1985) find evidence that ownership concentration is significantly lower in companies that operate in regulated industries. In addition, Parrino (1997) finds that CEO turnover is more sensitive to company performance in

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<sup>28</sup> A preferable measure of firm level growth would be the ratio of research and development (R&D) expenditures to company assets. However, a significant fraction of the sample companies do not report data on R&D, making this approach infeasible in this thesis.

homogenous industries, where company performance is able to provide a more accurate measure of managerial performance.

#### *4.2.5. Summary of data*

The above section has provided a description of the vast majority of the variables that will be examined in the empirical chapters of this thesis. Some further variables are used in individual chapters, but definition of these is left to the short data description sections that are provided in each chapter.

### **4.3. Data description**

This section provides a brief outline of the sample characteristics of the data used throughout this thesis. Table 4-1 presents details of the time series properties of the overall sample. As can be seen, all 683 companies remain in the sample until 1994, after which they may drop out as they become delisted.

#### **4.3.1. Descriptive statistics of pooled company data**

Table 4-2 provides descriptive statistics of the sample of companies examined in this thesis, where data is examined across all firm years. The average board holds 14.5% of their firm's equity, with the CEO accounting for 6.4% of total share capital. However, ownership is skewed, as median ownership is much lower than mean levels. Under the classification scheme used in this study, 19.5% of firms have a family / founder CEO. The average board has 7.07 members, of which 25.7% are outsiders and 15% are greys. The fraction of board members who are non-executives is lower than the 46% reported by Dahya et al. (2002) in their post-Cadbury period, while board size is also slightly below the mean of 7.29 reported in their sample.

The mean (median) firm has been incorporated for 45.4 years (38 years) and has assets valued at £480.42million (£55.85million). The average debt-to-assets ratio is 18.1% and the average company has depreciation charges amounting to 4.1% of assets at their financial year-end. The mean revenue based Herfindahl Index is 0.79, but the majority of sample companies operate in a single line of business.

Given the number of variables used in this analysis, and the purported inter-relationships that exist amongst corporate governance characteristics, it is important to examine the correlation amongst the variables used within the empirical chapters



of this thesis. To this end, table 4-3 presents a correlation matrix between selected ownership and board characteristics, firm size as proxied by the book value of assets, and leverage as measured by the debt-to-assets ratio. It is apparent that there is a high degree of correlation amongst the key variables used in this thesis. As a result, the regressions utilised in future testing will be estimated using a step-wise procedure and control variables will be selected on the basis of minimising the extent of any multicollinearity problems within these models. In addition, multivariate testing will be supplemented with univariate comparisons of the particular variables under examination wherever possible.

#### *4.3.2. Time series properties of board structure*

The data presented in table 4-2 provides information for the pooled sample of companies over time. However, as Young (2000) and Dahya et al. (2002) document, UK firms increased their reliance on non-executive directors and were more willing to separate the roles of the Chairman and the CEO over the time period of this thesis.

To examine this issue here, figures 4-1 and 4-2 illustrate the increased independence of company boards over this sample period, based on the presumption that a greater fraction of non-executive and outside directors, and an increased willingness to separate the roles of the Chairman and the CEO are facets of an independent board of directors. Figure 4-1 highlights a large increase in the fraction of non-executive and outside directors serving on company boards, and a decline in the fraction of inside directors over the sample period. It appears the companies responded to the Cadbury Report (1992) by employing more directors who are regarded as independent of company management, while the fraction of directors

who are regarded as grey remained relatively constant over the sample period. This perhaps provides evidence of an attempt to comply with the spirit of the recommendations within the report, rather than simply filling board positions with non-executive directors that have some form of affiliation with management.

Figure 4-2 examines the extent of compliance with the various proposals put forward in the Cadbury Report (1992) as discussed previously. For each measure of compliance, there is a large increase in the fraction of companies that meet these requirements from the first year of the sample until the last.

Table 4-3 examines the statistical significance of these changes in board independence between the first and last year of the sample. In most cases the difference is highly significant, and indicates a large increase in board independence from the first year of the sample to the last. The only exception to this is the marginally significant increase in the average board size over the sample period and the insignificant increase in the fraction of grey directors. Overall, this suggests that companies increased the independence of their board of directors over the sample period through the appointment of independent outside directors, and an increased willingness to separate the roles of the Chairman and the CEO.

However, examining average changes in board structure may not tell the whole story of how companies adapted their governance structures in response to Cadbury. Young (2000) finds that companies which increased their use of non-executive directors to the greatest extent following the report's publication were those classed as being under-represented by these directors prior to the report's publication.

To examine this issue further, figures 4-3 and 4-4 plot changes in the fraction of non-executive and outside directors respectively for various bandings of non-



executive and outside director representation in the first year of the sample, 1992. Non-executive directors are segregated on the basis of comprising between 0 and 10%, 10 to 20%, 20 to 30%, 30 to 40%, 40 to 50%, and greater than 50% of the board in 1992. Given the smaller variation in outside director representation, companies are separated on the basis of having a board comprising between 0 and 10%, 10 to 20%, 20 to 33%, and greater than 33% outside directors in 1992.

It is apparent that those companies with the lowest fraction of non-executive and outside director representation in 1992 experienced the largest increase in the fraction of the board that is comprised by these directors over the sample period. There is also evidence that companies with the highest levels of board independence in 1992 experience declines in outside and non-executive representation by the end of the sample period. This finding is consistent with Denis and Sarin (1999) who report evidence of mean reversion in board structure over an extended period of time.

To examine the statistical significance of these results, changes in the fraction of outside and non-executive directors serving on company boards between 1992 and 1997 for varying bands of board independence in 1992 are reported in panels A and B of table 4-4. In each case the increase in board independence is statistically significant, with the exception of the largest category of outside and non-executive director representation in 1992, which experiences a significant decline in board independence over the sample period.

Finally, panels A and B of table 4-5 examines the difference in the change in outside and non-executive director representation for varying bands of outside and non-executive director representation in 1992. In this testing, the change in board



independence from 1992 to 1997 is examined for each banding in 1992, and is tested in relation to the change in director independence in other bandings.

It is apparent that although most bandings of board independence experience an increase in non-executive and outside representation over the sample period, this is most pronounced in the lower categories of board independence. In each case, the increase in board independence over the sample period for the lower categories in 1992 is significantly greater than that experienced in the bands above it.

#### *4.3.3. Time series of other corporate governance characteristics*

*(1) Ownership structure:* In addition to company board structure a great area of interest in this thesis is the ownership structure of sample firms, and in particular the fractional share ownership of directors, over the sample period. Figure 4-5 presents summary evidence of the changing ownership structure of this sample of companies over the period of analysis. It is apparent that the average holdings of company management decline over time, whether this is based on total board ownership or the ownership of the company's CEO. However, there is no evidence that the fractional share ownership of financial institutions with a disclosable stake of greater than 3% of a firm's outstanding equity declines over the sample period. This decline in managerial ownership is most likely due to an element of survivorship bias within the sample, as the original owner / managers of companies gradually surrender control of their firms over time. Denis and Sarin (1999) also present evidence that director ownership declines over time in their sample of US companies.

*(2) Equity issuance:* In future testing equity issuance is examined as a determinant of CEO replacement decisions and changes in a company's corporate

governance structure. The majority of the corporate governance characteristics analysed in this thesis are measured at the end of the financial year prior to the event. However, equity issuance variables are measured during the year of the event as they represent a change to the control rights within a corporation, and as such, are expected to drive company decision-making during the year in which they occur.

Figure 4-6 examines the extent to which equity issuance varies over the sample period. In the context of this figure, equity issuance examines the joint occurrence of acquisitions financed through the issuance of new shares, placings of new equity, rights offerings made to existing shareholders, and also a small number of cases where companies had a scrip issue. Rates of placings and acquisitions remain relatively constant throughout the sample, but there is a pronounced decline in the frequency of rights offerings between the beginning and end of the sample period.

*(3) Managerial turnover:* Figure 4-7 presents evidence on the frequency of managerial turnover amongst this sample of companies. CEO turnover and forced turnover are defined as previously. Turnover rates for these variables are calculated as the frequency of these events divided by the number of firm years. Director appointment and removal rates are calculated as the number of directors appointed to and departing from the board during the financial year as a fraction of the number of directors serving on the board at the end of the previous financial year.

Rates of total director appointments and removals are relatively stable over the time period examined, but there is a large degree of variation in CEO turnover rates. It appears that these are highest towards the beginning and the end of the sample period. However, further examination of this will be left until Chapter 5.

#### ***4.4. Summary of sample data***

This chapter has provided a brief outline of the sample used in much of the empirical work in this thesis. It is apparent that board independence, as measured by the fraction of the board comprised by non-executive and outside directors, and the willingness of companies to separate the roles of the CEO and the Chairman of the Board, has increased over the sample period. There is no evidence of an increase in the fraction of grey directors, those who are potentially affiliated with company management, on company boards over the sample period. This would suggest that companies have improved the potential of their board to act independently of the company's top officer, rather than simply adding directors who are non-executive in name, but have relationships with the management team that would impair their ability to act against these directors if required.

The increase in non-executive and outside directors has been most pronounced for those companies with a low component of these directors at the beginning of the sample. Even though a substantial fraction of sample companies have come into compliance with the Cadbury Report's (1992) proposals, it appears that the report's recommendations may still have had a strong impact on companies that did not meet its recommendations by the end of the sample period.

The data described here forms the main basis of the empirical testing reported in Chapters 5 and 6. Chapters 7 and 8 use sub-samples of this data set, and will be described individually. Even within these later chapters, the definitions of sample variables will remain consistent, with any additional variables being described as and when appropriate.



**Table 4-1**  
**Year-by-year analysis of sample firms**

The sample consists of up to 683 non-financial UK companies listed on the London Stock Exchange (LSE) during the period 1992 to 1997. The sample is constructed by examining all sample companies listed on the LSE with available sales data for 1992 to 1994. From 1995 onwards companies may drop out of the sample as they become delisted. From this group, companies are included in the sample where company annual reports are available from *Thomson Financial Services' Global Access* database.

Year	Number of Sample Firms	Fraction of Total Firm Years
1992	683	0.177
1993	683	0.177
1994	683	0.177
1995	658	0.171
1996	607	0.157
1997	<u>542</u>	<u>0.141</u>
Total	3856	1.000

**Table 4-2**  
**Descriptive statistics for pooled firm years**

Data is based on a sample of up to 683 UK listed non-financial companies over the period 1992 to 1997. Data on ownership and board characteristics are collected from company annual reports. Financial data is collected from *Datastream*. Revenue Concentration is calculated as a Herfindahl Index based on revenue from 3-digit SIC lines of business. Firm Age is taken as the date of incorporation from *FT Extel Company Information Cards*. Market-to-book value (MTBV) is calculated as the market value of common equity divided by the book value of the firm's assets. Variance is measured as the variance of the company's daily stock returns over its accounting year. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Board size is the number of directors serving on the company's board at the financial year-end. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. *Acquisition*, *Placing* and *Rights Issue* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively, and zero otherwise.

Variable	Mean	Median	Maximum	Minimum	St. Dev.
<i>Panel A: Governance Characteristics</i>					
Family / Founder	0.1952	n.a.	n.a.	n.a.	n.a.
CEO Ownership %	6.3916	0.4691	75.8315	0.0000	12.6295
Board Ownership %	14.5019	5.6510	80.8833	0.0020	18.6493
Financial Blockholdings	25.0886	22.9000	85.5000	0.0000	17.0247
Board Size	7.0726	7.0000	24.0000	2.0000	2.4120
Fraction Inside	0.5923	0.6000	1.0000	0.0000	0.1636
Fraction Grey	0.1503	0.1429	0.8571	0.0000	0.1481
Fraction Outsiders	0.2574	0.2500	0.8182	0.0000	0.1648
Split	0.7101	n.a.	n.a.	n.a.	n.a.
Acquisition	0.0611	n.a.	n.a.	n.a.	n.a.
Placing	0.0601	n.a.	n.a.	n.a.	n.a.
Rights	0.0687	n.a.	n.a.	n.a.	n.a.
<i>Panel B: Firm-Specific Attributes</i>					
Market Value of Equity (£000's)	460,720	49,023	34,440,880	374	1,706,736
Assets (£000's)	480,416	55,847	24,606,000	348	1,645,129
Sales (£000's)	503,735	79,978	14,935,000	28	1,336,638
Variance * 100	0.0486	0.0211	10.1344	0.0000	0.1834
MTBV	1.1590	0.9418	23.3190	0.0250	1.0778
Depreciation-to-Assets	0.0412	0.0366	0.3927	0.0000	0.0279
Debt-to-Assets	0.1807	0.1616	8.0925	0.0000	0.2303
Revenue Concentration	0.7998	1.0000	1.0000	0.1678	0.2501
Firm Age	45.4706	38.0000	146.0000	1.0000	31.3712

**Table 4-3**  
**Correlation matrix of selected sample variables**

Data is based on a sample of 683 UK listed non-financial companies over the period 1992 to 1997. Data on ownership and board characteristics are collected from company annual reports. Financial data is collected from *Datastream*. Firm Age is taken as the date of incorporation from *FT Extel Company Information Cards*. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. P-values are reported in parenthesis.

	Firm Age	Family / Founder	Board Ownership	CEO Ownership	Financial Ownership	Board Size	Fraction Grey	Fraction Outsiders	Split	Debt-to- Assets
Family / Founder	-0.130 (0.00)									
Board	-0.227 (0.00)	0.365 (0.00)								
Ownership	-0.168 (0.00)	0.464 (0.00)	0.705 (0.00)							
CEO	-0.010 (0.54)	-0.125 (0.00)	-0.320 (0.00)	-0.210 (0.00)						
Financial Ownership	0.120 (0.00)	-0.158 (0.00)	-0.276 (0.00)	-0.280 (0.00)	-0.204 (0.00)					
Board Size	0.016 (0.32)	-0.013 (0.42)	0.068 (0.00)	-0.022 (0.00)	-0.111 (0.00)	0.009 (0.58)				
Fraction Grey	0.073 (0.00)	-0.277 (0.00)	-0.371 (0.00)	-0.279 (0.00)	0.134 (0.00)	0.153 (0.00)	-0.457 (0.00)			
Fraction Outsiders	0.068 (0.00)	-0.266 (0.00)	-0.208 (0.00)	-0.422 (0.00)	0.073 (0.00)	0.133 (0.00)	0.043 (0.01)	0.222 (0.00)		
Split	-0.028 (0.08)	-0.072 (0.00)	-0.068 (0.00)	-0.045 (0.01)	0.039 (0.02)	-0.018 (0.26)	-0.044 (0.01)	0.065 (0.00)	0.015 (0.35)	
Debt-to-Assets	0.048 (0.00)	-0.106 (0.00)	-0.190 (0.00)	-0.116 (0.00)	-0.218 (0.00)	0.470 (0.00)	-0.069 (0.00)	0.181 (0.00)	0.019 (0.23)	0.056 (0.00)



**Table 4-4****Mean board structure and Cadbury compliance by sample year**

The sample consists of up to 683 non-financial UK companies listed on the London Stock Exchange (LSE) during the period 1992 to 1997. The sample is constructed by examining all sample companies listed on the LSE with available sales data for 1992 to 1994. From 1995 onwards companies may drop out of the sample as they become delisted. From this group, companies are included in the sample where company annual reports are available from *Thomson Financial Services' Global Access* database. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. *Simple Independent* is a variable set equal to one where the company meets the criteria of employing at least three non-executive directors on the company's board, and zero otherwise. *True Independent* is set equal to one where the company meets the criteria for *Simple Independent*, with the additional constraint that the majority of non-executive directors are deemed as outsiders, and zero otherwise. *Simple Comply* is set equal to one where the company meets the recommendation of employing at least three non-executives and splitting the roles of the CEO and the Chairman, and zero otherwise. Finally, *True Comply* is an indicator variable set equal to one where the company meets the requirements for *Simple Comply*, with the additional constraint that the majority of non-executives are outsiders, and zero otherwise.

	1992	1993	1994	1995	1996	1997	P-value for two sided t-test of means 1992 vs. 1997
<i>Panel A: Board Structure</i>							
Board Size	6.9356	7.0029	7.0527	7.1093	7.1678	7.1817	0.08
Fraction Insiders	0.6318	0.6129	0.5896	0.5781	0.5708	0.5617	0.00
Fraction Grey	0.1464	0.1463	0.1525	0.1503	0.1552	0.1523	0.50
Fraction Outsiders	0.2218	0.2409	0.2579	0.2716	0.2740	0.2861	0.00
Fraction Non-Executives	0.3682	0.3871	0.4104	0.4219	0.4292	0.4383	0.00
<i>Panel B: Cadbury Compliance</i>							
Split	0.6226	0.6720	0.7218	0.7284	0.7615	0.7688	0.00
Simple Independent	0.4612	0.5081	0.5461	0.6009	0.6316	0.6440	0.00
True Independent	0.3045	0.3411	0.3675	0.4173	0.4178	0.4514	0.00
Simple Comply	0.3514	0.3982	0.4495	0.5038	0.5477	0.5541	0.00
True Comply	0.2387	0.2723	0.3001	0.3505	0.3635	0.3982	0.00

**Table 4-5**  
**Changing board independence between 1992 and 1997**

The sample consists of up to 683 non-financial UK companies listed on the London Stock Exchange (LSE) during the period 1992 to 1997. The sample is constructed by examining all sample firms listed on the LSE with available sales data for 1992 to 1994. From 1995 onwards companies may drop out of the sample as they become delisted. From this group, companies are included in the sample where company annual reports are available from *Thomson Financial Services' Global Access* database. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. The final column reports the difference in sample means between 1992 and 1997 and the p-value for a two-sided t-test of means in parenthesis.

	1992	1997	Difference
<i>Panel A: Average Fraction of Outside Directors in 1992 and 1997 between bands of outside director representation in 1992</i>			
0.00 to 0.10	0.0066	0.175	0.1689 (0.00)
> 0.10 to 0.20	0.1644	0.260	0.0953 (0.00)
> 0.20 to 0.33	0.2849	0.319	0.0343 (0.00)
>0.33	0.4500	0.400	-0.0503 (0.00)
<i>Panel B: Average Fraction of Non-Executive Directors in 1992 and 1997 between bands of non-executive director representation in 1992</i>			
0.00 to 0.10	0.0045	0.266	0.2611 (0.00)
> 0.10 to 0.20	0.1726	0.334	0.1611 (0.00)
> 0.20 to 0.30	0.2663	0.3859	0.1197 (0.00)
> 0.30 to 0.40	0.3650	0.428	0.0629 (0.00)
> 0.40 to 0.50	0.4702	0.490	0.0197 (0.07)
> 0.50	0.6188	0.575	-0.0434 (0.00)



**Table 4-6****Difference in changes in board independence between 1992 and 1997 for varying bands of board independence in 1992**

The sample consists of up to 683 non-financial UK companies listed on the London Stock Exchange (LSE) during the period 1992 to 1997. The sample is constructed by examining all sample companies listed on the LSE with available sales data for 1992 to 1994. From 1995 onwards companies may drop out of the sample as they become delisted. From this group, companies are included in the sample where company annual reports are available from *Thomson Financial Services' Global Access* database. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. The change in board independence from 1992 to 1997 is examined for each banding in 1992, and is tested in relation to the change in director independence in other bandings. P-values for a two-sided t-test of means are reported in parenthesis.

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*Panel A: Difference in changes in the Fraction of Outside Directors between bands of outside director representation in 1992*

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	> 0.10 to 0.20	> 0.20 to 0.33	>0.33
0.00 to 0.10	0.0725 (0.00)	0.1328 (0.00)	0.2187 (0.00)
> 0.10 to 0.20		0.0603 (0.00)	0.1462 (0.00)
> 0.20 to 0.33			0.0859 (0.00)

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*Panel B: Difference in changes in the Fraction of Non-Executive Directors between bands of non-executive director representation in 1992*

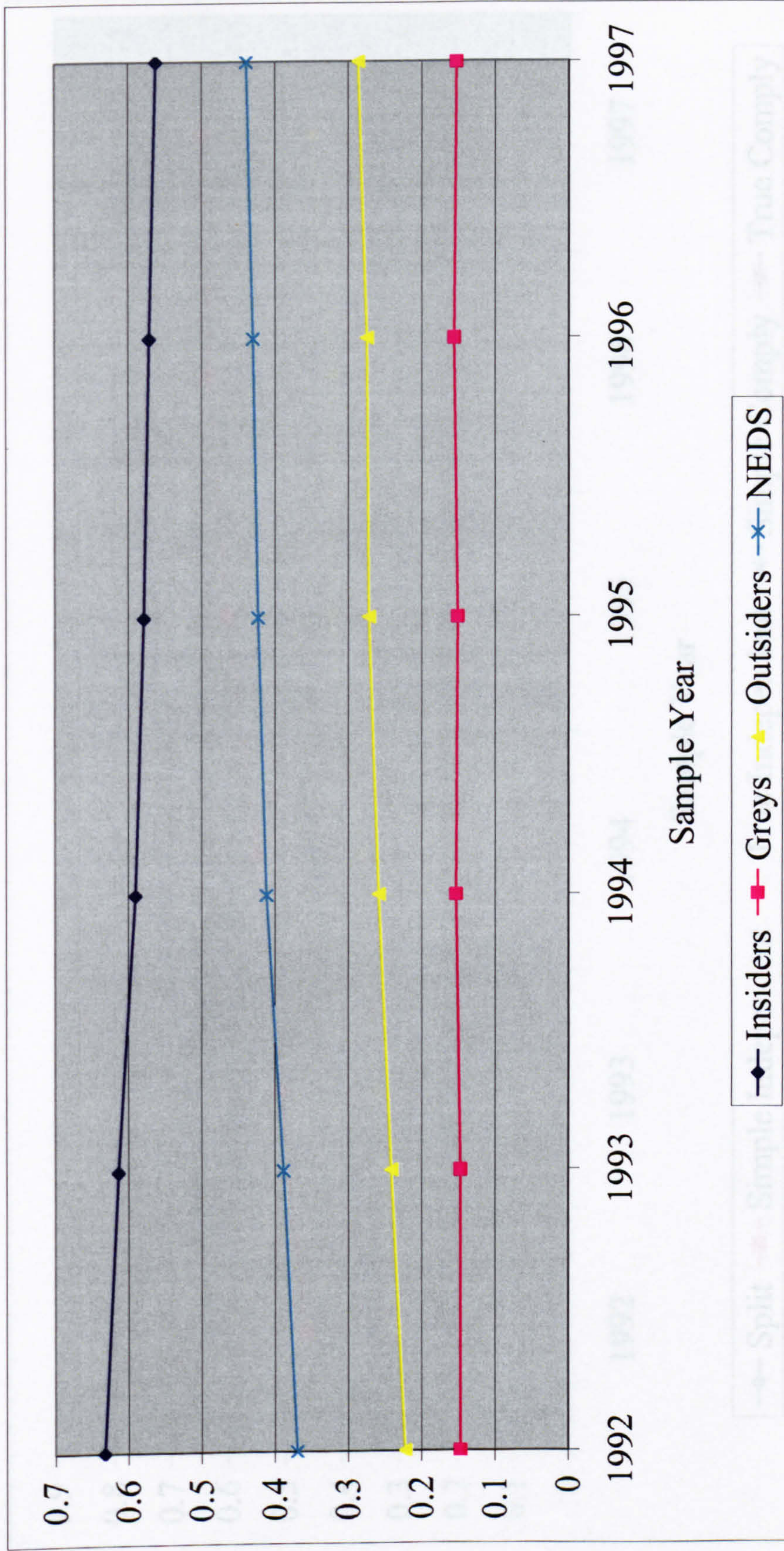
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	> 0.10 to 0.20	> 0.20 to 0.30	> 0.30 to 0.40	> 0.40 to 0.50	> 0.50
0.00 to 0.10	0.0987 (0.00)	0.1410 (0.00)	0.1968 (0.00)	0.2421 (0.00)	0.3068 (0.00)
> 0.10 to 0.20		0.0423 (0.03)	0.0981 (0.00)	0.1433 (0.00)	0.2081 (0.00)
> 0.20 to 0.30			0.0558 (0.00)	0.1011 (0.00)	0.1658 (0.00)
> 0.30 to 0.40				0.0453 (0.00)	0.1100 (0.00)
> 0.40 to 0.50					0.0648 (0.00)

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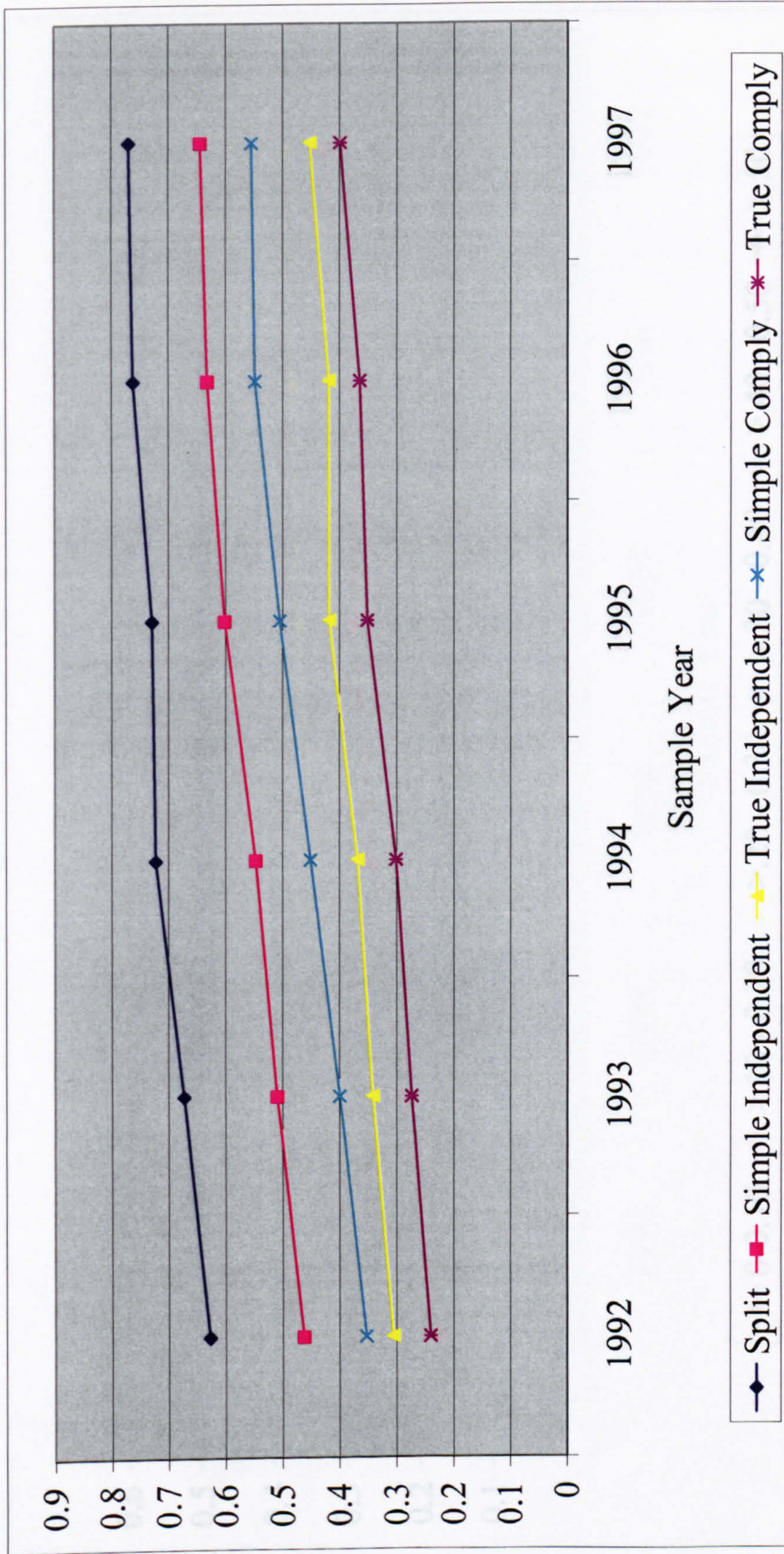


**Figure 4-1**  
Average board composition of sample firms over time



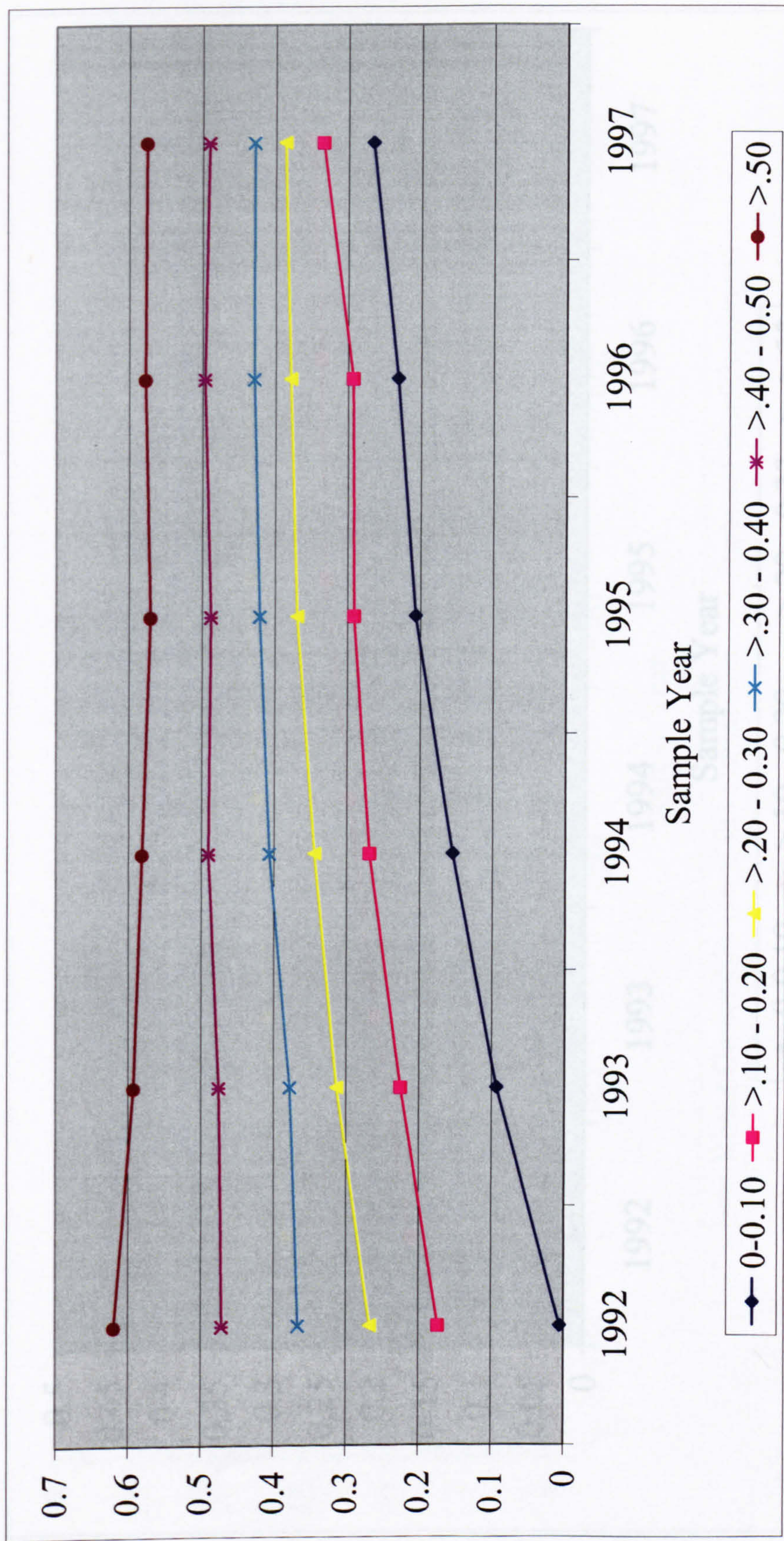


**Figure 4-2**  
**Cadbury compliance of sample firms over time**



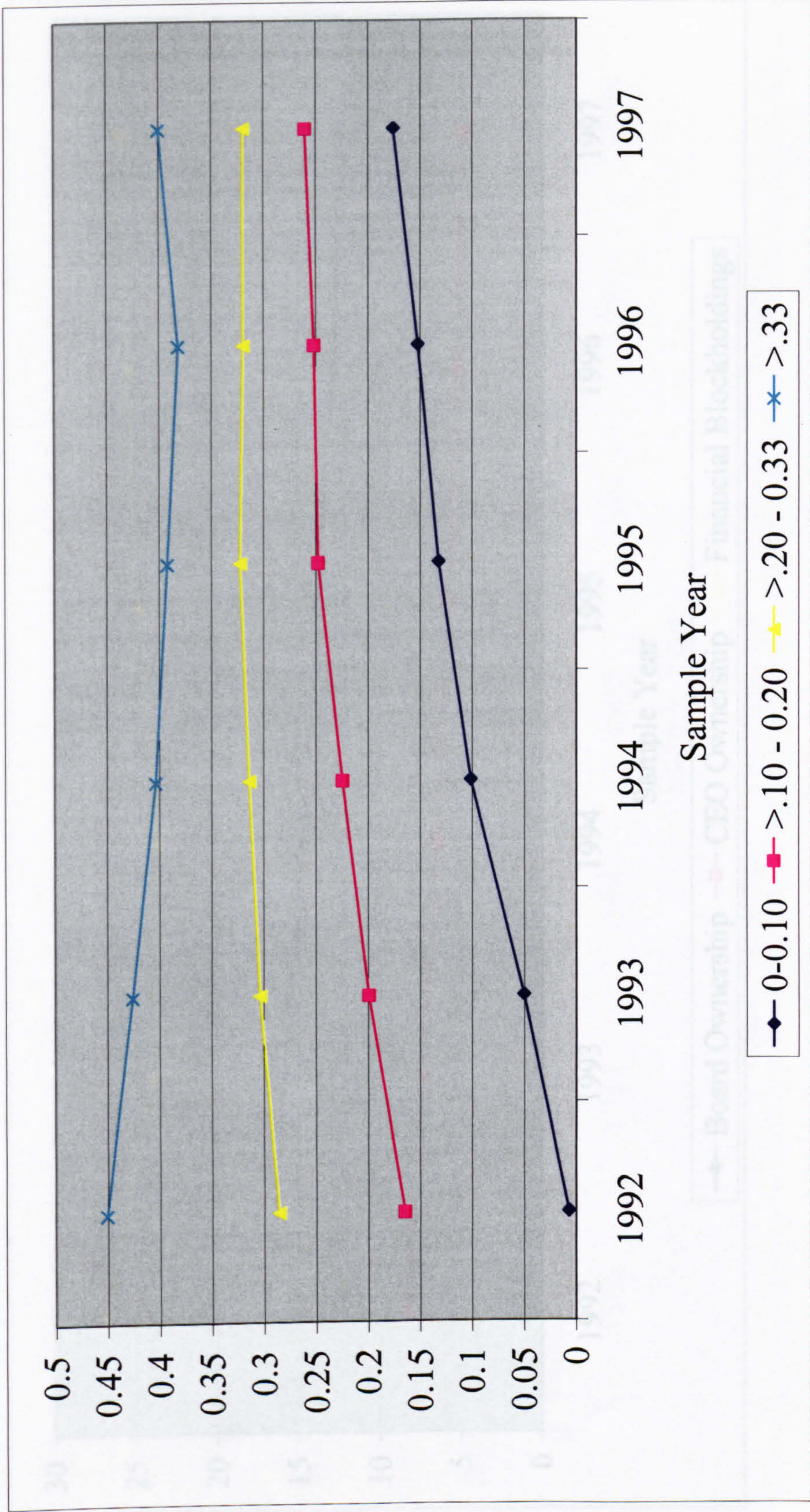


**Figure 4-3**  
**Change in the fraction of non-executive directors (NEDs) based on bandings of NED board representation in 1992**





**Figure 4-4**  
**Change in the fraction of outside directors based on bandings of outside board representation in 1992**





**Figure 4-5**  
**Ownership structure of sample firms over time**

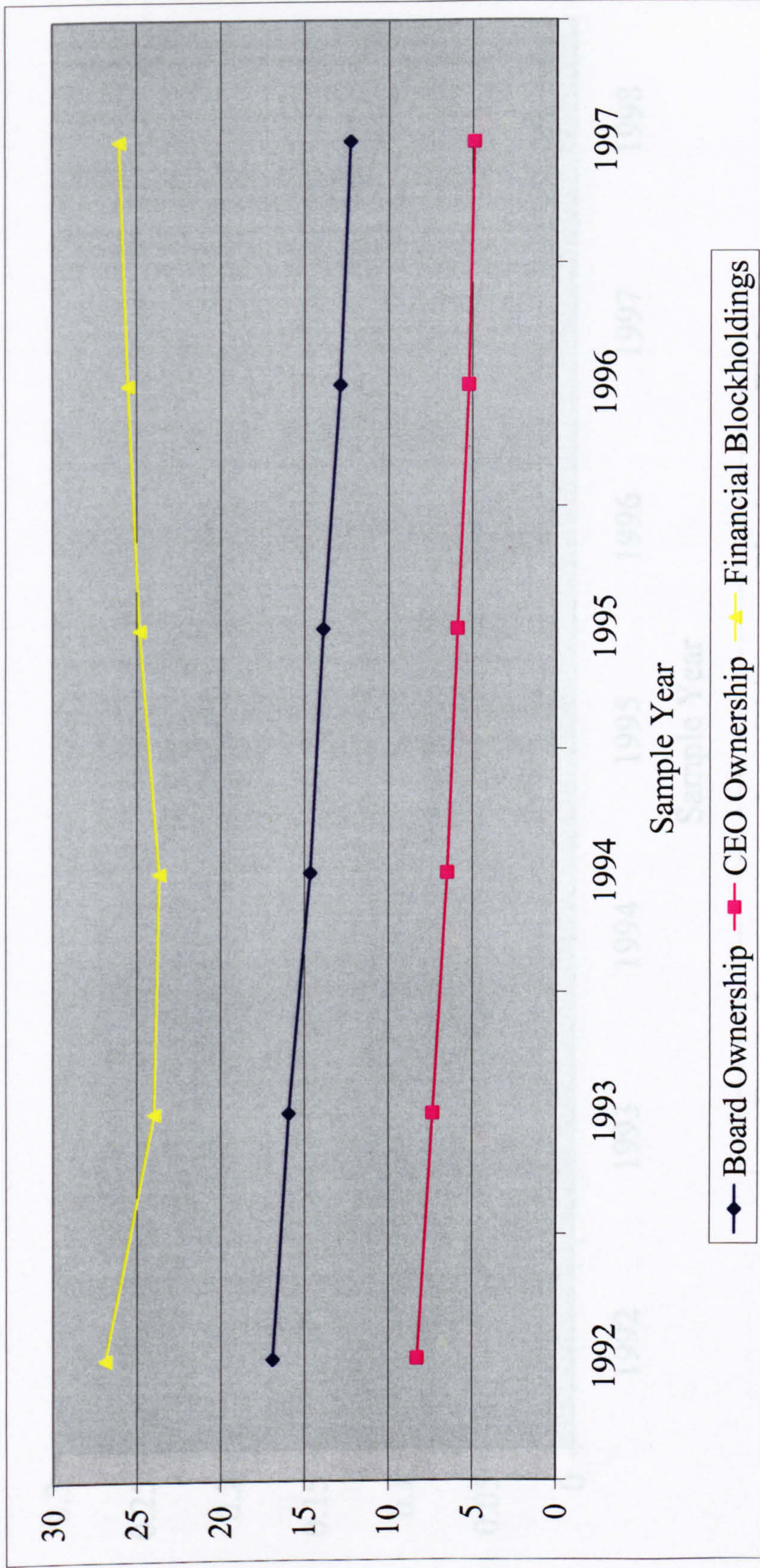
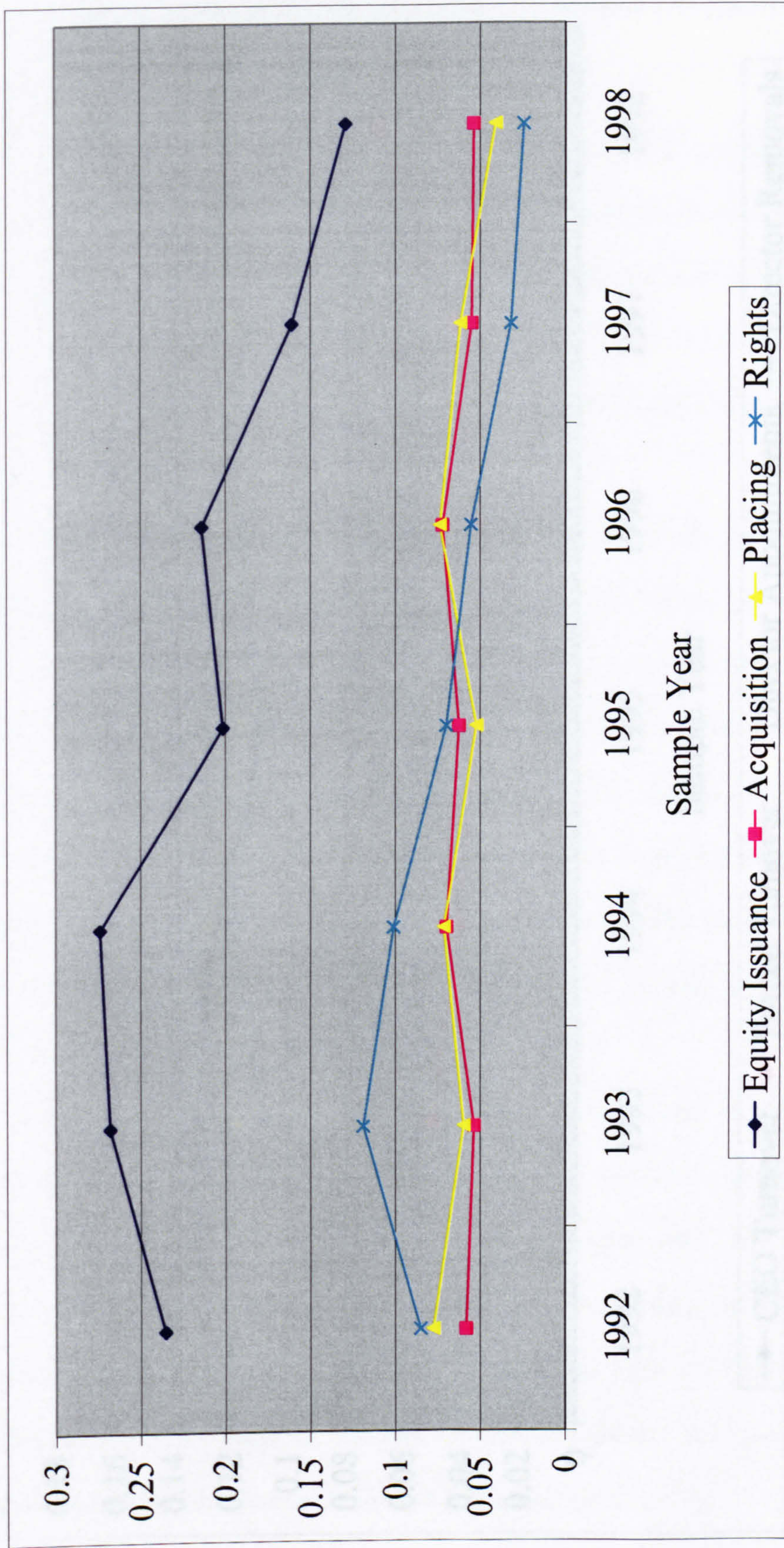


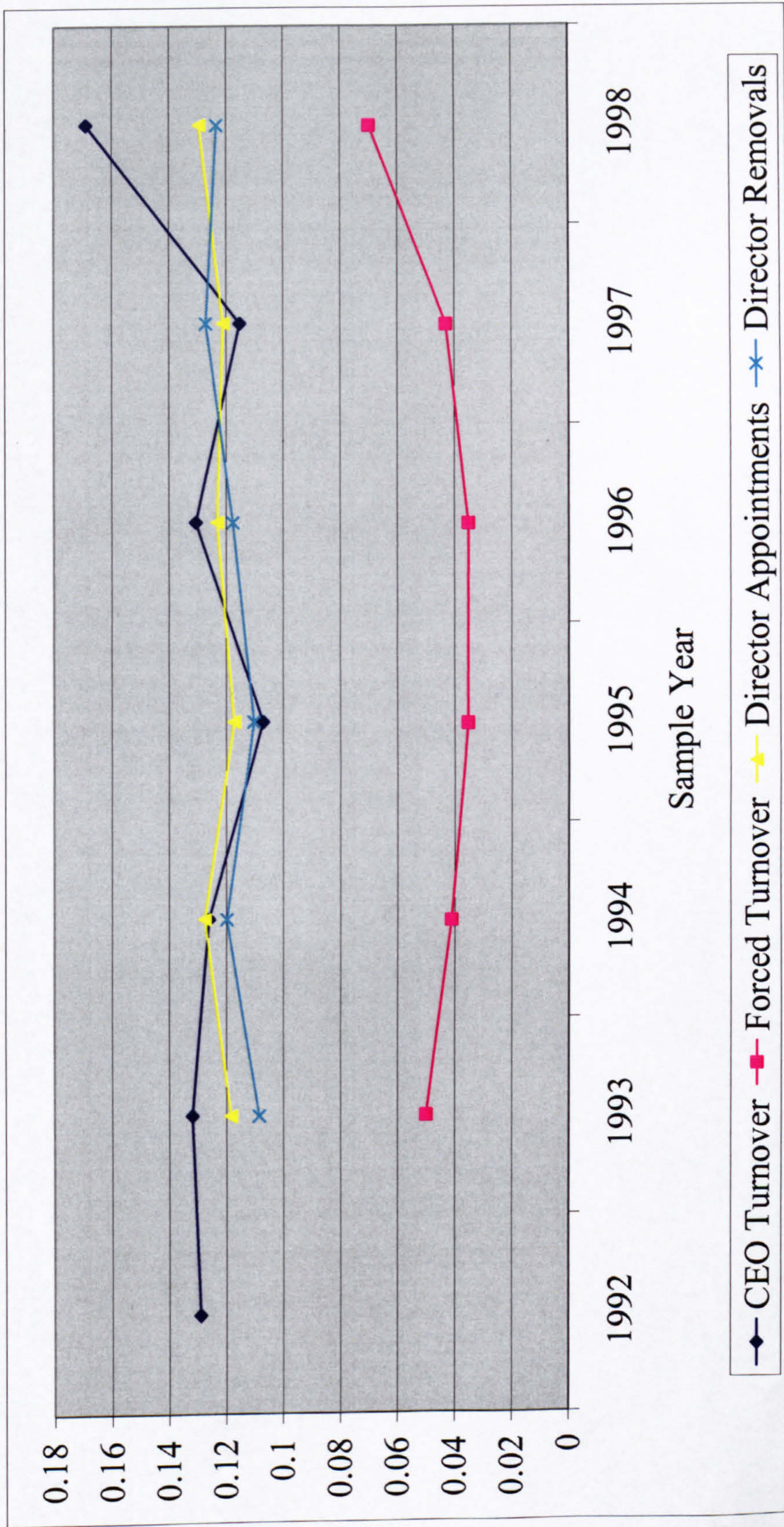


Figure 4-6  
Equity issuance by sample firms over time





**Figure 4-7**  
**Director turnover in sample firms over time**





## **5. Ownership and board structure during corporate governance reform**

Chapter 4 of this thesis highlights the changing nature of UK company board structures over the period of this analysis. Firms have increased the independence of their board, as highlighted by the increased use of outside directors and an increased willingness to separate the roles of the Chairman and the CEO. It has also been documented that managerial ownership has declined within this sample of companies over the same time period.

This evidence suggests that the data examined within this thesis provides an interesting setting within which to examine the determinants of corporate governance structures and the evolution of these structures over time. Examining these issues may provide insights into the likelihood of UK companies adopting the proposals contained in later corporate governance charters issued by the Hampel (1998) and Higgs (2003) committees. In addition, they will also provide interesting insights in the factors that drive changes to corporate governance structures. This has important policy implications for other economies where internal and external governance systems are very different to those in the UK.

Despite a vast empirical literature on corporate governance and its effect on company decision-making and value, to date little is known about how governance evolves over time. The limited research in this field suggests that firms adopt 'optimal' governance structures based on their individual contracting environment [Agrawal and Knoeber (1996) and Himmelberg, Hubbard and Palia (1999)], but that changes in these structures occur in response to economic shocks and changes in managerial control [Denis and Denis (1994) and Denis and Sarin (1999)].

This chapter contributes to the existing literature by exploring the role of managerial control, equity issuance, firm performance and firm-specific attributes in the evolution of ownership and board structure, and the decision to adopt the proposals enshrined in the Cadbury Report (1992). This is important to enhancing our understanding of how governance evolves over time, particularly in light of the recent wave of reforms aimed at strengthening the role of outside director monitoring on company boards discussed by Dahya and McConnell (2004). Young (2000) and Peasnell, Pope and Young (2003) find that director ownership is inversely related to the likelihood of Cadbury compliance, but using data at different points in time. This study uses annual data on CEO turnover, equity issuance and firm performance to examine their role in changes to ownership and board structure.

This study examines how governance evolves following the publication of the Cadbury Report (1992), and the resulting change in company board structure, as described in chapter 4 of this thesis. On one hand, companies may rationally choose whether to adopt governance standards based on their internal firm-specific characteristics. Young (2000) and Peasnell et al. (2003) report evidence that this is the case for UK companies. However, managerial control, firm performance and external capital markets may also play an important role in corporate governance reform. To date this latter issue remains largely unexplored.

The findings presented in this chapter provide evidence of the interdependence of corporate governance systems. Managerial control and board independence are negatively correlated, as are changes in these variables. Cross-sectional estimates of the determinants of ownership and board structure provide evidence on the importance of firm-specific characteristics, including firm size and growth prospects,



in determining the use of these structures. However, changes in ownership and board structure occur more frequently in response to CEO turnover, firm performance and issues of new equity through acquisitions, placings and rights issues. There is little consistent evidence that changes in ownership and board structure are correlated with changes in the firm-specific characteristics that are found to be important cross-sectional determinants of these variables.

UK companies appear to rationally adopt the principles enshrined in the Cadbury Report (1992). Larger companies and those with lower growth prospects are more likely to comply with the report. However, the evidence presented here also indicates that firms are more likely to comply following CEO turnover and equity issuance. This is consistent with Hermalin and Weisbach's (2003) conclusions on how board structure evolves over time, and provides new evidence on the role of providers of new equity capital in the evolution of governance structures.

The remainder of this chapter is structured as follows. Section 5.1. summarises the literature on the determinants of governance structures and hypothesises how a shift in board structure following the publication of the Cadbury Report (1992) may affect these other mechanisms. Section 5.2. analyses the pre-Cadbury relationship between the firm's contracting environment and ownership and board structure. Section 5.3. examines how corporate governance structures have changed over the sample period and how these changes are interrelated. Section 5.4. examines the determinants of compliance with the recommendations of the Cadbury Report (1992) and how adoption has been correlated with changes in other governance attributes. Finally, section 5.5. concludes.

## ***5.1. Corporate governance structures as compliments and substitutes***

The theoretical and empirical research on the determinants of corporate governance structures has lagged behind research that examines the effect of these structures on firm value and the observable actions of management. Recent empirical work has sought to redress the balance.<sup>29</sup> This research allows us to develop a more complete picture of the determinants of corporate governance structures, and theorise which factors determine changes in these structures.

### ***5.1.1. The determinants of board structure***

Fama and Jensen (1983) hypothesise that independent outside directors could alleviate the agency problems inherent when the ownership of large public corporations is separated from decision control. Furthermore, Jensen (1993) is critical of the practice of combining the roles of the Chairman and the CEO, suggesting that the Chairman should ultimately be responsible for overseeing the monitoring of the company's CEO.<sup>30</sup> Hermalin and Weisbach (2003) summarise empirical research on the factors that drive changes to corporate boards as finding that:

“... boards appear to evolve over time as a function of the bargaining power of the CEO relative to the existing directors. Firm performance, CEO turnover, and changes in ownership structure appear to be important factors affecting changes to boards.”

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<sup>29</sup> For examples of this research see Denis and Denis' (1994) examination of majority owner-managed companies, Denis and Sarin's (1999) examination of ownership and board structure, Kole and Lehn's (1999) study of the evolution of governance structures following deregulation in the US airline industry, Young's (2000) examination of Cadbury compliance in UK companies and Franks, Mayer and Rossi's (2003) long-run examination of the evolution of ownership and board control in UK companies in the twentieth century.

<sup>30</sup> See Brickley, Coles and Jarrell (1997) for a discussion of the costs and benefits of combining the roles of the Chairman and the CEO.

Their discussion highlights the importance of not only firm-specific characteristics, such as firm size, growth prospects, risk, etc. in determining board structure. Rather, they also stress the importance of owner-specific characteristics, such as CEO ownership, tenure, status as the company founder, family ties, etc. in determining changes to board structure, and other aspects of governance in general.

The findings presented in chapter 4 of this thesis highlight the increased board independence of UK companies, as measured by outside and non-executive director representation, and the increased willingness of companies to separate the roles of the Chairman and the CEO, over this sample period.

### *5.1.2. Managerial ownership*

An optimal governance structure posits that a negative relation should be observed between board independence and director ownership. This arises where managerial ownership and monitoring from outside directors are substitutes in providing management with incentives to maximise shareholder wealth [Fama and Jensen (1983)]. Weisbach (1988), Denis and Denis (1994) and Denis and Sarin (1999) have confirmed this empirically in US research. Peasnell et al. (2003) find that the relationship is best described by a log function of managerial ownership, which implies a diminishing substitution effect for outside director monitoring at increasing levels of managerial ownership.

Dahya, McConnell and Travlos (2002) find that firms that were never in compliance with the Cadbury Report (1992) had higher managerial ownership than companies that were always in compliance or those that adopted the proposed reforms. Similarly, Young (2000) and Peasnell et al. (2003) find that the likelihood



of adopting the proposal of having three non-executives on company boards is negatively related to managerial ownership and the log of ownership respectively.

If firms do implement optimal governance structures then it is expected that companies that adopt the recommendations of the Cadbury Report (1992) should experience declines in managerial ownership as they attempt to rebalance their governance portfolio. However, Young (2000) finds that companies that adopt the Cadbury recommendation of having at least three non-executive directors on their board experience declines in ownership, but by no more than a control sample of firms.

In summary, it is expected that Cadbury compliance is negatively related to levels of managerial ownership. To the extent that managerial ownership and board monitoring are substitutes in providing incentives to management, Cadbury compliance should be expected to result in a decline in managerial ownership as optimal governance systems are rebalanced. Alternatively, given the importance of owner-specific characteristics and managerial control, managerial ownership will not decline in response to Cadbury compliance. Which of these effects dominates remains an open empirical question.

### *5.1.3. Issues of new equity capital*

Recent empirical research has stressed the importance of issues of new equity capital in facilitating changes to the governance structures. Slovin, Sushka and Lai (2000) find that UK companies conducting placings are characterised by concentrated managerial and block ownership. They interpret the positive stock price reaction to the announcement of placings, in marked contrast to the negative

reaction found in US studies of announcements of public equity offerings, as being due in part to the increased monitoring capability following the sale of shares to outside investors and the resulting increase in ownership dispersion. Kothare (1997) also finds that public equity offerings by US companies lead to an increase in the dispersion of managerial ownership claims. Both studies find that rights offerings have a high take-up and create little change in ownership concentration.

Franks, Mayer and Renneboog (2001) find that new equity issues lead to increases in rates of executive board turnover amongst a sample of UK companies, which in some cases is focused on the managers of poorly performing firms. Finally, Franks et al. (2003) find that acquisitions financed through the issuance of new equity, placings and rights issues all play a role in the evolution of ownership and board control of UK companies during the twentieth century.

#### *5.1.4. Other factors*

Firm-specific factors that affect corporate governance choices include firm size, growth prospects, risk, leverage, and industrial diversification. Owner-specific attributes include CEO changes and the departure of a family / founder board member. Firm performance may also be an important factor in determining changes to corporate governance structures. Each of these factors has been described in detail in chapter 4, and will be considered in further detail in future empirical testing.



## 5.2. *Pre-Cadbury determinants of ownership and board structures*

Prior to analysing changes in governance characteristics it is important to gain an understanding of the determinants of ownership and board structure prior to the Cadbury Report's (1992) publication. Table 5-1 presents a correlation matrix of ownership and board characteristics in 1992 for the full sample of firms described in chapter 4. All correlations are highly significant and suggest a negative relationship between board independence, as proxied by non-executive and outside director representation and splitting the roles of the Chairman and the CEO, and various measures of managerial control. Larger boards employ more outside directors, are more likely to split the top officer roles, are associated with lower managerial ownership, and are less common in family / founder CEO controlled companies.

To gain a further insight into the determinants of these governance functions, OLS regressions of the cross-sectional determinants of ownership and board structure in 1992 are estimated, while controlling for other firm and owner-specific factors.<sup>31</sup> The firm-specific factors controlled for are firm size, the variance of daily stock returns over the financial year, growth opportunities, leverage, revenue concentration, and industry.<sup>32,33</sup> Owner-specific characteristics include firm age, family / founder CEO presence, board and CEO ownership, board size, the fraction of outside directors and *Split*. The results of OLS regressions of the determinants of

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<sup>31</sup> The governance structures studied in this analysis are at least to some extent endogenous. The use of OLS techniques reduces the extent to which any inferences may be drawn about causality amongst the variables used in this analysis. However, the aim of this section is to examine correlations that may exist amongst these sample variables rather than attempting to determine the direction of causality.

<sup>32</sup> Denis and Sarin (1999) also examine the role of CEO tenure, however, this information is not available for many sample companies due to a lack of disclosure in UK company reports.

<sup>33</sup> As in Denis and Sarin (1999) industry dummies are assigned when an industry has at least ten firms in the sample period, none of which are significant in the analysis. A limit of ten firms is set to avoid assigning intercepts to individual or a small number of companies.

ownership and board characteristics are presented in table 5-2; while the last column presents a logit regression where *Split* is the dependent variable.

The results of table 5-2 suggest that firm size is inversely related to measures of managerial ownership and *Split*, and is positively related to board size and the fraction of outside directors. These findings are consistent with Denis and Sarin (1999) for the relationship between firm size and managerial ownership, although the finding of an inverse correlation between firm size and *Split* is somewhat surprising given that firm size is generally found to be positively correlated with measures of board independence [see Denis and Sarin (1999)]. Returns variance is negatively related to levels of board ownership, although not CEO ownership, and is positively related to outside director representation on company boards. An inverse relationship between returns variance and director ownership is consistent with Himmelberg et al. (1999), but there is no theoretical or empirical evidence as to why stock return variance should affect board independence. Consistent with this, Denis and Sarin (1999) find no relationship between stock price risk and the fraction of outside directors serving on company boards. Growth prospects are positively correlated with board ownership and the incidence of splitting the roles of the CEO and the Chairman, but again not CEO ownership, and are inversely related to board size and outside director representation. Consistent with this, both Denis and Sarin (1999) and Young (2000) find an inverse relationship between growth prospects and outside and non-executive representation on company boards respectively.

Higher leverage correlates with larger boards and is inversely related to both CEO and board ownership. This may be consistent with leverage and managerial ownership being substitute monitoring mechanisms, or alternatively managerial risk



aversion in companies with higher levels of debt in their capital structure. Greater industrial focus is correlated with fewer non-executive and outside directors, a finding consistent with Hermalin and Weisbach (1988) for changes in these variables. Firm age is inversely correlated with levels of managerial ownership, suggesting that managers gradually reduce their ownership stakes in their companies over time, and is positively related to the fraction of outside directors on the firm's board. Finally, family / founder CEO controlled firms have higher director ownership, smaller boards, fewer outsiders and non-executives, and are less willing to split the roles of the CEO and the Chairman. These findings with respect to the relationship between managerial ownership and family / founder CEO involvement, and outside director representation on company boards is consistent with Denis and Denis (1994), Denis and Sarin (1999) and Anderson and Reeb (2003).

The table also reveals further evidence on the interdependence of corporate governance structures. Board ownership is negatively related to measures of board independence, while measures of managerial control are positively correlated with one another. In contrast to table 5-1, board ownership is positively related to board size after controlling for other aspects of governance, while larger boards are more willing to split the top officer roles and employ more non-executives, but not more outsider directors.

Overall, the above evidence is consistent with the existing governance literature, which indicates that measures of board independence are negatively correlated with managerial control, while the firm-specific characteristics of sample companies play an important role in the cross-sectional determination of corporate governance structures. These findings compliment the empirical research of Denis

and Denis (1994), Denis and Sarin (1999), Young (2000), Anderson and Reeb (2003) and Peasnell et al. (2003) of the cross-sectional determinants of firm-level corporate governance structures.

Thus, it appears that prior to the publication of the Cadbury Report (1992), UK companies had adopted ownership and board structures that were related to the contracting environment of the company, in a manner largely consistent with theoretical evidence of what constitutes an optimal corporate governance structure.

However, this may not tell the entire story. Examining time-series variations in governance structures, and the factors that drive changes to these systems may provide an alternative test of what drives the use of particular systems of governance. To the extent that these factors may be different from the cross-sectional determinants of governance structures, this has important policy implications for the likelihood of compliance with corporate governance codes of best practice that have been adopted by several countries throughout the world, as discussed by Dahya and McConnell (2004)



### ***5.3. Changes in ownership and board structure***

Young (2000), Dahya et al. (2002), Peasnell et al. (2003), and the findings of chapter 4 of this thesis highlight a greater willingness to employ non-executive directors and split the positions of the Chairman and the CEO by UK companies following the publication of the Cadbury Report (1992).

Of particular interest in this section are the factors that affect changes in ownership and board structure, and the extent to which these changes are correlated with changes in other observable firm characteristics. If companies do indeed adopt optimal governance structures then it may be expected that changes in some aspects of governance are correlated with changes in other aspects of these systems.

#### ***5.3.1. The determinants of changes in ownership and board structure***

Table 5-3 presents a correlation matrix of annual changes in ownership and board characteristics over the sample period. Changes in measures of managerial control are positively correlated, while changes in managerial control and board independence are negatively correlated. Also, changes in measures of board independence are positively correlated with one another, while changes in board size are positively related to changes in board ownership and board independence.

The evidence presented above is consistent with Denis and Denis (1994) who find that changes in the involvement of a family / founder manager are an important determinant of changes in ownership, and Denis and Sarin (1999) who find that changes in ownership and board structure are highly correlated with one another.

Of equal interest is the extent to which these changes are correlated with changes in firm and owner-specific characteristics. To examine the extent to which

this is the case, table 5-4 estimates regressions of annual changes in ownership and board characteristics as a function of changes in firm-specific attributes, owner-specific characteristics, corporate performance and issues of new equity capital.

Models (1) and (2) present the results of OLS regressions measuring changes in CEO and total board ownership respectively. Of the firm-specific attributes, only changes in leverage are negatively correlated with changes in CEO ownership and surprisingly changes in board ownership are positively correlated with changes in stock return variance. While this later finding is consistent with Demsetz and Lehn (1985), it is at odds with the earlier reported cross-sectional findings. Changes in managerial ownership are also positively correlated with the age of the firm, suggesting that younger firms are more likely to experience declines in ownership as the original founders depart. CEO turnover is correlated with declines in managerial ownership, but there is no relationship between contemporaneous stock price performance and changes in managerial ownership. Finally, placings and rights issues lead to declines in managerial ownership, where these results are most pronounced for total board ownership, and placings have a larger impact on changes to ownership structure than rights offerings. These findings are consistent with Kothare (1997) and Slovin et al. (2000) of the role played by public equity offerings in driving changes to ownership structure, although both of these studies actually report that rights offerings have little impact on managerial ownership.

Models (3), (4) and (5) present the results of regressions examining the number of director appointments, the number of departures, and net changes in board size respectively. For consistency with Hermalin and Weisbach (1988) and Yermack (1996), results are estimated using maximum likelihood Poisson estimators for



regressions examining director appointments and departures, and OLS regressions of the determinants of net changes in board size. The results indicate that board size does appear to change in response to changes in firm-specific characteristics. Director departure rates increase following reductions in firm size and increases in growth prospects, while changes in firm size and growth prospects are positively and negatively correlated respectively with net changes in board size. Yermack (1996) also presents evidence that board size changes with firm size. In addition, director appointments rates and net increases in board size are positively correlated with changes in stock return variance. Declines in leverage lead to higher rates director appointments and departures, but have no net effect on board size. Older firms appear to be more likely to experience director departures. Once again, CEO turnover creates large changes in board structure, specifically higher rates of appointments and departures and a net reduction in board size. Poor performance leads to higher rates of director appointments and departures, but only significantly so for departures. Finally, equity issuance through acquisitions, placings and rights issues lead to higher rates of director appointments and departures, and a net increase in board size. These findings are consistent with Hermalin and Weisbach (1988), Denis and Denis (1999), Franks et al. (2001) and Franks et al. (2003) of the role of owner-specific characteristics, firm performance and equity issuance in driving changes to corporate board structure.

Finally, OLS regressions of the determinants of net changes in the fraction of outside and non-executive directors are presented in models (6) and (7) respectively. Of the firm-specific characteristics examined, only increases in variance lead to increases in the fraction of non-executive directors, which is surprising since the

coefficient for this variable in the regression capturing changes in the fraction of outside directors is negative and marginally insignificant. Once again, CEO turnover leads to increases in both the fraction of non-executive and outside directors, while poor performance results in an increase in the fraction of outside directors. This is consistent with Hermalin and Weisbach (1988), who also find that outside directors tend to be appointed following CEO turnover and poor performance. There is no relationship between both for-stock acquisitions and placings and changes in board composition, but there is marginal evidence that rights issues result in increases in board independence. This provides limited evidence in support of Franks et al. (2003) who find that equity issuance has played a significant role in the evolution of managerial ownership and board control in UK companies during the 20<sup>th</sup> century.

Overall, the evidence presented above indicates that changes in firm-specific characteristics are not strong predictors of changes in managerial ownership or board independence. Of much greater importance is the role of owner-specific characteristics and equity issuance as determinants of changes in ownership and board structure, while there is also evidence that firm performance is correlated with changes in board structure.

The above results are consistent with Denis and Denis (1994), Denis and Sarin (1999) and Hermalin and Weisbach (2003) regarding the importance of owner-specific over firm-specific characteristics as determinants of changes in corporate governance characteristics. They are also complementary to Kothare (1997), Slovin et al. (2000), Franks et al. (2001), and Franks et al. (2003) of the role played by issues of new equity capital in facilitating changes to existing corporate governance structures.



### *5.3.2. Factors associated with large changes in ownership and board structure*

One problem with the above analysis is that large changes in ownership and board structure, whether positive or negative, may be correlated with changes in both firm and owner-specific characteristics, and also the equity issuance process. For example, declines in managerial ownership appear to follow CEO turnover in table 5-4, but CEO turnover may also be more common in firms that experience large increases in ownership, in relation to firms with relatively stable ownership. To examine this, univariate comparisons are made across groups of annual changes in managerial ownership and board structure based on the boundaries employed by Denis and Sarin (1999). Univariate analysis also provides a means of addressing the potential multicollinearity problem highlighted in chapter 4.

Panels A and B of table 5-5 reports results for yearly changes in CEO and board ownership respectively. There is some evidence that changes in firm-specific characteristics are correlated with large changes in ownership, although the sign and significance of these variables changes between CEO and total board ownership. Large declines in ownership are more common in younger firms and rates of CEO turnover, declines in family / founder CEO involvement and contemporaneous performance are highest amongst companies experiencing large changes in ownership.<sup>34</sup> For-stock acquisitions, placings, and rights issues are also more common in firms experiencing large changes in CEO and board ownership. These findings are consistent with Denis and Denis (1994), Kothare (1997), Denis and Sarin (1999), Slovin et al. (2000) and Franks et al. (2003) of the role of changes in

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<sup>34</sup> Denis and Sarin (1999) find that past performance is negatively correlated with changes in board ownership. The results presented here are based on contemporaneous performance. The finding that large changes in ownership are correlated with strong stock price performance suggests that such changes have large valuation consequences for investors.

owner-specific characteristics and equity issuance in driving changes in managerial ownership.

Panel A of table 5-6 repeats this analysis for changes in board structure. As in table 5-4, there is a degree of evidence that changes in board size are correlated with changes in firm-specific characteristics, with a positive correlation evident between changes in firm size and stock return variance, and a negative correlation with changes in growth prospects, and changes in board size being evident. While the evidence on firm size and growth prospects is consistent with past literature, there is no reason to suggest why stock return variance is correlated with changes in board structure. One plausible interpretation may be that variance increases surrounding the control changes that lead to large changes to board structure. Large declines in leverage are correlated with large increases in board size. Once again, CEO turnover and reductions in family / founder CEO involvement are correlated with large changes in board size, particularly declines, and equity issuance is more frequent in firms that experience increases in board size.

Panels B and C of table 5-6 report univariate comparisons for annual changes in non-executive and outside director representation respectively. Consistent with the descriptive analysis of chapter 4, increases in outside and non-executive directors are more frequent than decreases over this time period. Once again there is little systematic evidence that changes in firm-specific attributes lead to changes in board independence, while CEO turnover is again correlated with large changes in board independence. There is also evidence that changes in family / founder CEO involvement are inversely correlated with changes in board independence, consistent with the cross sectional findings reported in table 5-2. Placings and rights issues are



more frequent in companies experiencing large increases and decreases in the fraction of non-executive directors, but there is no evidence that providers of new capital have a significant influence on large changes in outside director representation. Finally, there is weak evidence that changes in outside director representation are inversely related to firm performance, but this is not the case for non-executive directors. The above findings provide further evidence on the role of owner-specific characteristics, firm performance and equity issuance in driving changes to firm-level corporate governance structures, as previously examined by Hermalin and Weisbach (1988), Denis and Sarin (1999) and Franks et al. (2003).

Finally, in table 5-7 univariate comparisons are reported of the interdependence between large annual changes in ownership and board structure. As would be expected, large changes in board and CEO ownership are positively correlated with one another, as are large changes in non-executive and outside director representation. Large changes in CEO ownership are correlated with increases in board size, while increases in non-executive representation are most common in companies experiencing declines in CEO ownership. Large changes in board ownership are positively correlated with changes in board size, while increases in outside director representation are more common in companies who experience large changes in board ownership.

There is also evidence that large declines in board size are correlated with large declines in board ownership, while increases in non-executive director representation are marginally more frequent in those companies who experience large changes in board size. Large changes in board size are inversely correlated with board independence, although this finding is significant only in the case of non-executive

director representation. Finally, large changes in board independence are positively correlated with changes in board size. Therefore, these findings provide some evidence that companies do rebalance other aspects of their corporate governance structures following changes in one aspect of these systems.

The evidence from tables 5-5 through 5-7 suggests that CEO turnover, firm performance and equity issuance are all correlated with large changes in ownership and board structure. There is also evidence that board size changes in response to changes in firm-specific characteristics in a manner that is at times consistent with cross-sectional predictions, whereas this is not the case for board independence or managerial ownership. These results are largely consistent with the general findings of table 5-4 and the empirical evidence of Hermalin and Weisbach (1988), Denis and Denis (1994), Kothare (1997), Denis and Sarin (1999), Slovin et al. (2000), Franks et al. (2001) and Franks et al. (2003) of the importance of changes in owner-specific characteristics, firm performance and equity issuance in driving changes to ownership and board structure.



#### **5.4. Cadbury compliance and corporate governance characteristics**

To date this analysis has focused on changes in ownership and board structure for all sample firms. Of particular interest, however, is the manner in which companies may have adapted their existing governance systems to accommodate the changes in board structure proposed by the Cadbury Report (1992).

##### **5.4.1. Factors leading to Cadbury compliance**

This section examines the factors that led to companies complying with the recommendations of the Cadbury Report (1992). Logit regressions are presented of compliance with *Split*, *Simple Independent*, *True Independent*, *Simple Comply* and *True Comply*, as defined in chapter 4 of this thesis, only for those companies that were not compliant in the previous financial year. In each case the dependent variable is set equal to one where the company adopts the recommendation of the report during the current financial year, and zero otherwise. Each of these variables is related to the same firm and owner-specific characteristics, firm performance, and equity issuance measures examined previously.

Firm size is positively related to all measures of Cadbury adoption, with the exception of the decision to adopt the recommendation of splitting the roles of the CEO and the Chairman. Of the remaining firm-specific characteristics, only growth prospects are inversely related to three of the five measures of Cadbury compliance, consistent with the findings of Denis and Sarin (1999) and Young (2000) of a negative relationship between growth prospects and board independence, while leverage is positively correlated with the decision to split the roles of the Chairman and the CEO. Family / founder CEO involvement is inversely related to measures of

overall Cadbury compliance, while board ownership and board size are inversely correlated with Cadbury adoption where *outside* director representation forms part of the dependant variable. Cadbury adoption with respect to splitting the roles of the CEO and the Chairman (employing sufficient non-executive and outside directors) is positively related to existing outside director representation (having previously split the roles of the CEO and the Chairman).

Finally, further evidence is reported on the importance of changes in managerial control and equity issuance in facilitating changes to board independence. CEO turnover is positively correlated with all measures of Cadbury adoption, while equity issuance through acquisitions, placings and rights offerings is generally positively correlated with the adoption of the Cadbury Report's (1992) proposals, most significantly so through the use of placings. This provides further evidence in support of Franks et al. (2001) and Franks et al. (2003) of the relationship between equity issuance and changes in corporate board structure. However, there is no evidence that contemporaneous stock price performance is related to Cadbury adoption, a finding consistent with Dahya et al. (2002), but inconsistent with Young (2000) for Cadbury adoption and Hermalin and Weisbach (1988) for the general relationship between changes in board independence and firm performance.

#### *5.4.2. Is Cadbury compliance associated with discernible changes in other governance attributes?*

As a further test of the effects of Cadbury compliance, univariate comparisons are made across various categories of compliance and non-compliance with the proposals contained in the report and annual changes in observable firm



characteristics. This provides evidence of whether compliance was rationally associated with changes in other governance characteristics, and the extent to which it is correlated with changes in other discernable firm and owner-specific characteristics. The results of these findings are reported in tables 5-9 and 5-10. For each of the modes of adoption discussed previously four states of nature are identified; companies can either maintain compliance or non-compliance, or they may adopt compliance or non-compliance with various recommendations of the Cadbury Report (1992).

The results reported in panels A, B and C of table 5-9 relate to adoption of *Split*, *Simple Independent* and *True Independent* and examine annual changes in firm and owner-specific characteristics, firm performance and equity issuance for each of these possible states. What evidence does exist on the relationship between Cadbury adoption and changes in firm-specific characteristics is mixed in relation to the cross-sectional findings reported in the previous section. Smaller changes in assets are observed for companies that maintain and adopt non-compliance with *Simple Independent*. Adopting *Split* is correlated with large increases in stock price variance, while there is mixed evidence on the importance of changes in growth prospects in the adoption of the Cadbury Report's (1992) reforms. Finally, large decreases in leverage are observed for those companies that adopt non-compliance with the recommendations proposed by the report. This is consistent with earlier reported findings of a lack of any systematic relationship between changes in board composition and changes in the firm-specific characteristics of sample companies.

There is also evidence that younger companies are more likely to be able to maintain and adopt non-compliance with the report's proposals on board structure,

while CEO turnover is more frequent amongst those companies who adopt either compliance or non-compliance. Reductions in family / founder CEO involvement are also more common amongst companies which adopt compliance with the report's reforms. Companies that are able to maintain non-compliance with the report outperform other groups of companies, which is generally consistent with Hermalin and Weisbach (1988) who find that poor performance leads to increases in board independence. Finally, while rates of equity issuance are generally higher amongst companies that alter their compliance status, this finding is statistically insignificant in the majority of cases.

Table 5-10 examines these same changes in owner and firm-specific characteristics, firm performance and equity issuance in overall Cadbury compliance decisions, and reports results generally consistent with those reported in table 5-11. Once again these findings stress the importance of changes in owner-specific characteristics and equity issuance over changes in firm-specific characteristics in determining changes to firm level corporate governance characteristics. These findings are again consistent with the results of Hermalin and Weisbach (1988), Denis and Sarin (1999), Franks et al. (2001) and Franks et al. (2003) of the determinants of changes in firm-level corporate governance structures.

To provide further evidence on the role of Cadbury compliance in changes to corporate governance characteristics, table 5-11 reports univariate comparisons of changes in ownership and board structure for various forms of compliance and non-compliance with the Cadbury Report (1992). Reductions in CEO ownership are more common amongst those companies that adopted the proposals enshrined in the report. In contrast, reductions in board ownership are largest amongst those



companies that adopt non-compliance with the report's proposed reforms. As would be expected, Cadbury adoption is correlated with changes in board characteristics, with changes in various measures of board independence being positively correlated with one another, as are changes in board independence and changes in board size.

Thus, there is only limited evidence that companies have actively attempted to rebalance other aspects of their corporate governance structures following the decision to adopt the proposals enshrined in the Cadbury Report (1992). Changes in managerial ownership are largest for companies adopting either compliance or non-compliance with the report, but the strength of this relationship varies depending on whether CEO or total board ownership is examined. In addition, compliance appears to have been achieved by adding more directors to company boards, a finding consistent with Dahya et al. (2002), but inconsistent with Young (2000).

#### *5.4.3. The impact of Cadbury on non-complying companies*

The above analysis provides evidence on the extent to which Cadbury compliance is correlated with changes in firm and owner-specific characteristics, company performance and equity issuance in sample companies. However, within the group of non-complying companies there may still be a substantial number of firms that have altered their governance structures as a result of the Cadbury Report (1992), despite not strictly complying with its recommendations. For example, Young (2000) finds that those companies which realised the most substantial increase in non-executive director representation following the Cadbury Report's (1992) publication were those whose board was underrepresented by these directors prior to the report. In addition, chapter 4 highlights that those companies with the

smallest component of outside and non-executive directors in 1992 increased their use of these directors by the greatest extent over the sample period. It is therefore possible that the report has had substantial implications even for those firms that did not adopt the letter of its reforms.

In order to investigate this issue, sample firm years are segregated on the basis of whether board independence, as measured by non-executive and outside director representation increased, decreased or was maintained. For this purpose, I examine changes in both the number and fraction of non-executive and outside directors for each firm year, and how these correlate with annual changes in firm and owner-specific characteristics, equity issuance and firm performance. These results of these tests are reported in table 5-12.

The table reports some evidence of a correlation between changes in board independence and changes in firm-specific characteristics. Increases in the *number* of outside and non-executive directors are more common in companies that have experienced the largest increases in firm size and the largest reduction in growth prospects. In addition, large declines in leverage are evident for those companies that have altered the outside and non-executive representation on their boards.

However, there is more consistent evidence that changes in board independence are correlated with changes in owner-specific characteristics. CEO turnover rates are significantly higher amongst companies that have increased or decreased their use of non-executive and outside directors than for those companies that have maintained their levels of board independence from one year to the next. Rates of decline in family / founder CEO involvement are generally higher amongst companies that alter their board independence, but this result is significant only for



changes in the *fraction* of non-executive directors. Finally, there is some evidence that companies which have decreased the *fraction* of non-executive and outside directors on their board experience superior performance in relation to companies that maintain or increase their reliance on these board members. This is consistent with the general findings of Hermalin and Weisbach (1988) who report that poor performance leads to increased board independence.

Again, there is evidence that equity issuance is more frequent amongst companies that have experienced changes in board structure, although these findings are not always statistically significant. Rights offerings lead to the largest shifts in board structure, particularly increases in board independence for sample companies.

Thus, these findings provide further evidence on the importance of changes in owner-specific characteristics, equity issuance and firm performance in determining changes to board structures. These findings provide further support for the research of Hermalin and Weisbach (1988), Denis and Sarin (1999), Franks et al. (2001) and Franks et al. (2003) of the factors that drive changes in firm-level corporate governance structures.

As such, the adoption of Cadbury style codes of governance best practice appears to be dependent upon managerial control and external capital market activity. Within the UK, capital market activity comes in the form of takeovers and equity issuance, but this is not the case in other economies [i.e. Kang and Shivdasani (1995) for Japanese companies]. The adoption of the corporate governance practices contained in such codes of best practice will most likely be dependent upon support from controlling shareholders and the banking relationships that substitute for capital market activity within these economies.

## **5.6. Conclusions**

This chapter has examined the changing nature of corporate governance in the UK following the publication of the Cadbury Report (1992) and its findings, and provides further evidence on the interdependence of corporate governance systems. Board independence, as measured by outside and non-executive director representation, and separating the roles of the Chairman and the CEO is negatively correlated with measures of managerial control, such as director ownership and family affiliations. Changes in these variables are also negatively correlated.

Cross-sectional estimates of ownership and board structure provide evidence of the importance of firm-specific characteristics, including size and growth prospects as determinants, but they are generally poor predictors of changes in these variables. Instead, changes in managerial control, company performance and issues of new equity capital are much stronger predictors of annual changes in managerial ownership and corporate board structure.

Evidence is presented that firms rationally adopted the recommendations of the Cadbury Report (1992) based on their individual firm-specific characteristics. For example, larger firms and those with poorer growth prospects were generally more likely to adopt the reforms proposed in the report. However, equity issuance and CEO turnover again play a consistent role in the compliance decision. These findings are consistent with the empirical studies of Denis and Denis (1994), Kothare (1997), Denis and Sarin (1999), Slovin et al. (2000), Franks et al. (2001) and Franks et al. (2003) of the importance of owner-specific characteristics and equity issuance in determining changes to firm-level corporate governance structures.



It is argued that these results have important implications for the likelihood of, and the factors associated with, compliance with corporate governance codes of best practice throughout the world. Compliance is highly dependent upon capital market activity and changes to managerial control. The analysis of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) highlights the different control structures in countries regarded as having weak legal protection for company shareholders. These economies are characterised by much higher levels of ownership concentration in relation to common law countries, such as the UK and US.

Capital market activity in the form of takeovers is also much less frequent in these economies. Kang and Shivdasani (1995) suggest that main banking relationships and close ties between industrial companies substitute for the lack of takeover activity in relation to Western economies. It is most likely therefore, that the adoption of corporate governance charters that call for increased board independence in the form of outside directors, will be highly dependant upon any reforms receiving the support of these investor groups.

Future research in this area may look to examine the way in which the speed and manner of governance adoption affects firm value. Kole and Lehn (1999) find that firms that quickly adapted their governance structure in response to deregulation in the US airline industry were more likely to survive than firms that were slow to adapt. In addition, Yermack (1996) finds evidence of a negative relationship between company board size and firm value. It is possible that companies that complied with the Cadbury Report's (1992) proposals by increasing board size will be valued poorly in relation to those companies that complied by replacing executive

directors with outside directors. These issues remain open to future empirical examination.



**Table 5-1**  
**Correlation matrix of ownership and board characteristics**

Data is based on a sample of 683 UK listed non-financial companies in 1992. Data on ownership and board characteristics are collected from company annual reports. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Board size is the number of directors serving on the company's board at the financial year-end. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. P-values are reported in parenthesis.

Variable	Board Ownership	Family / Founder	Fraction Outsiders	Fraction Non-Executives	Board Size	Split
CEO Ownership	0.758 (0.00)	0.483 (0.00)	-0.257 (0.00)	-0.299 (0.00)	-0.326 (0.00)	-0.442 (0.00)
Board Ownership		0.431 (0.00)	-0.335 (0.00)	-0.285 (0.00)	-0.309 (0.00)	-0.240 (0.00)
Family / Founder			-0.285 (0.00)	-0.293 (0.00)	-0.218 (0.00)	-0.272 (0.00)
Fraction Outsiders				0.615 (0.00)	0.207 (0.00)	0.199 (0.00)
Fraction Non-Executives					0.220 (0.00)	0.264 (0.00)
Board Size						0.175 (0.00)

**Table 5-2****The determinants of ownership and board characteristics**

Data is based on a sample of 683 UK listed non-financial companies in 1992. MVEQ is the year end market value of the firm's common equity. Variance is the variance of the company's daily stock returns over the company's accounting year. MTBV is the market value of common equity divided by the book value of assets. Revenue Concentration is calculated as a Herfindahl Index based on revenue from 3-digit SIC lines of business. Firm Age is taken from the year of incorporation from *FT Extel Company Information Cards*. *Family / Founder* is a dummy variable that takes the value of one where the CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Outside directors are defined as non-executive directors without any financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	CEO Ownership	Board Ownership	Fraction Outsiders	Fraction Non- Executives	Board Size	Split
Intercept	34.12261 (0.00)	75.79450 (0.00)	0.231117 (0.00)	0.349970 (0.00)	-2.801318 (0.00)	1.574300 (0.13)
Ln (MVEQ)	-1.221940 (0.00)	-4.541824 (0.00)	0.008657 (0.10)	8.56E-05 (0.99)	0.892446 (0.00)	-0.162679 (0.03)
Variance * 100	-2.250173 (0.66)	-17.98838 (0.00)	0.141693 (0.01)	0.059870 (0.29)	0.025294 (0.96)	0.364697 (0.71)
MTBV	1.408943 (0.12)	3.331286 (0.00)	-0.018774 (0.04)	-0.008943 (0.43)	-0.594858 (0.00)	0.242096 (0.07)
Debt to Assets	-2.268050 (0.03)	-5.328607 (0.00)	0.000297 (0.98)	-0.019473 (0.18)	0.858306 (0.00)	-0.248447 (0.25)
Revenue Concentration	0.128089 (0.95)	-0.756820 (0.78)	-0.045121 (0.09)	-0.065777 (0.01)	0.331225 (0.28)	-0.089389 (0.82)
Log Firm Age	-1.650710 (0.00)	-3.188042 (0.00)	-0.013923 (0.04)	0.005626 (0.41)	0.127608 (0.15)	-0.030931 (0.76)
Family / Founder	10.51661 (0.00)	11.19951 (0.00)	-0.047336 (0.00)	-0.058140 (0.00)	-0.455750 (0.01)	-1.012543 (0.00)
Board Ownership			-0.001631 (0.00)	-0.000929 (0.02)	0.005536 (0.21)	-0.013751 (0.01)
Fraction Outsiders	-5.141902 (0.06)	-18.59517 (0.00)			0.481457 (0.34)	1.474388 (0.01)
Board Size	-0.531123 (0.02)	0.399770 (0.21)	0.003050 (0.35)	0.007618 (0.03)		0.102206 (0.03)
Split	-9.092549 (0.00)	-3.559260 (0.01)	0.031796 (0.01)	0.053093 (0.00)	0.333899 (0.03)	
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	683	683	683	683	683	683
F-Statistic	15.81280 (0.00)	14.80663 (0.00)	5.634477 (0.00)	6.159266 (0.00)	19.23700 (0.00)	
Log Likelihood						-406.4531 (0.00)
R <sup>2</sup> Adjusted	0.386802	0.370256	0.164827	0.180129	0.437131	



**Table 5-3****Correlation matrix of annual changes in ownership and board characteristics**

Data is based on annual changes in the ownership and board structures of a sample of up to 683 UK listed non-financial companies over the period 1992 to 1997. Data on ownership and board characteristics are collected from company annual reports. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Board size is the number of directors serving on the company's board at the financial year-end. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. P-values are reported in parenthesis.

Variable	$\Delta$ Board Ownership	$\Delta$ Family / Founder	$\Delta$ Fraction Outsiders	$\Delta$ Fraction Non- Executives	$\Delta$ Board Size	$\Delta$ Split
$\Delta$ CEO Ownership	<b>0.229</b> (0.00)	<b>0.358</b> (0.00)	-0.014 (0.44)	<b>-0.051</b> (0.00)	-0.024 (0.17)	<b>-0.267</b> (0.00)
$\Delta$ Board Ownership		0.013 (0.48)	-0.026 (0.14)	-0.005 (0.77)	<b>0.096</b> (0.00)	-0.006 (0.72)
$\Delta$ Family / Founder			-0.030 (0.09)	-0.064 (0.00)	-0.018 (0.30)	<b>-0.184</b> (0.00)
$\Delta$ Fraction Outsiders				<b>0.579</b> (0.00)	0.027 (0.13)	0.024 (0.17)
$\Delta$ Fraction Non- Executives					<b>0.030</b> (0.10)	<b>0.067</b> (0.00)
$\Delta$ Board Size						<b>0.070</b> (0.00)

**Table 5-4****The factors associated with annual changes in ownership and board characteristics**

Data is based on annual changes in ownership and board structure characteristics for a sample of up to 683 UK listed non-financial companies between 1992 and 1997. Models (1), (2), (5), (6) and (7) are OLS regressions, while models (3) and (4) are maximum likelihood Poisson models. Data on managerial ownership and board structure is taken from company annual reports. Assets is the book value of a company's assets at the financial year-end. Variance is the variance of the company's daily stock returns over the company's accounting year. Depreciation-to-assets is taken as the company's reported depreciation charge in the profit and loss account for the financial year-end divided by the book value of assets for the same period. Debt-to-assets is the ratio of total debt to the book value of assets. Revenue Concentration is calculated as a Herfindahl Index based on revenue from 3-digit SIC lines of business. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board. Board size is the number of directors serving on the company's board at the financial year-end. Outside directors are defined as non-executive directors without any financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the company separates the functions of the Chairman and the CEO, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Δ CEO Ownership	Δ Board Ownership	Director Appointments	Director Departures	Δ Board Size	Δ Fraction Outsiders	Δ Fraction Non-Executives
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-1.845360 (0.00)	-1.951637 (0.00)	-0.478274 (0.00)	-0.606478 (0.00)	0.090418 (0.31)	0.002168 (0.77)	0.013454 (0.06)
Δ Assets	-2.62E-08 (0.88)	1.31E-07 (0.34)	8.25E-08 (0.50)	-6.30E-08 (0.01)	1.99E-07 (0.01)	-3.02E-09 (0.34)	-4.11E-10 (0.89)
Δ VAR	0.316689 (0.37)	1.555940 (0.10)	0.076675 (0.02)	-0.073323 (0.47)	0.320263 (0.00)	-0.010438 (0.16)	0.028190 (0.00)
Δ Depreciation-to-Assets	-9.578908 (0.23)	-8.426244 (0.19)	-1.422945 (0.21)	1.873207 (0.06)	-3.174464 (0.02)	-0.008710 (0.94)	-0.107698 (0.32)
Δ Debt-to-Assets	-1.675522 (0.05)	0.326112 (0.50)	-0.147909 (0.02)	-0.199385 (0.04)	0.040733 (0.83)	-0.016561 (0.27)	0.003177 (0.68)



**Table 5-4 continued**

<b>Δ Revenue Concentration</b>	<b>0.362116</b> (0.76)	<b>-0.604098</b> (0.53)	<b>-0.244904</b> (0.31)	<b>-0.121425</b> (0.63)	<b>-0.094340</b> (0.71)	<b>0.005242</b> (0.76)	<b>0.018559</b> (0.33)
<b>Log Firm Age</b>	<b>0.479178</b> (0.00)	<b>0.399700</b> (0.00)	<b>0.024892</b> (0.39)	<b>0.055811</b> (0.04)	<b>-0.025298</b> (0.31)	<b>0.002591</b> (0.20)	<b>-0.001192</b> (0.54)
<b>CEO Turnover</b>	<b>-3.941332</b> (0.00)	<b>-0.800736</b> (0.04)	<b>0.751920</b> (0.00)	<b>0.919120</b> (0.00)	<b>-0.220324</b> (0.01)	<b>0.014715</b> (0.01)	<b>0.033525</b> (0.00)
<b>Market Adjusted Returns</b>	<b>-0.153175</b> (0.52)	<b>-0.302229</b> (0.21)	<b>-0.051740</b> (0.26)	<b>-0.122619</b> (0.04)	<b>0.053219</b> (0.13)	<b>-0.007002</b> (0.04)	<b>-0.002280</b> (0.51)
<b>Acquisition</b>	<b>0.218581</b> (0.56)	<b>-0.374411</b> (0.31)	<b>0.378983</b> (0.00)	<b>0.156210</b> (0.06)	<b>0.233770</b> (0.02)	<b>-0.001195</b> (0.87)	<b>-0.000789</b> (0.91)
<b>Placing</b>	<b>-0.812218</b> (0.06)	<b>-1.831344</b> (0.00)	<b>0.368579</b> (0.00)	<b>0.200068</b> (0.02)	<b>0.168252</b> (0.05)	<b>0.005052</b> (0.47)	<b>0.009569</b> (0.25)
<b>Rights</b>	<b>-0.536340</b> (0.12)	<b>-1.524642</b> (0.00)	<b>0.424573</b> (0.00)	<b>0.115231</b> (0.15)	<b>0.322911</b> (0.00)	<b>0.010095</b> (0.11)	<b>0.011792</b> (0.10)
<b>Number of Observations</b>	<b>3149</b>	<b>3149</b>	<b>3149</b>	<b>3149</b>	<b>3149</b>	<b>3149</b>	<b>3149</b>
<b>F-Statistic</b>	<b>22.01395</b> (0.00)	<b>10.16161</b> (0.00)			<b>7.649758</b> (0.00)	<b>2.353235</b> (0.01)	<b>6.254104</b> (0.00)
<b>Log likelihood</b>			<b>-3907.266</b> (0.00)	<b>-3762.492</b> (0.00)			
<b>R<sup>2</sup> Adjusted</b>	<b>0.068406</b>	<b>0.031020</b>	<b>0.094556</b>	<b>0.123715</b>	<b>0.022708</b>	<b>0.004706</b>	<b>0.018028</b>

**Table 5-5**

**Univariate analysis of large annual changes in managerial ownership**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues across large changes in managerial ownership in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	$\Delta$ Assets	$\Delta$ VAR	$\Delta$ Depreciation to-Assets	$\Delta$ Debt-to-Assets	Firm Age	CEO Turnover	$\Delta$ Family / Founder	Market Adjusted Stock Returns	Acquisition	Placing	Rights
<i>Panel A: CEO Ownership</i>												
$\Delta$ Own < - 5%	140	9,356	0.0101	0.0026	-0.0062	32.98	0.6071	-0.3143	0.0949	0.0786	0.1357	0.1643
-5% $\leq$ $\Delta$ Own $\leq$ 5%	2995	25,521	-0.0017	-0.0002	-0.0036	46.69	0.0938	-0.0040	0.0420	0.0618	0.0578	0.0725
5% < $\Delta$ Own	40	3,213	-0.0186	-0.0057	-0.1708	46.08	0.5250	-0.05	0.1693	0.1250	0.1250	0.1500
F-statistic		0.26	0.46	3.06**	14.37***	12.85***	222.60***	249.76***	1.44	1.62	8.40***	9.43***
<i>Panel B: Board Ownership</i>												
$\Delta$ Own < - 5%	233	12,720	0.0028	-0.0012	-0.0316	33.72	0.2060	-0.0515	0.1996	0.0944	0.1760	0.2103
-5% $\leq$ $\Delta$ Own $\leq$ 5%	2876	25,728	-0.0029	0.0000	-0.0036	47.11	0.1116	-0.0146	0.0333	0.0598	0.0504	0.0657
5% < $\Delta$ Own	66	13,847	0.0498	-0.0030	-0.0106	44.67	0.2727	-0.0606	0.0508	0.1060	0.1667	0.1212
F-statistic		0.22	2.75*	1.19	2.21	19.91***	16.29***	6.95***	8.68***	3.22**	36.31***	33.07***



**Table 5-6**  
**Univariate analysis of large annual changes in board structure**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues across large changes in company board structure in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	$\Delta$ Assets	$\Delta$ VAR	$\Delta$ Depreciation to-Assets	$\Delta$ Debt-to-Assets	Firm Age	CEO Turnover	$\Delta$ Family / Founder	Market Adjusted Stock Returns	Acquisition	Placing	Rights
<i>Panel A: Board Size</i>												
$\Delta$ Board < -2	59	-78,060	-0.0094	0.0052	0.0004	52.44	0.3390	-0.0847	-0.1614	0.1017	0.0339	0.0339
$-2 \leq \Delta$ Board $\leq 2$	3052	25,988	-0.0045	-0.0002	-0.0041	45.96	0.1157	-0.0167	0.0515	0.0609	0.0616	0.0760
$2 < \Delta$ Board	64	49,405	0.1513	-0.0025	-0.0927	45.53	0.2188	-0.0313	-0.0310	0.1406	0.1094	0.1875
F-statistic		3.30**	23.16***	2.72*	6.41***	1.24	16.50***	4.67***	4.38**	4.11**	1.64	6.27***
<i>Panel B: Fraction Non-Executive Directors</i>												
$\Delta$ NED < -0.2	22	1,085	-0.0017	0.0107	-0.0416	48.72	0.2273	0.0000	0.1034	0.0455	0.0909	0.1818
$0.2 \leq \Delta$ NED $\leq 0.2$	3054	25,243	-0.0043	-0.0002	-0.0050	46.17	0.1130	-0.0151	0.0466	0.0629	0.0593	0.0753
$0.2 < \Delta$ NED	99	7,652	0.0863	-0.0008	-0.0225	42.50	0.3737	-0.1212	0.0128	0.0808	0.1414	0.1212
F-statistic		0.21	11.87***	3.50**	0.75	0.74	32.22***	18.38***	0.26	0.32	5.73***	3.10**
<i>Panel C: Fraction Outside Directors</i>												
$\Delta$ OUT < -0.2	37	-6,380	0.0118	0.0040	-0.0306	45.24	0.1351	0.0270	0.2215	0.0541	0.0270	0.1081
$0.2 \leq \Delta$ OUT $\leq 0.2$	3030	24,097	-0.0010	-0.0002	-0.0032	46.12	0.1158	-0.0168	0.0466	0.0624	0.0614	0.0779
$0.2 < \Delta$ OUT	108	47,182	-0.0170	-0.0004	-0.0690	45.08	0.2870	-0.0741	-0.0333	0.0926	0.0926	0.0556
F-statistic		0.45	0.50	0.85	6.14***	0.07	14.42***	7.02***	2.64*	0.83	1.27	0.61

**Table 5-7****Matrix of large annual changes in ownership and board structure**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues across large changes in managerial ownership and company board structure in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	CEO Ownership	Board Ownership	Board Size	Fraction Non- Executives	Fraction Outside Directors
<i>CEO Ownership</i>						
$\Delta \text{Own} < - 5\%$	140		-6.5942	0.3071	0.0446	0.0241
$-5\% \leq \Delta \text{Own} \leq 5\%$	2995		-0.7322	0.0130	0.0136	0.0136
$5\% < \Delta \text{Own}$	40		5.8637	0.4000	0.0088	0.0221
F-statistic			173.91***	6.98***	7.72***	1.02
<i>Board Ownership</i>						
$\Delta \text{Own} < - 5\%$	233	-4.1861		-0.1373	0.0178	0.0304
$-5\% \leq \Delta \text{Own} \leq 5\%$	2876	-0.4897		0.0268	0.0143	0.0124
$5\% < \Delta \text{Own}$	66	2.7552		0.8030	0.0321	0.0346
F-statistic		69.57***		18.92***	1.33	5.86***
<i>Board Size</i>						
$\Delta \text{Board} < - 2$	59	-1.0496	-2.8273		0.0277	0.0359
$-2 \leq \Delta \text{Board} \leq 2$	3052	-0.6881	-0.8722		0.0141	0.0136
$2 < \Delta \text{Board}$	64	-0.6260	-0.8243		0.0385	0.0237
F-statistic		0.14	5.40***		2.78*	2.07
<i>Fraction Non-Executives</i>						
$\Delta \text{NED} < - 0.2$	22	3.1593	-2.8970	-0.2273		-0.1836
$0.2 \leq \Delta \text{NED} \leq 0.2$	3054	-0.6759	-0.8719	0.0226		0.0103
$0.2 < \Delta \text{NED}$	99	-2.0921	-1.5677	0.3434		0.1770
F-statistic		9.33***	3.26**	4.63***		241.66***
<i>Fraction Outside Directors</i>						
$\Delta \text{OUT} < - 0.2$	37	0.7885	-1.3383	0.0270	-0.1592	
$0.2 \leq \Delta \text{OUT} \leq 0.2$	3030	-0.6955	-0.9148	0.0218	0.0113	
$0.2 < \Delta \text{OUT}$	108	-1.1464	-0.5587	0.2870	0.1759	
F-statistic		1.84	0.49	2.99*	274.27***	



**Table 5-8**  
**Logit regressions of the determinants of Cadbury Compliance**

The table presents logit regressions that relate compliance with the Cadbury Report (1992) in year *t* with firm-specific characteristics in year *t-1*, and equity issuance, changes in owner-specific characteristics and firm performance in year *t*. Only those firms not previously compliant with the dependant variable are included in regressions. Data on managerial ownership and board structure is taken from company annual reports. *Adopt Split* is an indicator variable set equal to one where the company adopts the recommendation of separating the roles of the CEO and the Chairman. *Adopt Simple Independent* is a dependent variable set equal to one where the company adopts the criteria of employing at least three non-executive directors on the company's board, and zero otherwise. *Adopt True Independent* is a dependent variable set equal to one where the company adopts the criteria for *Simple Independent*, with the additional constraint that the majority of non-executive directors are deemed as outsiders, and zero otherwise. *Adopt Simple Comply* is set equal to one where the company adopts the recommendation of employing at least three non-executives and splitting the roles of the CEO and the Chairman, and zero otherwise. *Adopt True Comply* is an indicator variable set equal to one where the company meets the requirements for *Simple Comply*, with the additional constraint that the majority of non-executives are outsiders, and zero otherwise. MVEQ is the year-end market value of the firm's common equity. Variance is the variance of the company's daily stock returns over the company's accounting year. MTBV is the market value of common equity divided by the book value of assets. Revenue Concentration is calculated as a Herfindahl Index based on revenue from 3-digit SIC lines of business. Firm Age is taken from the year of incorporation from *FT Extel Company Information Cards*. *Family / Founder* is an indicator variable that takes the value of one where the company CEO is disclosed as a member of the firm's founding family, shares their name with the company or shares their name with another member of the board, and zero otherwise. Board size is the number of directors on the company's board at the financial year-end. Outside directors are defined as non-executive directors without any financial or personal ties to company management. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Adopt Split	Adopt Simple Independent	Adopt True Independent	Adopt Simple Comply	Adopt True Comply
Intercept	-3.928662 (0.01)	-5.221757 (0.00)	-5.038591 (0.00)	-3.979878 (0.00)	-4.367794 (0.00)
Ln (MVEQ)	0.040444 (0.69)	0.343774 (0.00)	0.378623 (0.00)	0.256416 (0.00)	0.318756 (0.00)
Variance * 100	-1.390528 (0.34)	0.907400 (0.33)	0.545258 (0.59)	-0.506825 (0.67)	-0.259194 (0.83)
MTBV	-0.027352 (0.79)	-0.241862 (0.16)	-0.349924 (0.07)	-0.293681 (0.05)	-0.397235 (0.02)
Debt to Assets	1.706766 (0.00)	-0.078198 (0.78)	0.394172 (0.18)	0.042496 (0.90)	0.469083 (0.13)
Revenue Concentration	-0.143727 (0.81)	0.019221 (0.95)	-0.150843 (0.62)	0.101046 (0.76)	-0.129481 (0.68)
Log Firm Age	-0.104678 (0.58)	-0.082267 (0.37)	-0.062544 (0.48)	-0.096339 (0.31)	-0.071439 (0.44)
Family / Founder	0.023487 (0.95)	-0.260882 (0.15)	-0.262703 (0.15)	-0.587065 (0.00)	-0.687669 (0.00)
Board Ownership	0.007396 (0.34)	-0.006366 (0.15)	-0.012147 (0.01)	-0.007444 (0.12)	-0.013071 (0.01)
Board Size	0.025025 (0.75)	0.050258 (0.29)	-0.065119 (0.08)	-0.042502 (0.29)	-0.081100 (0.04)
Fraction Outsiders	1.900627 (0.03)				
Split		0.456744 (0.00)	0.326349 (0.03)		

**Table 5-8 continued**

CEO Turnover	<b>4.978590</b> <b>(0.00)</b>	<b>1.091044</b> <b>(0.00)</b>	<b>0.786874</b> <b>(0.00)</b>	<b>2.051533</b> <b>(0.00)</b>	<b>1.576088</b> <b>(0.00)</b>
Market-adjusted Stock Returns	<b>0.090862</b> <b>(0.69)</b>	<b>0.002860</b> <b>(0.98)</b>	<b>0.007280</b> <b>(0.95)</b>	<b>-0.101867</b> <b>(0.37)</b>	<b>-0.123031</b> <b>(0.34)</b>
Acquisition	<b>-0.236573</b> <b>(0.67)</b>	<b>0.539657</b> <b>(0.05)</b>	<b>0.410116</b> <b>(0.11)</b>	<b>0.641756</b> <b>(0.03)</b>	<b>0.527022</b> <b>(0.05)</b>
Placing	<b>1.342409</b> <b>(0.00)</b>	<b>0.550817</b> <b>(0.04)</b>	<b>0.585696</b> <b>(0.02)</b>	<b>0.845706</b> <b>(0.00)</b>	<b>0.675455</b> <b>(0.01)</b>
Rights	<b>-1.105190</b> <b>(0.06)</b>	<b>0.559940</b> <b>(0.02)</b>	<b>0.313015</b> <b>(0.20)</b>	<b>0.545686</b> <b>(0.02)</b>	<b>0.247578</b> <b>(0.03)</b>
No. of Observations	<b>957</b>	<b>1426</b>	<b>1994</b>	<b>1742</b>	<b>2198</b>
Log likelihood	<b>-218.6296</b> <b>(0.00)</b>	<b>-606.6269</b> <b>(0.00)</b>	<b>-711.2291</b> <b>(0.00)</b>	<b>-601.1590</b> <b>(0.00)</b>	<b>-666.2262</b> <b>(0.00)</b>



**Table 5-9**

**Univariate analysis of factors correlated with Cadbury Compliance**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues for various measures of compliance and non-compliance with the recommendations of the Cadbury Report (1992) in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	Δ Assets	Δ VAR	Δ Depreciation to-Assets	Δ Debt-to-Assets	Firm Age	CEO Turnover	Δ Family / Founder	Market Adjusted Stock Returns	Acquisition	Placing	Rights
<i>Panel A: Split</i>												
Adopt Comply	165	27,435	0.0701	0.0005	-0.0047	45.29	0.7333	-0.1939	-0.0127	0.0727	0.0909	0.0970
Adopt Non-Comply	69	6,805	-0.0065	0.0070	-0.0529	43.25	0.4493	-0.0435	-0.1056	0.0290	0.1014	0.0725
Maintain Comply	2146	24,932	-0.0050	-0.0001	-0.0057	47.64	0.0993	-0.0093	0.0420	0.0634	0.0592	0.0825
Maintain Non-Comply	795	24,369	-0.0061	-0.0010	-0.0022	42.26	0.0277	-0.0038	0.0819	0.0642	0.0604	0.0604
F-statistic		0.08	8.97 <sup>***</sup>	3.68 <sup>**</sup>	1.41	5.94 <sup>***</sup>	310.91 <sup>***</sup>	64.68 <sup>***</sup>	3.11 <sup>**</sup>	0.54	1.51	1.64
<i>Panel B: NED Independent</i>												
Adopt Comply	253	13,160	0.0023	-0.0031	-0.0091	42.19	0.2213	-0.0711	0.0711	0.0830	0.0949	0.1304
Adopt Non-Comply	141	-2,349	-0.0056	0.0004	-0.0678	44.19	0.2057	0.0071	0.0069	0.0851	0.0851	0.0709
Maintain Comply	1598	41,572	-0.0057	0.0002	-0.0004	50.04	0.1195	-0.0094	0.0165	0.0651	0.0507	0.0732
Maintain Non-Comply	1183	7,137	0.0041	-0.0000	-0.0050	41.77	0.0938	-0.0220	0.0849	0.0541	0.0676	0.0727
F-statistic		3.15 <sup>**</sup>	0.71	2.19 <sup>*</sup>	5.11 <sup>***</sup>	17.64 <sup>***</sup>	13.97 <sup>***</sup>	10.57 <sup>***</sup>	3.45 <sup>**</sup>	1.52	3.39 <sup>**</sup>	3.61 <sup>**</sup>
<i>Panel C: Majority Independent</i>												
Adopt Comply	264	24,926	0.0007	-0.0017	-0.0087	45.78	0.2008	-0.0492	0.0412	0.0833	0.0909	0.1061
Adopt Non-Comply	173	7,708	-0.0031	0.0003	-0.0560	44.95	0.1850	0.0058	0.0203	0.0867	0.0809	0.0983
Maintain Comply	995	42,989	-0.0083	0.0002	-0.0017	51.12	0.1236	-0.0100	0.0066	0.0593	0.0482	0.0774
Maintain Non-Comply	1743	15,597	0.0023	-0.0001	-0.0027	43.35	0.1027	-0.0207	0.0716	0.0602	0.0637	0.0711
F-statistic		1.74	0.73	0.68	4.07 <sup>***</sup>	13.16 <sup>***</sup>	9.34 <sup>***</sup>	4.81 <sup>***</sup>	2.72 <sup>**</sup>	1.31	2.73 <sup>**</sup>	1.68

**Table 5-10**

**Univariate analysis of factors correlated with Cadbury Compliance**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues for various measures of compliance and non-compliance with the recommendations of the Cadbury Report (1992) in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	Δ Assets	Δ VAR	Δ Depreciation to-Assets	Δ Debt-to-Assets	Firm Age	CEO Turnover	Δ Family/Founder	Market Adjusted Stock Returns	Acquisition	Placing	Rights
<i>Panel A: Simple Cadbury</i>												
Adopt Comply	249	30,860	0.0048	-0.0019	-0.0041	45.11	0.4056	-0.0964	0.0102	0.0843	0.0964	0.1325
Adopt Non-Comply	124	10,929	-0.0093	-0.0002	-0.0711	47.56	0.2258	-0.0081	-0.0169	0.0887	0.0807	0.0726
Maintain Comply	1297	35,386	-0.0064	0.0002	-0.0020	50.19	0.1002	-0.0031	0.0149	0.0686	0.0524	0.0748
Maintain Non-Comply	1505	15,241	0.0025	-0.0001	-0.0040	42.56	0.0850	-0.0193	0.0837	0.0532	0.0631	0.0711
F-statistic		1.04	0.73	0.81	4.77 <sup>***</sup>	14.06 <sup>***</sup>	80.45 <sup>***</sup>	20.81 <sup>***</sup>	4.07 <sup>***</sup>	2.15 <sup>*</sup>	2.63 <sup>**</sup>	3.87 <sup>***</sup>
<i>Panel B: True Cadbury</i>												
Adopt Comply	244	34,239	0.0046	-0.0005	-0.0084	47.68	0.3443	-0.0656	-0.0122	0.0861	0.0902	0.1066
Adopt Non-Comply	147	13,619	-0.0050	-0.0006	-0.0673	48.33	0.1769	-0.0136	0.0276	0.0612	0.0816	0.0844
Maintain Comply	816	33,409	-0.0101	0.0000	-0.0030	50.75	0.1029	-0.0049	0.0046	0.0637	0.0515	0.0797
Maintain Non-Comply	1968	20,455	0.0017	-0.0001	-0.0020	43.77	0.0981	-0.0183	0.0716	0.0605	0.0615	0.0722
F-statistic		1.00	0.92	0.07	5.12 <sup>***</sup>	10.12 <sup>***</sup>	45.14 <sup>***</sup>	7.79 <sup>***</sup>	3.46 <sup>**</sup>	0.80	1.96	1.32



**Table 5-11****Matrix of changes in ownership and board structure following Cadbury Compliance**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues for various measures of compliance and non-compliance with the recommendations of the Cadbury Report (1992) in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	<i>N</i>	$\Delta$ CEO Ownership	$\Delta$ Board Ownership	$\Delta$ Board Size	$\Delta$ Fraction Non-Execs	$\Delta$ Fraction Outside Directors
<i>Split</i>						
Adopt Comply	165	-7.1761	-1.3571	0.2121	0.0346	0.0205
Adopt Non-Comply	69	1.3568	-1.6279	-0.4928	-0.0140	0.0017
Maintain Comply	2146	-0.2349	-0.8094	0.0079	0.0140	0.0146
Maintain Non-Comply	795	-0.7640	-1.0167	0.1006	0.0156	0.0128
F-statistic		99.63***	1.61	8.01***	4.89***	0.76
<i>3 Non-Executives</i>						
Adopt Comply	253	-1.7283	-0.9834	1.0316	0.1497	0.1070
Adopt Non-Comply	141	-1.2291	-2.2823	-1.2128	-0.1107	-0.0448
Maintain Comply	1598	-0.3638	-0.6258	-0.0213	0.0045	0.0067
Maintain Non-Comply	1183	-0.8538	-1.1082	0.0355	0.0151	0.0114
F-statistic		6.15***	7.21***	146.84***	372.08***	122.27***
<i>Majority Independent</i>						
Adopt Comply	264	-1.2962	-1.1281	0.7462	0.0912	0.1236
Adopt Non-Comply	173	-0.8807	-1.1577	-0.7399	-0.0442	-0.0986
Maintain Comply	995	-0.3112	-0.4785	-0.0312	0.0048	0.0088
Maintain Non-Comply	1743	-0.8019	-1.0943	0.0344	0.0150	0.0119
F-statistic		3.19**	4.35***	69.82***	96.23***	267.75***
<i>Simple Cadbury</i>						
Adopt Comply	249	-2.6264	-0.9285	0.8353	0.1181	0.0817
Adopt Non-Comply	124	0.2126	-1.9069	-0.9919	-0.0908	-0.0353
Maintain Comply	1297	-0.1992	-0.5822	-0.0478	0.0053	0.0079
Maintain Non-Comply	1505	-0.8744	-1.0122	0.0498	0.0148	0.0125
F-statistic		16.84***	5.18***	87.88***	193.46***	62.60***
<i>True Cadbury</i>						
Adopt Comply	244	-1.8788	-0.9172	0.6803	0.0750	0.1013
Adopt Non-Comply	147	-0.3639	-1.0316	-0.6463	-0.0383	-0.0954
Maintain Comply	816	-0.1286	-0.4685	-0.0797	0.0060	0.0118
Maintain Non-Comply	1968	-0.8054	-1.0792	0.0468	0.0151	0.0126
F-statistic		7.69***	3.53**	51.36***	56.42***	166.15***

**Table 5-12**

**Univariate analysis of factors correlated with increases in non-executive and outside director representation on company boards**

Data is based on average annual changes in firm-specific and owner-specific characteristics, CEO turnover, firm performance and the incidence of new equity issues for various measures of compliance and non-compliance with the recommendations of the Cadbury Report (1992) in a sample of up to 683 UK listed non-financial companies between 1992 and 1997. <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> denote significance at the 1%, 5% and 10% level respectively of an F-test of the equality of means across groups.

	N	Δ Assets	Δ VAR	Δ Depreciation to-Assets	Δ Debt-to-Assets	Firm Age	CEO Turnover	Δ Family/Founder	Market Adjusted Stock Returns	Acquisition	Placing	Rights
<i>Panel A: Number of Non-Executives</i>												
Increase NEDS	684	47,481	0.0101	-0.0013	-0.0165	45.61	0.1769	-0.0292	0.0660	0.0731	0.0775	0.1170
Maintain NEDS	2053	24,055	-0.0043	0.0000	0.0024	45.83	0.0925	-0.0146	0.0407	0.0580	0.0575	0.0658
Decrease NEDS	438	-9,107	-0.0061	0.0010	-0.0274	47.95	0.1735	-0.0183	0.0390	0.0731	0.0594	0.0708
F-statistic		4.23 <sup>***</sup>	1.76	2.17 <sup>*</sup>	5.43 <sup>***</sup>	0.92	23.71 <sup>***</sup>	1.84	0.51	1.40	1.80	9.62 <sup>***</sup>
<i>Panel B: Fraction of Non-Executives</i>												
Increase NEDS	1015	29,356	0.0051	-0.0006	-0.0072	45.69	0.1961	-0.0246	0.0414	0.0670	0.0690	0.0966
Maintain NEDS	1431	14,830	-0.0048	0.0003	0.0012	45.56	0.0559	-0.0077	0.0536	0.0538	0.0510	0.0622
Decrease NEDS	729	36,837	-0.0038	-0.0002	-0.0175	47.62	0.1481	-0.0302	0.0371	0.0768	0.0741	0.0809
F-statistic		1.33	0.96	0.56	2.23 <sup>*</sup>	1.15	59.65 <sup>***</sup>	5.11 <sup>***</sup>	0.24	2.33 <sup>*</sup>	2.82 <sup>**</sup>	4.99 <sup>***</sup>
<i>Panel C: Number of Outsiders</i>												
Increase Outsiders	612	48,861	-0.0079	-0.0016	-0.0198	47.84	0.1405	-0.0212	0.0316	0.0654	0.0654	0.1176
Maintain Outsiders	2205	17,134	0.0014	0.0003	0.0011	45.57	0.1125	-0.0181	0.0454	0.0626	0.0617	0.0685
Decrease Outsiders	358	28,465	-0.0080	-0.0003	-0.0244	46.17	0.1480	-0.0137	0.0738	0.0642	0.0587	0.0642
F-statistic		2.41 <sup>*</sup>	0.88	2.21 <sup>*</sup>	4.51 <sup>***</sup>	1.26	3.05 <sup>**</sup>	0.20	0.59	0.03	0.06	8.63 <sup>***</sup>



Table 5-12 continued

<i>Panel D: Fraction Outsiders</i>												
Increase Outsiders	1007	20,430	-0.0072	-0.0002	-0.0163	47.85	0.1718	-0.0179	0.0107	0.0665	0.0645	0.0924
Maintain Outsiders	1513	22,146	0.0035	0.0002	0.0049	45.06	0.0773	-0.0165	0.0637	0.0516	0.0549	0.0687
Decrease Outsiders	665	36,325	-0.0039	-0.0001	-0.0014	45.70	0.1481	-0.0229	0.0589	0.0855	0.0748	0.0748
F-statistic		0.58	1.12	1.32	4.26***	2.46*	28.32***	0.31	2.67**	4.58***	1.64	2.40*

## **6. Equity issuance, corporate governance reform and CEO turnover in the UK**

The previous two chapters have documented the changing nature of UK company board structure, and the factors that have driven these changes, over the period of this analysis. The remaining empirical chapters of this thesis turn to examine the impact of these corporate governance characteristics on a number of highly visible corporate decisions. This chapter begins with an examination of the impact of corporate governance on CEO replacement and appointment decisions.

The study of disciplinary CEO replacement decisions has formed a cornerstone of research examining the effectiveness of internal and external monitoring systems. Where a positive relationship is found between the likelihood of forced turnover and the greater use or incidence of a particular structure, researchers have advocated their use as effective managerial control systems. Top management turnover provides a natural setting for analysing the importance of corporate governance structures. These decisions are highly visible and represent one of the single most important decisions made with respect to the running of a company [Fama and Jensen (1983)].

US research has produced some general consistencies on the importance of company performance and governance systems in the likelihood of CEO turnover. International research by Kang and Shivdasani (1995, 1996) in Japan and Franks and Mayer (1996), Franks, Mayer and Renneboog (2001), Dahya, McConnell and Travlos (2002) and Dahya and McConnell (2004) in the UK highlights the importance of domestic governance facets in these decisions. This chapter contributes to this growing volume of research by examining how governance



structures affect the likelihood of CEO turnover in the UK in the immediate aftermath of the Cadbury Report (1992).

This chapter provides new evidence on the effects of board structure and equity issuance on CEO appointment and removal decisions. Outside directors and splitting the roles of the Chairman and the CEO increase the likelihood of forced turnover, but this effect is not restricted to poorly performing companies. Implied probabilities calculated from logit models suggest that these results are both statistically and economically significant. These findings are consistent with the arguments of Fama and Jensen (1983) and Jensen (1993) of the importance of constructing a board that enjoys greater independence from the CEO in reducing the agency problems inherent when the functions of ownership and control are separated. They also throw new light on the evidence of Dahya et al. (2002) who examine only companies that adopted the proposals of the Cadbury Report (1992).

Further evidence is also provided on the role of suppliers of new equity capital in managerial discipline. Equity issuance is correlated with the forced turnover of the company's CEO following poor performance. In addition, the disciplinary role of rights offerings is restricted to large companies, while the role of placings in forced turnover is restricted to smaller firms. Finally, the disciplinary role of equity issuance is restricted to models of turnover based on stock price performance and dividend income. This is perhaps unsurprising given the commonly held view of the UK as a stock market that is dominated by financial institutions [see Black and Coffee (1994)].

Finally, this analysis concludes with an examination of the governance factors that affect the likelihood of a new CEO being appointed from outside the company.

A greater incidence of external CEO succession is recorded in relation to the US and Japanese studies of Borokhovich, Parrino and Trapani (1996) and Kang and Shivdasani (1995) respectively. This is reflective of the small size of companies in this sample and the comparatively smaller boards employed by UK firms.

External succession does not specifically follow poor performance, but is more likely following forced turnover and decreases in likelihood when non-CEO board members hold a greater fraction of equity. Outside succession increases in likelihood when company boards are smaller, and when the company employs a greater fraction of outside directors. Separating the roles of the Chairman and the CEO has no impact on the likelihood of outside succession. There is also evidence that equity issuance, and in particular placings, increase the likelihood of internal succession.

Chapter 4 of this thesis has provided evidence on the changing nature of UK company board structures over the period of this analysis, and has suggested that companies have indeed increased their use of independent outside directors, and have become more willing to separate the roles of the Chairman and the CEO. This chapter therefore contributes to the debate on the effectiveness of boardroom governance.

The finding that outside directors and splitting the functions of the Chairman and the CEO increases the likelihood of forced CEO turnover suggests that these directors *are* able to have an impact on corporate decision-making. However, there may be a deal of myopia in their oversight of management, as indicated by the finding that turnover is not concentrated amongst poorly performing firms. To this extent, it is not clear that the reforms put forward in the Cadbury Report (1992) have added value for company shareholders when firms make CEO replacement decisions.



In addition, new evidence is provided on the importance of rights offerings and placings in disciplining poorly performing managers. This compliments the research of Easterbrook (1984), Black and Coffee (1994) and Franks et al. (2001) on the role of security issuance in managerial discipline. In a broader sense this provides further evidence on the importance of domestic legal and governance characteristics that drive various forms of capital market discipline in different economies throughout the world.

The remainder of this chapter is structured as follows. Section 6.1. provides a review of the UK governance system with reference to CEO turnover. Section 6.2. provides a univariate analysis of the effects of performance and governance on CEO turnover and the origin of their successor. Sections 6.3. and 6.4. provide a multivariate analysis of CEO removal and appointment decisions respectively. Finally, section 6.5. provides robustness testing and section 6.6. concludes.

## ***6.1. UK corporate governance and CEO turnover***

This section discusses the features of the UK system of corporate governance that may affect CEO replacement decisions.

### ***6.1.1. The market for corporate control***

Jensen and Ruback (1983) suggest that the market for corporate control acts as the ultimate means of disciplining poorly performing management. Martin and McConnell (1991) find that US companies experiencing takeover attempts have performed poorly relative to their industry in the period preceding the bid.

However, empirical studies of the UK market for corporate control have failed to find evidence of such disciplinary control. Franks and Mayer (1996) and Franks et al. (2001) find that takeovers lead to increased levels of board restructuring. However, they find no evidence that target companies have experienced poor performance relative to firms that remained independent. Short and Keasey (1999) propose that UK companies have made less frequent use of takeover defences than US firms, as a result of pressure from institutional investors who dominate the UK market. The use of these defences in the US increases the cost of mounting a takeover bid and encourages bids to be focused on only the poorest performing companies. However, recent empirical studies by Denis and Kruse (2000) and Huson, Parrino and Starks (2001) have emphasised the importance of the existence of a takeover market as a disciplinary mechanism, rather than takeover events themselves. The study of how the level of takeover activity in the UK affects managerial discipline represents a valuable area of future research, but is infeasible in this study due to the relatively short time period that is examined.



### *6.1.2. Activist shareholders*

Studies of corporate governance in the US and Japan have established that large shareholders play an important role in disciplining management. Denis, Denis and Sarin (1997b) find that outside blockholders increase the likelihood of a poorly performing CEO being removed in a sample of US firms. Bethel, Liebeskind and Opler (1998) find that block share purchases by 'activist' investors follow poor performance and lead to corporate restructuring that involves a greater incidence of CEO turnover. Kang and Shivdasani (1995) also find that greater levels of blockholdings in Japanese firms increase the likelihood of external succession and top officer turnover, although not necessarily following poor performance.

Given the view of the UK as an institutionally dominated market [see Black and Coffee (1994)], it may be expected that financial institutions play a role in governance. However, Franks et al. (2001) find that changes in large share stakes do not result in greater levels of managerial turnover. UK Company Law requires disclosure of equity stakes of 3% or more, as compared to 5% in the US, and legal restrictions on transactions between companies and large investors are also stronger in the UK. Franks et al. (2001) argue that these regulations raise the cost of holding partial stakes and encourage UK investors to opt for full control over partial control.

Black and Coffee (1994) also suggest that because fund managers are evaluated relative to other funds, this creates a free-rider problem in institutional monitoring. A single fund manager bears the full cost of negotiating with companies over their governance arrangements, but captures only a fraction of the benefits. The hypothesis tested in this research posits that there will be a relationship between the likelihood of forced CEO turnover and/or external succession and the equity stakes

of financial blockholders with a disclosable interest of at least 3% of a firm's issued share capital. However, the above evidence would suggest a lack of a disciplinary role for both holders and acquirers of large equity stakes in UK firms.

### *6.1.3. Equity issuance and managerial discipline*

Given that takeovers and large shareholders have not been found to perform a disciplinary role on UK management, we are left to wonder what role capital markets can play in removing poorly performing CEOs. Easterbrook (1984) proposes that external capital markets can exert discipline on companies when they seek to raise new finance. Monitoring of management by new investors reduces the discretion over funds that managers enjoy.

Black and Coffee (1994) propose that equity issuance enjoys a prominent role in managerial discipline in the UK because pre-emption guidelines limit the ability of companies to offer equity to new shareholders. They suggest that the real power of institutions in governance lies in their ability to cause the failure of attempts to raise equity through rights offerings, which will be of particular importance to financially distressed companies. UK pre-emption guidelines therefore offer a low cost strategy for financial institutions to become involved in governance, which has the unique feature of forcing companies to negotiate with institutions, rather than the reverse.

Using various measures of performance, Franks et al. (2001) find that equity issuance is correlated with higher levels of board turnover, which in some cases is focused on poorly performing firms. This suggests an important role for equity issues in both CEO appointment and removal decisions in UK companies. In this analysis, equity issuance is expected to affect the likelihood of CEO turnover and



outside succession. Separate testing is also employed for placings and offerings.

#### *6.1.4. Board structure*

Underlying the reforms proposed by UK corporate governance codes of practice discussed earlier in this thesis is a clear assumption that greater board independence, as measured by greater non-executive representation and splitting the roles of the CEO and the Chairman, creates better governance. The findings presented in chapter 4 of this thesis suggests that UK companies have indeed become more willing to adopt a board structure that in theory enjoys greater independence from the company's CEO.

Fama and Jensen (1983) suggest that effective boards would be comprised largely of independent directors who could separate the functions of decision management and decision control. Weisbach (1988) develops a hypothesis under which outside directors act as professional referees, whose job it is to oversee top management. Outsiders have incentives to develop a reputation as experts in decision control and the value of their human capital will decline where they fail to act effectively in their monitoring of management. Also, Jensen (1993) is critical of the frequency with which US corporations have combined the roles of the Chairman and the CEO, arguing that it provides the top officer with unfettered powers of decision-making. Jensen also argues that US boards employ too many directors, which has reduced the ability of these boards to function efficiently.

Dahya et al. (2002) find an increase in the likelihood of forced CEO turnover in UK companies following the publication of the Cadbury Report (1992). Further,

they find that this increase is specific to the group of companies that adopted the recommendations of the report, where a greater fraction of non-executive directors led to an increase in the sensitivity of forced CEO turnover to company performance. They also find that larger boards are more likely to remove a poorly performing CEO.

These results are consistent with Weisbach (1988) for outside directors in US companies, but contrast with the arguments of Jensen (1993) and the empirical finding of a negative relation between board size and performance-related CEO turnover in US firms by Yermack (1996). Dahya et al.'s (2002) results also contrast with those of Franks et al. (2001), who find that executive board turnover is inversely related to the fraction of non-executives on a firm's board. The analysis of Franks et al. (2001) is located prior to the publication of the Cadbury Report (1992) and may suggest a move from an advisory to a monitoring role for non-executive directors in the UK.

In the hypothesis developed here, the fraction of outside directors on the board, board size, and the incidence of splitting the roles of the CEO and the Chairman are all expected to have an effect on CEO appointment and removal decisions.

#### *6.1.5. Leverage*

The majority of UK debt is in the form of bank loans. The closer control of debt claims may alleviate free-rider problems amongst a group of public debtholders, which could reduce the strength of monitoring by these groups. Franks et al. (2001) also suggest that lender monitoring in the UK will be much greater than is publicly perceived as a result of private negotiations between companies and their banks.



Novaes (2002) suggests that gearing up in response to a control threat commits management to a restructuring plan that will increase shareholder wealth. However, the decision to increase leverage provides a signal to investors that management is of a low quality, and increases the likelihood of their dismissal.

Empirically, Gilson (1989) finds that leverage increases the probability of top management turnover in a sample of poorly performing companies. Also, Kang and Shivdasani (1995) find that main banking relationships increase the likelihood of performance-related top management turnover in Japanese companies.

Franks et al. (2001) report that higher leverage and poor interest coverage lead to higher rates of executive board turnover, which in some cases is focused on poorly performing firms. In addition, the findings presented in chapter 5 indicate that changes in leverage are an important determinant of director turnover decisions within this sample of companies. However, Dedman (2003) finds no evidence of a relationship between leverage and the likelihood of forced CEO turnover in UK companies, and there is no evidence that the strength of this relationship increased following the publication of the Cadbury Report (1992). In future empirical testing it is expected that leverage has an effect on the likelihood of CEO turnover and outside succession.

#### *6.1.6. Managerial ownership*

Despite the tag of dispersed ownership in both the UK and US, the empirical studies of Denis et al. (1997b), Denis and Sarin (1999), Dahya, Lonie and Power (1998) and Short and Keasey (1999) suggest that a large number of companies have at least moderate levels of managerial ownership.

Both Denis et al. (1997b) and Dahya et al. (1998) find a negative relationship between CEO turnover and managerial ownership, where turnover is insensitive to performance at levels of CEO ownership above 1%. Conyon and Florou (2003) present similar findings in their sample of UK companies and offer two alternative explanations for their results. Firstly, the negative relationship may indicate that CEO equity holdings allow the incumbent to become insulated from threats to their control. Alternatively, the financial loss on equity holdings following poor performance may provide sufficient discipline for the CEO. Whichever of these theories holds true, it is expected that a negative relationship will exist between the likelihood of forced CEO turnover and the fractional equity ownership of the incumbent CEO.



## *6.2. A first look at performance, governance and turnover rates*

This study begins with an examination of CEO changes based on ranges of performance and governance facets. This allows for an examination of any potential relationships that may exist between CEO changes and the governance characteristics of sample firms. Also, to the extent that multicollinearity may be a concern in the context of this research, as suggested in chapter 4, univariate analysis provides an important robustness check to the multivariate regressions presented later in this chapter. Of particular interest is the role of board characteristics and equity issuance, therefore, this analysis focuses on these aspects of governance.<sup>35</sup>

### *6.2.1. Sample characteristics*

Table 6-1 reports data on CEO changes by year amongst the full sample of companies discussed in chapter 4 of this thesis. In all, the CEO turnover rate is 12.87%, with a forced turnover rate of 4.48%. In comparison to US studies of CEO turnover, i.e. Huson et al. (2001), there appears to be a relatively high fraction of overall CEO turnover decisions that are categorised as forced, however, these results are consistent with previous UK research. Dedman (2003) reports a CEO turnover rate of 11.77% and a forced turnover rate of 4.01% in the period following the publication of the Cadbury Report (1992), while Dahya et al. (2002) report a forced turnover rate of 4.3% post-Cadbury. Dahya et al. (2002) also find that forced turnovers comprise 57.25% of all turnover decisions.<sup>36</sup>

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<sup>35</sup> See Dahya et al. (1998) and Denis et al. (1997b) for a full analysis of the impact of ownership structure on CEO turnover decisions in UK and US companies respectively. Franks et al. (2001) examine the impact of capital structure on both CEO turnover and executive board turnover.

<sup>36</sup> While the forced turnover rate in this sample is directly comparable with Dahya et al. (2002), the fraction of all turnover that is forced in this sample will be downward biased in comparison to their

The fraction of all successions that are classified as external is 52.52%. This is considerably higher than the rate of 31.25% reported by Dahya and McConnell (2004) for their sample of UK CEO appointments. While concerning, this difference is likely to be attributable to the different definition of an external appointment and the small size of companies in this sample.<sup>37</sup>

### 6.2.2. *Market-adjusted stock returns and CEO changes*

Table 6-2 analyses forced turnover and outside succession according to deciles of market-adjusted stock returns in the year prior to CEO turnover. Although not entirely monotonic, there is a clear decline in forced turnover rates as performance increases. The results are consistent with Warner, Watts and Wruck (1988), who find that only the poorest levels of performance significantly increase the likelihood of forced CEO turnover. Panel B reports the difference between the forced turnover likelihood for different performance deciles against the turnover rate in the lowest decile of performance. All differences are highly significant.

Panel C of table 6-2 reports the difference in the likelihood of an outside successor being appointed to replace the departing CEO for different performance deciles. There is a generally inverse relationship between performance and the likelihood of an outside CEO succession, but in most cases this result is not significant. This may be due to the more stringent definition of outside succession used in this analysis in comparison to Dahya and McConnell (2004).

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analysis. Dahya et al. do not include the event of splitting the roles of the top officer and appointing a new CEO as top officer turnover. In this analysis such events are recorded as 'normal' turnover.

<sup>37</sup> Specifically, Dahya and McConnell (2004) determine an inside appointment as occurring where the newly appointed CEO was on the board roster in the previous set of company accounts. The definition used in this sample specifically examines *FT Extel News Reports* relating to director appointments within the previous calendar year to determine whether the new CEO was appointed from outside the company.



### *6.2.3. Outside directors and CEO turnover*

Table 6-3 provides an indication of turnover rates ranked by the fraction of outside directors on a company's board. The evidence in panel A appears broadly consistent with that of Weisbach (1988) and Dahya et al. (2002), who report that increased board representation by outside directors increases the likelihood of forced CEO turnover.

Panel A also reports rates of outside succession by the fraction of outside directors. The likelihood of appointing a new CEO from outside of the company increases almost monotonically with the fraction of outside directors on the company's board. This evidence is consistent with that reported by Borokhovich et al. (1996), Huson et al. (2001) and Dahya and McConnell (2004).

Panels B and C report t-tests for the difference in turnover and external succession rates for boards that are outsider dominated against companies which have less than 50% of their board comprised by outsiders. In most cases these differences are significant at the 10% level or better and provide confirmation of the hypotheses that forced turnover and outside succession are more likely when a majority of outside directors comprises the board.

### *6.2.4. Splitting the roles of the Chairman and the CEO and top officer turnover*

Table 6-4 reports succession rates according to whether the company had split the positions of the Chairman and the CEO in the year prior to turnover. The rate of normal turnover is dramatically higher in companies that originally combined these positions, which arises because separating the roles of the CEO and the Chairman is classed as voluntary turnover, and the likelihood of splitting these roles increased

following the publication of the Cadbury Report (1992). Companies that had already split these functions were almost twice as likely to experience forced turnover of their CEO as compared to companies that combined these roles. Panel B indicates that this difference is highly significant.

Dahya et al (2002) find that splitting these functions does not increase the likelihood of performance related turnover in firms adopting the recommendations of the Cadbury Report (1992). However, the evidence above is consistent with pre-Cadbury work by Dahya et al. (1998), who find that a unitary CEO is less likely to be forcibly removed from their position. There is no evidence that splitting the positions of the Chairman and the CEO has an impact on the origin of the new CEO.

#### *6.2.5. Board size and CEO turnover*

Table 6-5 reports rates of CEO turnover ranked by board size. Yermack (1996) reports that firms with larger boards are less likely to experience performance-related CEO turnover. In contrast, Dahya et al. (2002) find that the likelihood of performance related CEO turnover is an increasing function of board size. The results in panel A and tests of significance in panel B fail to provide support for the hypothesis that board size affects the likelihood of forced turnover, in any direction.

As expected, the relationship between board size and the likelihood of outside succession is in general negative. This is again consistent with Borokhovich et al. (1996) and Dahya and McConnell (2004). It is expected that smaller boards will offer fewer potential successors in the event of turnover of the incumbent CEO, thus increasing the likelihood of an outside appointment [Kang and Shivdasani (1995)].



Tests of significance in panel C indicate that larger boards are indeed more likely to appoint a replacement CEO from within the current management structure.

#### *6.2.6. Equity issuance and CEO turnover*

Finally, Black and Coffee (1994) propose, and Franks et al. (2001) empirically confirm, that equity issuance by poorly performing companies increases the likelihood of company management being removed from their position. Table 6-6 documents rates of CEO turnover according to whether the company issues equity or not, where equity issuance is defined as occurring where a company issues equity through either a rights issue or a placing during the year of CEO turnover, and zero otherwise.

The forced turnover rate amongst companies who issue new equity is higher than that of companies that do not and panel B indicates that this result is statistically significant. However, there is no evidence that equity issuance has a significant impact on the likelihood of external CEO succession.

### ***6.3. Multivariate analysis of forced CEO turnover***

The above analysis has highlighted potential relationships that may exist between board structure, equity issuance and performance-related CEO turnover. In this section these results are explored within a multivariate framework.

#### ***6.3.1. Company characteristics and forced turnover***

This section develops a multivariate model of the factors that explain the likelihood of forced CEO turnover. Logit models are used to relate the likelihood of forced turnover to a range of governance characteristics, where the dependent variable is set equal to one if the company experiences forced turnover of their CEO, and zero otherwise. These results are displayed in table 6-7.

In the basic model (1), CEO turnover is negatively related to market-adjusted stock returns and is less likely in companies that have experienced CEO turnover in the previous financial year. Turnover is not significantly related to firm size as proxied by the natural logarithm of company sales. Model (2) adds corporate governance variables that have been known to affect the likelihood of turnover. These are the company's borrowing ratio, CEO ownership and the ownership of financial blockholders. Of these variables only CEO ownership is significant and negatively related to the likelihood of turnover. Adding these variables also results in the log of sales becoming significant and negatively related to CEO turnover. These results remain consistent in future regressions, and therefore, are not discussed further at this point.

Model (3) adds variables that proxy for board structure. Both the fraction of outside directors and splitting the functions of the Chairman and the CEO increase



the likelihood of turnover, while board size has no affect. In model (4) a dummy variable indicating that the company has issued equity during the year of CEO turnover is employed, which is positively correlated with the likelihood of forced CEO turnover. Model (5) separates equity issuance between rights offerings and placings. Although positive, both variables are marginally insignificant. Finally, models (6) and (7) examine board structure and equity issuance variables jointly and confirm the earlier findings.

### *6.3.2. CEO turnover and the disciplinary role of UK governance characteristics*

The results in the previous section confirm the univariate results that outside directors, separating the roles of the Chairman and the CEO, and equity issuance all significantly increase the likelihood of forced CEO turnover. This in itself does not immediately imply that these governance functions discipline the correct managers, i.e. poorly performing CEOs. In order to explore this, table 5-8 examines the impact of governance characteristics in disciplining poorly performing managers. Introducing an additional interaction term between the relevant corporate governance variable and market-adjusted stock returns explores the role of governance facets in performance-related CEO turnover. A significantly negative coefficient would indicate that the greater use of a particular governance characteristic increases the likelihood of the removal of a poorly performing CEO.

In all specifications lagged performance, past turnover and CEO ownership are significantly and negatively related to the likelihood of CEO turnover, while firm size is significant in most cases. Greater reliance on outside directors and splitting the roles of the CEO and the Chairman again increase the likelihood of turnover, but

the lack of significance in the interaction terms indicate that this is not focused on the CEOs of poorly performing companies. Board size is again unrelated to the probability of turnover. Models (4) and (5) indicate that CEO turnover surrounding equity issuance is focused on the CEOs of poorly performing companies, however, these effects cannot be segregated between placings and rights offerings. Finally, models (6) and (7) examine the joint affect of board structure and equity issuance and confirm the earlier results.

As stated earlier, complete information is not available for all turnover announcements that are classified as forced. Model (8) re-estimates the basic equation in model (6), but excludes 34 firm years where full information on CEO turnover announcements is not available. All corporate governance variables and interaction terms retain their original statistical significance from model (6), while excluding these observations actually increases the statistical significance of the interaction term between equity issuance and lagged performance. However, amongst these excluded observations are cases where press articles are clear in their indication that the CEO was removed following poor performance. Based on this, these 34 cases are retained in the remaining analysis.

Parrino (1997) highlights the importance of industry factors and the availability of potential replacements as important factors in CEO replacement decisions. Panel C of table 6-1 also indicates that rates of forced turnover vary between firm years. To control for this effect, model (9) adds industry and year dummies to the basic regression model (6). This again confirms the significance of the earlier findings.

The above results indicate the statistical significance of corporate governance characteristics in forced CEO turnover. To put these results in an economic



perspective, model (6) from the above table is used to compute implied probabilities at the 10<sup>th</sup> and 90<sup>th</sup> percentile of market-adjusted stock returns for varying board independence and the incidence of equity issues amongst sample companies. In computing these probabilities all other variables are held at their sample means.

Panel A of table 6-9 computes implied turnover probabilities based on alternative values of the fraction of outside directors and whether the company issued equity during the year of CEO turnover. For all levels of outside director representation it can be seen that companies that issue equity are more likely to experience forced turnover than companies without an equity issue. The difference in the implied probability of turnover is also much larger between companies in the top and bottom decile of performance that issued equity than for those that did not. For example, holding the fraction of outside directors at 0.25, companies with an equity issue have an implied probability of forced turnover of 0.1794 against 0.1065 if they do not when performance is at the 10<sup>th</sup> percentile. This compares against 0.0196 for equity issuers and 0.0287 for companies not issuing equity when performance is at the 90<sup>th</sup> percentile. Increasing the fraction of outside directors increases the likelihood of CEO turnover regardless of performance or whether the firm has issued new equity.

Panel B reports implied probabilities dependant upon whether the company had previously split the roles of the Chairman and the CEO. It is again evident that equity issuance increases the likelihood of turnover and that this is restricted to companies with performance at the 10<sup>th</sup> percentile of performance. It is also clear that separating the functions of the Chairman and the CEO increases the probability

of turnover. However, this again is not restricted to those companies that are poor performers.

In summary, equity issuance has both a statistically and economically significant impact on the likelihood of CEO turnover in poorly performing companies. The results also indicate that separating the functions of the Chairman and the CEO, and the fraction of outside directors that comprise the board have a large and positive impact on the likelihood of CEO turnover, but this effect is not restricted to poorly performing companies.

### *6.3.3. Corporate governance compliance and CEO turnover*

As discussed in chapter 1 of this thesis, the past 11 years has seen a rash of corporate governance reforms aimed at company board structure. In chapter 4 it was highlighted that the reforms enshrined in the Cadbury Report (1992) have led to an increase in willingness by UK companies to separate the roles of the Chairman and the CEO, and an increase in the fraction of outside directors that comprise the board.

This section aims to test the effects of some of these reforms on the sample of UK firms employed in this analysis. Before doing so it is important to note some important caveats. Firstly, the focus of these governance reforms has been aimed at improving the accountability of UK managers. Increasing the likelihood of performance-related CEO turnover is one effect of improving board oversight but it may not be the only effect. The second caveat is that applying recently published criteria to a sample of firms from a time period prior to these reforms does not tell us whether they are successful or not. It can only provide information on whether or not the values promoted by these codes would have hypothetically led to a stronger



relationship between CEO turnover and company performance. Having noted these important caveats, table 6-10 tests how compliance with various governance charters affects the likelihood of CEO turnover.

In these regressions the fraction of outside directors and *Split* are removed from the regression analysis and replaced by a *Compliance* variable. This takes the value of one where the company complies with the relevant corporate governance code of best practice, and zero otherwise.

Model (1) examines compliance in terms of the *Simple Comply* variable described in chapter 4. The regression coefficients fail to find a significant relationship between compliance with the report's recommendations and either forced turnover or performance-related forced turnover. Model (2) examines compliance in terms of the *True Comply* variable that is also described in chapter 4. Under this specification, compliance does lead to more CEO turnover, but this is not focused amongst poorly performing companies.

Model (3) examines compliance with the proposals of the recently published Higgs Report (2003). In this case, compliance is defined where at least half of the board, excluding the Chairman, is comprised by outside directors. Compliance with this code neither increases the likelihood of unconditional turnover or the likelihood of performance-related turnover.

Finally, models (4) and (5) ignore the issue of splitting the functions of the Chairman and the CEO, and focus only on whether the board is comprised by 50% or more outsiders and non-executive directors respectively. In both cases, compliance is associated with a significantly higher level of CEO turnover, but again there is no association between compliance and performance-related turnover.

Also, in model (2), which examines Cadbury compliance with respect to having the majority of non-executive directors as outsiders, the interaction term between board size and performance is marginally significant and positive. This is consistent with Yermack (1996) who finds that forced turnover is less sensitive to performance in companies with larger boards. Finally, the interaction between equity issuance and corporate performance retains its significance in all specifications, indicating again the disciplinary role of equity issues amongst poorly performing companies.

#### *6.3.4. Firm size, equity issuance and CEO turnover*

To date, the issue of firm size has been controlled for using the natural logarithm of firm sales as a control variable. The importance of this function with respect to corporate governance variables is highlighted by a comparison of models (1) and (2) in table 6-7. The sales variable is insignificant in model (1), but becomes highly significant once governance variables are controlled for in model (2).

Denis and Sarin (1999) find that board size and the fraction of outside directors serving on company boards are positively correlated with firm size, whereas board ownership is negatively correlated. Davies, Hillier and McColgan (2004) find that director ownership in UK companies is negatively related to the market value of a company's equity. The above analysis has so far indicated that firm size is negatively related to the likelihood of CEO turnover, a finding consistent with the general empirical literature including Denis et al. (1997b) and Dahya et al. (2002). Denis et al. (1997b) extend their analysis to separately examine turnover in large and small firms and find that independent corporate boards discipline poorly performing managers in small companies only. Also, Slovin et al. (2000) find that small firms



use placings much more frequently, and based on sample means, these issues account for a larger proportion of company value prior to the issue than is observed for rights offerings.

To examine the disciplinary role of board structure and equity issuance for large and small firms separately, the sample is split between companies with sales above and below the sample median. These results are reported in table 5-11. Market-adjusted performance and CEO ownership are inversely related to forced turnover in small firms only, while financial blockholdings increase the likelihood of turnover in large firms, but appear to entrench managers in smaller companies. There is also evidence that outside directors increase the probability of forced turnover in larger companies only, while splitting the roles of the CEO and the Chairman increases the turnover likelihood in small companies only. However, in no case is the interaction term with performance statistically significant, again indicating that boardroom discipline is not focused on poorly performing companies. Finally, rights offerings lead to the removal of poorly performing managers in large firms only, while placings of new shares perform this function in small firms. Rights offerings also increase the unconditional turnover likelihood in small companies.

#### **6.4. UK corporate governance and outside CEO succession**

Having established the effect of board structure and equity issuance on forced CEO turnover, the analysis now turns to how these factors affect the likelihood of a successor being appointed from outside the company.

The literature on outside or external CEO succession proposes a number of factors that may affect the likelihood of the new CEO being appointed from outside of the company. Parrino (1997) suggests that external successors will be appointed in order to reverse failing business practices and bring a new perspective to the company. He suggests that outside succession will be inversely related to company performance and more likely when the company has experienced forced turnover of the incumbent CEO. Internal successors will more readily possess the firm-specific human capital that is required to continue existing business practices. Huson, Malatesta and Parrino (2004) suggest that an external CEO appointment must be associated with increases in expected performance. External succession is damaging to the incentives of lower level management, and therefore, external candidates must display superior potential to that of the available internal talent pool.

Event studies of external appointments confirm these hypotheses. Borokhovich et al. (1996), Kang and Shivdasani (1996), Huson et al. (2001), and Dahya and McConnell (2004) all find significantly positive announcement period abnormal returns when companies announce the appointment of a new CEO from outside the company, and in most cases the likelihood of external succession is inversely related to performance and is more likely following forced turnover of the incumbent CEO.

Larger companies are expected to employ formal succession plans which provide internal managers with the opportunity to be promoted to the role of CEO



when the times arises. As such, a negative correlation between firm size and external succession is to be expected. Similarly, smaller boards are also more likely to appoint new CEOs from outside the company, given that such boards offer fewer internal succession candidates [Kang and Shivdasani (1995), Dahya and McConnell (2004)].

Borokhovich et al. (1996) argue that outside directors can send signals about their ability as experts in decision control, which will affect that value of their human capital. Inside directors, however, will prefer to appoint new CEOs from within the company because they will be the leading candidates for the position. Inside successors will also be less likely to alter existing business policies and restructure other board positions. Borokhovich et al. (1996), Huson et al. (2001) and Dahya and McConnell (2004) all find that the fraction of outside directors on a company's board is positively related to the likelihood of outside CEO succession.

The impact of splitting the roles of the CEO and the Chairman has no obvious impact on CEO appointments. Univariate analysis in table 5-4 finds no significant difference in the likelihood of outside succession amongst companies that had previously split the functions of the CEO and the Chairman and those to that had not. After controlling for other factors, the affect of this variable is open to examination.

The ownership of company directors may also have an impact on the likelihood of outside succession. Higher ownership by directors other than the CEO increases their financial incentive to select a new CEO who will maximise the value of the firm, and should see these directors appointing the best available candidate for the job. Huson et al. (2001) find that ownership by non-CEO board members is positively related to the likelihood of outside succession. An alternative hypothesis

is that higher ownership by non-CEO board members provides these directors with stronger financial incentives to run the company themselves. Also, regardless of how financial incentives affect the likelihood of internal succession, higher ownership by non-CEO board members increases their power on the board. Dahya and McConnell (2004) examine ownership by the board of directors, and find that this is unrelated to the likelihood of outside succession. Future analysis controls for the ownership of the non-CEO board members in regressions of appointment decisions.

Section 6.3. highlights the important role played by equity issues in forcing CEO turnover amongst companies that perform poorly. Given this important role, it seems plausible to assume that equity issuance also plays a role in selecting a successor CEO. To date, this possibility has not been examined in the empirical literature. Variables are also included to control for the effect of leverage on outside succession decisions and the fraction of shares held by financial blockholders.

#### *6.4.1. Multivariate analysis of corporate governance and outside succession*

Table 6-12 presents logit regressions of the likelihood of outside succession, conditional on CEO turnover occurring in the first instance. The dependent variable is set equal to one where a new CEO has been appointed from outside of the company, and zero otherwise. The basic function is presented in model (1), which relates outside succession to the company characteristics discussed above. The results indicate that outside succession is more likely following forced turnover, and is negatively related to the ownership of non-CEO board members and board size. These results are as predicted, although the results with respect to non-CEO



ownership stand in contrast to those of Huson et al. (2001) for US companies. The coefficient of the firm performance variable is insignificant, which contrasts with the previous literature by Kang and Shivdasani (1995), Borokhovich et al. (1996), Parrino (1997), Huson et al. (2001) and Dahya and McConnell (2004). One possible reason may lie in the different definition of outside succession employed in this analysis, which results in a much higher fraction of successions being classified as outside when compared to Dahya and McConnell (2004). However, the description is consistent with Parrino (1997), whereby new CEOs are considered to be appointed from outside the company if they have been appointed to the board within the previous 12 calendar months.

In model (2) the fraction of outside directors is positively related to the likelihood of outside succession, which is consistent with the previous empirical literature. Model (3) examines the impact of whether or not the departing CEO had split the functions of the Chairman and the CEO, but this is unrelated to the likelihood of external succession. Models (4) and (5) examine equity issues, and placings and rights issues separately. These variables are insignificant but negative.

Models (6) and (7) jointly estimate the effects of board structure and equity issuance characteristics. With the exception of non-CEO board ownership, which becomes marginally insignificant, the control variables retain their earlier importance. The results confirm the earlier findings that the likelihood of outside succession is increasing with the fraction of outside directors on the board. Equity issuance and splitting the roles of the Chairman and the CEO are unrelated to the likelihood of outside succession. However, the coefficient of the variable for placings is negative and marginally significant. This form of raising new finance,

whilst potentially leading to forced turnover amongst poorly performing CEOs, may allow the remaining directors to compete internally for the position of CEO once their predecessor has departed.

Finally, model (8) adds industry and year dummies to control for the effects of these factors in CEO appointment decisions. Including these controls results in the equity issuance dummy becoming significantly negative. Further testing (not reported to conserve space) reveals that this effect is driven exclusively by the negative relationship between placings of new equity and the likelihood of outside succession. Slovin et al. (2000) find that placings are the preferred method of seasoned equity issuance for companies wishing to use the underwriter certification process to signal their high quality and to reduce ownership dispersion. Whilst the concentration of ownership may be reduced in sample companies, it would appear that allowing the remaining directors to compete internally for the CEO position may be a precondition to their issuing new equity through placings.

#### *6.4.2. Governance reform and external succession*

As discussed earlier, the UK has seen a number of governance reforms that have been implemented in recent years. In this section the effect of these codes of practice on the likelihood of outside succession are examined.

Table 6-13 replicates the testing employed in the previous section, where the fraction of outside directors and the *Split* variable are removed, and a variable labelled *Compliance* is used as a replacement. In all specifications, outside succession is more likely following forced turnover, and is inversely related to both board size and the ownership of the non-CEO board members.



Models (1) through (3) indicate that compliance with the reports of the Cadbury and Higgs committees does not have a significant impact on the likelihood of external succession. In models (4) and (5) the condition that the Chairman and the CEO functions must be split is dropped, and compliance is achieved by having a majority of the board comprised by outside directors in model (4), and non-executive directors in model (5). The variable proxying for 50% or more outside directors is highly significant, suggesting that such boards are more likely to appoint a new CEO from outside of the company. The variable capturing the effect of a board that comprises at least 50% non-executive directors is positive but is marginally insignificant.

#### *6.4.3. Firm size and external succession*

The previous analysis of forced turnover highlighted important differences in the role of board structure and equity issuance between large and small firms. These findings give reason to believe that succession decisions may also differ between small and large firms. In order to examine this, companies are again split between those with sales above and below the sample median. Results of logit regressions are displayed in table 6-14.

Within each sub-sample, performance, size, leverage, financial blockholdings, and non-CEO board ownership are unrelated to the origin of the successor CEO. Board size is negatively related, but this result is marginally insignificant. A greater fraction of outside directors on the company's board increases the likelihood of external succession, particularly in smaller companies, while splitting the roles of the CEO and the Chairman has no impact on managerial succession in either sub-sample.

Equity issuance reduces the likelihood of external succession in large firms only, but this result cannot be segregated between placings and rights offerings.

Overall, firm size appears to play a role in the likelihood of external succession decisions. However, the different roles of board structure and equity issuance in outside succession decisions between large and small firms are not as substantial as reported for forced turnover.



## **6.5. Robustness testing**

This section provides a brief overview of additional robustness testing that has been carried out in this chapter.

### **6.5.1. Extreme performance**

Table 6-15 examines the role of governance characteristics in forced turnover decisions for companies in the highest and lowest decile of stock price performance, excluding performance and interaction terms from model (6) from table 6-8. The results confirm the earlier findings that equity issues by poorly performing firms significantly increase the likelihood of forced turnover. There is also evidence that recently appointed CEOs are not held accountable for poor performance. However, there is no evidence that equity issuance increases the likelihood of forced turnover in the best performing companies, while the fraction of outside directors is positively related to the likelihood of forced CEO turnover in the 9 cases that are recorded in this decile. Turnover in these companies typically occurred following board disputes on policy and immediate performance reversals, which suggests a degree of myopia amongst boards with a relatively high fraction of outside directors. There is also evidence that the fraction of shares held by financial blockholders is positively related to managerial turnover in the highest decile of stock price performance. This confirms the earlier findings that equity issuance increases the likelihood of forced turnover in poorly performing companies, whereas outside directors may be short-sighted in their monitoring of management.

### *6.5.2. The disciplinary role of leverage*

Franks et al. (2001) find that leverage, as measured by capital gearing and interest coverage, leads to higher rates of executive board turnover, which in some specifications is focused on the managers of poorly performing companies. To further examine this point, a number of alternative measures of gearing are used to examine their effects on forced CEO turnover. Interaction terms are also included to examine whether leverage specifically disciplines managers of poorly performing companies. Models (1) through (5) of table 6-16 examine the role of a borrowing ratio, a capital gearing ratio, a short and long-term debt-to-assets ratio and an interest coverage ratio in unconditional and performance-related CEO turnover. Of these variables, only interest coverage increases the likelihood of forced CEO turnover, and in no case is the disciplinary role of leverage focused on the CEOs of poorly performing firms.

### *6.5.3. Robustness to alternative measures of performance*

The research of Weisbach (1988), Kang and Shivdasani (1995), Franks and Mayer (1996), Franks et al. (2001), and Huson et al. (2001) examine the importance of various measures of company performance in explaining their results, and how different governance systems use this information in their decisions on CEO turnover. Four alternative measures of company performance are employed to examine how governance mechanisms interpret performance in their decision to remove a CEO. Firstly, a one-year lag of industry-adjusted return on assets (IROA) is examined. A second performance measure that encompasses the average of IROA in the three financial years preceding turnover is also employed in model (2).



Models (3) and (4) employ dummy variables set equal to minus one where a company has cut/omitted its dividend or reported negative pre-tax income in the year prior to CEO turnover respectively, and zero otherwise.

The results of logit regressions employing these performance measures in forced CEO turnover regressions are reported in table 6-17. The coefficients of the accounting variables measuring IROA are unrelated to turnover in models (1) and (2). However, measuring performance based on dividend cuts or omissions and negative income indicate that turnover is negatively related to these extreme measures of company performance. In all four models equity issues are not associated with higher levels of CEO turnover in themselves. Only the interaction term with performance, as measured by dividend cuts and omissions is significant. The lack of significance in the other three models is perhaps not surprising since they employ accounting measures of performance. Equity issues in the UK discipline poorly performing managers when they return to the capital market for new financing. Existing institutional shareholders may remain inactive in corporate affairs until they are approached to provide new equity capital for companies. At this point they begin to exert discipline on poorly performing managers [Black and Coffee (1994)]. These institutions may not be concerned with accounting performance to the same extent that they are concerned with stock price performance and the continuation of dividend payments to fund their own financial liabilities.

In contrast to the findings of Borokhovich et al. (1996), Parrino (1997), Huson et al. (2001) and Dahya and McConnell (2004), this analysis has failed to uncover a negative relationship between firm performance and outside succession. Kang and Shivdasani (1995) find that poor performance is associated with significantly higher

levels of outside succession only for a model based on negative income. To explore this issue further, the analysis of outside CEO succession is repeated for the same alternative measures of performance that were examined for forced turnover. These results are reported in table 6-18. In examining poor performance, only the variable capturing dividend cuts and omissions is negatively related to the likelihood of outside succession, while equity issuance is also inversely related to the likelihood of outside succession in this model only. This provides support for the earlier finding that the importance of equity issues in CEO appointment and removal decisions is restricted to models based on equity income, which is unsurprising given the concentration of UK shares in the hands of financial institutions [Black and Coffee (1994)].

#### *6.5.4. Spurious correlation*

The problem of spurious correlation arises where poorly performing companies are more likely to employ the greater use of a particular governance mechanism, and at the same time these companies are also more likely to remove their poorly performing CEO. For example, if poor performance is correlated with the increased use of outside directors [see Hermalin and Weisbach (1988)], then a significantly negative interaction term between outside directors and performance may arise due to spurious correlation. To overcome this problem, Kang and Shivdasani (1995) and Denis et al. (1997b) measure corporate governance variables at the beginning of their sample period, but given the large changes in UK governance structures over the sample period documented in chapter 4, such an approach has little value here.



However, the issue of spurious correlation does not appear to be a problem in the results reported previously in this chapter for outside directors and splitting the roles of the CEO and the Chairman, given that the interaction terms between these variables and firm performance are not significant. The only area of concern in this context lies in the negative interaction term between equity issuance and company performance, and the likelihood of forced turnover. To examine this problem, table 6-19 reports the frequency of equity issuance, placings and rights offerings in the year of CEO turnover for deciles of market-adjusted stock returns in the year prior to CEO turnover.

For all categories of equity issuance there is evidence that firms in the lowest decile of stock price performance are most likely to attempt to raise new equity finance. While the differences in rates of equity issuance are significant between the poorest and medium deciles of performance, the rates of issuance are statistically indifferent between the highest and lowest deciles of performance. Overall, this suggests that equity issuance is not restricted to those companies that have performed poorly. Coupled together with the finding that forced turnover within the lowest decile of market-adjusted stock price performance is more likely in those companies that issue equity, it appears that results presented in earlier regressions are not attributable to spurious correlation between CEO turnover, firm performance and equity issuance.

## **6.6. Conclusions**

This analysis has presented evidence on the factors that affect CEO appointment and removal decisions amongst UK companies during the period of corporate governance reforms immediately following the publication of the Cadbury Report (1992). Forced turnover is inversely related to company performance when measured by stock price, dividend income, and extremely poor accounting performance.

The importance of UK governance structures is highlighted in the determinants of CEO turnover. Board independence, as proxied by the fraction of outside directors and separating the functions of the Chairman and the CEO, is positively related to the likelihood of forced CEO turnover. However, these occurrences are not conditional on poor performance, which suggests that UK boards may be overbearing in their monitoring of management. There is also no evidence to indicate that general compliance with the recommendations of UK governance codes leads to higher rates of CEO turnover amongst poorly performing companies.

Such findings are consistent with the arguments of Short, Keasey, Wright and Hull (1999) who suggest that governance reforms in the UK may have been overbearing in stressing the importance of accountability over and above enterprise. Thus, with respect to the impact of the Cadbury recommendations on CEO replacement decisions, it appears that these reforms have encouraged a degree of myopia in the board's oversight of company management.

Capital market discipline in the form of distressed issues of new equity appear to provide an opportunity for the financial institutions that dominate UK equity markets to remove poorly performing managers. Such issues provide focus in



removing only poorly performing CEOs from their job. The role of equity issues in disciplining poorly performing managers varies with firm size. In small companies placings of new equity leads to the removal of poorly performing CEOs, whereas rights issues are associated with higher levels of unconditional CEO turnover. However, placings have no affect on CEO turnover in large companies, where rights issues perform the function of removing poorly performing CEOs from their job. The robustness of these results is limited to models that account for income from stock prices and dividends. This is again consistent with the belief that the financial institutions which dominate UK equity markets are the driving force in removing CEOs for poor performance, where capital gains and dividend income are considered in their decision making to a greater extent than accounting profits.

The likelihood of outside succession is much higher in this sample than reported in previous studies of managerial succession. This is attributed to the small size of companies in this sample and the definition of outside succession used. Outside succession is unrelated to poor company performance unless measured by dividend cuts and omissions. However, outside succession is significantly more likely following forced turnover, which suggests that outside appointments are more likely to occur in an attempt to alter current operational and business practices. The likelihood of outside succession is inversely related to board size and the ownership of the non-CEO board members. Outside succession is also more likely when the board has a larger compliment of outside directors, but whether the previous top officer had separated the roles of the Chairman and the CEO is unrelated to the origin of their successor. Finally, in some cases equity issuance is associated with internal succession decisions and this effect is primarily associated with placings of new

equity. These issues appear to provide an opportunity for companies to promote from within after the event of disciplinary CEO turnover.

Collectively, these results enhance our understanding of the monitoring role played by internal and external control systems in the UK, and the manner in which they act to enhance firm value. It appears that the board structure reforms contained in the proposals put forward by the Cadbury Report (1992) have had a significant impact on CEO replacement decisions. However, the role played by board structure is not restricted to the removal of a poorly performing CEO, suggesting that the board is short-sighted in its monitoring of management, and therefore, may not necessarily add value to companies making managerial replacement decisions.

The findings have also highlighted the importance of the legal framework for the importance of capital market discipline within different countries. In the UK, the legal and institutional framework has created a situation where equity issuance performs a disciplinary role on the managers of poorly performing companies. This is opposed to the US, where the legal system has facilitated large shareholders and the takeover market in performing this important function of capital markets.

Future analysis may seek to examine the exact role of equity issuance in managerial turnover using a case study analysis. For example, do poorly performing companies signal managerial quality to investors when they seek to raise new finance? Do these equity issues affect the likelihood of an external control threat and corporate restructuring in the manner predicted for an increase in leverage by Novaes (2002)? Does equity issuance perform an important role in managerial discipline in other economies? These questions represent valuable avenues for future research in this area.



**Table 6-1**  
**Descriptive statistics for sample companies**

CEO turnover is for a sample of up to 683 non-financial companies from 1993 to 1998. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years.

Year	Number of CEO Changes	CEO Turnover Rate	Number of Forced CEO Changes (% of total)	Forced Turnover Rate	Number of Outside Successions (% of total)	Number of Forced CEO Changes where an outsider is appointed CEO (% of total)
1998	92	0.1688	38 (41.30%)	0.0697	44 (47.82%)	23 (25.00%)
1997	70	0.1151	26 (37.14%)	0.0428	32 (45.71%)	17 (24.28%)
1996	86	0.1305	23 (26.74%)	0.0349	47 (54.65%)	16 (18.60%)
1995	73	0.1069	24 (32.88%)	0.0351	38 (52.05%)	14 (19.18%)
1994	86	0.1259	28 (32.56%)	0.0410	48 (55.81%)	19 (22.09%)
1993	90	0.1318	34 (37.78%)	0.0498	50 (55.55%)	22 (24.44%)
<b>Total</b>	<b>497</b>	<b>0.1287</b>	<b>173 (34.81%)</b>	<b>0.0448</b>	<b>259 (52.11%)</b>	<b>111 (22.33%)</b>

**Table 6-2**  
**CEO turnover ranked by market-adjusted stock price returns for the accounting year prior to turnover**

Stock price performance is calculated as the company's annual stock return for the accounting year prior to CEO turnover minus the return on the *FT All Share Index* for the corresponding period. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an independent director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

<i>Panel A: CEO Turnover and outside succession by decile of share price performance</i>									
Decile of Share Price Performance	Number of Firm Years	CEO Turnover Rate	Forced Turnover Rate	Normal Turnover Rate	Outside Successions as % of all Turnover				
1 (lowest)	387	0.2435	0.1425	0.1010	61.70%				
2	386	0.1477	0.0440	0.1037	56.14%				
3	386	0.1580	0.0648	0.0932	55.74%				
4	386	0.1192	0.0492	0.0700	41.30%				
5	386	0.1244	0.0311	0.0933	39.58%				
6	386	0.0881	0.0207	0.0674	48.48%				
7	386	0.1036	0.0233	0.0803	50.00%				
8	386	0.1347	0.0285	0.1062	59.62%				
9	386	0.0803	0.0207	0.0596	45.16%				
10 (highest)	386	0.0881	0.0233	0.0648	47.06%				
<i>Panel B: Difference in forced turnover rates between deciles of stock price performance</i>									
1 against 2	1 against 3	1 against 4	1 against 5	1 against 6	1 against 7	1 against 8	1 against 9	1 against 10	
0.0985 (0.00)	0.0777 (0.00)	0.0933 (0.00)	0.1114 (0.00)	0.1218 (0.00)	0.1192 (0.00)	0.1140 (0.00)	0.1218 (0.00)	0.1192 (0.00)	
<i>Panel C: Difference in outside succession as a fraction of all new CEO appointments between deciles of stock price performance</i>									
1 against 2	1 against 3	1 against 4	1 against 5	1 against 6	1 against 7	1 against 8	1 against 9	1 against 10	
5.56% (0.51)	5.96% (0.47)	20.4% (0.02)	22.12% (0.01)	13.22% (0.20)	11.7% (0.22)	2.08% (0.81)	16.54% (0.12)	14.64% (0.15)	



**Table 6-3**

**CEO turnover ranked by the fraction of outside directors serving on the company's board**

Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These are deemed as financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

<i>Panel A: CEO Turnover and outside succession according to the fraction of outside directors employed on the company's board</i>						
Fraction Outsiders	Number of Firm Years	CEO Turnover Rate	Forced Turnover Rate	Normal Turnover Rate	Outside Successions as % of all Turnover	
0 - 0.099	665	0.1143	0.0316	0.0827	42.11%	
0.1 - 0.199	600	0.1200	0.0267	0.0933	47.22%	
0.2 - 0.299	1030	0.1223	0.0427	0.0796	59.20%	
0.3 - 0.399	658	0.1474	0.0471	0.1003	43.30%	
0.4 - 0.499	492	0.1362	0.0549	0.0813	52.24%	
0.5 - 0.599	310	0.1452	0.0903	0.0549	71.11%	
> 0.599	106	0.1321	0.0566	0.0755	71.43%	
<i>Panel B: Difference in forced turnover rates between bands of outside director representation</i>						
> 0.499 against 0 - 0.099	> 0.499 against 0.1 - 0.199	> 0.499 against 0.2 - 0.299	> 0.499 against 0.3 - 0.399	> 0.499 against 0.4 - 0.499		
0.0502 (0.00)	0.0551 (0.00)	0.0390 (0.01)	0.0346 (0.03)	0.0269 (0.11)		
<i>Panel C: Difference in outside succession as a fraction of all new CEO appointments between bands of outside director representation.</i>						
> 0.499 against 0 - 0.099	> 0.499 against 0.1 - 0.199	> 0.499 against 0.2 - 0.299	> 0.499 against 0.3 - 0.399	> 0.499 against 0.4 - 0.499		
29.08% (0.00)	23.96% (0.01)	12.00% (0.11)	27.89% (0.00)	18.95% (0.03)		

**Table 6-4**

**CEO turnover dependent upon whether the company had previously separated the functions of the CEO and the company Chairman**

*Split* is defined where the company employs separate personnel to occupy the positions of the Chairman and the CEO. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

<i>Panel A: CEO turnover and outside succession according to whether the departing CEO has split the positions of the Chairman and the CEO</i>					
<i>Split</i>	Number of Firm Years	CEO Turnover Rate	Forced Turnover Rate	Normal Turnover Rate	Outside Successions as % of all Turnover
Yes	2742	0.1149	0.0522	0.0627	51.59%
No	1119	0.1626	0.0268	0.1358	53.30%
<i>Panel B: Difference in forced turnover rates according to whether the departing CEO had split the positions of the Chairman and the CEO</i>					
Difference in forced turnover rate between firms which split the top officer role and those which don't					<b>0.0254 (0.00)</b>
<i>Panel C: Difference in outside succession according to whether the departing CEO had split the positions of the Chairman and the CEO</i>					
Difference in outside succession as a fraction of all new CEO appointments between firms which split the top officer role and those which don't					<b>-1.71% (0.71)</b>



**Table 6-5**  
**CEO turnover by company board size**

Board size is defined as the number of directors serving on the company's board at the financial year-end prior to CEO turnover. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

Panel A: CEO turnover and outside succession according to the number of directors serving on the company's board at the last financial year end									
Board Size	Number of Firm Years	CEO Turnover Rate	Forced Turnover Rate	Normal Turnover Rate	Outside Successions as % of all Turnover				
2-3	105	0.1238	0.0476	0.0762	84.62%				
4	313	0.1374	0.0511	0.0863	62.79%				
5	649	0.1171	0.0508	0.0663	57.89%				
6	707	0.1188	0.0495	0.0693	54.76%				
7	701	0.1155	0.0357	0.0798	51.85%				
8	502	0.1315	0.0478	0.0837	44.62%				
9-10	535	0.1383	0.0393	0.0990	44.59%				
11-12	241	0.1577	0.0456	0.1121	55.26%				
> 12	108	0.2038	0.0278	0.1760	27.27%				
Panel B: Difference in forced turnover rates according to company board size									
< 5 against 5	< 5 against 6	< 5 against 7	< 5 against 8	< 5 against 9-10	< 5 against 11-12	< 5 against > 12			
-0.0007 (0.96)	0.0007 (0.96)	0.0146 (0.25)	0.0024 (0.87)	0.0110 (0.42)	0.0046 (0.79)	0.0225 (0.24)			
Panel C: Difference in outside succession according to company board size									
< 5 against 5	< 5 against 6	< 5 against 7	< 5 against 8	< 5 against 9-10	< 5 against 11-12	< 5 against > 12			
9.96% (0.24)	13.10% (0.12)	16.00% (0.06)	23.24% (0.01)	23.26% (0.01)	12.59% (0.23)	40.58% (0.01)			

**Table 6-6**

**CEO turnover ranked by whether the company had issued new equity during the year of turnover**

Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Equity issuance is defined where a company makes an issue of new shares through either a rights offering or placing during the year of CEO turnover. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Turnover rates are calculated as the number of turnover events as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

<i>Panel A: CEO turnover and outside succession according to whether the company issued equity in the year of CEO turnover</i>					
Equity Issue	Number of Firm Years	CEO Turnover Rate	Forced Turnover Rate	Normal Turnover Rate	Outside Successions as % of all Turnover
Yes	493	0.1602	0.0669	0.0933	51.89%
No	3337	0.1252	0.0420	0.0832	52.15%
<i>Panel B: Difference in forced turnover rates between companies making equity issues during the year of turnover and those that don't</i>					
Difference in forced turnover rates between companies making equity issues during the year of turnover and those that don't:					
<b>0.0249 (0.03)</b>					
<i>Panel C: Difference in outside succession between firms making equity issues during the year of turnover and those that don't</i>					
Difference in outside succession as a fraction of all CEO appointments between firms making equity issues during the year of turnover and those that don't					
<b>-0.26% (0.95)</b>					



**Table 6-7**  
**Logit regressions of the likelihood of forced CEO turnover**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. Ownership and board characteristics are taken from company annual reports and other financial information is taken from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to the financial year-end minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-2.750149 (0.00)	-1.902118 (0.00)	-2.190154 (0.00)	-2.068791 (0.00)	-1.970059 (0.00)	-2.375563 (0.00)	-2.274900 (0.00)
Lagged Return	-1.618233 (0.00)	-1.549530 (0.00)	-1.528344 (0.00)	-1.540036 (0.00)	-1.539607 (0.00)	-1.524001 (0.00)	-1.524096 (0.00)
Ln (Sales)	-0.038522 (0.39)	-0.105675 (0.03)	-0.134065 (0.02)	-0.095944 (0.05)	-0.103590 (0.04)	-0.124908 (0.03)	-0.132589 (0.02)
Past Turnover	-0.535358 (0.05)	-0.690670 (0.01)	-0.736796 (0.01)	-0.709032 (0.01)	-0.707963 (0.01)	-0.751238 (0.01)	-0.750209 (0.01)
Borrowing Ratio		0.002882 (0.75)	0.003379 (0.74)	0.002212 (0.80)	0.002198 (0.80)	0.002865 (0.77)	0.002851 (0.77)
CEO Ownership		-0.050401 (0.01)	-0.038391 (0.00)	-0.049399 (0.00)	-0.049469 (0.00)	-0.037046 (0.01)	-0.037206 (0.01)
Financial Blockholdings		0.005589 (0.23)	0.003019 (0.52)	0.005306 (0.25)	0.004995 (0.28)	0.002898 (0.54)	0.002629 (0.58)
Fraction Outsiders			1.595622 (0.00)			1.553863 (0.00)	1.529900 (0.00)
Split			0.368899 (0.09)			0.380754 (0.08)	0.384204 (0.08)
Board Size			-0.013385 (0.77)			-0.009939 (0.82)	-0.009374 (0.84)





**Table 6-8**

**Logit regressions of the likelihood of forced CEO turnover and the disciplinary effects of board structure and equity issuance**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. Ownership and board characteristics are taken from company annual reports and other financial information is taken from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Intercept	-1.913910 (0.00)	-2.446018 (0.00)	-2.115918 (0.00)	-2.096219 (0.00)	-1.996408 (0.00)	-2.732839 (0.00)	-2.629802 (0.00)	-4.355357 (0.00)	-3.778819 (0.00)
Lagged Return	-1.672181 (0.00)	-2.036662 (0.00)	-2.490711 (0.00)	-1.333650 (0.00)	-1.334558 (0.00)	-2.478171 (0.00)	-2.448220 (0.00)	-2.294944 (0.02)	-2.595959 (0.00)
Ln (Sales)	-0.145874 (0.00)	-0.102790 (0.04)	-0.090781 (0.11)	-0.090870 (0.06)	-0.098581 (0.05)	-0.114856 (0.05)	-0.121855 (0.04)	0.013756 (0.84)	-0.060000 (0.36)
Past Turnover	-0.719964 (0.01)	-0.711887 (0.01)	-0.699117 (0.01)	-0.732524 (0.01)	-0.731029 (0.01)	-0.780130 (0.00)	-0.779477 (0.01)	-1.195084 (0.00)	-0.820999 (0.00)
Borrowing Ratio	0.002986 (0.76)	0.003911 (0.68)	0.002940 (0.75)	0.003164 (0.71)	0.003147 (0.72)	0.004144 (0.67)	0.004105 (0.67)	0.004904 (0.68)	0.002012 (0.85)
CEO Ownership	-0.044131 (0.00)	-0.041459 (0.00)	-0.050935 (0.00)	-0.048992 (0.00)	-0.049062 (0.00)	-0.035503 (0.01)	-0.035668 (0.01)	-0.045171 (0.01)	-0.034938 (0.01)
Financial Blockholdings	0.003203 (0.49)	0.005662 (0.22)	0.005583 (0.24)	0.005740 (0.22)	0.005416 (0.25)	0.003753 (0.43)	0.003454 (0.47)	0.007663 (0.15)	0.004314 (0.38)
Fraction Outsiders	1.823738 (0.00)					1.569388 (0.01)	1.529118 (0.01)	1.484425 (0.02)	1.546407 (0.01)
Fraction Outsiders * Lagged Return	0.474886 (0.71)					0.115186 (0.93)	0.055638 (0.97)	-0.431804 (0.76)	0.353169 (0.78)
Split		0.596174 (0.03)				0.517082 (0.06)	0.517107 (0.06)	0.634508 (0.04)	0.572772 (0.04)

**Table 6-8 continued**

Split * Lagged Return	0.578591 (0.31)	0.396693 (0.48)	0.383622 (0.50)	0.890690 (0.17)	0.427061 (0.45)
Board Size	0.005429 (0.91)	0.008403 (0.86)	0.008790 (0.85)	-0.016436 (0.75)	0.011711 (0.81)
Board Size * Lagged Return	0.146898 (0.14)	0.120889 (0.24)	0.120621 (0.24)	0.094274 (0.40)	0.132655 (0.20)
Equity Issue	0.150829 (0.58)	0.124902 (0.65)		-0.001070 (0.99)	0.145847 (0.60)
Equity Issue * Lagged Return	-0.971620 (0.07)	-0.940675 (0.08)		-1.507481 (0.01)	-0.902312 (0.10)
Placing		0.151433 (0.70)	0.107221 (0.79)		
Placing * Lagged Return		-0.955810 (0.20)	-0.947136 (0.21)		
Rights		0.143471 (0.70)	0.130788 (0.72)		
Rights * Lagged Return		-0.970023 (0.17)	-0.923903 (0.19)		
Year Dummies	No	No	No	No	Yes
Industry Dummies	No	No	No	No	Yes
Number of Observations	3805	3805	3805	3771	3805
Log Likelihood	-643.9594	-641.3988	-637.8236	-536.9619	-616.1997
Probability	0.00	0.00	0.00	0.00	0.00



**Table 6-9**  
**Implied probabilities of forced CEO turnover based on equity issuance and board structure characteristics**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. Ownership and board characteristics are taken from company annual reports and other financial information is taken from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Performance is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. *Equity Issue* is a dummy variable taking the value of one if the company has issued new shares representing at least 5% of the company's issued share capital prior to the issue during the year of CEO turnover, and zero otherwise. Probabilities at the 10<sup>th</sup> and 90<sup>th</sup> percentile of performance are calculated from model (6) of table 6-8 and holdings all other variables at their sample mean.

		<i>Panel A: Implied forced CEO turnover probabilities based on equity issuance and the fraction of outside directors</i>				
		0	0.1	0.25	0.4	0.6
Equity Issue						
Probability at 10 <sup>th</sup> percentile		0.1304	0.1485	0.1794	0.2152	0.2706
Probability at 90 <sup>th</sup> percentile		0.0131	0.0154	0.0196	0.0249	0.0341
No Equity Issue						
Probability at 10 <sup>th</sup> percentile		0.0755	0.0868	0.1065	0.1301	0.1682
Probability at 90 <sup>th</sup> percentile		0.0192	0.0226	0.0287	0.0364	0.0497
		<i>Panel B: Implied forced CEO turnover probabilities based on equity issuance and separating the CEO and Chairman positions</i>				
		Split		Combined		
Equity Issue						
Probability at 10 <sup>th</sup> percentile		0.1950		0.1503		
Probability at 90 <sup>th</sup> percentile		0.0244		0.0118		
No Equity Issue						
Probability at 10 <sup>th</sup> percentile		0.1166		0.0880		
Probability at 90 <sup>th</sup> percentile		0.0357		0.0174		

**Table 6-10**

**Logit regressions of the likelihood of forced CEO turnover according to compliance with UK corporate governance codes**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. *Simple Comply* is an indicator variable equal to one when the company separates the roles of the Chairman and the CEO and employs at least three non-executive directors on the company board, and zero otherwise. *True Comply* is set equal to one when the company meets the conditions for *Simple Comply* and also has a majority of non-executive directors who are outsiders, and zero otherwise. *Higgs Comply* is set equal to one when the company separates the roles of the Chairman and the CEO and, excluding the Chairman, has at least half of the board comprised of outside directors, and zero otherwise. *Outside Dominated* and *NED Dominated* are set equal to one when at least half of the company's board is comprised of outside and non-executive directors respectively. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. *Equity Issue* is a dummy variable taking the value of one if the company has issued new shares representing at least 5% of the company's issued share capital prior to the issue during the year of CEO turnover, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Simple Comply	True Comply	Higgs Comply	Outside Dominated	NED Dominated
Intercept	-2.252822 (0.00)	-1.930726 (0.00)	-2.255553 (0.00)	-2.167265 (0.00)	-2.487507 (0.00)
Lagged Return	-2.283282 (0.00)	-2.328756 (0.00)	-2.089024 (0.00)	-2.250643 (0.00)	-2.148752 (0.00)
Ln (Sales)	-0.079510 (0.16)	-0.110295 (0.06)	-0.078210 (0.17)	-0.110375 (0.05)	-0.082896 (0.14)
Past Turnover	-0.758135 (0.01)	-0.802817 (0.00)	-0.743461 (0.01)	-0.751684 (0.01)	-0.737186 (0.01)
Borrowing Ratio	0.002935 (0.74)	0.002366 (0.80)	0.002881 (0.75)	0.002903 (0.75)	0.002974 (0.75)
CEO Ownership	-0.046451 (0.00)	-0.044329 (0.00)	-0.049604 (0.00)	-0.046507 (0.00)	-0.043571 (0.00)
Financial Blockholdings	0.005150 (0.28)	0.003921 (0.41)	0.005540 (0.24)	0.005042 (0.29)	0.005783 (0.22)
Compliance	0.172181 (0.40)	0.545842 (0.01)	-0.061294 (0.86)	0.803736 (0.00)	0.474479 (0.01)



**Table 6-10 continued**

Compliance * Lagged Return	-0.310585 (0.51)	-0.298847 (0.51)	-0.478827 (0.51)	0.642635 (0.21)	0.030121 (0.94)
Board Size	-0.008786 (0.86)	-0.016939 (0.73)	0.002971 (0.95)	0.024728 (0.60)	0.007970 (0.86)
Board Size * Lagged Return	0.169555 (0.13)	0.175472 (0.10)	0.122854 (0.23)	0.121972 (0.22)	0.119548 (0.24)
Equity Issue	0.153616 (0.58)	0.132626 (0.63)	0.147783 (0.59)	0.132822 (0.63)	0.166753 (0.55)
Equity Issue * Lagged Return	-0.986993 (0.07)	-1.014904 (0.06)	-0.907758 (0.09)	-0.924330 (0.09)	-0.966969 (0.08)
Number of Observations	3805	3805	3805	3805	3805
Log Likelihood	-643.9825	-639.1909	-644.7849	-639.7245	-640.9211
Probability	0.00	0.00	0.00	0.00	0.00

**Table 6-11****Logit regressions of the likelihood of forced CEO turnover for large and small companies respectively**

The table reports results for large and small companies respectively from an overall sample of 683 non-financial UK listed companies where CEO turnover occurs between 1993 and 1998. Models (1) and (2) report results for large companies, defined as those with sales above the sample median and models (3) and (4) report results for companies with sales below the median. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. *Equity Issue* is a dummy variable taking the value of one if the company has issued new shares representing at least 5% of the company's issued share capital prior to the issue during the year of CEO turnover, and zero otherwise. *Placing* and *Rights* are dummy variables taking the value of one where the company has issued equity under the above conditions in the form of a placing or a rights issue respectively, and zero otherwise. P-values for two tailed tests of significance are reported in parenthesis.

Variable	(1)	(2)	(3)	(4)
Intercept	-3.731778 (0.03)	-3.631121 (0.03)	-2.391430 (0.05)	-2.241430 (0.07)
Lagged Return	-1.936887 (0.23)	-1.726223 (0.28)	-3.379769 (0.00)	-3.318785 (0.00)
Ln (Sales)	-0.121417 (0.37)	-0.122536 (0.37)	-0.084998 (0.45)	-0.094998 (0.40)
Past Turnover	-0.950309 (0.02)	-0.948935 (0.02)	-0.747748 (0.05)	-0.775762 (0.04)
Borrowing Ratio	0.017412 (0.24)	0.019586 (0.17)	-0.006048 (0.78)	-0.005580 (0.79)
CEO Ownership	-0.025208 (0.45)	-0.027731 (0.42)	-0.038556 (0.01)	-0.039081 (0.01)
Financial Blockholdings	0.022649 (0.00)	0.021777 (0.01)	-0.012014 (0.07)	-0.011613 (0.08)
Fraction Outsiders	2.230781 (0.02)	2.032346 (0.04)	0.952289 (0.20)	0.990679 (0.18)
Fraction Outsiders * Lagged Return	-1.479890 (0.54)	-1.617350 (0.50)	1.289616 (0.37)	1.439216 (0.31)



**Table 6-11 continued**

Split	0.246300 (0.51)	0.257545 (0.49)	0.789157 (0.05)	0.790578 (0.05)
Split * Lagged Return	-0.084345 (0.93)	-0.135864 (0.89)	0.907686 (0.22)	0.844092 (0.25)
Board Size	0.075234 (0.26)	0.074085 (0.27)	-0.043122 (0.56)	-0.050715 (0.50)
Board Size * Lagged Return	0.143796 (0.35)	0.124685 (0.42)	0.192528 (0.17)	0.186591 (0.18)
Equity Issue	-0.415588 (0.42)		0.573500 (0.09)	
Equity Issue * Lagged Return	-1.523806 (0.14)		-0.654190 (0.30)	
Placing		0.235267 (0.68)		0.087710 (0.87)
Placing * Lagged Return		0.182264 (0.88)		-1.648354 (0.09)
Rights		-1.657232 (0.13)		0.872441 (0.03)
Rights * Lagged Return		-4.003219 (0.03)		0.044715 (0.95)
Number of Observations	1920	1920	1885	1885
Log Likelihood	-307.6636	-302.5524	-316.3991	-314.2100
Probability	0.00	0.00	0.00	0.00

**Table 6-12**

**Logit regressions of the likelihood of outside succession conditional on turnover occurring**

The sample contains up to 497 turnover events for a sample of 683 non-financial UK listed companies between 1993 and 1998. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, turnover is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	1.464901 (0.04)	1.539783 (0.03)	1.460480 (0.04)	1.606929 (0.03)	1.744386 (0.02)	1.717741 (0.02)	1.868089 (0.01)	3.139992 (0.00)
Lagged Return	-0.041321 (0.81)	-0.016533 (0.92)	-0.045713 (0.79)	-0.044882 (0.79)	-0.056768 (0.74)	-0.023665 (0.89)	-0.035128 (0.84)	-0.209977 (0.27)
Ln (Sales)	-0.048563 (0.46)	-0.085957 (0.21)	-0.042409 (0.53)	-0.051030 (0.44)	-0.064777 (0.35)	-0.085458 (0.22)	-0.102037 (0.15)	-0.052578 (0.51)
Forced Turnover	0.714671 (0.00)	0.636886 (0.00)	0.772846 (0.00)	0.722621 (0.00)	0.710738 (0.00)	0.727232 (0.00)	0.707279 (0.00)	0.736746 (0.00)
Borrowing Ratio	-0.024379 (0.30)	-0.028999 (0.22)	-0.024063 (0.31)	-0.024218 (0.30)	-0.023137 (0.31)	-0.029048 (0.21)	-0.028143 (0.22)	-0.029511 (0.22)
Non-CEO Board Ownership	-0.016102 (0.05)	-0.014094 (0.09)	-0.014701 (0.08)	-0.017092 (0.04)	-0.017487 (0.04)	-0.012666 (0.14)	-0.013243 (0.13)	-0.016049 (0.09)
Financial Blockholdings	-0.007425 (0.22)	-0.008997 (0.15)	-0.007242 (0.23)	-0.007512 (0.22)	-0.007880 (0.20)	-0.009087 (0.14)	-0.009542 (0.13)	-0.009668 (0.16)
Board Size	-0.099888 (0.04)	-0.096646 (0.04)	-0.097932 (0.04)	-0.108155 (0.03)	-0.102460 (0.04)	-0.102838 (0.04)	-0.097257 (0.05)	-0.140745 (0.01)
Fraction Outsiders		1.468092 (0.02)				1.720094 (0.01)	1.764712 (0.01)	1.913465 (0.01)
Split			-0.185019 (0.37)			-0.299632 (0.16)	-0.272609 (0.20)	-0.335129 (0.14)



**Table 6-12 continued**

Equity Issue	-0.294871 (0.26)	-0.577339 (0.14)	-0.355429 (0.18)	-0.669281 (0.09)	-0.495241 (0.08)
Placing		-0.107472 (0.74)		-0.151590 (0.64)	
Rights					
Year Dummies	No	No	No	No	Yes
Industry Dummies	No	No	No	No	Yes
Number of Observations	495	495	495	495	495
Log Likelihood	-328.2793	-327.8776	-325.4208	-321.5910	-309.2345
Probability	0.00	0.00	0.00	0.00	0.01

Table 6-13

### Logit regressions of the likelihood of outside succession conditional on turnover occurring according to compliance with UK corporate governance codes

The sample contains up to 497 turnover events for a sample of 683 UK listed non-financial companies between 1993 and 1998. *Simple Comply* is an indicator variable equal to one when the company separates the roles of the Chairman and the CEO and employs at least three non-executive directors on the company board, and zero otherwise. *True Comply* is set equal to one when the company meets the conditions for *Simple Comply* and also has a majority of non-executive directors who are outsiders, and zero otherwise. *Higgs Comply* is set equal to one when the company separates the roles of the Chairman and the CEO and, excluding the Chairman, has at least half of the board comprised of outside directors, and zero otherwise. *Outside Dominated* and *NED Dominated* are set equal to one when at least half of the company's board is comprised of outside and non-executive directors respectively. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, turnover is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Simple Comply	True Comply	Higgs Comply	Outside Dominated	NED Dominated
Intercept	1.668033 (0.02)	1.577011 (0.03)	1.681276 (0.02)	1.734719 (0.02)	1.648444 (0.02)
Lagged Return	-0.043072 (0.80)	-0.046494 (0.79)	-0.031083 (0.86)	-0.041294 (0.81)	-0.046798 (0.78)
Ln (Sales)	-0.055016 (0.41)	-0.048965 (0.47)	-0.063157 (0.35)	-0.079306 (0.25)	-0.061627 (0.36)
Forced Turnover	0.704774 (0.00)	0.731989 (0.00)	0.715870 (0.00)	0.652106 (0.00)	0.669922 (0.00)
Borrowing Ratio	-0.024868 (0.28)	-0.023994 (0.30)	-0.027062 (0.23)	-0.028542 (0.20)	-0.028751 (0.24)
Non-CEO Board Ownership	-0.017499 (0.04)	-0.017022 (0.04)	-0.017008 (0.04)	-0.015848 (0.06)	-0.017488 (0.04)
Financial Blockholdings	-0.007723 (0.21)	-0.007413 (0.23)	-0.007852 (0.20)	-0.008304 (0.18)	-0.007763 (0.20)



**Table 6-13 continued**

Board Size	-0.112992 (0.02)	-0.106606 (0.03)	-0.100639 (0.04)	-0.086125 (0.08)	-0.109216 (0.03)
Compliance	0.083440 (0.69)	-0.038484 (0.87)	0.459542 (0.24)	0.777779 (0.02)	0.305166 (0.12)
Equity Issue	-0.291260 (0.27)	-0.295555 (0.26)	-0.328942 (0.21)	-0.330127 (0.21)	-0.287144 (0.27)
Number of Observations	495	495	495	495	495
Log Likelihood	-327.5659	-327.6288	-326.9420	-324.6926	-326.4412
Probability	0.00	0.00	0.00	0.00	0.00

**Table 6-14**

**Logit regressions of the likelihood of outside succession conditional on turnover occurring for large and small companies respectively**

The sample contains up to 497 turnover events for a sample of 683 UK listed non-financial companies between 1993 and 1998. Models (1) and (2) report results for large companies, defined as those with sales above the sample median and models (3) and (4) report results for companies with sales below the median. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, turnover is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	(1)	(2)	(3)	(4)
Intercept	0.136738 (0.93)	0.275947 (0.87)	2.206814 (0.13)	2.247733 (0.12)
Lagged Return	-0.423156 (0.19)	-0.456734 (0.16)	0.231438 (0.31)	0.239221 (0.29)
Ln (Sales)	0.042474 (0.76)	0.031294 (0.82)	-0.145501 (0.31)	-0.163609 (0.26)
Forced Turnover	0.650248 (0.03)	0.651116 (0.04)	0.914152 (0.01)	0.884581 (0.01)
Borrowing Ratio	-0.046534 (0.25)	-0.043890 (0.28)	-0.023798 (0.35)	-0.025674 (0.31)
Non-CEO Board Ownership	-0.003408 (0.87)	-0.003821 (0.85)	-0.011580 (0.24)	-0.011127 (0.27)
Financial Blockholdings	-0.013672 (0.14)	-0.014678 (0.11)	0.002432 (0.80)	0.003223 (0.74)
Board Size	-0.106837 (0.11)	-0.100048 (0.13)	-0.124779 (0.11)	-0.119923 (0.13)
Fraction Outsiders	1.684276 (0.09)	1.536212 (0.13)	1.956785 (0.04)	2.387901 (0.01)



Table 0-14 continued

Split	-0.247429 (0.40)	-0.225734 (0.44)	-0.497027 (0.13)	-0.463637 (0.17)
Equity Issue	-0.768102 (0.06)		-0.126954 (0.73)	
Placing		-1.332751 (0.11)		-0.654948 (0.17)
Rights		-0.558850 (0.24)		0.471566 (0.39)
Number of Observations	271	271	224	224
Log Likelihood	-177.8190	-176.6361	-140.4278	-138.1695
Probability	0.04	0.06	0.01	0.01

**Table 6-15****Logit regressions of the likelihood of forced CEO turnover amongst the best and worst performing companies**

The reported results are for firm years in the lowest and highest decile of market-adjusted stock price performance respectively for the overall sample of 683 non-financial UK listed companies between 1993 and 1998. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, turnover is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Performance is calculated as the annual stock return in the financial year prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Worst Performers	Best Performers
Intercept	-0.772747 (0.51)	-7.487500 (0.02)
Ln (Sales)	-0.043676 (0.70)	0.027468 (0.92)
Past Turnover	-1.470641 (0.00)	0.240570 (0.83)
Borrowing Ratio	0.008914 (0.74)	0.016674 (0.74)
CEO Ownership	-0.028925 (0.17)	0.018846 (0.59)
Financial Blockholdings	-0.009750 (0.27)	0.033229 (0.08)
Fraction Outsiders	1.330386 (0.17)	4.171783 (0.05)
Split	0.255811 (0.49)	0.191735 (0.84)
Board Size	-0.102544 (0.30)	0.147490 (0.44)
Equity Issue	0.813769 (0.02)	-0.735737 (0.52)
Number of Observations	376	386
Number of Forced Turnover Events	54	9
Log Likelihood	-143.9654	-38.18773
Probability	0.01	0.43



**Table 6-16**  
**Logit regressions of the likelihood of forced CEO turnover for different measures of corporate leverage**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. Ownership and board characteristics are taken from company annual reports and other financial information is taken from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the firm's issued share capital prior to the issue. The Borrowing Ratio is defined as the book value of debt divided by the book value of equity. Capital Gearing is calculated as total debt plus preferred stock divided by total capital employed plus short-term borrowing minus total intangibles. Short-term debt-to-assets and Long-term debt-to-assets are the ratios of short and long-term loans to total assets respectively. Ln (Interest Coverage) is the natural logarithm of earnings before interest and taxes (EBIT) divided by the interest charge in the firm's accounts. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, succession is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parentheses.

Variable	Borrowing Ratio	Capital Gearing	Short-Term Debt-to-Assets	Long-Term Debt-to-Assets	Ln (Interest Coverage)
Intercept	-2.732877 (0.00)	-2.739069 (0.00)	-2.707509 (0.00)	-2.749511 (0.00)	-3.264164 (0.00)
Lagged Return	-2.478264 (0.00)	-2.510064 (0.00)	-2.167261 (0.01)	-2.430505 (0.00)	-1.577612 (0.14)
Ln (Sales)	-0.114859 (0.05)	-0.113947 (0.05)	-0.113207 (0.06)	-0.111831 (0.06)	-0.090054 (0.22)
Past Turnover	-0.780126 (0.00)	-0.779439 (0.00)	-0.768613 (0.01)	-0.776143 (0.01)	-0.488085 (0.11)
CEO Ownership	-0.035503 (0.01)	-0.035453 (0.01)	-0.037399 (0.01)	-0.034699 (0.01)	-0.039060 (0.04)
Financial Blockholdings	0.003753 (0.43)	0.003786 (0.43)	0.004036 (0.40)	0.003483 (0.47)	0.009974 (0.08)
Fraction Outsiders	1.569574 (0.01)	1.562163 (0.01)	1.630730 (0.01)	1.637131 (0.01)	1.903208 (0.01)
Fraction Outsiders * Lagged Return	0.115016 (0.93)	0.105945 (0.93)	0.057990 (0.96)	0.080987 (0.95)	0.146142 (0.93)

Table 6-16 continued

Split	0.517088 (0.06)	0.516179 (0.06)	0.502882 (0.06)	0.517312 (0.06)	0.462557 (0.12)
Split * Lagged Return	0.396575 (0.48)	0.387227 (0.49)	0.343842 (0.54)	0.301088 (0.60)	0.426695 (0.54)
Board Size	0.008400 (0.86)	0.008080 (0.86)	0.010046 (0.83)	0.006734 (0.89)	0.047962 (0.36)
Board Size * Lagged Return	0.120889 (0.24)	0.123946 (0.23)	0.102811 (0.32)	0.126687 (0.22)	0.037571 (0.75)
Equity Issue	0.124856 (0.65)	0.128727 (0.64)	0.149201 (0.59)	0.133633 (0.63)	-0.114505 (0.73)
Equity Issue * Lagged Return	-0.940398 (0.08)	-0.940005 (0.08)	-0.895722 (0.10)	-0.970882 (0.08)	-1.226537 (0.10)
Leverage	0.004226 (0.73)	0.006775 (0.86)	-1.027739 (0.33)	-0.526146 (0.78)	-0.176797 (0.04)
Leverage * Lagged Return	0.000367 (0.99)	0.036347 (0.73)	-1.791061 (0.18)	0.578194 (0.86)	-0.067842 (0.70)
Number of Observations	3805	3805	3758	3736	3381
Log Likelihood	-637.8235	-637.8163	-632.2562	-628.7475	-505.0509
Probability	0.00	0.00	0.00	0.00	0.00



**Table 6-17**

**Logit regressions of the likelihood of forced CEO turnover for different performance measures**

CEO turnover is for a sample of up to 683 non-financial UK listed companies from 1993 to 1998. Ownership and board characteristics are taken from annual reports and other financial data is from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Lagged IROA is the ratio of EBIT for the financial year prior to turnover divided by the book value of assets at the beginning of the year, minus the median ROA for companies in the same FTSE level 4 industry group in the year preceding CEO turnover. IROA Average is the average IROA in the three years preceding CEO turnover. Dividend Cut / Omit is a dummy variable equal to minus one where the company has cut or omitted its dividend in the year preceding CEO turnover, and zero otherwise. Negative Income is a dummy variable equal to minus one if the company has reported negative pre-tax profits for the financial year prior to CEO turnover, and zero otherwise. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, succession is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Lagged IROA	IROA Average	Dividend Cut / Omit	Negative Income
Intercept	-2.585984 (0.00)	-2.519321 (0.00)	-3.883216 (0.00)	-3.750278 (0.00)
Lagged Performance	-0.565357 (0.70)	-1.166112 (0.63)	-1.706172 (0.01)	-3.126665 (0.00)
Ln (Sales)	-0.075602 (0.20)	-0.082524 (0.17)	-0.031661 (0.59)	-0.027905 (0.65)
Past Turnover	-0.786841 (0.01)	-0.657116 (0.02)	-0.853512 (0.00)	-0.782691 (0.00)
Borrowing Ratio	0.003345 (0.71)	0.003115 (0.72)	0.001288 (0.88)	-9.43E-05 (0.99)
CEO Ownership	-0.039206 (0.01)	-0.039059 (0.00)	-0.035591 (0.01)	-0.038712 (0.01)
Financial Blockholdings	0.006298 (0.18)	0.005945 (0.21)	0.004866 (0.30)	0.007460 (0.11)
Fraction Outsiders	1.341989 (0.01)	1.451653 (0.01)	1.989581 (0.00)	1.675051 (0.01)
Fraction Outsiders * Lagged Performance	1.845776 (0.41)	4.268651 (0.21)	1.615562 (0.11)	1.569947 (0.17)

**Table 6-17 continued**

Split	0.367932 (0.10)	0.355157 (0.11)	0.870604 (0.01)	0.437804 (0.09)
Split * Lagged Performance	0.093132 (0.91)	0.544434 (0.67)	0.894920 (0.04)	0.225421 (0.64)
Board Size	-0.038902 (0.39)	-0.038958 (0.39)	-0.052491 (0.33)	-0.001459 (0.98)
Board Size * Lagged Performance	-0.246899 (0.29)	-0.402289 (0.23)	-0.101476 (0.18)	0.209634 (0.08)
Equity Issue	0.238949 (0.29)	0.304002 (0.17)	-0.566458 (0.19)	0.133996 (0.62)
Equity Issue * Lagged Performance	-1.051131 (0.22)	0.158340 (0.87)	-1.139317 (0.02)	-0.278923 (0.54)
Number of Observations	3804	3800	3806	3806
Log Likelihood	-660.5890	-663.4429	-635.2837	-649.1430
Probability	0.00	0.00	0.00	0.00



**Table 6-18****Logit regressions of the likelihood of outside succession conditional on turnover occurring for different performance measures**

The sample contains up to 497 turnover events for a sample of 683 UK listed non-financial companies between 1993 and 1998. Lagged IROA is the ratio of EBIT for the financial year prior to turnover divided by the book value of assets at the beginning of the year, minus the median ROA for companies in the same FTSE level 4 industry group in the year preceding CEO turnover. IROA Average is the average IROA in the three years preceding CEO turnover. Dividend Cut / Omit is a dummy variable set equal to minus one where the company has cut or omitted its dividend for the financial year preceding CEO turnover, and zero otherwise. Negative Income is a dummy variable equal to minus one where the company has reported negative pre-tax profits for the financial year prior to CEO turnover, and zero otherwise. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining cases, turnover is classed as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an independent director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. Lagged Return is calculated as the annual stock return to the financial year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Lagged IROA	IROA Average	Dividend Cut / Omit	Negative Income
Intercept	1.712658 (0.02)	1.751366 (0.02)	1.211895 (0.12)	1.403346 (0.07)
Lagged Performance	-0.005264 (0.99)	-0.008527 (0.99)	-0.497498 (0.03)	-0.325935 (0.27)
Ln (Sales)	-0.085237 (0.22)	-0.086848 (0.23)	-0.047486 (0.51)	-0.063530 (0.38)
Forced Turnover	0.731709 (0.00)	0.727292 (0.00)	0.650948 (0.00)	0.708251 (0.00)
Borrowing Ratio	-0.028958 (0.21)	-0.029019 (0.21)	-0.032566 (0.20)	-0.028704 (0.22)
Non-CEO Board Ownership	-0.012668 (0.14)	-0.012978 (0.14)	-0.012737 (0.14)	-0.012411 (0.15)
Financial Blockholdings	-0.009028 (0.14)	-0.008737 (0.16)	-0.009535 (0.13)	-0.008289 (0.18)
Board Size	-0.102859 (0.04)	-0.103262 (0.04)	-0.106334 (0.03)	-0.100004 (0.04)

**Table 6-18 continued**

Fraction Outsiders	1.724347 (0.01)	1.681158 (0.01)	1.691608 (0.01)	1.693013 (0.01)
Split	-0.299183 (0.16)	-0.305009 (0.15)	-0.287512 (0.18)	-0.312701 (0.14)
Equity Issue	-0.355209 (0.18)	-0.362946 (0.18)	-0.516767 (0.06)	-0.413996 (0.13)
Number of Observations	495	494	495	495
Log Likelihood	-323.8280	-323.1340	-321.4534	-323.2266
Probability	0.00	0.00	0.00	0.00



**Table 6-19**  
**Equity issuance ranked by market adjusted stock returns for the accounting year prior to turnover**

Stock price performance is calculated as the company's annual stock return for the accounting year-end prior to turnover minus the return on the *FT All Share Index* for the corresponding period. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards* with the condition that issues represent at least 5% of the company's issued share capital prior to the issue. Equity issuance rates are calculated as the number of issues as a fraction of firm years. P-values for two-tailed t-tests of significance are reported in parenthesis.

<i>Panel A: Equity issuance by decile of market-adjusted stock returns</i>																	
Decile of Share Price Performance	Number of Firm Years	Equity Issuance Rate	Placings Rate	Rights Rate													
1 (lowest)	386	0.1839		0.0857					0.0987								
2	386	0.0984		0.0470					0.0522								
3	386	0.1036		0.0525					0.0525								
4	386	0.0803		0.0342					0.0474								
5	386	0.1166		0.0469					0.0703								
6	386	0.1088		0.0391					0.0703								
7	386	0.1347		0.0627					0.0731								
8	386	0.1244		0.0653					0.0601								
9	386	0.1606		0.0812					0.0812								
10 (highest)	386	0.1658		0.0859					0.0807								
<i>Panel B: Difference in equity issuance between deciles of stock price performance</i>																	
1 against 2	0.0855 (0.00)	1 against 3	0.1036 (0.00)	1 against 4	0.0803 (0.00)	1 against 5	0.0674 (0.01)	1 against 6	0.0751 (0.00)	1 against 7	0.0492 (0.06)	1 against 8	0.0596 (0.02)	1 against 9	0.0233 (0.39)	1 against 10	0.0181 (0.51)
<i>Panel C: Difference in placings between deciles of stock price performance</i>																	
1 against 2	0.0387 (0.03)	1 against 3	0.0332 (0.07)	1 against 4	0.0515 (0.00)	1 against 5	0.0388 (0.03)	1 against 6	0.0467 (0.01)	1 against 7	0.0231 (0.22)	1 against 8	0.0204 (0.28)	1 against 9	0.0046 (0.82)	1 against 10	-0.0002 (0.99)
<i>Panel D: Difference in rights offerings between deciles of stock price performance</i>																	
1 against 2	0.0465 (0.01)	1 against 3	0.0462 (0.02)	1 against 4	0.0513 (0.01)	1 against 5	0.0284 (0.16)	1 against 6	0.0284 (0.16)	1 against 7	0.0256 (0.21)	1 against 8	0.0386 (0.05)	1 against 9	0.0175 (0.40)	1 against 10	0.0180 (0.38)

## **7. Improved management, scapegoats, and company performance surrounding CEO turnover**

The previous empirical chapter has examined the impact of corporate governance on the likelihood of CEO replacement and appointment decisions. As an extension of this, this chapter seeks to examine the long-run performance of companies surrounding CEO turnover, and the impact of corporate governance on these performance changes. Any evidence of a relationship between firm performance and corporate governance, and in particular company board structure, provides support for the proposals enshrined in corporate governance codes of best practice, including those contained in the Cadbury Report (1992).

The recent downturn in stock markets has seen a rash of changes in the top management of companies as a result of unsuccessful corporate policies. Such dismissals provide evidence that managerial labour markets act to discipline managers who have made decisions that ex-post have deviated from the goal of shareholder wealth maximisation. The objective and wealth effects of such dismissals are not so clear however. On one hand there is the presumption that poorly performing managers are replaced by higher calibre successors who can help to reverse the company's failing performance. Alternatively, changes in top management may arise from a 'scapegoat' hypothesis where the removal of an incumbent Chief Executive Officer (CEO) serves to apportion blame, even though poor performance may be due to factors outside of the departing CEO's control.

This chapter contributes to the existing literature in a number of ways. Firstly, it uses new methods for measuring long-run performance before and after CEO turnover, which have been shown to produce well specified and consistent empirical



test statistics. In a more narrow sense, it is the first non-US study to use these approaches for measuring long-run performance surrounding CEO turnover. This allows for improved testing of alternative ‘scapegoat’ and ‘improved management’ hypotheses of top management turnover. Secondly, it provides evidence on CEO turnover from a market outside of the US, where governance arrangements differ and dismissals account for a larger fraction of overall CEO turnover decisions. Finally, it provides further evidence on the relationship between corporate governance and company value, using performance changes following CEO appointments as a measure of value. Studies of discrete tasks, such as CEO appointments, are less subject to the problems of endogeneity that bias studies of the direct relationship between governance and corporate value [Hermalin and Weisbach (2003)].

This study examines the operating and stock price performance causes and consequences of 448 CEO turnover announcements in a sample of UK companies between 1993 and 1998. Firms that experienced forced turnover are characterised by substantial declines in performance prior to turnover. Companies that experience voluntary CEO changes also suffer poor pre-turnover performance, but to a much lesser extent.

Companies that experience forced turnover of their CEO realise improvements in unadjusted operating performance in the first full year of the new CEO’s tenure, but over a longer time period underperform in relation to a benchmark proxy. In some cases, outside CEO succession leads to post-turnover performance declines, rather than improvements in performance as predicted by Parrino (1997). Based on changes in return on assets (ROA), firms with larger boards appear better able to

select a high calibre replacement CEO, perhaps because they offer a wider selection of potential replacement candidates.

I find that the market reacts positively to announcements of voluntary CEO turnover and negatively to forced turnover announcements. Further analysis reveals that the negative reaction to forced turnover is driven by ‘contaminated’ announcements, where other information is revealed contemporaneously. This is consistent with the hypothesis of Hermalin and Weisbach (2003) who posit that the stock price reaction to CEO turnover announcements will be positive when dismissals are based on publicly available information and negative when based on previously private information. The contemporaneous release of information on company performance at the same time as the announcement of forced CEO turnover is most likely to provide information that company performance is below expectations, providing the rationale for why the CEO is being dismissed. Both the simultaneous announcement of a replacement CEO and the appointment of a successor from outside the company have a positive impact on announcement period abnormal share price returns. The holdings of financial blockholders are inversely correlated with announcement period abnormal returns.

Finally, there is some evidence of long-run under-performance following forced CEO turnover, particularly over shorter horizon periods. Again, higher financial blockholdings and smaller boards lead to the most adverse performance following CEO turnover. External succession and other corporate governance attributes are not generally correlated with discernible post-turnover performance.

When viewed as a whole, the evidence appears generally consistent with the ‘scapegoat hypothesis’ of CEO turnover. This posits that there are no performance



effects from CEO turnover because the departing CEO is removed as a result of events that are outside of their control. These findings may be reflective of the relatively large fraction of CEO turnover events that are classified as forced in UK research in relation to comparable US studies of CEO turnover [see Denis and Denis (1995), Huson, Parrino and Starks (2001), and Dahya, McConnell and Travlos (2002)]. However, further analysis reveals that forced turnover is correlated with both extreme positive and negative changes in operating performance, long-run stock price performance and turnover announcement period abnormal share price returns. Therefore, forced turnover does appear to have large shareholder wealth effects, but the direction of these is less certain. Voluntary turnover results in more modest changes in operating performance and post-turnover stock price consequences.

Thus, the findings of this chapter fail to provide evidence in support of the reforms enshrined in the Cadbury Report (1992). There is no consistent relationship between board independence and performance changes surrounding CEO turnover. When combined with the findings of potential myopia by independent corporate boards in CEO replacement decisions documented in chapter 6, the findings presented here cast further doubt upon the benefits of the model board structure put forward in the final recommendations of the Cadbury Report (1992).

The remainder of this chapter is structured as follows. Section 7.1. provides an overview of the relevant literature and section 7.2. discusses the sample selection procedure. Sections 7.3. and 7.4. examine operating and stock price performance respectively surrounding CEO turnover. Finally, section 7.5. concludes.

### ***7.1. Company performance surrounding CEO turnover***

Fama (1980) argues that managerial labour markets act to discipline poorly performing management by appropriately adjusting levels of executive compensation to reflect managerial performance. Coughlan and Schmidt (1985) find that changes in managerial salary and bonus reflect the incumbent managers' stock price performance. These authors also find that poorly performing CEOs are more likely to lose their jobs than managers at companies that perform well. This finding is one of the most robust empirical regularities in the corporate finance literature.<sup>38</sup>

Underlying these forced replacement decisions is a presumption that the departing top officer is accountable for the firm's poor performance. If this is the case then this poor performance should be reversed upon the appointment of a new CEO. This will be reflected in a positive stock price reaction upon announcements of the departure of the incumbent CEO and subsequent improvements in the operating performance of the company. Huson et al. (2004) label this an 'improved management hypothesis.'

Khanna and Poulsen (1995) and Huson et al. (2004) also develop a 'scapegoat hypothesis' of forced CEO turnover. Poor performance is not a result of managerial failings, but rather, arises due to bad luck. Under this hypothesis, operating performance is still expected to improve following forced turnover, but this arises due to mean reversion in luck, rather than the increased quality of the replacement CEO. The stock market's interpretation of these changes is likely to be minimal.

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<sup>38</sup> Warner, Watts and Wruck (1988), Weisbach (1988), Gilson (1989), Murphy and Zimmerman (1993), Denis and Denis (1995), Parrino (1997), Huson et al. (2001), and Huson, Malatesta and Parrino (2004) provide other examples of such findings in US companies. Dahya, Lonie and Power (1998), Franks, Mayer and Renneboog (2001), Dahya et al. (2002), Dedman and Lin (2002), and Conyon and Florou (2003) provide UK examples of such studies.



Performance changes following voluntary CEO turnover are likely to be less visible than those arising in the course of forced turnover. Departures in this case may arise for a variety of non-performance related reasons, and should not necessarily result in predictable changes in performance following the change in management.

A final consideration in the discussion of performance changes surrounding CEO turnover is the choice of an internal or external replacement. Parrino (1997) argues that outside succession will tend to follow poor performance as firms attempt to reverse inefficient business practices. Internal succession will be more likely in companies where performance is strong and a high degree of firm-specific knowledge is required to continue existing business practices. Huson et al. (2004) contend that outside appointments must also be associated with an expected increase in performance relative to the best available internal candidate because outside succession is damaging to the incentives of lower level management.

Based on pre-turnover performance and decision-making, Khanna and Poulsen (1995) find empirical support for the scapegoat hypothesis of CEO turnover in a sample of firms filing for Chapter 11 bankruptcy protection in the US. They find little evidence that the market evaluated decisions by these managers any differently to similar announcements made by a control sample of non-distressed firms of similar size and industry in the three years prior to filing for bankruptcy protection.

### *7.1.1. The stock price reaction to managerial turnover announcements*

Event study evidence of CEO turnover in US firms has generally provided support to an improved management rationale for forced top management change.

Denis and Denis (1995) and Huson et al. (2001) have found significantly positive announcement period abnormal returns following announcements of forced CEO turnover, while returns are generally positive but insignificant for voluntary turnover. In contrast, Warner et al. (1988) find no significant event period returns for forced top management changes over an earlier period of study.<sup>39</sup> Weisbach (1988) reports positive announcement period abnormal share price returns for announcements of forced CEO turnover, which are in some cases significant. Huson et al. (2001) find that the market reaction to CEO turnover announcements has increased in significance over time, which may explain the discrepancy between the results of earlier and later studies. To the extent that forced CEO turnover removes a poorly performing top officer and replaces them with a CEO of superior quality, as in the improved management hypothesis, a stronger stock price reaction to forced turnover is consistent with this hypothesis.

In addition, the improved management hypothesis also stipulates that outside succession should be associated with greater changes in expected performance than internal succession. Borokhovich, Parrino and Trapani (1996) find that the market reaction to CEO turnover in US companies is significantly greater when turnover involves an external successor. In addition, they find that forced CEO turnover followed by internal succession results in significantly negative event period returns.

International evidence on the market reaction to CEO turnover has produced results that have differed from those of US studies. Kang and Shivdasani (1996) find that the market reacts positively to voluntary and forced turnover, and both internal

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<sup>39</sup> When referring to CEO turnover this refers to studies that have specifically examined turnover of the top company officer. Top management turnover is a reference to studies that examine changes in any of the top management team, generally defined as the Chairman, the CEO and the President when these positions exist in US companies, and both the Chairman and the CEO of UK companies.



and external succession decisions. Dahya et al. (1998) find that the market reaction to top management turnover in UK companies is significantly positive for forced turnover and insignificantly negative for voluntary turnover announcements. Dahya and McConnell (2004) find a significantly positive stock price reaction to CEO turnover where an outside successor is appointed, while returns are insignificantly positive in the case of internal succession, and the difference between the two is significant. Therefore, the results of this international research lend support for the improved management hypothesis of forced top management turnover and external succession.

However, Dedman and Lin (2002) report that a large number of CEO turnover announcements made by UK companies are not officially made to the London Stock Exchange, and therefore are not carried by *FT Extel News Reports*.<sup>40</sup> They find that the market reaction to CEO turnover is significantly negative for all turnover announcements, where this result is largely driven by a significant negative reaction to turnover announcements that are not officially announced through *FT Extel*, but are reported through the *Financial Times*. Also, the market reaction is significantly negative for cases where the CEO was explicitly dismissed or left to take up a new job elsewhere. The results of Dedman and Lin (2002) are supportive of a scapegoat hypothesis where the negative reaction may reflect the financial costs of compensating the departing CEO for loss of office and/or new information that is disclosed simultaneously with the turnover announcement. These authors also offer a thin market for managerial labour, and the resulting poor quality of potential

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<sup>40</sup> The findings of Dahya et al. (1998) are based only on a sample of firms who report top management changes through *FT Extel*.

successors in the UK, as a further explanation for the negative stock price reaction to announcements of CEO turnover.

### *7.1.2. Performance changes following top management turnover*

In addition to the market reaction to managerial turnover, a further area of interest is performance changes following a change in top management. A number of studies have examined the stock price performance and changes in the operating performance of companies following turnover.

Warner et al. (1988) find that companies experience significantly negative abnormal stock returns in the month following an announcement of top management turnover for all categories of change, with the exception of outside successions. Denis and Denis (1995) find similar evidence in the six months following forced CEO turnover based on market-adjusted stock price returns. In contrast, Murphy and Zimmerman (1993) find no such evidence of abnormal post-turnover performance based on market-adjusted stock returns in the five years following CEO turnover.

Kang and Shivdasani (1995) find that industry-adjusted stock returns improve significantly following forced CEO turnover in Japanese companies, but are not in themselves significantly different from zero. Finally, Dahya et al. (1998) find that excess stock price returns are significantly negative in the year following forced top management turnover in UK companies, but are significantly positive for companies experiencing voluntary turnover.<sup>41</sup> However, Barber and Lyon (1997) find that several commonly used means of assessing long-run abnormal stock returns are

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<sup>41</sup> Dahya et al. (1998) calculate excess returns as the daily returns of the sample company minus a benchmark return, which is measured as the returns for the same company over the year beginning 363 days following CEO turnover.



empirically flawed, and show that empirical test statistics based on control firms matched on the basis of size and book-to-market ratio are well specified.

A general consistency in the literature examining operating performance surrounding forced turnover has been a large decline in ROA in the year of turnover. This is generally attributed to new managers taking an 'earnings bath', as described by Murphy and Zimmerman (1993). Following this, Denis and Denis (1995) and Kang and Shivdasani (1995) report that firms experience significant improvements in industry-adjusted operating performance. Using Barber and Lyon (1996) sample matching criteria, Huson et al. (2004) find that companies experience significant improvements in operating performance following forced and voluntary CEO turnover relative to a control firm, but not their industry. They also report that performance improvements based on control group matching are significantly greater for outside successors than for internal successors. Kang and Shivdasani (1995) find significant improvements in industry-adjusted ROA following outside succession in Japanese companies, but again changes in ROA themselves are not significantly different from zero. In general, these studies lend support to the improved management hypothesis of CEO turnover.

The evidence on operating performance changes following CEO turnover in the UK is somewhat contradictory to the experience of US companies. Dahya et al. (1998) find that industry-adjusted ROA is significantly worse in the three years following forced top management turnover in UK companies, as compared to pre-turnover performance. Dedman and Lin (2002) present evidence of four years of declining ROA and industry-adjusted ROA up to and including the year of CEO turnover in UK companies. However, they also report a further decline in the year

following turnover, which is then followed by improved performance in the following year.<sup>42</sup> The findings of Dahya et al. (1998) and Dedman and Lin (2002) for changes in operating performance surrounding CEO turnover announcements appear to conform to a scapegoat hypothesis.

### *7.1.3. Corporate governance and firm performance following CEO turnover*

A final aim of this analysis is to examine whether there is any relationship between the corporate governance structures that companies have in place prior to CEO turnover, and the shareholder wealth effects of turnover. Wealth effects may be reflected in the stock price reaction to CEO turnover announcements, changes in operating performance following turnover or long-run share price performance following turnover.

Demsetz and Lehn (1985), Weisbach (1988), Gilson (1989), Borokhovich et al. (1996), Yermack (1996), Slovin, Sushka and Lai (2000), Franks et al. (2001), and Dahya et al. (2002) all provide evidence on the impact of corporate governance systems in affecting managerial change, corporate value and other observable company actions. An equally interesting question is the ability of measurable governance structures to select a replacement CEO.

Huson et al. (2004) examine this question and find that pre-turnover institutional ownership is positively correlated with operating performance changes following CEO turnover. The effects of other governance systems, such as takeover pressure and board structure, are mixed.

The empirical testing conducted in the remainder of this chapter aims to explore whether CEO turnover is indeed preceded and followed by significant

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<sup>42</sup> The authors do not report the statistical significance of these changes.



changes in company performance. In addition, I examine the relationship between post-turnover changes in company performance and the corporate governance structures that companies employ.

## **7.2. Sample data**

The sample selection procedure in this chapter begins with the 497 announcements of CEO turnover that are documented in chapter 6. From this group, observations are removed from the sample where the company experiences multiple CEO turnover events during a single year. In addition, sample firms are also removed where the exact date of the first announcement of CEO turnover cannot be obtained from news sources. In such cases, information on CEO turnover was available only from company annual reports, which did not contain details of the first announcement date.

This filtering procedure results in a final sample of 448 announcements of CEO turnover for which I am able to determine the exact date of the first announcement concerning the change in the CEO. Table 7-1 presents descriptive statistics for the sample of companies experiencing CEO turnover, where all reported variables are defined as in chapter 4.

Newly appointed CEOs are approximately 49 years of age, while departing CEOs are typically older.<sup>43</sup> Departing CEOs held their position for a mean (median) period of 8.19 (5.92) years. The age of departing CEOs in the UK is lower than in comparable US studies, see Weisbach (1988) and Huson et al. (2004) for example, who report that CEO's are typically over 60 when they depart their firm. This difference is reflected in the high fraction of total turnover that is classified as forced in relation to comparable international research.

Departing CEO ownership is lower than reported for the overall sample in chapter 4, which is reflective of the negative relationship between managerial

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<sup>43</sup> Note that data on age and tenure is not available for all CEO appointments and removals, and the information presented here is restricted to those cases where information is available.



ownership and the likelihood of CEO turnover documented in chapter 6. The fraction of outside directors is also greater than reported for the overall sample, while this sub-sample contains a smaller number of companies that had split the roles of the CEO and the Chairman prior to turnover. This is most likely reflective of the incidence of splitting the roles of the Chairman and the CEO during the sample period following the proposals of the Cadbury Report (1992) that companies that had not already separated these roles should do so.

Finally, the fraction of firms in this sample that have issued equity through rights offerings is approximately 50% greater than reported for the overall sample in chapter 4. The greater use of outside directors and rights offerings within this sample is most likely due to the positive correlation between these variables and the incidence of forced CEO turnover documented in chapter 6.

### ***7.3. Operating performance surrounding CEO turnover***

As a first attempt to examine the performance causes and consequences of CEO turnover, ROA is examined over the seven-year period surrounding CEO turnover, where CEO turnover is defined as occurring between years -1 and 0. This chapter uses three alternative measures of ROA. The first of these are ROA and IROA as described in chapter 4.

However, Barber and Lyon (1996) contend that even adjusting ROA for industry produces sample statistics that are not well specified in some sampling situations. These authors advocate the use of a control firm approach, where sample companies are matched to a control firm on the basis of industry and past performance. Given the findings of Barber and Lyon (1996), their control firm approach is used as a further measure of ROA surrounding CEO turnover.

To implement this procedure, companies are matched on the basis of industry and operating performance in the final full year of the departing CEO's tenure. Specifically, control firms that do not experience CEO turnover in the same financial year as the sample company are matched on the basis of FTSE level 4 industrial groupings and having ROA within +/- 10% of the test company's ROA in the final full year of the departing CEO's tenure. Where no match exists, firms are selected on the basis of level 3 industrial codes. If there is still no match then industry is ignored and the sample firm is matched only on the basis of ROA in the year prior to turnover. In the event that the original control firm does not survive for the entire period over which performance is measured for the test company, then a second control firm is selected on the basis of the steps described above and ROA is spliced from the year of delisting of the original control firm. This procedure is repeated



until firms are matched to a series of control firms with enough available data to compute control group adjusted ROA (CROA) for up to 3 years following CEO turnover.

Figures 7-1, 7-2 and 7-3 document the median operating performance of sample companies surrounding CEO turnover for ROA, IROA and CROA respectively.<sup>44</sup> All three plots reveal declining performance in the years prior to turnover, with the most pronounced decline apparent between years -2 and 0. The large decline in performance between years -1 and 0 may be consistent with an earnings bath hypothesis, where the recently appointed CEO uses discretionary accounting policies to reduce firm performance [Murphy and Zimmerman (1993)]. Poor results can also be blamed on the previous CEO and help to show the new top officer in a good light when they are able to subsequently reverse performance. However, further research would be required to examine whether this decline is performance related or the result of creative accounting practices.

Performance appears to improve following the transition year during which CEO turnover occurs. These results contrast somewhat with those of Dedman and Lin (2002) who report a further decline in performance in the first full year of the new CEO's tenure, but are generally consistent with Denis and Denis (1995), Kang and Shivdasani (1995) and Huson et al. (2004).

Table 7-2 tests the significance of these results for the sample of CEO turnover announcements. The table presents results for both mean and median changes in performance, but this discussion will focus on median results only.<sup>45</sup> There is a clear

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<sup>44</sup> These figures present results only for the sample of companies that survived the entire seven-year period surrounding turnover.

<sup>45</sup> See Barber and Lyon (1996) for a discussion of the superiority of Wilcoxon tests of medians over t-tests of means in examining the significance of changes in operating performance.

decline in operating performance prior to CEO turnover, which is significant for ROA and IROA, and is more strongly pronounced for forced turnover. This evidence is therefore consistent with the general finding of managerial labour market studies, which have reported that poor company performance leads to forced CEO turnover.

However, there is much less evidence of improvements in operating performance following turnover than reported in previous studies. ROA improves between the year prior to turnover and the first full year of the new CEO's tenure for both all and forced turnover. However, this result is not apparent for IROA or CROA. Indeed the evidence presented for CROA highlights a further decline in operating performance following forced turnover. These results appear to support the scapegoat hypothesis presented by Khanna and Poulsen (1995) for managers of financially distressed firms. This may also be due to a thin market for managerial labour in the UK, as argued by Dedman and Lin (2002).

### *7.3.1. Do operating and financial strategies differ between voluntary and forced turnover?*

The evidence presented above indicates that forced turnover does not lead to significant improvements in operating performance. However, companies that have experienced forced CEO turnover may at least have attempted to restructure their firms in order to improve performance. This possibility is examined here. Table 7-3 reports changes in several variables that are associated with corporate restructuring activities for companies that survived the seven-year period surrounding CEO turnover.



Firms that experienced forced turnover of their CEO reduced their assets, employment levels and costs, and their debt-to-assets ratio in relation to companies that experienced voluntary turnover and their control firm. However, there is no evidence that these companies were able to improve their performance, as measured by the ratios of sales and operating profit per employee.

The finding of downsizing relative to control firms, and that downsizing is more pronounced following forced turnover is consistent with Denis and Denis (1995), Dahya et al. (1998) and Huson et al. (2004). However, Dahya et al. (1998) find that forced turnover companies significantly increase their capital gearing following turnover. Huson et al. (2004) find evidence of increases in sales and operating profit per employee following forced CEO turnover. The lack of improvement in sales and operating profit per employee is consistent with the general results in table 7-2 that performance does not improve following forced turnover, and provides further support for the scapegoat hypothesis of CEO turnover in this sample of UK companies.

### *7.3.2. Factors affecting changes in ROA surrounding CEO turnover*

The above tables provide information on firm performance following CEO turnover. This section now turns to examine the relationship between governance and these performance changes. To the extent that a relationship does exist, then this provides some support for corporate governance codes of best practice such as the Cadbury Report (1992).

Table 7-4 reports the results of OLS regressions of the determinants of changes in operating performance following CEO turnover. Overall, the evidence does not

present an important role for corporate governance systems in selecting CEOs who are able to improve performance. Inconsistent with previous studies, i.e. Kang and Shivdasani (1995), Denis and Denis (1995) and Huson et al. (2004), there is no relationship between forced turnover and/or external succession and improvements in operating performance following CEO turnover. Based on CROA there is evidence that forced turnover and external succession is actually correlated with further declines in performance. Leverage is positively correlated with performance changes in the first full year following turnover for all performance measures, while it leads to negative control group adjusted performance in the third year following turnover. The most consistent piece of evidence presented in table 7-4 is that larger boards make better CEO appointment decisions based on post-turnover changes in ROA and IROA. Changes in operating performance are inversely correlated with ROA and IROA in the year prior to CEO turnover, but not significantly so for CROA.<sup>46</sup>

While the above analysis reports some important findings with respect to the role of governance and CEO appointment decisions on performance, the assumption of linear causality may mask the true underlying relationship. To examine this possibility, table 7-5 presents univariate comparisons of the corporate governance characteristics of sample companies grouped according to changes in operating performance for firms that survive for three years following CEO turnover. These univariate sorts also provide a further robustness check to control for the potential problem of multicollinearity documented in chapter 4 of this thesis.

Companies that experienced the largest performance improvements relative to their control group were significantly less likely to have split the top officer positions

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<sup>46</sup> Since CROA is matched at year -1 it should be expected that while any relationship may be negative in sign, the coefficient should not be significant.



prior to turnover. This provides some evidence that separating these positions, as recommended by the Cadbury Report (1992), leads to improvements in operating performance. There is also mixed evidence on the role of equity issuance, board size and outside directors in CEO selection.

Finally, forced turnover is found to be more common in companies that experience the largest changes in post-turnover ROA and IROA, whether positive or negative. For IROA, outside succession is significantly more likely for companies experiencing the largest post-turnover performance changes, but outside succession is significantly less likely in the highest quartile of post-turnover CROA.

The evidence presented above suggests that no direct relationship exists between corporate governance and changes in operating performance following CEO turnover. For certain performance measures, equity issuance, leverage, the decision on whether to split the positions of the Chairman and the CEO, board size and financial blockholdings have an affect on performance changes following CEO turnover. However, with the exception of board size the evidence is generally mixed, depending on the performance measure used and the time period over which performance is measured. The evidence on board size suggests that smaller boards are poor selectors of new CEOs, which is inconsistent with the general findings of an inverse relationship between board size and corporate value [see Yermack (1996)]. A possible reason for this may be that larger boards overcome problems with a thin market for managerial labour in the UK. Larger boards are also found in larger companies, who in turn are able to attract the highest quality managerial candidates. These firms are also more likely to employ formal succession plans, which allow managers to acquire the relevant human capital to successfully manage the firm.

Overall, the findings presented here suggest that forced turnover is both preceded by and followed by poor operating performance. However, non-parametric analysis indicates that forced turnover actually leads to both significantly positive and negative changes in operating performance post-turnover. Firms experiencing the largest declines in performance following turnover may be those who suffer greatest from the lack of suitable replacement CEO candidates.

To this extent, the results presented here are inconsistent with Huson et al.'s (2004) improved management hypothesis for forced CEO turnover. This contrasts with US evidence presented by Denis and Denis (1995) and Huson et al. (2004), but is consistent with UK findings presented by Dahya et al. (1998). This may arise as a result of a thin market for managerial talent, which may exist in the UK if companies are unable to attract candidates of a suitably high calibre to fill the vacancy in their top management position. Overall, the results reported here are more generally consistent with a scapegoat hypothesis of CEO turnover.



#### ***7.4. Stock prices surrounding CEO turnover***

Examining operating performance surrounding CEO turnover provides evidence of how accounting performance is evaluated in company decisions over CEO appointment and replacement decisions. However, shareholders ultimately gain and lose from stock prices and dividend income. Therefore, this analysis now turns to examine stock prices surrounding announcements of CEO turnover.

##### ***7.4.1. Stock price performance prior to turnover***

This chapter uses the control firm approach to measuring long-run abnormal stock price performance prior to and post CEO turnover, as advocated by Barber and Lyon (1997). Under this approach, sample companies experiencing turnover are matched to a non-turnover firm as at the end of the last full year of the departing CEO's tenure. This procedure is carried out by originally matching all firms within +/- 30% of the firms' market value of equity and then selecting the company with the market-to-book ratio that is closest to that of the sample company. In the event that the control firm does not survive for the entire period over which performance is measured for the sample company, then a second control firm is selected by repeating the matching process described above, and splicing returns from the date of delisting of the original control firm. This procedure is repeated until test companies are matched to a series of control firms with enough available data to compute daily buy-and-hold abnormal returns.

Following Barber and Lyon (1997), long-run abnormal share price returns are calculated by subtracting the holding period return on the control firm from that of the sample company. Formally:

$$BHAR_{i\tau} = \prod_{t=1}^{\tau} [1 + R_{it}] - \prod_{t=1}^{\tau} [1 + E(R_{it})] \quad (7-1)$$

where  $BHAR_{i\tau}$  is the buy-and-hold abnormal return and  $R_{it}$  and  $E(R_{it})$  are the daily simple returns on the sample company and the expected return, which is measured as the return on the matched control firm. Buy-and-hold abnormal returns are measured from the announcement date of CEO turnover, day 0, until day  $\tau$ . Student's  $t$ -statistics are used to measure the significance of abnormal returns, calculated as:

$$t_{BHAR} = \overline{BHAR_{i\tau}} / (\sigma(BHAR_{i\tau}) / \sqrt{n}) \quad (7-2)$$

where  $\overline{BHAR_{i\tau}}$  and  $\sigma(BHAR_{i\tau})$  are the sample mean and standard deviation of the buy-and-hold abnormal returns over the sample of  $n$  firms. For completeness, tables measuring long-run stock returns also report Wilcoxon test statistics for tests of median BHARs.

Table 7-6 presents results for long-run abnormal stock returns over various time periods up to 2 days prior to CEO turnover. Consistent with previous research, there is a negative relationship between stock price performance and CEO turnover, which is driven by the statistically and economically significant under-performance of companies who experienced forced CEO turnover. The results over two and three year horizons prior to forced turnover are even more pronounced than past empirical research conducted by Denis and Denis (1995) and Dedman and Lin (2002) who



report CARs of approximately  $-20\%$  in the 250 days prior to CEO turnover.<sup>47</sup> There is also some evidence that abnormal share price performance is significantly negative in the 12 and 6-month periods prior to announcements of voluntary CEO turnover. This is consistent with Huson et al. (2004) who report that operating performance declines in the two years prior to voluntary CEO turnover.

Overall, the results reported here are consistent with past empirical studies of stock prices prior to CEO turnover by Warner et al. (1988), Weisbach (1988), Denis and Denis (1995), Kang and Shivdasani (1995), Huson et al. (2001), Dahya et al. (2002) and Conyon and Florou (2003) amongst others. Also consistent with these studies is the severe under-performance that is required to induce forced CEO turnover.

#### *7.4.2. The stock price reaction to announcements of CEO turnover*

A further question of interest is how the stock market interprets announcements of CEO turnover. A positive market reaction would be consistent with an improved management hypothesis where a candidate of superior quality replaces the departing CEO. The lack of a stock price reaction may be construed as being consistent with the scapegoat hypothesis of turnover where there are no gains to replacing the incumbent CEO. If the stock price reaction is negative, this may be indicative of new information that is disclosed simultaneously with the turnover announcement or the lack of a suitable replacement candidate.

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<sup>47</sup> Neither of these studies uses Barber and Lyon's (1997) control firm approach. Denis and Denis (1995) measure CARs prior to turnover against an estimation period beginning 2 days following the announcement of CEO turnover. However, they also find that sample companies significantly underperform the market index in the six months following forced turnover, which may produce an upward bias in their estimates of abnormal performance prior to turnover. Dedman and Lin (2002) use an estimation period from  $-160$  to  $-11$  days relative to turnover and report CARs for 250 and 500 days prior to turnover, which appear to overlap with their estimation period.

The standard market model procedure is used to estimate announcement period abnormal returns where an estimation period between -200 and -21 days relative to turnover is used as a benchmark against which to measure announcement period abnormal returns. Results are reported for abnormal returns (ARs) for the three days surrounding turnover and cumulative abnormal returns (CARs) for several estimation periods. Student's t-statistics for daily ARs are calculated as:

$$t = \overline{AR}_t / \sigma(AR_{it}) \quad (7-3)$$

and for CARs are calculated as:

$$t = \overline{CAR}_T / (\sigma(\overline{AR}_{it}) / \sqrt{T}) \quad (7-4)$$

where  $\overline{AR}_t$  and  $\sigma(AR_{it})$  are the average and standard deviation of the daily abnormal returns across all sample companies on the day that abnormal returns are measured.  $\overline{CAR}_T$  and  $\sigma(\overline{AR}_{it})$  are the average cumulative abnormal returns over the event period and the standard deviation of the average daily abnormal returns over the estimation period respectively, where CARs are measured over  $T$  days.

Panel A of table 7-7 reports the results for all turnover announcements. CARs are significantly positive only over the 11-day event period beginning 5 days prior to turnover and ending 5 days following for the overall sample of announcements. The event study results are significantly positive for voluntary turnover and significantly negative for forced turnover. Panel B reports results for only those announcements that are reported through *FT Extel News Reports*. These are similar to those reported



in panel A. However, this stands in contrast to the results of Dedman and Lin (2002) who report that event study results are strikingly different between announcements made officially through *FT Extel* and those reported in the *Financial Times*.<sup>48</sup>

Finally, panel C examines only those announcements that are ‘clean’, where there are no other announcements made by the company through *FT Extel* between days –1 to +1 relative to turnover. In this sample there is evidence that CARs are significantly positive for both voluntary and forced CEO turnover announcements. Those announcements that are ‘contaminated’ appear to drive the significantly negative event period returns for the full sample of forced turnover announcements. This may reflect a changing dynamic in event studies of CEO turnover. Denis and Denis (1995), Kang and Shivdasani (1996) and Huson et al. (2001) all report significantly positive event period abnormal returns upon the announcement of forced CEO turnover. However, the recent downturn in stock markets has seen a rash of top management changes following profit warnings. If this is the case, pre-turnover performance may be less negative than previous studies have documented and event period returns may be significantly negative due to the simultaneous announcement of poorer than expected performance at the same time as announcements of forced CEO turnover.

#### 7.4.3. *The determinants of announcement period abnormal returns*

Table 7-8 reports multivariate results for the determinants of CARs for the sample of CEO turnover announcements. There is some evidence that forced

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<sup>48</sup> Dedman and Lin (2002) find that 57.77% of all turnover announcements are made through *FT Extel* whilst the corresponding figure in this sample is 98.41%. One explanation for this may lie in improved disclosure over the two sample periods. Their sample period covers 1990 to 1995 while this sample covers 1993 to 1998. However, even this is unlikely to be able to explain this difference.

turnover is inversely related to announcement period CARs over the two day event period beginning the day prior to turnover. In addition, the holdings of financial blockholders are inversely correlated with event period abnormal returns, as are the fraction of outside directors serving on the company's board. The most consistent piece of evidence reported in this table is that outside succession and the simultaneous announcement of a successor CEO induce significantly positive announcement period returns, which is consistent with the empirical research of Borokhovich et al. (1996), Dedman and Lin (2002) and Dahya and McConnell (2004).

As a final means of examining the impact of the governance characteristics of sample companies on announcement period abnormal returns, the sample is partitioned into quartiles based on the abnormal stock price reaction. These results are reported in table 7-9. Companies who experience the most severe negative stock price reaction to turnover announcements are characterised by higher leverage and financial blockholdings. Turnover announcements by companies with smaller boards result in more extreme market reactions, whether positive or negative. The effects of equity issuance varies over different estimation periods, although rights issues which occur in the same year as CEO turnover generally lead to the most adverse market reactions. Thus, once again there is little consistent evidence of a correlation between governance structures and the market reaction to CEO turnover announcements.<sup>49</sup>

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<sup>49</sup> Further analysis, unreported to conserve space, indicates that CEO ownership is indifferent between various bands of event period abnormal returns, but that board ownership is significantly lower in the lowest quartile of announcement period returns as compared to quartiles 2 & 3 and quartile 4, both p-values are equal to 0.00. These findings are mixed in relation to Denis, Denis and Sarin (1997b) and Dahya et al. (1998) who report that the market reaction to forced turnover is generally a positive function of managerial ownership, which reflects the removal of an entrenched top manager at higher ownership levels.



Outside succession is more common in the highest stock price reaction quartile, but not significantly so. This fact, combined with the significance of results presented in the multivariate regressions in table 7-8 is consistent with the theoretical arguments of Parrino (1997) and the empirical findings of Borokhovich et al. (1996) and Huson et al. (2001). These authors posit that outside succession will occur only when the expected benefits outweigh the costs of damaging the incentives of internal management. As such, external succession should be associated with significantly positive announcement period abnormal share price returns. Finally, there is once again evidence that forced turnover is more common in companies that experienced the most severe market reaction to CEO turnover announcements, whether positive or negative. This is consistent with the results presented for changes in operating performance following CEO turnover, and may once again be reflective of a lack of suitable replacement candidates for many companies experiencing forced turnover. Finally, 'contaminated' announcements are more common in the extreme quartiles of abnormal returns over all announcement periods.

Although many of these results are statistically significant, it is interesting to note an apparent lack of economic significance in these results. The largest stock price reaction is a positive 2.82% return over the 11 day event period surrounding 'clean' announcements of forced CEO turnover. Given the large value losses required to induce forced CEO turnover, with estimates ranging up to 50% under-performance relative to a control firm over the three years preceding turnover, the results are disappointing with respect to CEO turnover being an economically important event.

The finding that forced CEO turnover results in significantly negative announcement period abnormal returns is inconsistent with the improved management hypothesis of forced turnover. However, this is partially driven by the simultaneous announcement of other information. Hermalin and Weisbach (2003) argue that the market reaction to forced CEO turnover will be positive when based on publicly available information and negative when based on private information, which is consistent with the results presented in this sample. The finding that voluntary turnover is viewed positively by the stock market is consistent with Kang and Shivdasani (1996) who argue that the positive reaction arises because the process of orderly management succession conveys good news to shareholders regarding the company's prospects.

#### *7.4.4. Long-run stock price performance following CEO turnover*

The lack of an economically significant stock price reaction to the announcement of CEO turnover may arise from uncertainty surrounding the event. Therefore, as a final means of interpreting the shareholder wealth effects of CEO turnover, long-run abnormal stock price performance is examined for various post-turnover time periods.

Barber and Lyon's (1997) control firm approach is again employed to measure long-run buy-and-hold abnormal stock returns. Control firms are matched on the basis of firm size and market-to-book ratio at the last full year of the departing CEO's tenure. Abnormal performance and student's t-statistics are calculated as reported in equations (7-1) and (7-2), where performance is measured from the



announcement date of CEO turnover until day  $\tau$ . Wilcoxon test statistics of median long-run buy-and-hold abnormal returns are again reported for completeness.

Table 7-10 reports these results for sample companies. For the overall sample there is some evidence of under-performance for up to two years following CEO turnover, but in only one case is this result statistically significant and this is based on median performance. There is no evidence of long-run abnormal share price performance following voluntary CEO turnover.

The final column of table 7-10 reports results for long-run performance following forced CEO turnover. Over time horizons of up to three years there is evidence of significant abnormal under-performance for the median sample company. However, based on the student's t-statistics advocated by Barber and Lyon (1997) there is significant evidence only over a 6 month post-turnover horizon period. This is consistent with Denis and Denis (1995) who find that market-adjusted stock returns are significantly negative in the six months following announcements of forced CEO turnover in their sample of US companies. Dahya et al. (1998) also find significant under-performance for UK companies in the year following forced top management turnover relative to performance in the second year following turnover. In general, these results are more supportive of the scapegoat hypothesis of forced CEO turnover than an improved management rationale.

*7.4.5. Does corporate governance play a role in long-run stock returns following CEO turnover?*

As with operating performance and event period abnormal returns, this examination now turns to the impact of corporate governance structures on long-run stock price performance following CEO turnover, as a means of assessing their role in CEO selection.

Table 7-11 reports results for multivariate regressions where the dependent variables are the BHARs of sample companies following CEO turnover for time periods of up to 3 years. There is no evidence from this table that forced turnover and/or external succession induces abnormal share price performance following CEO turnover. Consistent with the results for operating performance, there is a positive correlation between leverage and performance over a shorter event period, which may reflect the resolution of financial distress in companies experiencing CEO turnover. This rationale is consistent with the finding of a reduction in borrowing following forced turnover reported in table 7-3. Over all time horizons, financial blockholdings are inversely correlated with long-run abnormal stock price performance, which is inconsistent with the findings of Huson et al. (2004) for operating performance changes following CEO turnover. With the exception of a positive correlation between rights issuance and BHARs over the two year period following CEO turnover, no other sample variables are statistically significant in these regressions, which is again consistent with a lack of a direct correlation between corporate governance and corporate performance.

As a final test, BHARs are sorted into performance quartiles for each long-run event period and sample averages and t-tests of means for governance variables



within each quartile are reported in table 7-12. Consistent with the results in table 7-11, companies that experience the worst long-run performance are characterised by the highest levels of financial blockholdings. These firms are also characterised by small boards, but there is some evidence that board sizes are also smaller in firms who experience the greatest post-turnover abnormal share price performance. Also, equity issuance through acquisition, placings and rights offerings induces long-run abnormal performance following CEO turnover, but the results vary across event periods.

Finally, forced turnover is more common in companies that experience extreme long-run abnormal share price performance, whether positive or negative, and this result is stronger over the shorter event periods. External succession is also more common in companies that experience extreme abnormal share price performance, but this result is generally insignificant.

Overall, it appears that companies with higher financial blockholdings make poorer CEO appointment decisions based on long-run abnormal share price performance, as is the case for event study abnormal share price returns upon the announcement of CEO turnover. CEO appointments by companies with smaller boards result in negative long-run share price performance, which is consistent with the results for operating performance.

A general consistency across all performance measures has been that forced CEO turnover leads to extreme performance, whether positive or negative. This may partially explain the apparently small stock price reaction to announcements of forced CEO turnover, given the potential uncertainty that surrounds the outcome of this event.

## **7.5. Conclusions**

This chapter has contributed to research that examines the financial performance of firms surrounding CEO turnover, and the relationship between governance and firm performance. Using a sample of 448 turnover announcements for UK companies between 1993 and 1998 evidence is presented of substantial poor performance prior to forced CEO turnover. Companies that experienced voluntary turnover also experienced poor performance, but of a far smaller magnitude.

There is little evidence of performance improvements following CEO turnover based on changes in various measures of return on assets. Neither forced turnover nor external succession result in improvements in ROA. Smaller boards appear to be poor selectors of CEOs based on post-turnover operating performance, whilst higher leverage leads to short-term performance improvements.

Companies that experienced forced CEO turnover do restructure their financial and operational policies. These firms downsize their assets, and reduce employment levels and costs relative to control firms and companies experiencing voluntary CEO turnover. Forced turnover also leads companies to reduce their leverage, which may represent the resolution of financial distress in the most heavily indebted companies.

Event period abnormal share price returns indicate that the market views voluntary turnover positively, whereas forced turnover is viewed negatively. Further analysis reveals a positive stock price reaction to forced turnover announcements when based on public information, and a negative reaction when announcements are based on privately held information. Financial blockholdings are inversely correlated with the stock price reaction to turnover announcements, while external succession is viewed positively by the stock market.



Long-run abnormal stock returns following CEO turnover are generally insignificant for companies experiencing voluntary turnover, but there is some evidence of significant under-performance following forced turnover. Again, financial blockholdings are largest and board sizes are smallest in companies that experience the poorest long-run post-turnover performance. External CEO succession is not correlated with long-run abnormal share price performance.

One consistency that has arisen in this research is the finding across all three measures of company performance that forced turnover is more frequent in those companies that experience the greatest performance effects from managerial turnover, whether positive or negative. While the results as a whole are more supportive of a scapegoat hypothesis for forced CEO turnover, they suggest a more complex role for forced turnover in CEO selection. The exact reason for this may lie in some combination of the scapegoat hypothesis where there are no gains to forced CEO turnover, a thin market for managerial labour in the UK, or UK companies being able to manage information disclosure and reporting of their financial performance prior to turnover announcements.

The final explanation would suggest that pre-turnover performance is less negative than documented in previous international research because management is able to manipulate earnings or avoid disclosure of information on a downturn in earnings, so as to avoid revealing their poor performance. The stock price reaction to CEO turnover announcements would be positive in cases where managers are fired on the basis of publicly available information and negative when based on previously private information that is disclosed contemporaneously with announcements of CEO turnover. This may also explain the lack of significant improvements in

operating performance following forced CEO turnover on the whole because management has overstated reported performance prior to turnover. Whether this theory offers a valid explanation of the performance consequences of CEO turnover in the UK is a topic worthy of further research.

Overall, the findings presented in this chapter cast doubt on the importance of corporate governance in CEO appointment decisions. There is no evidence of a consistent relationship between the characteristics of an independent company board, as advocated by the proposals contained in the Cadbury Report (1992), and company performance following announcements of CEO turnover. When combined with the finding of potentially myopic monitoring by independent company boards in CEO replacement decisions in chapter 6 of this thesis, this provides strong evidence against the best practice guidelines put forward in the Cadbury Report (1992).

Future research in this area may also look to develop more sophisticated methods of measuring long-run operating and financial performance following CEO turnover. Studies by Bethel, Liebeskind and Opler (1998) and Franks et al. (2001) have documented a role for block share purchases and issues of new equity in managerial turnover. However, Barber and Lyon (1996, 1997) survey literature that indicates that these events alone may induce long-run operating and stock price performance effects. Including these as additional criteria for sample matching may also provide more refined measures of performance surrounding CEO turnover. In addition, Lyon, Barber and Tsai (1999) offer additional approaches for the measurement of long-run abnormal share price performance, which may offer further refinement in differentiating between alternative theories of forced CEO turnover.



**Table 7-1**  
**Descriptive statistics**

The table reports summary statistics for a sample of up to 448 CEO turnover announcements by non-financial UK listed companies between 1993 and 1998. Ownership and board characteristics are taken from company annual reports and other financial information is taken from *Datastream*. Data on equity issues is collected from the Capital History section of *FT Extel Company Information Cards*. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. External succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments.

	Mean	Median	Maximum	Minimum	St. Dev.
<i>Panel A: New CEO Characteristics</i>					
Age	48.50	49.00	71.00	31.00	6.63
External Succession Fraction	0.5205	n.a.	n.a.	n.a.	n.a.
<i>Panel B: Characteristics of Departing CEO</i>					
Age	53.88	54.00	92.00	31.00	8.33
Tenure as CEO (years)	8.19	5.92	57.87	0.09	8.08
CEO Ownership %	5.73	0.39	74.88	0.00	12.06
Forced Turnover Fraction	0.3379	n.a.	n.a.	n.a.	n.a.
<i>Panel C: Other Firm Characteristics</i>					
Assets (£000's)	642,211	73,395	21,458,992	355	1,957,436
Employment Costs (£000's)	113,733	20,541	3,352,000	37	278,270
Non-CEO Board Ownership %	6.86	1.04	74.67	0.002	12.61
Financial Blockholdings %	25.55	24.15	68.50	0.00	16.71
Fraction Outsiders	0.2722	0.2857	0.6667	0.0000	0.1593
Split	0.6370	n.a.	n.a.	n.a.	n.a.
Board Size	7.43	7.00	16.00	2.00	2.60
Debt-to-Assets	0.2168	0.1828	5.2113	0.0000	0.3198
Acquisition	0.0596	n.a.	n.a.	n.a.	n.a.
Placings	0.0642	n.a.	n.a.	n.a.	n.a.
Rights	0.0940	n.a.	n.a.	n.a.	n.a.

**Table 7-2**  
**Changes in ROA surrounding CEO turnover**

The table reports changes in Return on Assets (ROA) surrounding CEO turnover for a sample of UK listed companies between 1993 and 1998 where turnover occurs between years -1 and 0. ROA is measured as Earnings before Interest and Taxes (EBIT) for the financial year divided by beginning of the year book value of assets. Industry-adjusted Return on Assets (IROA) is calculated by deducting the ROA of the median firm in the same FTSE level 4 industry group from the ROA of the sample firm. Control group-adjusted Return on Assets (CROA) is calculated by deducting the ROA of a control firm matched on the basis of industry and ROA in the year prior to turnover from that of the sample firm. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Sample sizes and p-values for two-tailed t-tests and Wilcoxon signed rank tests respectively are reported in parentheses below mean (median) changes in measures of ROA.

Years Relative to CEO Turnover	All Turnover	Voluntary Turnover	Forced Turnover
<i>Panel A: <math>\Delta</math> ROA</i>			
-3 to -1	-0.030 (-0.022) (437, 0.00, 0.00)	-0.013 (-0.010) (289, 0.19, 0.02)	-0.062 (-0.047) (148, 0.00, 0.00)
-1 to +1	0.003 (0.009) (411, 0.71, 0.05)	-0.001 (0.005) (276, 0.89, 0.29)	0.014 (0.019) (135, 0.46, 0.09)
-1 to +2	-0.003 (0.006) (373, 0.79, 0.28)	-0.004 (0.003) (251, 0.71, 0.61)	-0.001 (0.012) (122, 0.97, 0.34)
-1 to +3	-0.010 (0.004) (337, 0.46, 0.55)	-0.011 (0.003) (229, 0.41, 0.72)	-0.008 (0.008) (108, 0.81, 0.61)
<i>Panel B: <math>\Delta</math> IROA</i>			
-3 to -1	-0.025 (-0.018) (437, 0.00, 0.00)	-0.010 (-0.007) (289, 0.17, 0.06)	-0.055 (-0.042) (148, 0.00, 0.00)
-1 to +1	0.000 (0.004) (411, 0.99, 0.36)	-0.005 (-0.000) (276, 0.53, 0.93)	0.010 (0.015) (135, 0.50, 0.18)
-1 to +2	-0.004 (0.003) (373, 0.66, 0.55)	-0.008 (0.001) (251, 0.38, 0.88)	-0.004 (0.008) (122, 0.86, 0.53)
-1 to +3	-0.005 (0.006) (337, 0.67, 0.36)	-0.006 (0.003) (229, 0.60, 0.66)	-0.003 (0.013) (108, 0.92, 0.40)
<i>Panel C: <math>\Delta</math> CROA</i>			
-3 to -1	-0.007 (-0.007) (437, 0.44, 0.18)	-0.003 (-0.003) (289, 0.78, 0.65)	-0.014 (-0.015) (148, 0.44, 0.12)
-1 to +1	-0.011 (-0.008) (411, 0.32, 0.19)	-0.008 (-0.003) (276, 0.51, 0.64)	-0.016 (-0.017) (135, 0.47, 0.15)
-1 to +2	-0.029 (-0.012) (373, 0.06, 0.07)	-0.015 (-0.002) (251, 0.39, 0.84)	-0.057 (-0.039) (122, 0.05, 0.01)
-1 to +3	-0.002 (0.003) (337, 0.93, 0.74)	0.024 (0.013) (229, 0.26, 0.15)	-0.056 (-0.024) (108, 0.08, 0.17)



**Table 7-3****Other operating performance changes and corporate restructuring following CEO turnover**

The table reports median changes in a number of performance and corporate restructuring measures surrounding CEO turnover for a sample of 448 CEO turnover announcements by UK listed companies between 1993 and 1998. Turnover occurs between years -1 and 0. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. The final column reports the p-value for a Mann-Whitney test of medians between changes for companies experiencing voluntary and forced turnover. Sample sizes are reported in italics at the bottom of each panel. P-values for Wilcoxon signed rank tests are reported in parenthesis below median changes in the reported variable.

Variable	All Turnover	Voluntary Turnover	Forced Turnover	P-Value for test of Voluntary vs. Forced
<b>% Δ Book Value of Assets (-1 to +3)</b>				
Unadjusted	<b>0.205</b> (0.00)	<b>0.283</b> (0.00)	<b>0.008</b> (0.08)	<b>0.00</b>
Control Group Adjusted	-0.033 (0.64)	0.076 (0.26)	-0.259 (0.02)	<b>0.01</b>
	<i>337</i>	<i>229</i>	<i>108</i>	
<b>% Δ Employment Costs (-1 to +3)</b>				
Unadjusted	<b>0.208</b> (0.00)	<b>0.240</b> (0.00)	<b>0.114</b> (0.03)	<b>0.07</b>
Control Group Adjusted	-0.081 (0.08)	-0.020 (0.85)	-0.245 (0.00)	<b>0.02</b>
	<i>335</i>	<i>227</i>	<i>108</i>	
<b>% Δ Number of Employees (-1 to +3)</b>				
Unadjusted	<b>0.050</b> (0.00)	<b>0.066</b> (0.00)	-0.033 (0.77)	<b>0.06</b>
Control Group Adjusted	-0.078 (0.08)	0.017 (0.99)	-0.261 (0.01)	<b>0.01</b>
	<i>335</i>	<i>227</i>	<i>108</i>	
<b>% Δ Sales per Employee (-1 to +3)</b>				
Unadjusted	<b>0.166</b> (0.00)	<b>0.166</b> (0.00)	<b>0.163</b> (0.00)	<b>0.71</b>
Control Group Adjusted	0.028 (0.17)	<b>0.040</b> (0.00)	0.006 (0.93)	<b>0.31</b>
	<i>335</i>	<i>227</i>	<i>108</i>	
<b>Δ Operating Profit per Employee (-1 to +3)</b>				
Unadjusted	<b>0.012</b> (0.00)	<b>0.012</b> (0.00)	<b>0.012</b> (0.07)	<b>0.49</b>
Control Group Adjusted	0.005 (0.35)	<b>0.006</b> (0.09)	0.003 (0.40)	<b>0.14</b>
	<i>335</i>	<i>227</i>	<i>108</i>	
<b>Δ Debt-to-Assets (-1 to +3)</b>				
Unadjusted	-0.001 (0.86)	<b>0.004</b> (0.07)	-0.033 (0.01)	<b>0.00</b>
Control Group Adjusted	-0.024 (0.20)	0.000 (0.62)	-0.055 (0.00)	<b>0.01</b>
	<i>337</i>	<i>229</i>	<i>108</i>	

Table 7-4

## Determinants of changes in ROA following CEO turnover

The table reports the determinants of changes in ROA surrounding up to 448 announcements of CEO turnover for a sample of UK listed companies between 1993 and 1998. Turnover occurs between years -1 and 0. ROA is measured as Earnings Before Interest and Taxes (EBIT) for the financial year divided by beginning of the year book value of assets. Industry-adjusted Return on Assets (IROA) is calculated by deducting the ROA of the median firm in the same FTSE level 4 industry group from the ROA of the sample company. Control group-adjusted Return on Assets (CROA) is calculated by deducting the ROA of a control firm matched on the basis of industry and ROA in the year prior to turnover from the ROA of the sample company. Forced turnover occurs where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as inside appointments. Debt-to-assets is defined as the book value of total debt divided by book value of assets. Financial blockholdings are the fraction of shares held by financial institutions with a disclosable interest of greater than 3%. Departing CEO ownership and non-CEO board ownership are the fractional ownership stakes of the departing CEO and all other members of the board respectively. Outside directors are defined as non-executive directors without financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman of the Board, and zero otherwise. Board size is measured as the number of directors serving on the board at the financial year-end prior to turnover. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively during the financial year of CEO turnover, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	Δ ROA			Δ IROA			Δ CROA		
	(-1 to +1)	(-1 to +2)	(-1 to +3)	(-1 to +1)	(-1 to +2)	(-1 to +3)	(-1 to +1)	(-1 to +2)	(-1 to +3)
Intercept	0.044484 (0.18)	-0.054495 (0.43)	-0.020047 (0.78)	-0.026578 (0.41)	-0.117720 (0.04)	-0.096602 (0.18)	0.025604 (0.60)	-0.081187 (0.23)	0.085201 (0.38)
Forced Turnover	-0.008318 (0.64)	-0.023867 (0.24)	-0.034085 (0.32)	-0.010821 (0.55)	-0.028094 (0.17)	-0.036035 (0.29)	0.017816 (0.51)	-0.037993 (0.17)	-0.067280 (0.09)
Outside Successor	-0.010987 (0.41)	-0.019412 (0.23)	-0.018416 (0.40)	-0.012028 (0.37)	-0.020118 (0.23)	-0.019482 (0.38)	-0.032284 (0.10)	-0.071477 (0.01)	-0.035062 (0.25)
Debt-to-Assets	0.047707 (0.03)	0.057885 (0.33)	-0.043473 (0.17)	0.047279 (0.02)	0.055227 (0.33)	-0.045812 (0.15)	0.067998 (0.02)	0.038121 (0.62)	-0.051770 (0.03)
Financial Blockholdings	-0.000004 (0.92)	0.000338 (0.70)	-0.001004 (0.21)	0.000004 (0.99)	0.000308 (0.73)	-0.000980 (0.23)	-0.000021 (0.97)	0.000343 (0.72)	-0.001942 (0.16)



**Table 7-4 continued**

Departing CEO Ownership	-0.000483 (0.42)	0.000352 (0.68)	-0.001320 (0.34)	-0.000529 (0.39)	0.000487 (0.55)	-0.001406 (0.30)	-0.000456 (0.57)	0.000533 (0.55)	-0.001387 (0.27)
Non-CEO Board Ownership	-0.000120 (0.86)	0.000656 (0.24)	0.000663 (0.40)	-0.000050 (0.94)	0.000640 (0.27)	0.000941 (0.23)	-0.000699 (0.47)	0.000443 (0.59)	-0.000725 (0.45)
Fraction Outsiders	-0.066731 (0.30)	-0.031720 (0.73)	0.082746 (0.39)	-0.061645 (0.35)	-0.031520 (0.74)	0.100043 (0.29)	-0.173991 (0.06)	-0.081868 (0.44)	0.056461 (0.61)
Split	-0.001421 (0.92)	0.027176 (0.28)	0.030237 (0.27)	0.000968 (0.94)	0.031733 (0.23)	0.030975 (0.26)	-0.020311 (0.37)	0.061702 (0.11)	0.003701 (0.93)
Board Size	0.004825 (0.04)	0.009886 (0.02)	0.010399 (0.02)	0.005497 (0.02)	0.011050 (0.01)	0.010851 (0.02)	0.006329 (0.12)	0.009018 (0.15)	0.002468 (0.64)
Acquisition	-0.039958 (0.22)	0.030277 (0.45)	0.068103 (0.07)	-0.047011 (0.15)	0.026809 (0.49)	0.075052 (0.03)	-0.069303 (0.18)	0.010192 (0.84)	-0.013468 (0.80)
Placing	-0.030989 (0.55)	0.019151 (0.74)	0.003011 (0.96)	-0.035654 (0.51)	0.014411 (0.80)	0.000567 (0.99)	-0.080181 (0.27)	0.074783 (0.32)	0.044264 (0.47)
Rights	-0.049955 (0.05)	-0.027876 (0.44)	0.031237 (0.50)	-0.060568 (0.02)	-0.040164 (0.27)	0.012120 (0.80)	-0.086182 (0.02)	-0.041495 (0.35)	-0.045799 (0.42)
ROA -1	-0.610800 (0.00)	-0.543636 (0.01)	-0.745758 (0.00)						
IROA -1				-0.628523 (0.00)	-0.568466 (0.01)	-0.751348 (0.00)			
CROA -1							-1.646068 (0.36)	-4.433290 (0.20)	-3.643347 (0.13)
Number of Observations	409	371	335	409	371	335	409	371	335
F Statistic	12.51102 (0.00)	5.915560 (0.00)	6.692798 (0.00)	12.45597 (0.00)	5.987677 (0.00)	6.979290 (0.00)	2.866805 (0.00)	2.017726 (0.02)	1.379399 (0.17)
R <sup>2</sup> Adjusted	0.268349	0.147273	0.181385	0.267409	0.149112	0.188790	0.056142	0.034523	0.014552

**Table 7-5**  
**Univariate comparison of CEO turnover grouped by change in operating performance from year -1 to +3 relative to turnover**

The table reports mean firm characteristics for companies grouped according to changes in ROA following up to 448 CEO turnover announcements by a sample of UK listed companies between 1993 and 1998. Debt-to-assets is defined as the book value of total debt divided by the book value of assets. Financial blockholdings are the fraction of shares held by financial institutions with a disclosable interest of greater than 3%. Outside directors are defined as non-executive directors without any financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman of the Board, and zero otherwise. Board size is the number of directors serving on the company's board at the financial year-end. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively during the financial year of CEO turnover, and zero otherwise. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 calendar months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the company board but from within the company are treated as inside appointments. P-values for two-tailed t-tests of means are reported in the following descending order: Quartile 1 vs. Quartiles 2 & 3, Quartile 1 vs. Quartile 4 and Quartiles 2 & 3 vs. Quartile 4 respectively.

Variable	$\Delta$ ROA	Debt-to-Assets	Financial Blockholdings	Fraction Outsiders	Split	Board Size	Acquisition	Placing	Rights	Forced Turnover	Outside Successor	
<i>Panel A: <math>\Delta</math> ROA</i>												
Quartile 1 (Lowest 25%)	-0.246	0.205	27.8	0.247	0.571	7.23	0.072	0.084	0.084	0.381	0.560	
Quartiles 2-3 (Middle 50%)	0.0057	0.216	24.2	0.266	0.621	7.85	0.036	0.041	0.101	0.260	0.491	
Quartile 4 (Highest 25%)	0.196	0.253	25.1	0.287	0.619	7.02	0.108	0.084	0.145	0.381	0.583	
P-Values for T-Test of Means	0.00	0.78	0.11	0.37	0.45	0.09	0.25	0.21	0.67	0.06	0.31	
	0.00	0.19	0.28	0.10	0.53	0.59	0.42	1.00	0.23	1.00	0.76	
	0.00	0.36	0.70	0.32	0.97	0.01	0.05	0.21	0.33	0.06	0.17	



**Table 7-5 continued**

<i>Panel B: <math>\Delta</math> IROA</i>										
Quartile 1 (Lowest 25%)	-0.237	0.208	26.8	0.255	0.560	7.05	0.072	0.072	0.084	0.571
Quartiles 2-3 (Middle 50%)	0.0062	0.219	25.2	0.267	0.633	7.85	0.036	0.041	0.107	0.473
Quartile 4 (Highest 25%)	0.204	0.246	24.2	0.278	0.607	7.21	0.108	0.096	0.133	0.607
P-Values for T- Test of Means	<b>0.00</b>	<b>0.79</b>	<b>0.46</b>	<b>0.57</b>	<b>0.27</b>	<b>0.02</b>	<b>0.25</b>	<b>0.34</b>	<b>0.57</b>	<b>0.14</b>
	<b>0.00</b>	<b>0.30</b>	<b>0.30</b>	<b>0.34</b>	<b>0.53</b>	<b>0.67</b>	<b>0.42</b>	<b>0.58</b>	<b>0.32</b>	<b>0.64</b>
	<b>0.00</b>	<b>0.50</b>	<b>0.64</b>	<b>0.59</b>	<b>0.69</b>	<b>0.06</b>	<b>0.05</b>	<b>0.13</b>	<b>0.56</b>	<b>0.04</b>
<i>Panel C: <math>\Delta</math> CROA</i>										
Quartile 1 (Lowest 25%)	-0.257	0.289	26.7	0.259	0.607	6.65	0.096	0.084	0.145	0.560
Quartiles 2-3 (Middle 50%)	0.0039	0.199	25.6	0.269	0.645	7.85	0.042	0.042	0.095	0.562
Quartile 4 (Highest 25%)	0.243	0.204	23.5	0.271	0.536	7.61	0.071	0.083	0.095	0.440
P-Values for T- Test of Means	<b>0.00</b>	<b>0.17</b>	<b>0.59</b>	<b>0.66</b>	<b>0.56</b>	<b>0.00</b>	<b>0.13</b>	<b>0.22</b>	<b>0.28</b>	<b>0.97</b>
	<b>0.00</b>	<b>0.21</b>	<b>0.20</b>	<b>0.63</b>	<b>0.35</b>	<b>0.01</b>	<b>0.56</b>	<b>0.98</b>	<b>0.33</b>	<b>0.12</b>
	<b>0.00</b>	<b>0.85</b>	<b>0.34</b>	<b>0.91</b>	<b>0.10</b>	<b>0.49</b>	<b>0.36</b>	<b>0.22</b>	<b>1.00</b>	<b>0.07</b>

**Table 7-6****Long-run share price performance prior to CEO turnover**

The table displays the long-run abnormal stock price performance of companies prior to CEO turnover for a sample of up to 448 announcements of CEO turnover by a sample of UK listed companies between 1993 and 1998. Abnormal stock returns are calculated as the daily buy-and-hold return on the sample company until 2 days prior to the first announcement of CEO turnover minus the daily buy-and-hold return on a control firm matched on the basis of size and market-to-book ratio for the corresponding period. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Sample sizes, student's t-statistics and p-values for Wilcoxon signed rank tests are displayed in parenthesis below mean (median) long-run buy-and-hold abnormal daily stock returns. Superscripts a, b and c denote significance at the 1%, 5%, and 10% level respectively.

Time prior to CEO Turnover	All Turnover	Voluntary Turnover	Forced Turnover
6 months	-0.060 (-0.079) (448, -2.40 <sup>a</sup> , 0.00)	-0.044 (-0.050) (296, -1.69 <sup>c</sup> , 0.03)	-0.091 (-0.158) (152, -1.70 <sup>c</sup> , 0.00)
1 year	-0.114 (-0.100) (448, -3.67 <sup>a</sup> , 0.00)	-0.054 (-0.049) (296, -1.43, 0.07)	-0.231 (-0.223) (152, -4.32 <sup>a</sup> , 0.00)
2 years	-0.180 (-0.114) (448, -2.40 <sup>a</sup> , 0.00)	-0.076 (-0.014) (296, -0.73, 0.28)	-0.382 (-0.388) (152, -4.53 <sup>a</sup> , 0.00)
3 years	-0.179 (-0.147) (448, -1.96 <sup>b</sup> , 0.00)	-0.010 (-0.040) (296, -0.08, 0.26)	-0.506 (-0.347) (152, -5.13 <sup>a</sup> , 0.00)



**Table 7-7**

**Market model event study results for announcements of CEO turnover**

The table reports event study results for up to 448 announcements of CEO turnover for a sample of UK listed companies between 1993 and 1998. Day 0 is the date of the first announcement of a change in the CEO. Abnormal returns are measured using market model parameters estimated from returns data from days -200 to -21 relative to the announcement of CEO turnover. The Extel only sample uses only those announcements that are reported through *FT Extel News Reports*. Announcements that are 'clean' include only those where no other announcements were made through *FT Extel* during the 3 day period beginning 1 day prior to the first announcement of CEO turnover. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Student's t-statistics are reported in parenthesis and sample sizes are in italics. Superscripts a, b and c denote significance at the 1%, 5%, and 10% level respectively.

	All Turnover	Voluntary Turnover	Forced Turnover
<i>Panel A: All Firms</i>	<i>442</i>	<i>295</i>	<i>147</i>
AR Day -1	0.21% (1.88) <sup>c</sup>	0.22% (1.54)	0.20% (0.98)
AR Day 0	-0.30% (-2.72) <sup>a</sup>	0.57% (4.01) <sup>a</sup>	-2.00% (-9.89) <sup>a</sup>
AR Day + 1	0.33% (2.94) <sup>a</sup>	0.15% (1.06)	0.69% (3.40) <sup>a</sup>
CAR - 1 to + 1	0.24% (1.21)	0.93% (3.81) <sup>a</sup>	-1.11% (-3.18) <sup>a</sup>
CAR - 1 to 0	-0.09% (-0.59)	0.78% (3.92) <sup>a</sup>	-1.81% (-6.30) <sup>a</sup>
CAR - 5 to + 5	1.04% (2.82) <sup>a</sup>	1.46% (3.12) <sup>a</sup>	0.25% (0.37)
<i>Panel B: Extel Only Sample</i>	<i>435</i>	<i>289</i>	<i>146</i>
AR Day -1	0.21% (1.88) <sup>c</sup>	0.22% (1.54)	0.20% (0.98)
AR Day 0	-0.35% (-3.11) <sup>a</sup>	0.56% (3.98) <sup>a</sup>	-2.11% (-10.40) <sup>a</sup>
AR Day + 1	0.31% (2.75) <sup>a</sup>	0.14% (1.03)	0.63% (3.12) <sup>a</sup>
CAR - 1 to + 1	0.17% (0.88)	0.92% (3.78) <sup>a</sup>	-1.28% (-3.63) <sup>a</sup>
CAR - 1 to 0	-0.14% (-0.87)	0.78% (3.90) <sup>a</sup>	-1.92% (-6.66) <sup>a</sup>
CAR - 5 to + 5	1.02% (2.73) <sup>a</sup>	1.50% (3.20) <sup>a</sup>	0.09% (0.14)
<i>Panel C: Clean Sample</i>	<i>182</i>	<i>119</i>	<i>63</i>
AR Day -1	0.21% (1.31)	0.21% (1.09)	0.20% (0.66)
AR Day 0	0.01% (0.08)	0.08% (0.42)	-0.11% (-0.36)
AR Day + 1	0.51% (3.23) <sup>a</sup>	0.26% (1.37)	0.98% (3.14) <sup>a</sup>
CAR - 1 to + 1	0.72% (2.67) <sup>a</sup>	0.54% (1.66) <sup>c</sup>	1.07% (1.99) <sup>b</sup>
CAR - 1 to 0	0.22% (0.98)	0.28% (1.06)	0.09% (0.21)
CAR - 5 to + 5	1.90% (3.66) <sup>a</sup>	1.42% (2.26) <sup>b</sup>	2.82% (2.74) <sup>a</sup>

**Table 7-8**  
**Determinants of event period abnormal returns for announcements of CEO turnover**

The table reports the determinants of event study results for up to 448 announcements of CEO turnover for a sample of UK listed companies between 1993 and 1998. Day 0 is the date of the first announcement regarding a change in the CEO. Abnormal returns are measured using market model parameters estimated from returns data from days -200 to -21 relative to the announcement of CEO turnover. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as inside appointments. Debt-to-assets is defined as the book value of total debt divided by the book value of assets. Financial blockholdings are the fraction of shares held by financial institutions with a disclosable interest of greater than 3%. Departing CEO ownership and non-CEO board ownership are the fractional ownership stakes of the departing CEO and all other members of the board respectively. Outside directors are defined as non-executive directors without financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman of the Board, and zero otherwise. Board size is measured as the number of directors serving on the board at the financial year-end prior to turnover. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively during the financial year of CEO turnover, and zero otherwise. *Clean* is a dummy variable that takes the value of one where the company does not make any other announcement to the LSE during the three day period surrounding CEO turnover, and zero otherwise. *Leave Company* is a dummy variable that takes the value of one where the departing CEO leaves the company, and zero otherwise. *Successor Announced* is a dummy variable that takes the value of one where the company simultaneously provides information on the name of the departing CEO's successor at the same time as announcing the departure of the incumbent CEO, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	CAR (-1, 0)	CAR (-1, 1)	CAR (-5, 5)
Intercept	0.037076 (0.18)	0.029771 (0.40)	0.042305 (0.27)
Forced Turnover	-0.029636 (0.05)	-0.025237 (0.14)	-0.017919 (0.33)
Outside Succession	0.019769 (0.06)	0.027641 (0.03)	0.033494 (0.01)
Debt-to-Assets	-0.015752 (0.48)	-0.027916 (0.21)	-0.024045 (0.46)
Financial Blockholdings	-0.000817 (0.04)	-0.000728 (0.14)	-0.000852 (0.09)
			0.014299 (0.74)
			-0.022557 (0.35)
			0.033423 (0.02)
			-0.024823 (0.45)
			-0.000879 (0.08)



Table 7-8 continued

Departing CEO	-0.000364	-0.000354	-0.000176	-0.000197	-0.000450	-0.000428
Ownership	(0.35)	(0.36)	(0.71)	(0.68)	(0.48)	(0.49)
Non-CEO Board	-0.000199	-0.000255	-0.000251	-0.000319	-0.000692	-0.000770
Ownership	(0.60)	(0.48)	(0.57)	(0.47)	(0.25)	(0.19)
Fraction Outsiders	-0.045543	-0.043744	-0.078602	-0.078071	-0.080347	-0.078380
Split	(0.22)	(0.23)	(0.07)	(0.07)	(0.10)	(0.11)
Board Size	0.011672	0.010757	0.021969	0.022147	0.021098	0.019573
Acquisition	(0.39)	(0.44)	(0.17)	(0.19)	(0.24)	(0.28)
Placing	-0.000939	-0.001531	0.000132	-0.000542	-0.000557	-0.001082
Rights	(0.66)	(0.47)	(0.96)	(0.85)	(0.85)	(0.72)
Clean	-0.009255	-0.007721	-0.022270	-0.020162	-0.010806	-0.007574
Leave Company	(0.61)	(0.66)	(0.30)	(0.32)	(0.62)	(0.73)
Successor	0.048087	0.046131	0.044108	0.041870	0.042979	0.043838
Announced	(0.20)	(0.21)	(0.22)	(0.24)	(0.34)	(0.33)
Number of	-0.011619	-0.015664	-0.010270	-0.014653	0.014564	0.013439
Observations	(0.70)	(0.59)	(0.76)	(0.66)	(0.69)	(0.71)
F-Statistic		0.004172		0.005346		0.014982
R <sup>2</sup> Adjusted		(0.64)		(0.61)		(0.24)
		0.017053		0.013482		0.014865
		(0.27)		(0.43)		(0.47)
		0.034443		0.041839		0.025613
		(0.05)		(0.02)		(0.28)
	438	438	438	438	438	438
	1.758427	1.816294	1.614103	1.717601	1.211294	1.181448
	(0.05)	(0.03)	(0.08)	(0.04)	(0.27)	(0.28)
	0.020401	0.027256	0.016584	0.024039	0.005769	0.006190

**Table 7-9**  
**Univariate comparison of announcement period CARs for CEO turnover**

The table reports mean firm characteristics for companies grouped according to announcement period abnormal returns for a sample of up to 448 announcements of CEO turnover by a sample of UK listed companies between 1993 and 1998. Day 0 is the date of the first announcement regarding a change in the company's CEO. Abnormal returns are measured using market model parameters estimated from returns data from days -200 to -21 relative to the announcement of CEO turnover. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs when the new CEO joined the company within the previous 12 months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as inside appointments. Debt-to-assets is defined as the book value of total debt divided by the book value of assets. Financial blockholdings are the fraction of shares held by financial institutions with a disclosable interest of greater than 3%. Outside directors are defined as non-executive directors without financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman of the Board, and zero otherwise. Board size is measured as the number of directors serving on the company's board. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively during the financial year of CEO turnover, and zero otherwise. *Clean* is a dummy variable that takes the value of one where the company does not make any other announcement to the LSE during the three-day period surrounding CEO turnover, and zero otherwise. P-values for two-tailed t-tests of means are reported in the following descending order: Quartile 1 vs. Quartiles 2 & 3, Quartile 1 vs. Quartile 4 and Quartiles 2 & 3 vs. Quartile 4 respectively.

Variable	CAR	Debt-to-Assets	Financial Blockholdings	Fraction Outsiders	Split	Board Size	Acquisition	Placing	Rights	Forced Turnover	External Succession	Clean
<i>Panel A: CAR (-1, 0)</i>												
Quartile 1 (Lowest 25%)	-10.5%	0.279	27.1	0.298	0.682	7.33	0.056	0.046	0.167	0.445	0.509	0.309
Quartiles 2-3 (Middle 50%)	0.23%	0.176	25.3	0.259	0.633	7.55	0.073	0.050	0.068	0.253	0.507	0.525
Quartile 4 (Highest 25%)	9.6%	0.192	25.6	0.290	0.618	7.28	0.055	0.100	0.100	0.382	0.591	0.291
P-Values for	0.00	0.05	0.37	0.04	0.38	0.48	0.54	0.88	0.02	0.00	0.97	0.00
T-Test of	0.00	0.10	0.50	0.71	0.33	0.90	0.97	0.13	0.15	0.34	0.22	0.77
Means	0.00	0.36	0.87	0.08	0.79	0.36	0.52	0.12	0.34	0.02	0.15	0.00



**Table 7-9 continued**

<i>Panel B: CAR (-1, 1)</i>												
Quartile 1 (Lowest 25%)	12%	0.277	27.5	0.302	0.655	7.26	0.065	0.056	0.157	0.436	0.500	0.318
Quartiles 2-3 (Middle 50%)	0.45%	0.175	25.6	0.264	0.643	7.55	0.077	0.045	0.073	0.253	0.511	0.498
Quartile 4 (Highest 25%)	12.1%	0.194	24.5	0.277	0.627	7.35	0.036	0.100	0.100	0.391	0.591	0.336
P-Values for	0.00	0.05	0.34	0.05	0.83	0.36	0.68	0.70	0.03	0.00	0.85	0.00
T-Test of	0.00	0.12	0.17	0.25	0.68	0.82	0.34	0.22	0.21	0.50	0.18	0.78
Means	0.00	0.27	0.54	0.47	0.79	0.49	0.11	0.09	0.42	0.01	0.17	0.01

<i>Panel C: CAR (-5, 5)</i>												
Quartile 1 (Lowest 25%)	-13.8%	0.225	28.7	0.297	0.645	7.02	0.083	0.055	0.110	0.418	0.491	0.309
Quartiles 2-3 (Middle 50%)	0.55%	0.195	23.9	0.260	0.643	7.75	0.050	0.055	0.073	0.271	0.525	0.484
Quartile 4 (Highest 25%)	16.9%	0.208	26.9	0.290	0.636	7.20	0.073	0.082	0.145	0.373	0.573	0.373
P-Values for	0.00	0.37	0.01	0.05	0.96	0.01	0.29	0.99	0.29	0.01	0.56	0.00
T-Test of	0.00	0.55	0.43	0.74	0.89	0.58	0.79	0.44	0.44	0.49	0.23	0.32
Means	0.00	0.63	0.12	0.11	0.91	0.08	0.44	0.38	0.06	0.07	0.41	0.05

**Table 7-10****Long-run abnormal stock price performance following CEO turnover**

The table reports the long-run abnormal stock price performance of companies following CEO turnover for a sample of up to 448 announcements of CEO turnover by UK listed companies between 1993 and 1998. Abnormal stock returns are calculated as the daily buy-and-hold return on the sample company beginning on the day of CEO turnover minus the daily buy-and-hold return on a control firm matched on the basis of size and market-to-book ratio for the corresponding period. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Sample sizes, student's t-statistics and p-values for Wilcoxon signed rank tests are displayed in parenthesis below mean (median) long-run buy-and-hold abnormal daily stock returns. Superscripts a, b and c denote significance at the 1%, 5%, and 10% level respectively.

Time following CEO Turnover	All Turnover	Voluntary Turnover	Forced Turnover
6 months	-0.035 (-0.021) (442, -1.57, 0.03)	-0.015 (-0.004) (295, -0.61, 0.42)	-0.075 (-0.105) (147, -1.67 <sup>c</sup> , 0.03)
1 year	-0.054 (-0.031) (442, -1.55, 0.11)	-0.039 (-0.013) (295, -0.93, 0.51)	-0.084 (-0.084) (147, -1.35, 0.09)
2 years	-0.043 (-0.085) (421, -0.75, 0.12)	-0.005 (-0.047) (282, -0.08, 0.89)	-0.120 (-0.125) (139, -1.07, 0.02)
3 years	0.083 (0.008) (392, 0.71, 0.74)	0.070 (0.098) (264, 0.64, 0.30)	0.110 (-0.313) (128, 0.39, 0.10)



**Table 7-11****Determinants of long-run abnormal stock price performance following CEO turnover**

The table reports the determinants of long-run buy-and-hold abnormal stock returns following CEO turnover for a sample of up to 448 announcements of CEO turnover by UK listed companies between 1993 and 1998. Abnormal stock returns are calculated as the daily buy-and-hold return of the sample company beginning on the day of CEO turnover minus the daily buy-and-hold return of a control firm matched on the basis of size and market-to-book ratio for the corresponding period. Forced turnover occurs where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. Outside succession occurs where the new CEO joined the company within the previous 12 months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as inside appointments. Debt-to-assets is defined as the book value of total debt divided by the book value of assets. Financial blockholdings are the fraction of shares held by financial institutions with a disclosable interest of greater than 3%. Departing CEO ownership and non-CEO board ownership are the fractional ownership stakes of the departing CEO and all other members of the board respectively. Outside directors are defined as non-executive directors without financial or personal ties to company management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman of the Board, and zero otherwise. Board size is measured as the number of directors serving on the board at the financial year-end prior to turnover. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the company has issued new shares by means of acquisitions, placings or rights issues respectively during the financial year of CEO turnover, and zero otherwise. P-values for two-tailed tests of significance are reported in parenthesis.

Variable	6 month BHAR	1 year BHAR	2 year BHAR	3 year BHAR
Intercept	-0.025301 (0.86)	-0.063977 (0.77)	-0.131785 (0.65)	0.151957 (0.78)
Forced Turnover	-0.042349 (0.48)	-0.012880 (0.89)	-0.073096 (0.67)	0.172014 (0.68)
Outside Successor	-0.062860 (0.16)	-0.043957 (0.55)	0.083549 (0.47)	0.136340 (0.51)
Debt-to-Assets	0.280341 (0.00)	0.280446 (0.01)	-0.065782 (0.73)	0.265025 (0.51)
Financial Blockholdings	-0.002254 (0.10)	-0.005540 (0.01)	-0.010642 (0.01)	-0.016564 (0.03)
Departing CEO Ownership	0.000233 (0.93)	0.003158 (0.41)	0.003033 (0.53)	0.007362 (0.44)
Non-CEO Board Ownership	-0.002420 (0.26)	-0.000154 (0.96)	0.002412 (0.64)	0.000241 (0.98)
Fraction Outsiders	-0.035487 (0.85)	0.135895 (0.66)	0.168495 (0.71)	-0.494319 (0.62)
Split	0.015195 (0.77)	0.015505 (0.85)	0.018351 (0.89)	-0.157660 (0.56)
Board Size	0.004954 (0.64)	0.005774 (0.73)	0.023695 (0.27)	0.025913 (0.50)

**Table 7-11 continued**

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Acquisition	0.089587 (0.30)	0.054886 (0.76)	0.497751 (0.29)	1.337743 (0.24)
Placing	-0.004887 (0.97)	0.033396 (0.88)	0.571557 (0.16)	0.920924 (0.23)
Rights Issue	0.110954 (0.21)	0.106954 (0.32)	0.250778 (0.10)	0.259853 (0.37)
Number of Observations	439	439	418	389
F-Statistic	2.235241 (0.01)	1.400046 (0.16)	1.960624 (0.03)	1.670594 (0.07)
R <sup>2</sup> Adjusted	0.032734	0.010841	0.026900	0.020319

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**Table 7-12**  
**Univariate comparison of long-run abnormal stock returns following announcements of CEO turnover**

The table reports mean characteristics for companies grouped by long-run abnormal stock returns following up to 448 announcements of CEO turnover by a sample of UK listed companies between 1993 and 1998. Debt-to-assets is defined as the book value of total debt divided by the book value of assets. Financial blockholdings are the disclosable interests of financial blockholders with a stake of more than 3%. Outside directors are defined as non-executive directors without any financial or personal ties to management. *Split* is an indicator variable that takes the value of one where the departing CEO had separated the roles of the CEO and the Chairman, and zero otherwise. Board size is the number of directors on the board at the financial year-end prior to turnover. *Acquisition*, *Placing* and *Rights* are dummy variables taking the value of one if the firm has issued new shares by means of acquisitions, placings or rights issues respectively during the year of CEO turnover, and zero otherwise. P-values for two-tailed t-tests of means are reported in the following descending order: Quartile 1 vs. Quartiles 2 & 3, Quartile 1 vs. Quartile 4 and Quartiles 2 & 3 vs. Quartile 4 respectively.

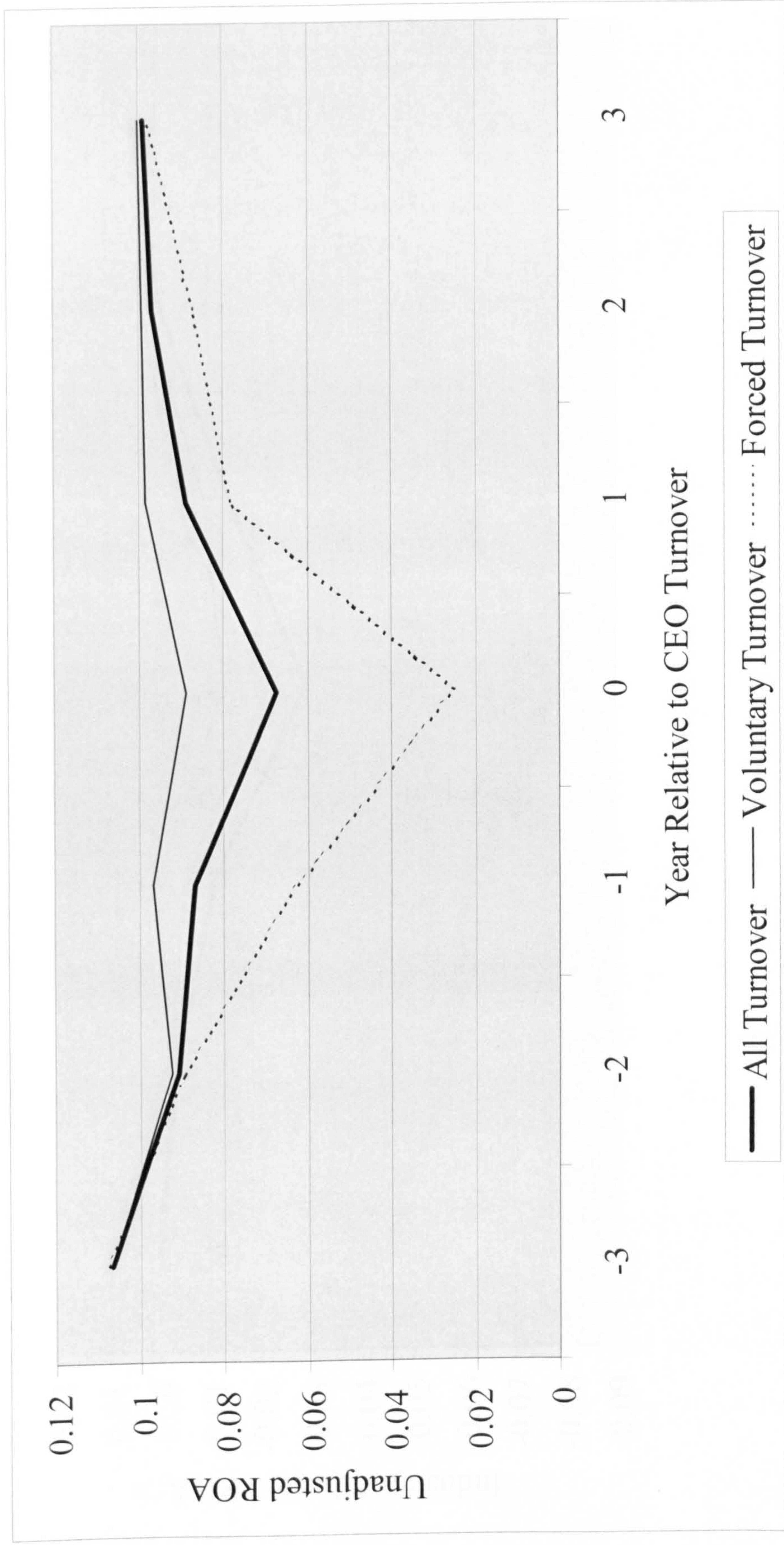
	BHAR	Debt-to-Assets	Financial Blockholdings	Fraction Outsiders	Split	Board Size	Acquisition	Placing	Rights	Forced Turnover	Outside Succession	
<i>Panel A: 6 month BHARs</i>												
Quartile 1 (Lowest 25%)	-0.555	0.186	29.3	0.272	0.649	6.41	0.045	0.109	0.082	0.459	0.586	
Quartiles 2-3 (Middle 50%)	-0.031	0.196	24.0	0.278	0.645	8.11	0.064	0.032	0.082	0.241	0.486	
Quartile 4 (Highest 25%)	0.479	0.243	26.2	0.278	0.631	7.06	0.082	0.073	0.155	0.387	0.559	
P-Values for T-Test of Means	0.00	0.59	0.01	0.77	0.95	0.00	0.48	0.02	0.99	0.00	0.09	
	0.00	0.25	0.19	0.79	0.78	0.03	0.27	0.35	0.10	0.28	0.69	
	0.00	0.34	0.26	0.99	0.79	0.00	0.57	0.14	0.07	0.01	0.22	
<i>Panel B: 1 year BHARs</i>												
Quartile 1 (Lowest 25%)	-0.872	0.195	29.7	0.272	0.649	6.81	0.045	0.108	0.081	0.405	0.550	
Quartiles 2-3 (Middle 50%)	-0.032	0.185	24.9	0.278	0.627	7.88	0.060	0.037	0.092	0.286	0.527	
Quartile 4 (Highest 25%)	0.721	0.254	23.9	0.277	0.667	7.13	0.091	0.064	0.136	0.351	0.514	
P-Values for T-Test of Means	0.00	0.56	0.01	0.73	0.70	0.00	0.57	0.03	0.74	0.03	0.70	
	0.00	0.27	0.01	0.80	0.78	0.32	0.18	0.24	0.19	0.41	0.59	
	0.00	0.18	0.60	0.96	0.48	0.01	0.33	0.31	0.25	0.24	0.81	

**Table 7-12 continued**

<i>Panel C: 2 year BHARs</i>											
Quartile 1 (Lowest 25%)	-1.293	0.218	30.8	0.269	0.648	6.72	0.067	0.067	0.106	0.400	0.562
Quartiles 2-3 (Middle 50%)	-0.064	0.181	24.5	0.273	0.645	7.90	0.057	0.043	0.086	0.308	0.498
Quartile 4 (Highest 25%)	1.25	0.252	23.5	0.281	0.629	7.28	0.076	0.076	0.133	0.305	0.552
P-Values for T- Test of Means	0.00	0.14	0.00	0.85	0.96	0.00	0.74	0.40	0.59	0.11	0.28
	0.00	0.55	0.00	0.61	0.78	0.11	0.81	0.81	0.54	0.15	0.89
	0.00	0.17	0.62	0.69	0.78	0.04	0.54	0.26	0.22	0.95	0.36
<i>Panel D: 3 year BHARs</i>											
Quartile 1 (Lowest 25%)	-1.86	0.236	30.2	0.264	0.673	6.84	0.041	0.072	0.113	0.439	0.571
Quartiles 2-3 (Middle 50%)	-0.014	0.183	24.5	0.281	0.607	7.87	0.067	0.046	0.098	0.260	0.480
Quartile 4 (Highest 25%)	2.22	0.248	24.4	0.261	0.633	7.33	0.102	0.071	0.112	0.347	0.592
P-Values for T- Test of Means	0.00	0.04	0.00	0.39	0.26	0.00	0.34	0.40	0.69	0.00	0.14
	0.00	0.84	0.01	0.88	0.55	0.18	0.10	0.98	0.98	0.19	0.77
	0.00	0.23	0.95	0.30	0.67	0.09	0.33	0.41	0.71	0.13	0.07

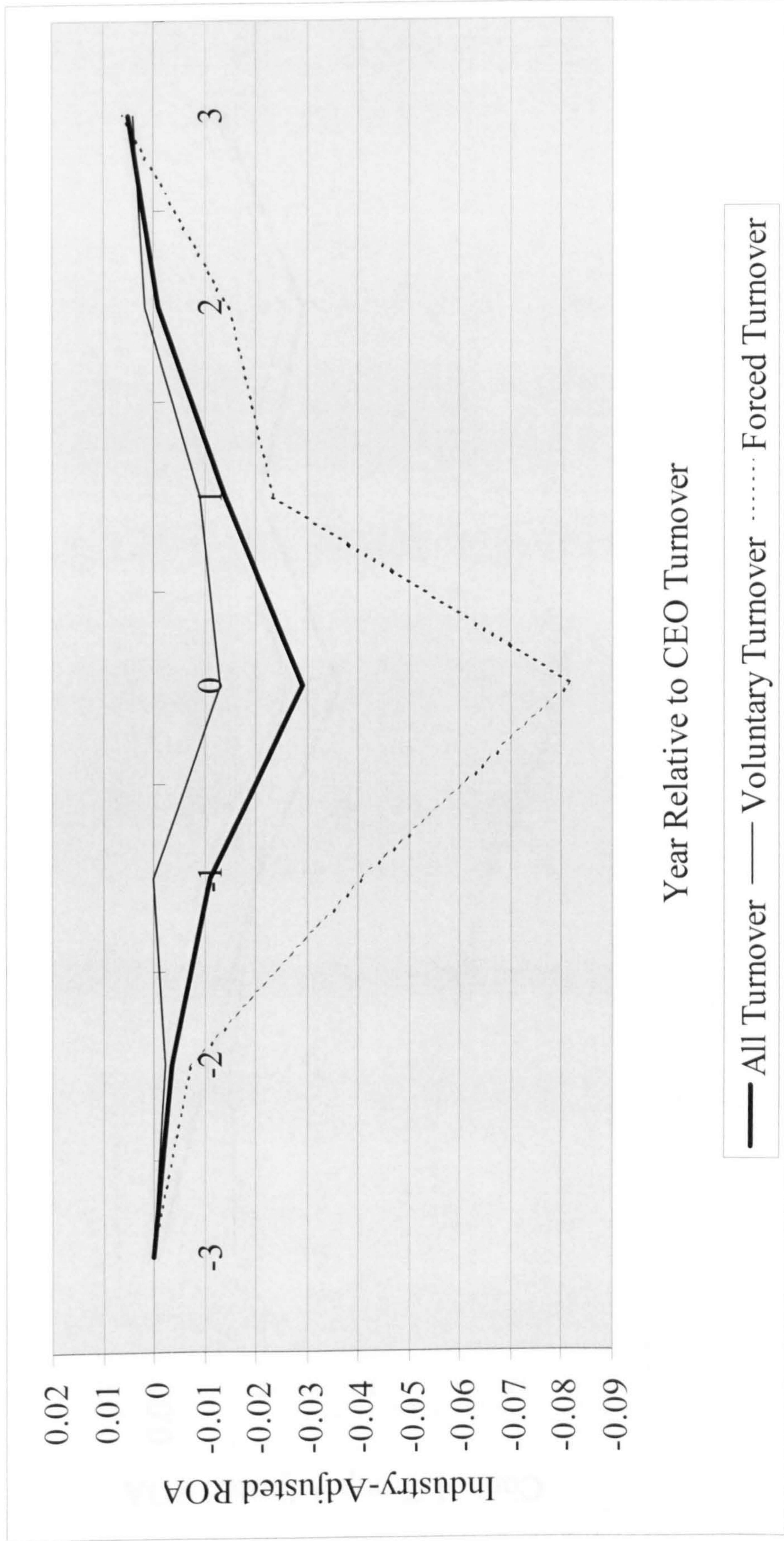


**Figure 7-1**  
**Unadjusted return on assets (ROA) surrounding CEO turnover**



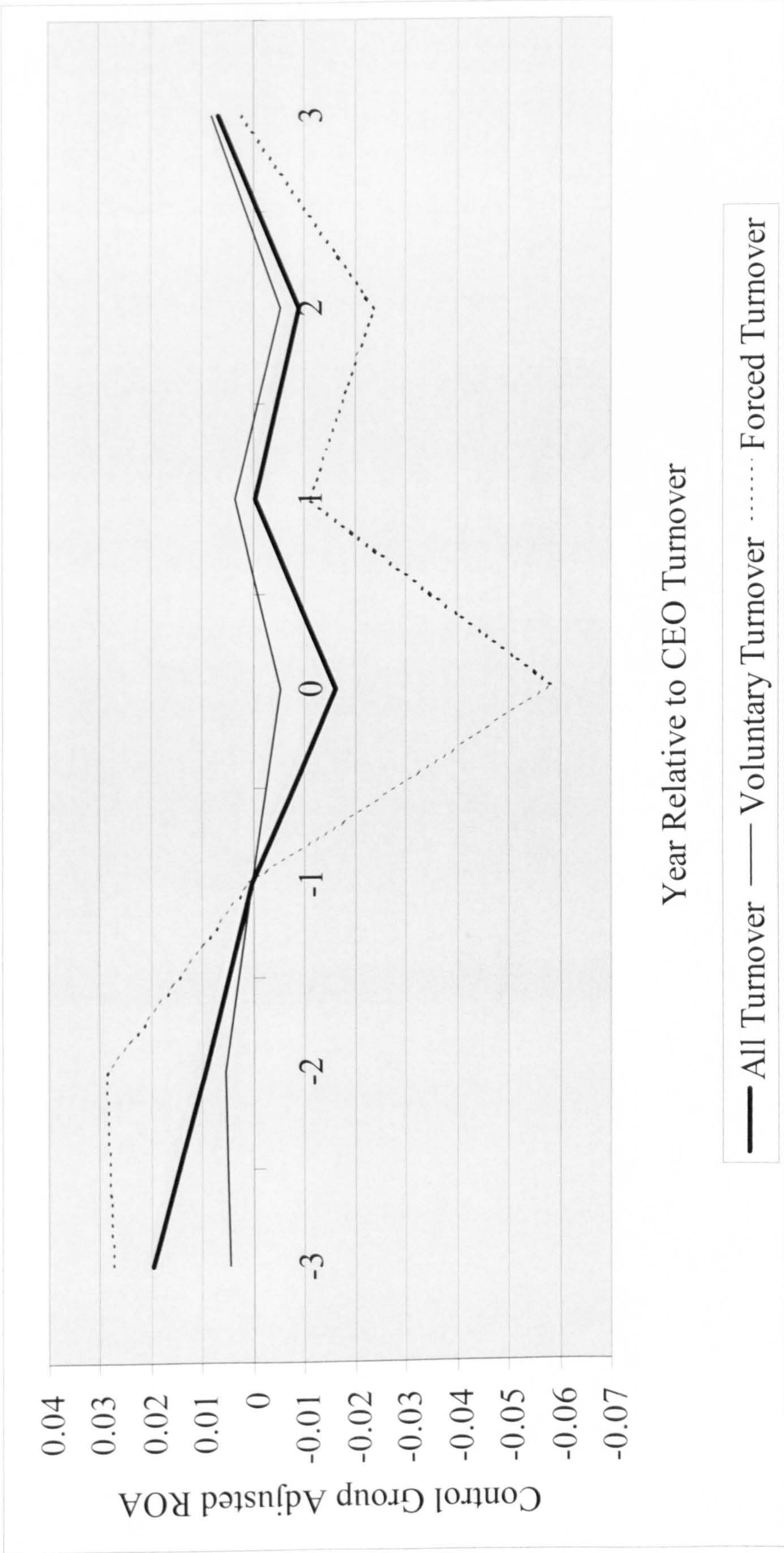


**Figure 7-2**  
**Industry-adjusted return on assets (IROA) surrounding CEO turnover**





**Figure 7-3**  
**Control group-adjusted return on assets (CROA) surrounding CEO turnover**



## **8. Corporate governance and firm responses to operating performance declines in the UK**

To date, the empirical chapters of this thesis have focused on the role of governance structures in CEO replacement decisions as a means of examining their role within specific discrete tasks. Such monitoring decisions provide an interesting setting in which to examine the role of corporate governance systems. In this chapter, I examine the role of governance in the operational and financial responses of companies that experienced a large decline in operating performance, as well as the managerial replacement decisions made by these companies. Examining the role of governance, and in particular the role of board structure, in such operational actions provides an interesting alternative to monitoring of the CEO, in order to examine the different decisions that governance structures are and are not important with respect to.

The manner in which firms respond to declines in performance provides an indication of corporate efficiency. Such responses may involve operational expansion and / or contraction, altering financial policies, and restructuring the boardroom. The valuation consequences of such responses have attracted much empirical examination, both in the US and in other economies. However, an equally interesting question is how the structure of corporate governance systems affects the likelihood of firm responses.

The motivation for examining how corporate governance affects the responses of UK firms to declines in performance arises from the specific characteristics of the system of corporate governance. Firstly, active investors and takeovers have not been found to play a focused role in targeting the managers of poorly performing UK



firms. Empirical studies of US companies have found that the threat of targeting by these investors plays a significant role in corporate restructuring, while international evidence suggests that other attributes of domestic governance systems may fulfil this role. The role of capital markets in disciplining poorly performing UK management has generally fallen upon providers of new equity capital when these firms are forced to raise new finance. Whether the subsequent restructuring of these firms forms part of the bargaining process involved in the equity issuance process poses an interesting empirical question. Finally, given that UK corporate governance charters have emphasised the role of board structure in good corporate governance practice, it is of interest to examine the role of these board structures in firm responses to performance declines.

The results presented here indicate that UK companies respond to a performance shock by restructuring their assets, cutting employment, cutting dividends and replacing top management. However, firms also respond by expanding their asset base. Overall, the frequency of these responses mirrors results reported in US studies, but differs from the Japanese analysis of Kang and Shivdasani (1997).

There is mixed evidence on the role of governance structures in initiating firm responses. Higher leverage, and in particular short-term leverage, increases the likelihood of a firm reducing its asset base without simultaneously expanding during the year of poor performance. Poor liquidity also plays a role in increasing the likelihood of asset contraction policies. I find no evidence that outside directors or employing a separate Chairman and CEO affects the likelihood of operational or financial responses. CEO ownership reduces the likelihood of asset contraction

policies, but actually increases the likelihood of employee layoffs and director removals.

Finally, there is strong evidence that capital market discipline plays an important role in company responses to the decline in operating performance. Providing managers with new equity increases the likelihood of expansionary policies during the year of poor performance. However, equity issuance also increases the likelihood of forced CEO replacement and board appointments during the distress year. Furthermore, threats from the market for corporate control increase the likelihood of forced CEO turnover, director appointments and removals, and that the firm responds by reducing its asset base without also expanding during the distress year. Finally, external succession, where the a CEO is appointed from outside the company, occurs only in companies that have made issues of new equity or received an external control threat during the year of poor performance.

This chapter concludes by examining the performance consequences of various operational restructuring actions. Sample firms exhibit large increases in raw and industry-adjusted return on assets relative to performance during the distress year. However, results using Barber and Lyon's (1996) control firm approach suggest that this is largely due to mean reversion in earnings following the performance shock. Control firm methods indicate little consistent evidence of significant increases in performance following various types of operational responses, although there is some evidence of an increase in performance following asset contraction policies.

Thus, it appears that corporate governance structures do play an important role in the operational decisions of UK companies in response to a large decline in operating performance. Higher leverage and the incidence of capital market activity



is correlated with company decision making that is generally viewed as enhancing shareholder wealth during this period of poor performance. However, measures of company board independence do not play an important role in decision-making. Thus, it appears that board structure does not play a role in *operational* decision-making, but is restricted to *monitoring* decisions such as managerial replacement, as examined in chapters 6 and 7 of this thesis.

The remainder of this chapter is structured as follows. Section 8.1. surveys the previous theoretical and empirical literature on the responses of companies to a large decline in performance, and the role of corporate governance structures in initiating these responses. Section 8.2. describes the sample selection procedure and the data used in this analysis. Section 8.3. discusses the responses of sample companies to the performance shock and section 8.4. examines the relationship between corporate governance and the likelihood of these responses. Section 8.5. examines changes in operating performance following various corporate restructuring actions and section 8.6. concludes.

## ***8.1. Responses to performance declines and the role of governance***

Past research on corporate restructuring has found that poorly performing firms respond in a variety of ways. This research has examined events including asset restructurings, employee layoffs, financial restructuring, altering payout policy and management turnover, with mixed results as to their frequency and valuation consequences. A further strand of this research has sought to examine the role of corporate governance structures in firms' willingness to engage in such activities. This section discusses each of these areas of research in turn.

### ***8.1.1. Firm responses to poor performance***

Companies that experience poor performance may respond in a variety of ways. Empirical research has generally examined the different responses of firms based on a definition of poor performance. Gilson (1989) examines management turnover in a sample of companies that had experienced three years of poor stock price performance. He finds a high rate of CEO turnover in comparison to general studies of labour market discipline such as Warner, Watts and Wruck (1988).

John, Lang and Netter (1992) examine a sample of large US firms that experience a year of negative earnings followed by three years of positive earnings. They find that firms respond to poor performance by selling assets, increasing their industrial focus, and by reducing employment and research & development expenditures. Firms also reduce their gearing and realise increases in operating efficiency measures. While firms also expand, this occurs with much less frequency than downsizing efforts. However, they find that managerial turnover is no more frequent in these companies than in other general studies of managerial discipline.



Ofek (1993) examines firms that experience stock price performance in the top two thirds of all listed companies in a base year of strong performance followed by performance in the bottom 10% of all listed companies in a distress year. The most frequent response is for firms to cut their dividend in the distress year. Firms also respond by reducing their asset base and employment, and replacing top managers.

Kang and Shivdasani (1997) examine a sample of Japanese firms that experience a decline in operating income of 50% from a base year of good performance to a distress year of poor performance. They find that Japanese companies respond by downsizing their asset base and workforce, but also expand and diversify. In relation to a comparative sample of US companies, Japanese firms are less likely to downsize, and layoffs affect a smaller fraction of their workforce.

Finally, Denis and Kruse (2000) examine the extent of corporate restructuring following performance declines in US companies between an active and an inactive takeover period. They find that firms respond by selling assets, restructuring continuing operations, laying off employees and implementing other cost cutting programmes. However, they find that the extent of this restructuring does not significantly differ between these two periods.

### *8.1.2. Governance and responses to poor performance*

Several empirical studies have examined the impact of governance structures on observable firm actions following poor performance. The finding of a negative relationship between top management turnover and firm performance is one of the most consistently documented findings in the corporate finance literature. The findings presented in chapters 6 and 7 provide mixed evidence on the role of

company board structure in CEO replacement decisions. However, Denis and Kruse (2000) find no evidence that company board structure plays a significant role in operational decision-making following a large decline in operating performance. It is possible that CEO replacement decisions may form an important aspect of the duties of an independent board of directors, whereas input into operational actions may not.

Jensen (1986, 1989) argues that companies with higher leverage are less likely to waste 'free cash flow' on negative net present value (NPV) investments, and that such firms will respond more quickly to poor performance. Gilson (1989) finds that higher leverage increases the likelihood of top management turnover in a sample of companies experiencing poor stock price performance over a prolonged period of time. In a sample of companies experiencing short-term stock price performance declines, Ofek (1993) finds that higher leverage increases the likelihood of companies restructuring assets, laying off employees and cutting dividends. However, higher leverage was not associated with higher managerial turnover rates.

Lang, Poulsen and Stulz (1995) find that companies which sell assets tend to be poor performers and that higher leverage benefits shareholders where debt servicing obligations reduce the ability of managers to retain the proceeds of the sale for future investments. Denis and Kruse (2000) find that leverage has no impact on top management turnover for a sample of US firms experiencing a one-year decline in operating performance. Kang and Shivdasani (1997) also find evidence that higher equity ownership by a company's main bank increases the likelihood of downsizing and employee layoffs in a sample of Japanese companies experiencing a decline in operating performance. Lasfer, Sudarsanam and Taffler (1996) find a positive stock



price reaction to the announcement of asset sales by UK companies, which is significantly greater for firms that are in financial distress. Finally, Franks, Mayer and Renneboog (2001) find evidence that higher leverage leads to higher levels of executive board turnover in UK companies, which is in some cases focused only on those companies that performed poorly.

Martin and McConnell (1991) find that top management turnover in companies following takeovers was more pronounced for poorly performing firms than for companies that did not perform poorly. Franks and Mayer (1996) examine hostile takeovers in the UK and find that these involve high levels post-takeover board restructuring. However, they find no evidence that takeover targets are systematically poor performers and argue that the takeover market in the UK does not focus its discipline on poorly performing management. Franks et al. (2001) find similar evidence in a random sample of UK firms, where they find that post-takeover board restructuring is not focused on poorly performing firms. However, the mere threat of takeover may be enough to induce top management turnover. Denis and Serrano (1996) find a high incidence of top management turnover in companies that were the attempt of a failed takeover bid. This turnover was concentrated in poorly performing companies where outside blockholders had acquired a stake.

Denis, Denis and Sarin (1997b) find that outside blockholders increase the likelihood of forced CEO turnover in poorly performing companies. Kang and Shivdasani (1995, 1997) also find that block shareholdings increase the likelihood of CEO turnover, the appointment and removal of outside directors, corporate downsizing and employee layoffs, and also reduce the likelihood of poorly performing companies implementing expansion policies. However, Franks et al.

(2001) find no relationship between changes in the disclosable ownership stakes of large shareholders and executive board turnover in a sample of UK companies. They argue that legal regulations in the UK raise the cost of partial control and lead to a preference for takeovers over large share stakes as a means of corporate control.

Finally, managerial ownership has been found to reduce the likelihood of CEO turnover by Ofek (1993), Denis et al. (1997b) and Dahya et al. (1998) amongst others. This is the result of the increased control that higher ownership provides managers with, which allows them to be insulated from control threats, as hypothesised by Fama and Jensen (1983). Denis and Kruse (2000) also find that higher managerial ownership reduces the likelihood of firms that experience a decline in performance being the subject of a takeover related event or shareholder targeting by institutional investors.



## 8.2. *Sample data and definitions*

The study aims to examine the responses of companies that were originally healthy but suffered a year of poor performance. To achieve this aim, a sub-sample of companies are selected from the original sample of firms described in chapter 4 on the basis that they have industry-adjusted return on assets (IROA) which is above the median IROA of all non-financial companies listed on the London Stock Exchange (LSE) for that year. This year of above average performance is defined as the base year (-1). From these companies, firms are included in this sample where they then suffer a year of poor performance, defined as IROA in the bottom quartile of all non-financial companies listed on the LSE. This year is labelled the distress year (0).

The sampling procedure is similar to that used by John et al. (1992), Ofek (1993), Kang and Shivdasani (1997) and Denis and Kruse (2000). Kang and Shivdasani (1997) and Denis and Kruse (2000) advocate the use of accounting measures of performance over stock price based measures on the grounds that stock prices may already incorporate the relationship between governance mechanisms and the likelihood of firm responses, and therefore distort the sample selection process.

The studies of John et al. (1992), Kang and Shivdasani (1997) and Denis and Kruse (2000) are focused on large companies in order to ensure that restructuring announcements will be easily available. No such limit is placed here because all UK companies were required to announce any price sensitive information to the LSE over the sample time period. These reports are available through *FT Extel News Reports*, which provides the main source of company restructuring announcements.

This filtering procedure results in a sample of 154 companies that experienced a year of good performance followed by a year of substantially poor performance.

The performance of sample companies during the base year of good performance and the distress year of poor performance is reported in table 8-1. Results are reported for three measures of operating performance. These are ROA, IROA and a control group adjusted return on assets (CROA) based on Barber and Lyon (1996). In this chapter, CROA is calculated by subtracting the ROA of a firm matched on the basis of industry and operating performance in the distress year from the ROA of the sample company.<sup>50</sup> This procedure has been discussed in detail in section 7.3.

As can be seen from table 8-1, each performance measure significantly declines from the base year of above average performance to the distress year of poor performance. This decline is significant based on mean and median changes for all three measures of operating performance.

As a further test of this, panel B of table 8-1 reports the buy-and-hold abnormal stock returns (BHARs) for sample companies. The procedure for measuring abnormal returns during the base year and the distress year is based on selecting a control firm at the end of the distress year on the basis of its market value of equity being within +/- 30% of the sample company and having the market-to-book ratio that is closest to the sample firm's from within this group. Abnormal performance and statistical significance are defined as in equations (7-1) and (7-2) respectively.

The results presented in panel B indicate that sample firms underperform relative to their control firm by a mean (median) of 27% (21%) during the year in which the company experiences the decline in operating performance, which lends further credibility to the sample selection process.

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<sup>50</sup> The implementation of this method is based on Denis and Kruse (2000) who use this matching criterion for measuring operating performance changes in firms following the original decline in performance. However, matching in this manner appears to essentially compare companies that have experienced a decline in performance with those who have performed poorly over a period of time.



As a final test of the sample selection procedure, panel C reports managerial turnover rates for the sample companies in the distress year and the base year. The results in panel C indicate that CEO turnover, forced CEO turnover and total board turnover rates experience a significant increase from the year of above average performance to a year of IROA in the bottom quartile of all listed companies. The forced turnover rate of 2.6% in year -1 is much smaller than the 4.3% reported by Dahya et al. (2002) in the period immediately following the publication of the Cadbury Report (1992). However, the 8.4% forced turnover rate documented in the distress year is almost double that reported by Dahya et al. (2002).

Although there is a large increase in the rate of external succession this is not significant, perhaps due to the small number of turnover announcements in the base year. Overall, the evidence presented in table 8-1 indicates that the sample selection criterion has successfully captured companies that have gone from good performance to a year of very poor performance.

Table 8-2 presents information on the financial and governance characteristics of the firms used in this sample at the end of the base year. The mean (median) firm has assets valued at £393million (£47.6million). Thus, this sample includes a larger number of small firms in comparison to past research by John et al. (1992), Kang and Shivdasani (1997) and Denis and Kruse (2000). The mean (median) ownership of the CEO is 7.72% (0.83%), which is higher than reported for the overall sample. The average board has 6.84 members, but the median board has only 6 directors, which is smaller than reported for the overall sample of firms described in chapter 4. Of this, outside directors comprise an average of 26.9% of the overall board, while grey directors make up 13.6% on average.

### 8.3. *Company responses to performance declines*

This section provides evidence on the responses of companies to the onset of poor performance. Firm responses are classified into a series of headings based on past empirical research. Company announcements are collected for the year of the performance decline only.<sup>51</sup>

(1) *Asset expansion policies*: These include the full acquisition of another company, partial acquisitions, the setting up of joint ventures, announcements of increased investment, increasing output or the expansion of existing production facilities. *FT Extel News Reports* provide details of acquisitions, partial acquisitions and joint ventures under individual news headings. Information collected on internal expansion is generally provided by statements about the firm's activities, assets and statements from the company's periodical results announcements and AGM statements. The announcement of expansion policies may represent the company attempting to move away from its poorly performing operations, and as such could be in the best interests of shareholders. On the other hand, Jensen (1986) argues that acquisitions to diversify the company represent negative NPV investment projects and will be viewed unfavourably by financial markets.

(2) *Asset contraction policies*: This category includes announcements of asset sales, spin-offs and divisional divestitures which *FT Extel News Reports* classify under the general heading of disposals. Information on plant closures, withdrawal from a line of business or some other unspecified cost cutting programme is collected

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<sup>51</sup> Ofek (1993) reports restructuring information for the distress year only. Kang and Shivdasani (1997) and Denis and Kruse (2000) report restructuring activity for up to 1 and 3 years following the distress year respectively. The condition of collecting announcements only for the distress year is imposed due to the discontinuance of *FT Extel* information CDs at the end of 1998. The magnitude of any bias caused by this is reduced given the findings of Denis and Kruse (2000) that the largest fraction of restructuring activity following performance declines occurs during the distress year.



from AGM statements, company results announcements and announcements relating to corporate activities and assets. Employment cuts are defined where there is no other announcement of an asset contraction and there is a 5% decline in the number of people employed by the company from the base year to the distress year, as reported by *Datastream*. An asset contraction event refers to any firm response that reduces the firm's asset base, including disposals, plant closures, withdrawal from a line of business or cost cutting efforts. Operational contractions include all asset contractions, in addition to any cuts in employment. In addition to this, asset contraction policies are further separated between those that raise cash immediately for the company and those that do not. Asset sales are classified as raising cash immediately, whilst plant closures, withdrawal from lines of business and unspecified cost cutting efforts do not result in an immediate cash windfall to the firm and may also entail large initial restructuring costs. Ofek (1993) argues that non-cash raising asset contractions may be viewed as maximising long-run value. As such, the performance decline may lead to the withdrawal from lines of business that are no longer profitable for the company. Alternatively, asset sales may arise where firms are forced to sell assets to meet debt payments, and while this may lead to an increase in short-term cash flow, such a strategy may not be consistent with long-term value maximisation. Therefore, the effects of these different policies are tested separately.

(3) *Financial policies*: Data on dividend cuts from the base year to the distress year are based on the ordinary dividend per share payout taken from *Datastream*. Announcements of debt issuance, the restructuring of the terms of existing debt,

rights issues and placings are collected from *FT Extel News Reports* and the 'Capital History' section of *FT Extel Company Information Cards*.

(4) *External control activity*: Information on external control activity is taken from *FT Extel News Reports*. No firm is subject to a takeover during the sample period given the criteria that the company must have reported earnings during the distress year. A block purchase is defined where an individual or another company acquires a disclosable stake of at least 3% of the ordinary shares of the sample firm. These are reported only for non-financial institutions given their dominance of UK equity markets and the high frequency with which these occur. Negotiations are reported directly from company announcements that the firm is engaged in negotiations, which may or may not lead to a formal offer for the company's shares.

(5) *Changes in managerial control*: These are identified in terms of CEO turnover and forced turnover, as defined in chapter 4. In further testing, information is reported on the number of director appointments and removals from the board during the financial year. This information is collected from company annual reports.

### 8.3.1. *Discussion of company responses*

Table 8-3 reports the nature of the sample firm's responses to the onset of poor performance. Approximately 40% of sample firms respond by expanding their asset base, with acquisitions being the most common response in this category. External expansion policies dominate policies that expand the scope of the firm's current products and operations. The extent of expansionary activity differs materially from that reported by Kang and Shivdasani (1997) for large Japanese firms. In their study,



the expansion of current products and facilities was the most frequent form of expansion, while only 9.8% of their sample companies expanded through acquisitions. In addition, 76.1% of their total sample expanded their asset base, as compared to the 40.3% reported here. However, given differences in the time period examined, the length of time over which restructuring activity is measured, and the larger size of their sample companies, these differences may not be simply due to institutional differences in the nature of restructuring between the two countries.

Asset contraction policies are the most common operational response by UK companies to the performance shock. While the majority of these contractions take place through asset sales, a significant proportion of this is made up by employment cuts and unspecified cost cutting programmes. The rate of asset sales, 29.9%, is comparable to the distress year frequency of 29% reported by Denis and Kruse (2000) between 1985 and 1992 for US companies. It is however, much higher than the 4.3% of Japanese companies which engage in asset sales over the year of, and the year following, a performance shock between 1986 and 1990, as reported by Kang and Shivdasani (1997). 13.6% of sample companies are classified as cutting their employment, but the true extent of employment cuts is likely to be much larger, given that the definition used here excludes employment cuts amongst firms which also engaged in other forms of asset contraction policies.

Of the financial responses to the performance shock, almost half of the sample companies respond by cutting their dividend from the base year to the distress year. This level is similar to that reported by Ofek (1993) in his sample of companies experiencing a performance shock based on stock prices. The rate of placings is comparable with that of the overall sample in chapter 4, although rights issues occur

less frequently in relation to this earlier chapter. The issuance of new debt and the restructuring of existing debt are relatively infrequent events.

Only a small fraction of the sample firms experience an external control threat. Negotiations occur in 7 sample companies, while a non-financial block purchase is experienced by only a single company. The threat of takeover activity is similar to that reported by Kang and Shivdasani (1997) in their examination of takeover threats in a comparative sample of US companies, although block purchases are far less common in the UK. This may be due to the higher costs placed on partial control by the legal system in the UK [Franks et al. (2001)]. As discussed previously, the rate of managerial turnover increases substantially from the base year to the distress year.

### *8.3.2. The effect of operational responses on firm size, employment and revenue concentration*

Having found that firms both expand and contract the size of their operations, and make announcements of employee redundancies following the performance shock, this section now seeks to examine what the net effect of these policies are for firm employment, size and the extent to which their revenues are concentrated in a small number of industries. Table 8-4 presents evidence examining changes in the book value of assets, the firm's reported number of employees and a Herfindahl Index of revenue concentration based on sales from 3-digit SIC lines of business. In no case is the change in mean values statistically significant, and given the small sample sizes, the discussion will be based on changes in median values.

Panel A presents changes in the book value of assets for sample firms from the base year to the distress year, and the base year to the year following the distress



year. For the sample as a whole there is a net decrease in assets over both time periods, i.e. -1 to 0 and -1 to +1, with the largest change coming in the distress year. Median assets for these companies decline by approximately £3.5million, which represents 7.32% of their base year asset value. This appears to be driven largely by companies announcing asset contraction policies in the distress year and companies that don't announce some form of expansion policy. Firms who announce asset contraction policies without also expanding their asset base in the distress year experience the largest decline in size, with a reduction of 10.43% based on the median assets of sample companies in the base year.<sup>52</sup> Firm size appears to decline over different time periods regardless of whether firms reduce their workforce.

Results for changes in employment are reported in panel B of table 8-4. Given the relatively small size of some sample firms in relation to past empirical research by John et al. (1992) and Kang and Shivdasani (1997), the net changes in employment appear small in absolute terms. From year -1 to +1 there is a significant decline in the number of firm employees, representing 3% of the median firm's base year workforce. This decline is much larger for companies announcing asset contraction policies than for those that do not. As expected, there is a significant decline in the number of employees for companies defined as having job cuts over both the distress year and the following year. As was the case for changes in firm size, the greatest reduction in employment is experienced by companies that contract their assets without also expanding. The reduction in employment from year -1 to +1 for this group of companies represents 13.37% of their base year workforce. Finally, there is also evidence of increases in employment for companies that

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<sup>52</sup> Kang and Shivdasani (1997) argue that reducing assets without also expanding in other areas provides the strongest indication that companies have downsized as a result of the performance shock.

announce expansion policies and those who do not announce employee layoffs. The results for employment cuts for all firms are smaller than reported by John et al. (1992), who report an employment decline of 5.66% for their sample of large US firms following poor performance. Kang and Shivdasani (1997) find that Japanese firms which downsize without also expanding reduce employment by 4.7%, whereas a comparative sample of US companies reduces employment by 14.8%. Thus, it appears the UK companies cut their employment by a magnitude that is more akin to US restructuring than Japanese restructuring.

Finally, panel C examines changes in a revenue based Herfindahl Index. If performance shocks result from under performing assets or changes in the investment opportunity set, a natural response would be to increase the focus of the business on its most profitable assets. John and Ofek (1995) find that operating performance improvements following asset sales are greatest amongst those companies where the asset sale results in an increase in corporate focus. The results in panel C fail to provide any evidence that operational policies following the performance shock result in such a change. Whilst the vast majority of changes in industrial focus are positive, suggesting that revenue is becoming more concentrated in a reduced number of business segments, none of the tests are close to approaching statistical significance at conventional levels. Thus, increasing corporate focus does not appear to be a significant motivation in company responses to the decline in operating performance.



#### ***8.4. Governance and the likelihood of firm responses to the performance shock***

Having established the frequency of firm responses to the decline in operating performance and the outcome of these responses for firm size, employment and industrial focus, this chapter now turns to examine the relationship between corporate governance characteristics and the likelihood of firm responses. Findings of any such relationships provide further evidence on the role of corporate governance in preserving shareholder wealth.

##### ***8.4.1. Univariate comparisons***

Table 8-5 presents the results of univariate comparisons of the mean and median differences in governance characteristics for sample firms that engage in a specific response, as compared to those that do not. Panel A provides evidence that leverage is significantly higher in companies that engage in asset contractions, and those that contract their assets without also expanding. This is consistent with the empirical findings of Ofek (1993) and Kang and Shivdasani (1997). These findings are also consistent with the theoretical arguments of Jensen (1986, 1989), who suggests that higher leverage reduces the amount of free cash flow at a managers' disposal to make negative NPV investments, and also forces managers to respond more quickly to declines in financial performance. Higher CEO ownership reduces the likelihood of the company contracting its assets, making acquisitions, and contracting assets without expanding, but also increases the likelihood of employee layoffs. The presence of outside directors appears to increase the likelihood of both asset contraction and expansion policies, whilst reducing the likelihood of employee layoffs. This provides mixed support for the belief that outsider dominated boards

are better decision-makers. On one hand, asset sales are generally viewed positively by the stock market [John and Ofek (1995), Lasfer et al. (1996)], but expansion policies following a performance shock may represent further value destroying diversification strategies. There is also some evidence that splitting the positions of the CEO and the Chairman and placings of new equity are correlated with certain operational responses. However, it is difficult to draw any strong conclusions on the role of equity issuance and external control activity from univariate testing due to the infrequency with which these events occur during the distress year.

Panel B of table 8-5 provides univariate comparisons for selected governance characteristics based on the likelihood of dividend cuts and management changes. There is no evidence of a significant difference in the reported sample characteristics for companies that do or do not cut their dividends. CEO ownership is inversely related to the likelihood of forced turnover, consistent with Denis et al. (1997b). There is also varying evidence on the role of external control activity and equity issuance on the likelihood of CEO turnover.

#### *8.4.2. Multivariate results for operational responses*

Table 8-6 presents the results of logit regressions relating the incidence of a restructuring event to a set of governance and financial characteristics. In each case the dependant variable is set equal to one where the company undertakes a specific operational response, and zero otherwise.<sup>53</sup> The results suggest that larger firms are more likely to both expand and contract their assets in response to the performance

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<sup>53</sup> In some cases independent variables are omitted from regressions due to the perfect correlation between the variable and the incidence or non-incidence of a specific event. These are that employee layoffs never occur when the firms issues equity through a rights offering or placing, or when the



shock. Firms who contract their assets and operations without also expanding tend to be smaller in size. The fact that the largest firms are those that both expand and contract in response to poor performance is consistent with Kang and Shivdasani (1997). This is most likely to arise because large companies simply have more assets to dispose of and better sources of financing with which to expand. However, Kang and Shivdasani (1997) also find a positive relationship between firm size and the incidence of contracting without also expanding assets.

Companies experiencing the largest decline in company performance are most likely to make asset sales that raise cash immediately for the company, and are also less likely to expand their asset base. Asset sales by the poorest performing companies may be an indication of their need to sell assets to meet debt claims, Ofek (1993), or alternatively the poorest performing companies may have the greatest incentives to sell off under performing assets. In addition, poorly performing companies will most likely have a lack of free cash flow to make acquisitions.

Consistent with the univariate results, higher leverage reduces the likelihood of the company making acquisitions and increases the likelihood of the company contracting its asset base without also expanding during the distress year. This is consistent with Jensen (1989) who argues that higher debt forces firms to respond more quickly and efficiently to performance declines due to the increased likelihood of default. Ofek (1993) finds that higher leverage increases the likelihood of asset contractions, regardless of whether or not they raise cash. While the findings here are consistent with the general conclusions of Ofek (1993), it appears that the main benefit from leverage is to reduce management's ability to expand during periods of

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company receives an external control threat. In addition, no firm which has a non-cash raising asset contraction policy places new equity in the market.

poor performance. As such, leverage does not force managers to respond by contracting assets, but prevents them from responding through expansion.

Higher ownership by the CEO marginally reduces the likelihood of the company reducing its asset base, but also increases the possibility of the firm announcing employee layoffs. Model (4) also suggests that boards with more outside directors are less likely to lay off employees.

Model (6) provides evidence on the role of capital market discipline in firm responses to performance shocks. An external control threat reduces the willingness of the company to expand, whilst placings of new equity increase this likelihood. The finding that external control threats provide a means to influence managerial decision-making is consistent with Safieddine and Titman (1999). These authors find that targets of failed takeover attempts that increase their leverage also reduce capital expenditures, sell assets, increase corporate focus and reduce employment.

Examining the role of equity issuance in managerial responses to poor performance contains two main effects. Firstly, managerial discipline provided by companies being forced to go to the capital markets should result in actions that are shareholder wealth maximising [Easterbrook (1984)]. However, raising new equity finance clearly increases the amount of cash at managers' disposal and will both increase the likelihood of expansion and reduce the need for companies to raise cash by selling assets. The results in table 8-6 suggest that the later effect dominates.

#### *8.4.3. Debt maturity, liquidity and operational responses*

To further examine the roles of leverage and firm liquidity, debt is segregated between long-term loans with maturity of 5 years and above, and short-term loans



that have a maturity of less than 5 years.<sup>54</sup> Liquidity is proxied by the working capital ratio of total current assets divided by total current liabilities in the odd numbered regression models and by the ratio of EBIT divided total interest payments in the even numbered models. These results are presented in table 8-7.

The results are generally consistent with table 8-6, with the following exceptions. There is marginal evidence that companies who experience the smallest declines in performance are more likely to contract assets without also expanding. CEO ownership now reduces the likelihood of expansion, which is consistent with the univariate results presented in table 8-5. There is also some evidence that rights issues provide managers with more funds to expand their asset base and that external control threats increase the likelihood of asset contraction without simultaneous announcements of expansion.

Consistent with table 8-6 there is no evidence that leverage of any maturity influences the firms' decision to contract its asset base. However, it appears that it is only short-term loans that reduce the likelihood of companies expanding their assets following the performance shock, and also that this form of financing increases the likelihood of asset contractions without expansion. There is also evidence that poor liquidity in the base year increases the likelihood of companies implementing an asset contraction policy, while poor interest coverage increases the likelihood of the company contracting its assets without expanding at the same time. Somewhat surprisingly, there is also evidence in model (6) that higher long-term leverage reduces the probability that companies will reduce their asset base without also expanding during the distress year.

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<sup>54</sup> Note that the total of long and short-term loans does not equate to the total debt figure used earlier. Long and short-term loans exclude convertible debt, lease financing and hire purchase agreements.

Overall, the evidence in table 8-7 suggests that liquidity constraints and the need to meet short-term loans are a significant factor in the operational responses of companies to a performance shock. This is inconsistent with Ofek (1993), who finds that both short and long-term leverage ratios are positively related to the incidence of corporate restructuring actions. However, he does find an inverse relationship between the firm's base year current ratio and the incidence of asset restructuring actions.

#### *8.4.4. Multivariate analysis of dividend cuts and managerial turnover*

While companies may respond operationally by expanding and contracting their asset base and laying off company employees, they may also respond financially by cutting their dividend, or managerially, by replacing members of their board of directors. Past empirical research by Weisbach (1988), Martin and McConnell (1991), Ofek (1993), Denis et al. (1997b), Franks et al. (2001) and Dahya et al. (2002) examines the role played by the board of directors, ownership structure, leverage, equity issuance and the market for corporate control in how firms respond to poor performance by replacing top management and cutting dividends.

Table 8-8 examines the extent to which this is the case in this sample of companies experiencing a decline in operating performance. Model (1) presents the results of a logit regression estimating the role of governance and financial characteristics in forcing companies to cut their dividend payment, where the dependent variable is set equal to one where the company cuts its ordinary dividend payment from the base year to the distress year, and zero otherwise. However, none of these variables is statistically significant at conventional levels, indicating that



corporate governance does not play a role in forcing companies to cut their dividend payment following poor performance. This contrasts with Ofek (1993) who finds that higher leverage induces firms to cut their dividend following one year of poor share price performance.

Model (2) reports the results for regressions estimating the likelihood of CEO turnover, where the dependent variable is set equal to one where the sample firm experiences CEO turnover during the distress year, and zero otherwise. Of the governance variables considered, higher leverage reduces the probability of CEO turnover, as does previously having split the positions of the CEO and the Chairman. The finding that higher leverage reduces the probability of turnover is surprising, whereas not having previously split the top officer position most probably increases the likelihood that the firm will experience a change in CEO in order to comply with the recommendations of the Cadbury Report (1992).

CEO turnover is further classified on the basis of whether or not it was forced and the results are presented in model (3), where the dependent variable is set equal to one where the firm experiences forced CEO turnover during the distress year, and zero otherwise. Consistent with Weisbach (1988) and Dahya et al. (2002) amongst others, companies with the poorest performance are those most likely to experience forced turnover. In addition, capital markets play an important role in forced CEO turnover, where rights issues and external control threats increase the likelihood of forced CEO turnover. These results are consistent with Black and Coffee (1994), Franks et al. (2001) and the findings reported in chapter 6 of this thesis for the role of equity issues in forced CEO turnover within UK companies, and with Martin and McConnell (1991), Denis and Serrano (1996), and Safieddine and Titman (1999) for

the role of takeover threats in CEO turnover. However, there is no evidence that the measures emphasised by the Cadbury Report (1992), such as greater board representation by outside directors and splitting the roles of the Chairman and the CEO, have an impact on CEO turnover within this sub-sample of companies.

Model (4) examines the role of corporate governance in the origin of the successor CEO, where the dependent variable is set equal to one where the company appoints a new CEO from outside of the company during the distress year, and zero otherwise. However, there is no evidence that leverage, performance or company board structure play a role in the origin of the company's new CEO within this sample of firms. This is inconsistent with Borokhovich et al. (1996), Dahya and McConnell (2004) and the findings reported in chapter 6, which indicate that greater board representation by outside directors increases the likelihood that the new CEO is appointed from outside the company. Higher ownership by the company's departing CEO significantly reduces the likelihood of outside succession, which suggests that powerful incumbent CEOs are able to play a role in choosing their successor from the pool of available internal candidates. The table does not report the role of equity issuance and external control activity in external succession, since all of these events are located within firms that issued equity or experienced an external control threat during the distress year. Thus, these mechanisms play an important role in forcing the company to employ a CEO who is more likely to alter the firm's operational and financial policies in response to the performance shock.

Finally, models (5) and (6) present the results of Maximum Likelihood Poisson models based on the number of directors appointed to the board and departing from the board respectively during the distress year. The results indicate that external



control activity leads to both higher rates of director appointments and removals. Director removals are more common in companies with higher CEO ownership, companies with larger boards in the base year and companies that had already split the positions of the CEO and the Chairman. Larger boards will have more directors to shed following the onset of poor performance, whilst higher CEO ownership may provide the incumbent CEO with a stronger financial incentive to restructure a failing board following the performance shock. Splitting the top officer position may reduce the power of the CEO, as argued by the Cadbury Report (1992), and increase the likelihood of the company restructuring the board to preserve shareholder wealth following the performance shock.

I also find that director appointments are more likely in larger firms and amongst companies that issue equity through placings. This is consistent with the findings of chapter 5, which indicate that equity issuance increases the likelihood of director appointments as part of a general board restructuring process that also increases the likelihood of director removals. There is also evidence that higher institutional ownership reduces the likelihood of the company making director appointments.

#### *8.4.5. Economic significance of regression results*

These results provide evidence of the statistical importance of governance on sample firm responses. Table 8-9 presents estimates of the economic significance of these results based on the implied probabilities from the logit regressions in tables 8-6 and 8-8, and holding all other sample variables at their respective median value.<sup>55</sup>

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<sup>55</sup> The exception to this rule is that the mean book value of assets is used when determining the economic significance of asset expansion policies. The significance of the coefficient from model (6)

Results are reported for switching between the 25<sup>th</sup> and 75<sup>th</sup> percentile for selected continuous variables and by switching dummy variables from zero to one.

Panel A presents the results for operational responses. Although statistically significant, CEO ownership does not have an economically large role in asset contraction policies. Moving from the median to the 75<sup>th</sup> percentile of CEO ownership only reduces the likelihood of the firm reducing its asset base by 1.9%. However, a similar increase in CEO ownership does increase the likelihood of employee layoffs by 6.6%. Changes in leverage and an external control threat, while statistically significant, do not result in large changes in the probability of the firm expanding assets during the distress year. However, placings of new equity do result in an economically significant increase in the likelihood of the firm expanding. Higher leverage also appears to play a minor economic role in the likelihood of asset contraction without simultaneous expansion during the distress year.

Panel B examines the economic importance of leverage, CEO ownership and capital market activity on dividend cuts and CEO turnover. Although statistically significant, the economic importance of leverage on CEO turnover is minor. However, both rights issues and external control threats play an important economic role in forced CEO turnover, by increasing its likelihood by 12.5% and 4.2% respectively. Thus, these results once again indicate that economic importance of capital market activity in forced CEO turnover within UK companies.

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of table 6 indicates that size is one of the most important variables in the decision to expand the firm's asset base, and this variable is used here to provide meaningful economic probabilities for other sample variables.



### ***8.5. Operational responses and performance changes***

Having examined the role of corporate governance structures in initiating responses to the performance shock, this section turns to examine the effect of each of these operational responses on firm performance. This provides further evidence on the importance of these governance structures in preserving shareholder wealth during periods of poor performance. Changes in operating performance are measured for one, two and three years relative to the distress year of poor performance. Following the arguments of Barber and Lyon (1996), the discussion of results focuses on median changes in performance, with statistical significance based on Wilcoxon signed rank tests.

Panels A and B of table 8-10 report results for changes in ROA and IROA respectively following the performance decline. The evidence indicates that firms respond quickly to the performance decline and experience a significant increase in operating performance. The only group that does not experience a subsequent increase in performance is the group that cuts employment without also announcing other asset contraction policies. The largest increase in performance occurs in sample companies that have contracted their asset base without also expanding. This appears consistent with the theoretical arguments of Jensen (1986, 1989) who argues against unjustified expansionary policies, and for companies to adopt efficient organisational structures. Kang and Shivdasani (1997) also find that Japanese companies that experience the largest increases in operating performance following a decline were those companies who downsized their activities without also expanding.

However, Barber and Lyon (1996) argue that even examining performance changes after adjusting for industry suffers from bias due to the problem of mean

reversion in earnings. This is likely to be of particular concern in this examination where companies that continue to perform poorly will eventually be driven out of business, while only those who are able to reverse performance are likely to survive. To examine this problem panels C and D use Barber and Lyon (1996) sample matching techniques to examine changes in performance. Panel C is based on matching by industry and distress year performance, as described earlier. Essentially this compares the performance of firms who experience a large decline in profitability between the base year and the distress year against companies who have performed below the median firm listed on the LSE in the base year and are in the bottom quartile of all firms in the distress year. However, even this approach may be flawed because it does not consider the operational responses of matched firms when discussing the control group adjusted return on assets (CROA) of sample firms. Therefore, panel D reports an alternative method of computing CROA. In this case sample firms who do experience a specific response are matched against sample companies that did not respond in this way. Due to the small sample size, companies are matched only on the basis of distress year performance, therefore ignoring industry and the year in which the performance decline occurred.<sup>56</sup>

The results presented in panels C and D are of a much smaller magnitude than those in A and B. Overall, sample firms experience a significant increase in CROA of 1.9% over one and two years following the performance shock. Companies that contract their asset base experience significant increases in performance over one and

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<sup>56</sup> While Barber and Lyon (1996) examine ignoring industry and find that it does not significantly bias test statistics, they do not examine the effect of ignoring the year in which performance occurred. The period between 1993 to 1998 that encapsulates the distress year from which performance changes are measured is generally viewed as a period of economic prosperity, which should minimise bias introduced by this method. Unfortunately, what bias remains cannot be avoided due to the small number of firms in the sample.



three years depending on the control matching method used. Apart from this, there is also some evidence that companies who contract their assets without expanding experience significant increases in CROA over one year, and those which layoff employees experience a further decline in CROA over two years.

## **8.6. Conclusions**

This analysis has provided new evidence on how UK firms respond operationally, financially and managerially to a substantial decline in operating performance. There is evidence that firms are more likely to experience disciplinary turnover of their CEO and to replace board members relative to the pre-shock base year. Companies also respond by cutting their dividend and reducing both their asset base and employment levels during the distress year. However, they also respond by expanding their operations. The extent of restructuring activity mirrors the responses of US companies examined by John et al. (1992), Ofek (1993), Kang and Shivdasani (1997) and Denis and Kruse (2000) who document that asset contraction policies and dividend cuts occur with more regularity than expansionary policies. The frequency with which companies expand (contract) is less (more) frequent than in Kang and Shivdasani's (1997) study of Japanese companies experiencing a performance shock. Thus, UK companies appear to respond in a similar fashion to US companies who are generally viewed as sharing similar governance and financial characteristics.

Further evidence is mixed for the role of corporate governance systems in initiating firm responses to the decline in performance. Leverage reduces the likelihood of expansionary policies and increases the likelihood of the firm contracting its asset base without simultaneously expanding during the distress year. However, leverage appears to play no role in initiating dividend cuts or managerial replacement decisions, as found by Ofek (1993) and Gilson (1989) respectively. Further analysis indicates that it is only short-term leverage that affects these policies, with liquidity needs also playing some role in asset contraction policies.



Again, this is somewhat inconsistent with Ofek (1993), who finds that leverage of all maturities increases the likelihood of company responses.

Contrary to the recommendations put forward in the Cadbury Report (1992), outside directors and splitting the positions of the CEO and the Chairman do not play a role in operational or financial responses to the performance shock. This is, however, consistent with Denis and Kruse (2000) and suggests that the role of outside directors may not lie in operational decision making, but rather in their role played in initiating management turnover or other 'crisis situations', as argued by Hermalin and Weisbach (2003). Higher CEO ownership plays a mixed role in firm responses. On one hand it reduces the probability of asset contraction policies occurring, whilst apparently increasing the likelihood of employee layoffs and other directors departing the board.

The most significant role in firm responses to poor performance appears to be played by capital markets. The threat of a takeover increases the likelihood of forced CEO turnover, director appointments and removals, and also reduces the likelihood of firms responding by expanding their operations. Rights issues also increase the likelihood of forced CEO turnover. This evidence is therefore consistent with the role of takeover markets and equity issues in managerial discipline, as previously examined by Martin and McConnell (1991), Denis and Serrano (1996), Safieddine and Titman (1999), Franks et al. (2001) and chapter 6 of this thesis. However, while issues of new equity capital are associated with managerial discipline, they also provide managers with more funds at their disposal, and therefore, increase the likelihood of expansionary policies.

Finally, this chapter examines operating performance changes following corporate restructuring actions. Only firms that cut their employment numbers do not experience a significant increase in raw and industry adjusted return on assets, where the largest gains accrue to companies that reduce their asset base without also expanding. However, examination of Barber and Lyon (1996) control firm adjusted return on assets suggests that these previously documented increases in performance may be due to mean reversion in earnings. There is little systematic evidence of significant increases in control group adjusted performance following restructuring responses, although what evidence there is indicates that asset contraction policies are the most likely to generate performance improvements.

The research presented here fills some important gaps in the empirical literature on how firms respond to poor performance. In a market that is generally held as being similar to the US, it appears that UK companies respond in a manner consistent with that documented in previous studies of US corporations. This study has also provided further evidence on the important role played by capital markets in initiating responses to poor performance. The threat of a takeover induces firms to respond by changing management and adopting policies that are generally regarded as being operationally efficient. Whilst equity issuance increases the likelihood of managerial replacement decisions, it also provide managers with additional funds with which to embark on expansionary policies that are generally viewed as value destroying in the finance literature [e.g. Jensen (1986, 1989)].

Furthermore, it provides further evidence that the model board proposed by the Cadbury Report (1992), with greater outside director representation and separate Chairmen and CEOs, is not necessarily apt to respond to all situations. This is not to



say that such directors do not play an important role in other 'monitoring' areas, but the evidence presented here suggests that they do not play an operational or financial role when firms experience a large decline in performance.

Finally, the results on performance changes following the initial decline in operating performance highlight an important challenge to empirical researchers in utilising the popular Barber and Lyon (1996) sample matching techniques. The approach of matching on distress year performance, as used by Denis and Kruse (2000), is suffice for their objective of comparing performance changes between two sub-periods, but essentially the technique compares performance changes for companies with a short-term decline in performance against companies who have underperformed for at least two years. Remedying this problem for future studies of firm responses to the onset of poor performance presents an important challenge to future researchers.

**Table 8-1**  
**Performance characteristics and managerial turnover for sample firms**

The table documents changes in performance for 154 companies which had industry adjusted return on assets (IROA) in the bottom quartile of all listed companies on the London Stock Exchange (LSE) following a year in which their IROA was above the median IROA for all LSE firms between 1992 and 1998. The year of above median performance (year -1) is defined as the base year and the year of poor performance (year 0) is labelled the distress year. Return on assets (ROA) is measured as earnings before interest and taxes (EBIT) for the financial year divided by the book value of assets at the beginning of the period. IROA is calculated by deducting the ROA of the median firm in the company's FTSE level 4 industry group from the ROA of the sample firm. Control group adjusted ROA (CROA) is measured as the ROA of the sample firm minus the ROA of a firm matched on the basis of industry and ROA in the distress year (0). Buy-and-hold abnormal returns (BHARs) are measured as the daily buy-and-hold returns on the sample firm minus the daily buy-and-hold returns of a firm matched on the basis of market value of equity and market-to-book ratio at the end of the distress year 0. CEO turnover is defined as any change in the company's top executive. Forced turnover is defined where an article indicates that the CEO was 'fired', 'forced out', left following 'policy disagreements', or some other equivalent. In the remaining announcements, succession is classified as forced where the CEO is under 60 and the first article reporting the announcement (1) does not report the reason for departure as involving death, poor health or the acceptance of another position (elsewhere or within the firm) or (2) reports that the CEO is retiring but does not announce this until at least six months prior to the change. External succession occurs when the new CEO joined the company within the previous 12 months. Added to this is the small number of cases where an outside director was appointed as the new CEO. Appointments from outside the board but from within the company are treated as inside appointments. Board turnover is calculated as the number of directors leaving the board during the year divided by the number of directors serving on the board at the previous year-end. For BHARs, a student's t-statistic and the p-value of a Wilcoxon signed rank test are reported in parenthesis. \* indicates significance at the 1% level.

	Year -1		Year 0		P-value for t-test of Means	P-Value for Wilcoxon signed rank test
	Mean	Median	Mean	Median		
<i>Panel A: Operating Performance</i>						
Return on Assets (ROA)	0.186		0.141	-0.038	-0.007	0.00
Industry-Adjusted Return on Assets (IROA)	0.084		0.033	-0.142	-0.104	0.00
Control Group Adjusted Return on Assets (CROA)	0.194		0.128	0.000	-0.000	0.00
<i>Panel B: Buy-and-hold Abnormal Stock Returns (BHAR)</i>						
BHAR	0.056 (0.89)		-0.009 (0.56)	-0.270 (-3.98)*	-0.210 (0.00)	
<i>Panel C: Managerial Turnover Rate</i>						
CEO Turnover Rate	0.110			0.208		0.02
Forced CEO Turnover Rate	0.026			0.084		0.03
External Succession as Fraction of all Turnover	0.600			0.781		0.24
Board Turnover Rate	0.134			0.169		0.09



**Table 8-2**  
**Sample firm characteristics**

The table reports descriptive statistics for a sample of 154 companies that experienced a large decline in industry-adjusted return on assets (IROA) from a base year of good performance to a distress year of poor performance between 1992 and 1998. All variables are measured at the end of the base year. Financial data is taken from *Datastream* and data on ownership and board structure is collected from company annual reports. The working capital ratio is defined as total current assets divided by total current liabilities. The revenue based Herfindahl Index is calculated from revenue data for 3-digit SIC lines of business. Financial blockholdings are the ownership of all financial companies with a disclosable interest of greater than 3% of the firm's issued share capital as reported in the firm's annual report. Board size is the total number of directors serving on the company's board. Outside directors are defined as non-executive directors without any financial or personal ties to company management. Such ties are inferred where the non-executive is related to any of the company's executive directors, has a tenure exceeding ten years with the company, was formerly an executive director, or has any disclosable business relationships with the company. These include financial contracts disclosed in the company's accounts, such as related party transactions and associations with the company's advisors. Grey directors are non-executives who fail to meet the criteria for being classified as outsiders. *Split* is an indicator variable that takes the value of one where the company had separated the roles of the Chief Executive Officer (CEO) and the company Chairman at the end of the base year. CEO and board ownership are the fractional equity ownership of the individual defined as the Chief Executive Officer (CEO) and the board of directors respectively.

	Mean	Median	Maximum	Minimum	St. Dev.
Book Value of Assets (£000's)	392,669	47,631	21,482,000	707	1,821,199
Total Debt / Assets	0.202	0.178	2.155	0	0.215
EBIT / Interest Expense	47.179	7.318	3466.000	0.851	301.673
Working Capital Ratio	1.516	1.38	5.96	0.16	0.779
Revenue Based Herfindahl Index	0.779	1	1	0.218	0.265
Number of Employees	4890	965	219,000	10	19,098
CEO Ownership (%)	7.721	0.825	68.024	0.000	14.699
Board Ownership (%)	14.750	5.320	75.130	0.002	19.658
Financial Blockholdings (%)	29.505	29.550	67.600	0.000	17.320
Board Size	6.844	6.000	16.000	2.000	2.434
Fraction Grey	0.136	0.111	0.615	0.000	0.149
Fraction Outsiders	0.269	0.286	0.667	0.000	0.168
Split	0.682	n.a.	n.a.	n.a.	n.a.

**Table 8-3****Firm responses to the decline in performance**

The table documents the operational, financial, and managerial responses, and corporate control targeting for a sample of 154 UK companies that experienced a large decline in operating performance between 1992 and 1998. Details of company responses are taken from official announcements made by the firm to the London Stock Exchange (LSE) and reported through *FT Extel News Reports*. Actions are not mutually exclusive and therefore companies can report several actions within the one general classification grouping.

Reported Action	Number of Firms	Percentage of Total Sample
<i>Asset Expansion Policies</i>		
Full Acquisition	50	32.46
Partial Acquisition	7	4.55
Joint Venture	13	8.44
Increase Investment Expenditures	1	0.65
Increase Output / Expand Production Facilities	4	2.60
<b>Total</b>	<b>62</b>	<b>40.26</b>
<i>Asset Contraction Policies</i>		
Asset Sale / Spinoff / Divestiture	46	29.87
Plant Closure	2	1.30
Withdrawal from Line of Business	11	7.14
Unspecified Cost Cutting Programme	25	16.23
Cut in Employment	21	13.64
<b>Total</b>	<b>101</b>	<b>65.58</b>
<i>Financial Policies</i>		
Cut Dividend	70	45.45
Debt Restructuring / Re-negotiation	3	1.95
Issue Debt	7	4.55
Rights Issue	6	3.90
Placing	10	6.49
<b>Total</b>	<b>84</b>	<b>54.55</b>
<i>External Control Activity</i>		
Non-Financial Block Purchase	1	0.65
Negotiations	7	4.55
Unsuccessful Offer	0	0
<b>Total</b>	<b>7</b>	<b>4.55</b>
<i>Change in Managerial Control</i>		
CEO Turnover	32	20.78
Forced CEO Turnover	13	8.44
Outside Succession	25	16.23
<b>Total</b>	<b>32</b>	<b>20.78</b>



**Table 8-4**  
**Change in firm size, employment and revenue concentration following operational responses to the performance decline**

The table documents changes in the book value of assets, the number of employees and a revenue-based Herfindahl Index for a sample of UK companies which experienced a substantial decline in industry-adjusted return on assets (IROA) between 1992 and 1998. Year -1 is the base year in which the company experiences IROA greater than the median firm listed on the London Stock Exchange (LSE) and year 0 is the distress year where IROA is in the bottom quartile of all listed companies. Announcements are taken during the distress year in which the company experiences a decline in IROA. Financial data is taken from *Datastream* and announcements of firm policies are taken from official announcements made by the company to the LSE through *FT Extel News Reports*. The table reports p-values for a two-tailed t-test of sample means and a Wilcoxon signed rank test for median changes in parenthesis. The figures in brackets represent the number of firms for which data is available for measuring changes from year -1 to [0 / +1] respectively.

	Year -1 to 0		Year -1 to +1	
	Mean	Median	Mean	Median
<i>Panel A: Change in Book Value of Assets (£000's)</i>				
All Firms [154 / 143]	-2,997 (0.99)		-3,486 (0.01)	5,700 (0.98)
Asset Contraction Policy [80 / 73]	-13,208 (0.97)		-3,589 (0.02)	-630 (0.99)
No Asset Contraction Policy [74 / 70]	8,042 (0.75)		-504 (0.26)	12,303 (0.67)
Layoffs [21 / 20]	-598 (0.99)		-2,019 (0.12)	-3,104 (0.95)
No Layoffs [133 / 123]	-3,375 (0.99)		-1,370 (0.03)	7,132 (0.98)
Expansion Policy [62 / 60]	2,523 (0.99)		1,056 (0.57)	34,169 (0.95)
No Expansion Policy [92 / 83]	-6,717 (0.83)		-2,459 (0.00)	-14,879 (0.64)
Asset Contraction with Expansion [36 / 35]	-12,361 (0.99)		-1,974 (0.70)	29,065 (0.97)
Asset Contraction with no Expansion [44 / 38]	-13,901 (0.82)		-4,968 (0.00)	-27,982 (0.67)
<i>Panel B: Change in Number of Employees</i>				
All Firms [154 / 143]	-200 (0.92)		1 (0.90)	-449 (0.83)
Asset Contraction Policy [80 / 73]	-386 (0.92)		-17 (0.38)	-855 (0.83)
No Asset Contraction Policy [74 / 70]	1.4 (0.99)		5.5 (0.12)	-24.5 (0.90)
Layoffs [21 / 20]	-184 (0.69)		-48 (0.00)	-220 (0.65)
No Layoffs [133 / 123]	-202 (0.93)		9 (0.10)	-486 (0.84)
Expansion Policy [62 / 60]	-507 (0.92)		41 (0.02)	-855 (0.86)
No Expansion Policy [92 / 83]	7.3 (0.99)		-12 (0.03)	-155 (0.82)
Asset Contraction with Expansion [36 / 35]	-907 (0.91)		29 (0.16)	-1,497 (0.86)
Asset Contraction with no Expansion [44 / 38]	40 (0.98)		-40 (0.01)	-265 (0.85)

**Table 8-4 continued**

*Panel C: Change in Revenue Based Herfindahl Index*

All Firms [154 / 143]	0.008 (0.80)	0.000 (0.43)	0.015 (0.64)	0.000 (0.29)
Asset Contraction Policy [80 / 73]	-0.003 (0.95)	0.000 (0.68)	0.014 (0.76)	0.000 (0.38)
No Asset Contraction Policy [74 / 70]	0.019 (0.59)	0.000 (0.57)	0.016 (0.68)	0.000 (0.54)
Layoffs [21 / 20]	0.034 (0.68)	0.000 (0.91)	0.009 (0.91)	0.000 (0.72)
No Layoffs [133 / 123]	0.004 (0.91)	0.000 (0.48)	0.016 (0.64)	0.000 (0.21)
Expansion Policy [62 / 60]	0.017 (0.72)	0.000 (0.49)	0.019 (0.71)	0.000 (0.72)
No Expansion Policy [92 / 83]	0.001 (0.97)	0.000 (0.66)	0.012 (0.76)	0.000 (0.28)
Asset Contraction with Expansion [36 / 35]	0.015 (0.82)	0.000 (0.54)	0.037 (0.57)	0.000 (0.35)
Asset Contraction with no Expansion [44 / 38]	-0.018 (0.77)	0.000 (0.99)	-0.008 (0.90)	0.000 (0.79)



**Table 8-5**

**Univariate comparison of the characteristics of sample companies based on firm responses to the performance shock**

The table reports the mean and median differences in the value of governance and financial characteristics, equity issuance and the extent of external control activity for a sample of UK companies that experienced a large decline in industry-adjusted return on assets (IROA) between 1992 and 1998. Differences are calculated as the value for firms making a specific response minus the value for firms not making this response. All financial and governance variables are measured at the end of the base year of IROA above the median non-financial firm listed on the London Stock Exchange (LSE). Financial data is taken from *Datastream*. Ownership data is taken from company annual reports in the base year of above median IROA. Details of equity issues are taken from the 'Capital History' section of *FT Extel Company Information Cards*. Details of external control threats are taken from official announcements made by the company to the London Stock Exchange (LSE) and reported by *FT Extel News Reports*. Details of firm responses to performance declines are taken from official announcements reported by *FT Extel*. Results are reported with differences in means reported above differences in medians. P-values for two-tailed t-tests of means and Mann-Whitney tests of differences in medians are reported in parenthesis. Some values are omitted due to a perfect correlation between the incidence or non-incidence of a firm response to the performance shock and the reported variable.

	Debt-to-Assets	CEO Ownership %	Fraction Outsiders	Split	Placing	Rights Issue	External Control Threat
<b>Asset Contraction Policy</b>	0.040 (0.26) 0.077 (0.00)	-9.94 (0.00) -3.42 (0.00)	0.078 (0.00) 0.098 (0.01)	0.064 (0.40) 0.000 (0.40)	-0.006 (0.89) -0.000 (0.95)	0.023 (0.47) 0.000 (0.48)	0.010 (0.78) 0.000 (0.78)
<b>Employee Layoffs</b>	-0.067 (0.10) -0.089 (0.02)	12.84 (0.01) 13.14 (0.01)	-0.120 (0.01) -0.161 (0.01)	-0.183 (0.14) -0.000 (0.10)			
<b>Any Operational Contraction</b>	0.010 (0.83) 0.057 (0.08)	-4.29 (0.11) -2.55 (0.00)	0.024 (0.40) 0.036 (0.38)	-0.025 (0.75) -0.000 (0.76)	-0.047 (0.32) -0.000 (0.27)	0.001 (0.97) 0.000 (0.98)	-0.017 (0.65) -0.000 (0.63)
<b>Asset Expansion Policy</b>	-0.017 (0.58) 0.000 (0.69)	-6.72 (0.00) -1.07 (0.01)	0.064 (0.02) 0.060 (0.03)	0.074 (0.33) 0.000 (0.34)	0.107 (0.02) 0.000 (0.01)	0.015 (0.64) -0.000 (0.65)	-0.022 (0.50) -0.000 (0.52)
<b>Asset Contraction without Expansion</b>	0.045 (0.21) 0.065 (0.02)	-5.79 (0.01) -1.30 (0.01)	0.010 (0.75) 0.018 (0.85)	0.032 (0.70) 0.000 (0.70)	-0.028 (0.49) -0.000 (0.53)	0.009 (0.81) 0.000 (0.81)	0.032 (0.46) 0.000 (0.40)
<b>Operational Contraction without Expansion</b>	0.004 (0.92) 0.019 (0.64)	0.08 (0.97) -0.38 (0.64)	-0.038 (0.18) -0.036 (0.20)	-0.025 (0.75) -0.000 (0.75)	-0.053 (0.16) -0.000 (0.20)	-0.010 (0.76) -0.000 (0.77)	0.007 (0.83) 0.000 (0.83)

*Panel A: Operational Responses*

**Table 8-5 continued**

*Panel B: Dividend Cuts and Changes in Managerial Control*

Dividend Cut	-0.011 (0.75)	0.01 (0.99)	-0.025 (0.36)	0.086 (0.26)	0.011 (0.78)	-0.020 (0.53)	0.048 (0.18)
	-0.006 (0.92)	0.25 (0.71)	-0.036 (0.34)	0.000 (0.26)	0.000 (0.78)	-0.000 (0.54)	0.000 (0.16)
CEO Turnover	-0.037 (0.18)	0.65 (0.83)	-0.042 (0.23)	-0.151 (0.13)	-0.043 (0.28)	0.069 (0.21)	0.061 (0.27)
	-0.008 (0.76)	-0.35 (0.70)	-0.064 (0.22)	-0.000 (0.11)	-0.000 (0.38)	0.000 (0.08)	0.000 (0.14)
Forced Turnover	-0.003 (0.93)	-3.51 (0.10)	-0.039 (0.50)	-0.073 (0.63)	0.013 (0.88)	0.209 (0.11)	0.202 (0.12)
	0.030 (0.44)	-0.04 (0.73)	-0.064 (0.52)	-0.000 (0.60)	0.000 (0.87)	0.000 (0.00)	0.000 (0.00)



**Table 8-6**

**Logit regressions of the determinants of operational responses to the performance decline**

The table presents the results for logit regressions estimating the likelihood of corporate restructuring activities during the year of a large decline in operating performance for a sample of UK companies between 1992 and 1998. In each case the dependent variable is set equal to one where the firm undertakes the specific operational response during the distress year, and zero otherwise. Return on assets (ROA) is measured as earnings before interest and taxes (EBIT) for the financial year divided by the book value of assets at the beginning of the year.  $\Delta$  IROA is measured as IROA in the distress year minus IROA in the base year. All financial and governance variables are measured at the end of the base year. Financial data is taken from *Datastream*. Ownership and board structure data is taken from company annual reports. Details of equity issues are taken from the 'Capital History' section of *FT Extel Company Information Cards*. Details of external control threats are taken from official announcements made by the company to the London Stock Exchange (LSE) and reported by *FT Extel News Reports*. Details of firm responses to performance declines are taken from official announcements reported by *FT Extel News Reports*. Some values are omitted due to a perfect correlation between the incidence or non-incidence of a firm response to the performance shock and the reported variable. P-values for two-tailed tests of significance are reported in parenthesis.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Asset Contraction Policy	Cash Raising Asset Contraction Policy	Non-Cash Raising Asset Contraction Policy	Employee Layoffs	Any Operational Contraction	Asset Expansion Policy	Asset Contraction without Expansion	Operational Contraction without Expansion
Intercept	-5.275319 (0.01)	-9.076259 (0.00)	-0.579988 (0.75)	2.220917 (0.40)	-2.829914 (0.15)	-7.367510 (0.00)	1.273796 (0.45)	2.934512 (0.07)
Ln (Assets)	0.405413 (0.02)	0.730500 (0.00)	-0.111386 (0.51)	-0.259210 (0.24)	0.321786 (0.08)	0.703175 (0.00)	-0.278586 (0.07)	-0.324702 (0.03)
$\Delta$ IROA	-0.130571 (0.85)	-1.098183 (0.09)	-0.643090 (0.35)	3.136217 (0.16)	0.181320 (0.80)	-1.647966 (0.02)	0.884107 (0.23)	1.213231 (0.12)
Debt-to-Assets	0.868349 (0.31)	0.967140 (0.23)	-0.677253 (0.46)	-2.787593 (0.35)	-0.000874 (0.99)	-2.667465 (0.03)	1.683199 (0.04)	0.744740 (0.36)
CEO Ownership	-0.042815 (0.09)	-0.033330 (0.25)	-0.045184 (0.17)	0.042950 (0.05)	-0.006087 (0.73)	-0.013774 (0.57)	-0.058050 (0.15)	-0.014052 (0.38)
Financial Blockholdings	0.014800 (0.23)	0.013702 (0.31)	0.002279 (0.85)	0.027060 (0.15)	0.022450 (0.08)	0.006226 (0.63)	0.002945 (0.80)	0.008662 (0.44)

Table 8-6 continued

Board Size	0.060194 (0.53)	-0.124019 (0.27)	0.138060 (0.18)	-0.141169 (0.31)	-0.023024 (0.82)	-0.115396 (0.24)	0.157456 (0.11)	0.068850 (0.49)
Fraction Outsiders	1.828122 (0.16)	1.480403 (0.25)	1.048580 (0.48)	-4.332316 (0.02)	-0.192189 (0.87)	0.773026 (0.55)	0.221512 (0.88)	-0.883123 (0.45)
Split	-0.543844 (0.24)	-0.471107 (0.35)	-0.565903 (0.21)	0.381323 (0.57)	-0.433670 (0.37)	-0.444001 (0.42)	-0.275187 (0.53)	-0.055359 (0.90)
Placing	-0.309864 (0.65)	1.038963 (0.17)			-0.705444 (0.31)	2.963251 (0.01)	-0.960713 (0.25)	-1.290961 (0.14)
Rights Issue	1.086950 (0.40)	-0.272533 (0.73)	1.350293 (0.17)		0.206018 (0.84)	1.219538 (0.17)	0.224941 (0.81)	-0.437101 (0.63)
External Control Threat	0.402704 (0.67)	0.529643 (0.58)	-0.356378 (0.74)		-0.294653 (0.78)	-2.550080 (0.08)	1.064318 (0.21)	0.529876 (0.57)
Number of Observations	153	153	153	153	153	153	153	153
Log Likelihood	-84.57452 (0.00)	-73.44408 (0.00)	-81.01276 (0.31)	-46.97366 (0.00)	-91.17997 (0.25)	-82.60829 (0.00)	-84.55619 (0.21)	-96.99649 (0.45)



**Table 8-7**

**Logit regressions of corporate governance, firm liquidity and the likelihood of operational responses to the performance decline**

The table present the results for logit regressions estimating the role of corporate governance and firm liquidity on the likelihood of corporate restructuring activities for a sample of UK companies experiencing a large decline in industry-adjusted return on assets (IROA) between 1992 and 1998. In each case the dependent variable is set equal to one where the firm undertakes the specific response during the distress year, and zero otherwise. Return on assets (ROA) is measured as earnings before interest and taxes (EBIT) for the financial year divided by the book value of assets at the beginning of the year.  $\Delta$  IROA is measured as IROA in the distress year minus IROA in the base year. All financial and governance variables are measured at the end of the base year. Financial data is taken from *Datastream*. Ownership and board structure data is taken from company annual reports. Details of equity issues are taken from the 'Capital History' section of *FT Extel Company Information Cards*. Details of external control threats are taken from official announcements made by the company to the London Stock Exchange (LSE) and reported by *FT Extel News Reports*. Details of firm responses to performance declines are taken from official announcements reported by *FT Extel News Reports*. P-values for two-tailed tests of significance are reported in parenthesis.

	Asset Contraction Policy		Asset Expansion Policy		Asset Contraction without Expansion		Operational Contraction without Expansion	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-4.637265 (0.04)	-7.264211 (0.00)	-8.452225 (0.00)	-8.028863 (0.00)	1.648831 (0.42)	0.294992 (0.87)	2.073791 (0.27)	2.178701 (0.23)
Ln (Assets)	0.493080 (0.01)	0.627537 (0.00)	0.753830 (0.00)	0.766016 (0.00)	-0.201772 (0.23)	-0.141592 (0.43)	-0.240045 (0.14)	-0.194430 (0.25)
$\Delta$ IROA	-0.370030 (0.58)	-0.340797 (0.69)	-1.873857 (0.01)	-1.996788 (0.03)	1.018755 (0.21)	1.388799 (0.09)	1.599401 (0.09)	1.725785 (0.10)
CEO Ownership	-0.039836 (0.10)	-0.020406 (0.37)	-0.043718 (0.07)	-0.043990 (0.07)	-0.056730 (0.14)	-0.035890 (0.28)	-0.009975 (0.57)	-0.012722 (0.47)
Financial Blockholdings	0.012703 (0.35)	0.018037 (0.20)	0.008821 (0.49)	0.011585 (0.40)	0.000394 (0.97)	0.003130 (0.80)	0.007459 (0.51)	0.005090 (0.67)
Board Size	0.008455 (0.94)	0.021288 (0.85)	-0.114185 (0.29)	-0.144848 (0.18)	0.132029 (0.18)	0.176582 (0.17)	0.078795 (0.42)	0.049358 (0.62)
Fraction Outsiders	2.123029 (0.14)	2.198904 (0.12)	1.359212 (0.37)	1.315995 (0.39)	0.346743 (0.81)	0.513190 (0.74)	-0.623405 (0.61)	-0.989393 (0.42)

**Table 8-7 continued**

Split	-0.593595 (0.23)	-0.588738 (0.24)	-0.544874 (0.28)	-0.349383 (0.49)	-0.334261 (0.44)	-0.150285 (0.74)	-0.109389 (0.81)	-0.251661 (0.57)
Placing	-0.451827 (0.52)	-0.491683 (0.48)	3.369720 (0.00)	3.138939 (0.00)	-1.025463 (0.20)	-1.299809 (0.13)	-1.296934 (0.13)	-1.363985 (0.12)
Rights Issue	0.892810 (0.53)	0.821454 (0.58)	1.802469 (0.05)	1.530951 (0.11)	0.066023 (0.95)	-0.035026 (0.98)	-0.492483 (0.62)	-0.481584 (0.62)
External Control Threat	0.010651 (0.99)	1.332203 (0.19)	-2.908102 (0.06)	-2.690927 (0.15)	0.914739 (0.31)	2.500837 (0.01)	0.654726 (0.51)	1.079671 (0.34)
Short-term Loans- to-Assets	0.302779 (0.77)	0.373406 (0.73)	-16.09009 (0.00)	-16.84662 (0.00)	2.299799 (0.07)	2.268934 (0.04)	1.833582 (0.17)	1.974730 (0.13)
Long-term Loans- to-Assets	0.435892 (0.91)	-3.693511 (0.37)	7.990106 (0.19)	8.442997 (0.16)	-6.197549 (0.25)	-10.37703 (0.08)	-8.643242 (0.13)	-9.068001 (0.14)
Working Capital Ratio	-0.729124 (0.06)		0.356448 (0.19)		-0.426010 (0.21)		0.073453 (0.77)	
Interest Coverage Ratio		-0.015928 (0.53)		0.000202 (0.67)		-0.043944 (0.09)		9.10E-06 (0.99)
Number of Observations	149	145	149	145	149	145	149	145
Log Likelihood	-78.89385 (0.00)	-75.56912 (0.00)	-67.89013 (0.00)	-65.76348 (0.00)	-80.48024 (0.15)	-75.66152 (0.04)	-92.95775 (0.36)	-89.59086 (0.30)



**Table 8-8**

**Corporate governance and the likelihood of dividend cuts and corporate control changes following performance declines**

The table presents the results for regressions estimating the role of corporate governance characteristics on the likelihood of dividend cuts and managerial turnover for a sample of companies experiencing a large decline in industry-adjusted return on assets (IROA) between 1992 and 1998. The regressions in models (1) through (4) are based on logit estimations where the dependent variable is set equal to one where the firm undertakes the specific response during the distress year, and zero otherwise. Models (5) and (6) present the results of Maximum Likelihood Poisson estimators where the dependant variable is a count of the number of director appointments and departures to and from the company's board of directors during the distress year. Return on assets (ROA) is measured as earnings before interest and taxes (EBIT) for the financial year divided by the book value of assets at the beginning of the year.  $\Delta$  IROA is measured as IROA in the distress year minus IROA in the base year. All financial and governance variables are measured at the end of the base year. Financial data is taken from *Datastream*. Ownership and board structure data is taken from company annual reports. Details of equity issues are taken from the 'Capital History' section of *FT Extel Company Information Cards*. Details of external control threats are taken from official announcements made by the company to the London Stock Exchange (LSE) and reported by *FT Extel News Reports*. Details of firm responses to performance declines are taken from official announcements reported by *FT Extel News Reports*. Some values are omitted due to a perfect correlation between the incidence or non-incidence of an firm response to the performance shock and the reported variable. P-values for two-tailed tests of significance are reported in parenthesis.

	(1)	(2)	(3)	(4)	(5)	(6)
	Dividend Cut	CEO Turnover	Forced CEO Turnover	External Succession	Director Appointments	Director Removals
Intercept	1.654843 (0.31)	-3.516521 (0.13)	-5.073877 (0.17)	4.426891 (0.19)	-1.123802 (0.24)	-2.127335 (0.03)
Ln (Assets)	-0.221647 (0.15)	0.232378 (0.25)	0.273222 (0.39)	-0.004493 (0.99)	0.189906 (0.02)	0.049076 (0.58)
$\Delta$ IROA	1.009848 (0.17)	-3.898974 (0.11)	-2.972400 (0.04)	-0.794489 (0.50)	0.097887 (0.67)	-0.268029 (0.25)
Debt-to-Assets	0.390470 (0.65)	-2.439880 (0.06)	-1.136255 (0.29)	1.275261 (0.84)	0.171502 (0.63)	0.134920 (0.70)
CEO Ownership	0.002142 (0.90)	-0.002251 (0.91)	-0.034336 (0.32)	-0.070594 (0.03)	0.001308 (0.88)	0.014324 (0.06)

**Table 8-8 continued**

Financial Blockholdings	-0.001421 (0.90)	-0.017234 (0.20)	0.001591 (0.94)	-0.022585 (0.56)	-0.012205 (0.06)	0.002626 (0.71)
Board Size	0.048529 (0.60)	0.083616 (0.44)	-0.065360 (0.71)	-0.399901 (0.16)	-0.057284 (0.22)	0.172374 (0.00)
Fraction Outsiders	-0.360681 (0.76)	-1.184657 (0.37)	-0.661619 (0.74)	5.302578 (0.25)	-0.909998 (0.11)	-0.737062 (0.23)
Split	0.741480 (0.12)	-1.019926 (0.06)	-0.724017 (0.38)	-0.744757 (0.46)	-0.078058 (0.70)	0.410154 (0.02)
Placing	-0.271278 (0.73)	-0.919935 (0.52)	-0.180931 (0.92)		0.347128 (0.07)	0.159687 (0.65)
Rights Issue	-0.719928 (0.44)	1.968975 (0.13)	2.952070 (0.03)		0.841976 (0.13)	0.813113 (0.15)
External Control Threat	1.909807 (0.16)	0.768769 (0.41)	1.881891 (0.06)		0.515778 (0.06)	0.645878 (0.09)
Number of Observations	153	153	153	32	153	153
Log Likelihood	-100.8260 (0.59)	-67.46513 (0.02)	-35.16775 (0.07)	-14.62044 (0.82)	-205.8212 (0.00)	-201.5175 (0.00)



**Table 8-9**

**Implied probabilities of operational responses, dividend cuts and changes in managerial control**

The table reports the implied probabilities of corporate restructuring, dividend cuts and managerial turnover for a sample of companies experiencing a large decline in industry-adjusted return on assets (IROA) between 1992 and 1998. Implied probabilities are based on results for regression models reported in tables 8-6 and 8-8 and holding all other variables at their sample median. Some values are omitted due to a perfect correlation between the incidence or non-incidence of a firm response to the performance shock and the reported variable. \*, \*\*, \*\*\* indicates that the regression or the regression coefficient was significant at the 1%, 5% and 10% level respectively in prior testing.

Firm Response	Implied probability when all values are set to sample median	Implied probability 25 <sup>th</sup> (75 <sup>th</sup> ) percentile ratio is at the:	Implied probability when all values are at the sample median and CEO Ownership is at the:	Implied probability when all values are at the sample median and the firm has:	Implied Probability when all values are at the sample median and the firm has:	Implied Probability when all values are at the sample median and the firm has:	Implied Probability when all values are at the sample median and the firm has:
		25 <sup>th</sup> (75 <sup>th</sup> ) percentile	Placing (No Placing)	Rights Issue (No Rights Issue)	External Control Threat (No External Control Threat)		
<i>Panel A: Operational Responses</i>							
Asset Contraction Policy	<b>0.079*</b>	<b>0.074 (0.084)</b>	<b>0.081 (0.060)***</b>	<b>0.059 (0.079)</b>	<b>0.202 (0.079)</b>	<b>0.113 (0.079)</b>	
Employee Layoffs	<b>0.296*</b>	<b>0.343 (0.251)</b>	<b>0.290 (0.362)**</b>				
Any Operational Contraction	0.211	0.211 (0.211)	0.211 (0.204)	0.116 (0.211)	0.247 (0.211)	0.166 (0.211)	
Asset Expansion Policy (mean assets value used)	<b>0.012*</b>	<b>0.015 (0.010)**</b>	0.012 (0.011)	<b>0.192 (0.012)*</b>	0.040 (0.012)	<b>0.001 (0.012)***</b>	
Asset Contraction without Expansion	0.712	<b>0.685 (0.739)**</b>	0.721 (0.623)	0.487 (0.712)	0.756 (0.712)	0.878 (0.712)	
Operational Contraction without Expansion	0.847	0.839 (0.855)	0.848 (0.834)	0.604 (0.847)	0.782 (0.847)	0.904 (0.847)	

**Table 8-9 continued***Panel B: Dividend Cuts and Changes in Managerial Control*

Dividend Cut	0.806	0.801 (0.811)	0.805 (0.808)	0.760 (0.806)	0.669 (0.806)	0.966 (0.806)
CEO Turnover	<b>0.027**</b>	<b>0.031 (0.021)***</b>	0.026 (0.025)	0.010 (0.026)	0.159 (0.026)	0.054 (0.026)
Forced Turnover	<b>0.008***</b>	<b>0.009 (0.007)</b>	<b>0.008 (0.006)</b>	<b>0.007 (0.008)</b>	<b>0.133 (0.008)**</b>	<b>0.050 (0.008)***</b>



**Table 8-10****Changes in operating performance following responses to the performance decline**

The table reports changes in operating performance relative to a distress year (0) for a sample of UK firms experiencing a large decline in industry-adjusted return on assets (IROA) between 1992 and 1998. ROA is measured as Earnings before Interest and Taxes (EBIT) for the financial year divided by beginning of the year book value of assets. IROA is calculated by deducting the ROA of the median firm in the same FTSE level 4 industry group from the ROA of the sample company. Control group adjusted return on assets (CROA) is calculated by deducting the ROA of a control firm matched on the basis of industry and ROA in the year of the performance decline (0) from that of the sample firm. Alternative CROA is based on matching sample companies who initiated a specific response to the decline in performance against a sample company that did not implement this response. All financial data are taken from *Datastream*. Information on the operational responses of sample companies to the decline in performance are taken from official announcements made by the company to the London Stock Exchange (LSE) and reported through *FT Extel News Reports*. Sample sizes, and p-values for a two-tailed t-test of means and a Wilcoxon signed rank test are reported in parentheses below mean (median) changes in measures of ROA.

	$\Delta 0$ to +1	$\Delta 0$ to +2	$\Delta 0$ to +3
<i>Panel A: <math>\Delta</math> ROA</i>			
All Firms	0.074 (0.069) (143, 0.00, 0.00)	0.064 (0.073) (132, 0.04, 0.00)	0.071 (0.084) (120, 0.00, 0.00)
Asset Contraction	0.081 (0.074) (73, 0.01, 0.00)	0.091 (0.074) (71, 0.00, 0.00)	0.086 (0.091) (62, 0.01, 0.00)
Employee Layoffs	0.026 (0.048) (20, 0.62, 0.12)	-0.106 (0.035) (20, 0.55, 0.31)	0.005 (0.038) (19, 0.93, 0.32)
Expansion Policy	0.072 (0.062) (60, 0.00, 0.00)	0.061 (0.056) (56, 0.04, 0.00)	0.050 (0.063) (50, 0.03, 0.00)
Asset Contraction without Expansion	0.079 (0.097) (38, 0.09, 0.00)	0.128 (0.078) (36, 0.00, 0.00)	0.098 (0.127) (33, 0.07, 0.01)
Operational Contraction without Expansion	0.063 (0.089) (53, 0.10, 0.00)	0.050 (0.076) (51, 0.48, 0.00)	0.080 (0.112) (47, 0.06, 0.00)
<i>Panel B: <math>\Delta</math> IROA</i>			
All Firms	0.068 (0.060) (143, 0.00, 0.00)	0.062 (0.064) (132, 0.04, 0.00)	0.081 (0.086) (120, 0.00, 0.00)
Asset Contraction	0.074 (0.063) (73, 0.01, 0.00)	0.086 (0.058) (71, 0.00, 0.00)	0.091 (0.078) (62, 0.00, 0.00)
Employee Layoffs	0.025 (0.055) (20, 0.64, 0.12)	-0.103 (0.047) (20, 0.56, 0.29)	0.019 (0.084) (19, 0.75, 0.21)
Expansion Policy	0.065 (0.053) (60, 0.00, 0.00)	0.060 (0.056) (56, 0.04, 0.00)	0.062 (0.076) (50, 0.01, 0.00)
Asset Contraction without Expansion	0.072 (0.080) (38, 0.13, 0.00)	0.120 (0.065) (36, 0.00, 0.00)	0.102 (0.115) (33, 0.06, 0.00)
Operational Contraction without Expansion	0.058 (0.077) (53, 0.14, 0.00)	0.046 (0.065) (51, 0.52, 0.00)	0.088 (0.115) (47, 0.04, 0.00)

**Table 8-10 continued**

<i>Panel C: <math>\Delta</math> CROA</i>			
All Firms	0.029 (0.019) (143, 0.16, 0.01)	0.012 (0.019) (132, 0.74, 0.09)	0.038 (0.027) (120, 0.24, 0.15)
Asset Contraction	0.042 (0.017) (73, 0.18, 0.06)	0.028 (0.013) (71, 0.39, 0.30)	0.008 (0.010) (62, 0.81, 0.42)
Employee Layoffs	-0.053 (0.004) (20, 0.32, 0.78)	-0.167 (0.048) (20, 0.36, 0.90)	-0.065 (-0.013) (19, 0.32, 0.98)
Expansion Policy	0.045 (0.009) (60, 0.12, 0.20)	0.033 (0.002) (56, 0.37, 0.42)	0.075 (0.010) (50, 0.19, 0.43)
Asset Contraction without Expansion	0.058 (0.037) (38, 0.27, 0.09)	0.055 (0.041) (36, 0.25, 0.18)	-0.006 (-0.007) (33, 0.91, 0.82)
Operational Contraction without Expansion	0.026 (0.035) (53, 0.54, 0.11)	-0.021 (0.046) (51, 0.79, 0.19)	-0.015 (-0.007) (47, 0.75, 0.68)
<i>Panel D: <math>\Delta</math> Alternative CROA</i>			
All Firms	0.029 (0.019) (143, 0.16, 0.01)	0.012 (0.019) (132, 0.74, 0.09)	0.038 (0.027) (120, 0.24, 0.15)
Asset Contraction	0.009 (-0.001) (73, 0.77, 0.94)	0.112 (0.016) (70, 0.11, 0.18)	0.049 (0.058) (62, 0.13, 0.02)
Employee Layoffs	-0.079 (-0.045) (20, 0.21, 0.44)	-0.237 (-0.059) (20, 0.15, 0.08)	-0.088 (-0.001) (19, 0.18, 0.48)
Expansion Policy	-0.011 (0.004) (56, 0.76, 0.50)	-0.026 (-0.017) (51, 0.48, 0.64)	-0.024 (0.002) (46, 0.46, 0.53)
Asset Contraction without Expansion	-0.021 (-0.009) (38, 0.64, 0.78)	0.015 (0.014) (36, 0.58, 0.68)	0.032 (0.051) (33, 0.54, 0.15)
Operational Contraction without Expansion	-0.033 (-0.002) (53, 0.39, 0.71)	-0.066 (0.016) (51, 0.36, 0.92)	0.016 (0.036) (47, 0.71, 0.26)



## **9. Conclusions and discussion**

The issue of what constitutes good corporate governance has received a great deal of attention in recent times. The reports of the Cadbury (1992), Greenbury (1995), Hampel (1998) and Higgs (2003) committees have led the call for UK companies to adopt governance structures that increase the accountability of managers to their company's shareholders. At the heart of these reports has been the goal of increasing and/or improving the role of the board of directors in overseeing the management of the company.

These reports have followed a series of financial scandals at UK and major overseas companies where it was felt that controls on self-serving managers were lax. In the early 1990's the collapse of Pollypeck and Maxwell Communications, amongst many other high profile cases, led to the publication of the Cadbury Report (1992). In more recent times, the accounting scandals at Enron and Worldcom in the US, and the collapse of Marconi in the UK have led to further calls for corporate governance legislation to be tightened. The culmination of these events resulted in the publication of the Higgs Report in early 2003 in the UK.

The proposals enshrined in these reports have inspired a large volume of empirical research on the role of these governance structures in discrete tasks, their impact in corporate value, and how they interact with one another. In addition, the additional disclosure required by these reports has allowed researchers a greater feel for the independence of non-executive directors from the executives who run the company on a day-to-day basis.

The findings of Young (2000), Dahya, McConnell and Travlos (2002), Dedman and Lin (2002), Dedman (2003), Peasnell, Pope and Young (2003), and Dahya and

McConnell (2004) provide evidence on the impact, or lack thereof, of the Cadbury Report's (1992) proposals on firm level corporate governance structures and decision-making. The findings reported in this thesis contribute to this growing volume of research.

The governance practices of UK companies offer a unique setting for studying the workings of corporate governance. These companies have historically employed fewer non-executive directors than their US counterparts, but have been more willing to separate the roles of the Chairman and the Chief Executive Officer (CEO). The findings presented in chapter 4 of this thesis indicate that following the publication of the Cadbury Report (1992), UK companies increased their reliance on independent non-executive directors on the board and became more willing to separate the functions of the Chairman and the CEO. In addition, prior research suggests that the role of UK capital markets in managerial discipline is limited to equity issuance [i.e. Franks, Mayer and Renneboog (2001)]. Takeovers and block share purchases by active investors have not been found to perform a disciplinary function on the managers of poorly performing companies. This thesis has reported a series on tests of the interdependence of governance systems and their role in observable discrete tasks, which have provided further evidence on the role of corporate governance systems within the UK.

The remainder of this chapter is structured as follows. Section 9.1. provides a summary of the main empirical chapters in this thesis. Section 9.2. discusses the policy implications and theoretical contributions of the main findings of this thesis. Section 9.3. discusses the limitations of the findings presented in the thesis and section 9.4. concludes by offering potential areas for future research.



## ***9.1. Summary of main research findings***

This section provides a brief summary of the main research findings of the empirical chapters that have been presented in this thesis

### ***9.1.1. Ownership and board structure during corporate governance reform***

This chapter examined the interdependence of corporate governance structures, and the extent to which changes in these structures are driven by changes in firm-specific factors, owner-specific characteristics, company performance and equity issuance during a period of corporate governance reform. Following the publication of the Cadbury Report (1992) it has been widely reported that UK companies increased their use of non-executive directors and became more willing to separate the roles of the Chairman and the CEO.

The findings of this chapter indicate that ownership and board structure are highly correlated with one another, as are changes in these variables. In particular, measures of managerial control, such as managerial ownership and family board control, are inversely correlated with board independence, as measured by the fraction of the board that is comprised by independent non-executive directors and a company's willingness to separate the functions of the Chairman and the CEO.

In examining the cross-sectional determinants of corporate governance structures, evidence is presented of the importance of firm-specific characteristics, such as growth prospects, firm size, stock price risk, and industrial diversification. However, changes in these firm-specific characteristics are not consistently related to changes in corporate governance structures. Rather, changes to governance

structures are driven by changes in managerial control, poor company performance and equity issuance amongst sample companies.

UK listed companies appeared to rationally adopt the reforms proposed by the Cadbury Report (1992). Larger companies and firms with fewer growth opportunities were more likely to adopt the report's proposals. However, compliance is also positively correlated with the incidence of CEO turnover and equity issuance. These findings are consistent with the predictions of Hermalin and Weisbach (2003) of how ownership and board structure evolve over time. They also provide new evidence on the role of providers of new equity capital in the evolution of corporate governance. Overall, changes in corporate governance appear to be driven by changes to the structure of the control rights within an organisation.

### *9.1.2. Equity issuance, corporate governance reform and CEO turnover in the UK*

This chapter examines the determinants of forced CEO turnover and outside CEO appointment decisions. In addition, evidence is also provided of the extent to which the discipline from corporate governance mechanisms is focused on the managers of poorly performing companies.

The findings of this chapter indicate that forced turnover is more likely following poor performance, as measured by market-adjusted stock returns, dividend cuts and omissions and the reporting of negative pre-tax profits. Firm size, CEO turnover in the previous financial year and CEO ownership are inversely correlated with the likelihood of forced turnover. Both the fraction of outside directors on the company's board and the incidence of splitting the roles of the Chairman and the CEO prior to turnover increase the likelihood of forced CEO removal, however, this



is not focused on managers at the poorest performing companies. Further evidence indicates that the role of outside directors in CEO turnover is restricted to larger companies while splitting the roles of the Chairman and the CEO increases the likelihood of forced CEO turnover in small companies only.

New evidence is also provided on the role of suppliers of new equity capital in CEO turnover decisions. Equity issuance significantly increases the likelihood of forced turnover amongst CEOs in the poorest performing companies only. In addition, the disciplinary role of placings of new equity is restricted to small companies. Rights offerings increase the likelihood of performance-related CEO turnover in large firms only, but also increase the unconditional forced CEO turnover probability in small companies.

External CEO succession does not follow poor performance, unless this is measured on the basis of dividend cuts and omissions, but is more likely following the forced removal of the incumbent CEO. The fractional share ownership of all remaining board members outside of the departing CEO is inversely related to the likelihood of outside succession, as is the size of the board. The probability of outside CEO succession is a positive function of the fraction of outside directors on the company's board, but is unrelated to the incidence of splitting the roles of the Chairman and the CEO. Finally, there is evidence that equity issuance, and in particular placings, increase the likelihood of internal CEO succession.

These findings shed new light on the role of board structure and equity issuance in the process of CEO appointment and removal decisions. While there is evidence that a board of directors which is independent of the CEO is better able to monitor the actions of the top officer, the lack of a relationship between board structure and

performance-related CEO turnover might suggest that corporate boards have become myopic in their monitoring of company management, potentially as a result of the proposals outlined within the Cadbury Report (1992). New evidence is also provided of the role of placings and rights offerings in the removal of a poorly performing CEO.

### *9.1.3. Improved management, scapegoats, and company performance surrounding CEO turnover*

This chapter extends the analysis of chapter 6 by examining company performance before and after announcements of voluntary and forced CEO turnover. Evidence is also provided on the relationship between corporate governance and various measures of the shareholder wealth effects of CEO turnover. Studying the relationship between corporate governance and firm value in this way reduces the extent of the endogeneity problems that blight studies of the direct relationship between governance and firm value [Hermalin and Weisbach (2003)].

Prior to announcements of forced CEO turnover, companies experience large declines in operating performance and substantially inferior stock price performance relative to a benchmark proxy. Firms that experience voluntary CEO turnover also experience poor stock price performance and declining operating performance, but to a much lesser extent than forced turnover companies.

However, there is little evidence that companies who experienced forced CEO turnover are subsequently able to improve their operating performance. Indeed, over two and three years following turnover these companies underperform in relation to a benchmark proxy. There is also some evidence that the appointment of a new CEO



from outside of the company leads to further declines in operating performance. Despite the lack of improvement in operating performance, strong evidence is presented that companies who experienced forced CEO turnover substantially restructured their operations following the appointment of a new CEO. These firms reduce their asset base, cut their employment levels and costs, and reduce their leverage relative to voluntary turnover companies and a benchmark proxy.

I also find that announcements of voluntary CEO turnover are greeted positively by the stock market, but that announcements of forced turnover elicit a negative stock price reaction. Further analysis indicates that those announcements that are 'contaminated', i.e. where other information is disclosed simultaneously with the turnover announcement, drive the negative stock price reaction to announcements of forced CEO turnover. The simultaneous announcement of a successor CEO and the appointment of an external successor are viewed positively by the stock market. Evidence is also reported of long-run stock price underperformance following announcements of forced CEO turnover, which is more pronounced over shorter time horizon periods. However, no such effects are found following announcements of voluntary CEO turnover.

Finally, based on post-turnover changes in operating and stock price performance and the stock price reaction to announcements of CEO turnover, there is evidence that companies with a small board of directors and higher levels of institutional blockholdings make poor CEO selection decisions. There is little consistent evidence that managerial ownership, equity issuance or board independence play a significant role in CEO selection decisions, based on post-turnover performance.

When viewed as a whole these results are generally supportive of a scapegoat hypothesis of forced CEO turnover decisions. Under this theory, CEOs are removed following poor performance that has been outside of their control. As such, their replacement should not be expected to result in performance improvements. If anything, performance actually deteriorates further in this sample of companies experiencing the forced replacement of their incumbent CEO.

#### *9.1.4. Corporate governance and firm responses to operating performance declines in the UK*

The findings of chapters 5 and 6 suggest that equity issuance and board structure play an important role in board and CEO replacement decisions respectively. This chapter examines the role of corporate governance in the overall restructuring of companies that have experienced a substantial decline in their operating performance. Evidence is presented that these companies respond to the performance decline by reducing their asset base and employment levels, cutting dividends, replacing their top manager and other members of the board, but also expand their operations internally and externally.

The findings of this chapter indicate that higher leverage and poor liquidity contribute to forcing companies to downsize their operations. However, measures of board independence from the CEO do not affect the likelihood of operational responses or the likelihood of managerial replacement decisions. CEO ownership reduces the probability of the company implementing an asset contraction strategy, but at the same time increases the likelihood of employment cuts and the removal of directors from the board.



Finally, capital market discipline plays an important role in operational responses and board restructuring amongst sample companies. External control threats reduce the likelihood of poorly performing companies being able to expand their operations, and increase the likelihood of forced CEO turnover, external CEO succession, and rates of both director appointments and removals from the board. Equity issuance also plays a prominent role in board and CEO replacement decisions, but at the same time increases the amount of cash that company managers have at their disposal to expand their operations following the performance decline.

Finally, sample companies experience significant increases in raw and industry adjusted operating performance following the original decline in performance. This increase is most pronounced for those companies who contract their operations without also expanding at the same time. However, when based on changes relative to benchmark proxies there is little evidence that performance improves, regardless of whether sample companies had restructured their operations.

## ***9.2. Discussion of findings***

The results presented in the empirical chapters of this thesis collectively offer a variety of new insights on the interdependence of governance structures, the factors that lead to changes in these structures, and the role of these systems in discrete tasks undertaken by the firm's board. This section offers a brief summary of some of the main theoretical and policy implications that may be derived from this research.

### ***9.2.1. Implications for corporate governance codes of best practice***

The finding that changes in managerial control, company performance and equity issuance are strong drivers of changes in corporate governance structures has important implications for the increased use of outside directors on corporate boards throughout the world. Dahya and McConnell (2004) discuss the international publication of Cadbury Report (1992) style corporate governance codes of best practice that call for companies to increase the independence of their board from the CEO.

The findings presented in chapter 5 of this thesis highlight the importance of existing corporate governance structures, and changes to these structures in coercing companies to alter their board structure. The process of compliance with these codes is much more dynamic than had been previously believed, and it appears that compliance is highly dependant upon changes to the existing control structure within organisations. Within this sample, it is evident that changes to this control structure, through CEO turnover and equity issuance, were a significant factor in company decision making with respect to the adoption of the proposals contained in the Cadbury Report (1992).



As such, this contributes to the theoretical framework offered by Hermalin and Weisbach (2003) of the factors that drive changes to company board structure. Such changes occur in response to capital market activity in the form of equity issues, as well as threats from the takeover market. As such, ownership and board structure appears to evolve in response to events that alter the control rights within the structure of the organisation. Changes to these control rights occur in response to changes in managerial control, poor company performance, as well as capital market activity that transfers ownership of the firm's shares to new investors with different incentives and objectives from those who currently hold these control rights.

These findings also have important implications for the likelihood of compliance with future corporate governance codes of best practice that have been published by the Greenbury (1995), Hampel (1998) and Higgs (2003) committees. Based on the findings presented in this thesis, compliance with the model board structure outlined within these reports will result from changes to the existing control structure within organisations. Capital market activity, including threats from the takeover market and the equity issuance process, changes in managerial control and company performance will most likely be important determinants of compliance with these future corporate governance reforms.

However, managerial control and the characteristics of capital markets vary significantly throughout the world. While the common law framework of the UK and US is viewed as enjoying highly liquid capital markets and an active market for takeovers, continental Europe and East Asia are characterised by concentrated ownership, relatively illiquid capital markets, strong banking relationships and a non-existent takeover market. In addition, Shleifer and Vishny (1997) note that the main

agency conflict in these economies is between small and large shareholders, rather than the shareholder-manager agency conflicts that have been discussed throughout the majority of this thesis. Adoption of new governance codes of best practice will most likely be dependant upon support from these large shareholders and banks, which own a substantial fraction of the control rights to firms within these economies.

### *9.2.2. Where does board structure matter?*

The examination of a variety of discrete tasks presented in chapters 6 through 8 suggests that the role of capital market discipline through takeover threats and equity issuance is important in most of the corporate decisions studied in this thesis. However, it appears that board structure plays a role in managerial replacement only, and is not a significant factor in operational decision-making.

Past empirical research has indicated that an independent board of directors plays an important role in company decision making with respect to CEO removal and appointment decisions, executive compensation, and negotiating over takeover bids from the perspective of the bidder and the target [Hermalin and Weisbach (2003)]. However, the research of Klein (1998) and Denis and Kruse (2000) suggests that outside directors do not play an important role in operational decision making by companies. Overall, outside directors appear to play a limited role in the day-to-day running of companies, which is perhaps unsurprising given their part-time status.

However, if corporate boards are effective in some situations, but not others, this has rather obvious implications for codes of best practice that recommend a



'model' board for all listed companies. A clearer understanding is required of the exact tasks that corporate boards perform well at, and those that they do not, before any clear-cut recommendations can be made regarding an 'optimal' board structure for all listed companies, if indeed such a thing does exist.

Such evidence needs to be taken into account by policy makers when proposing corporate governance standards, such as those contained in the recently published Higgs Report (2003). Outside directors impose costs on the companies that employ them, both directly in terms of remuneration and indirectly in terms of the subjective cost of having more and more of these independents to question the decisions of the executive directors that run the company on a day-to-day basis. These recently published corporate governance standards appear to overly focus on the monitoring benefits of outside directors and underplay the costs that they bring to the companies that employ them.

### *9.2.3. The role of capital market discipline*

The findings of the empirical chapters 5 through 8 of this thesis have highlighted the important role played by capital markets in driving changes to existing governance structures, and with respect to their role in company decision-making. The results presented on the role of internal governance structures in such decision-making, however, have been inconclusive at best. The importance of capital markets in company decision-making in itself also highlights a further deficiency in internal corporate governance systems.

Capital markets represent an extreme and very costly remedy for companies experiencing poor performance. The costs involved in the equity issuance and

takeover processes are very high in relation to the cost of internal governance structures that, if employed successfully, achieve their objectives through a continuous series of small corrections. Waiting for intervention by capital markets in order to redress the problems of managerial failure and alter the control rights within an organisation is likely to require extreme levels of poor performance in relation to that required for an effective internal governance structure that is more actively involved in company decision-making to take action.

As such, it perhaps understandable that we are still witnessing calls for increased board independence in light of recent high profile financial disasters. While capital market activity is by no means a blunt instrument in terms of imposing managerial discipline, it is a means of last resort that can be used to transfer control of the firm's assets into more efficient hands in the event of extremely poor performance. Efficient internal governance practices that play a more proactive role in company decision-making on a day-to-day basis would contribute to preserving shareholder wealth to the extent that capital market intervention is required to a lesser extent in company decision-making.

#### *9.2.4. Summary of implications*

The above section has outlined what I view as being the main policy implications of the empirical research presented in this thesis, and the implications of these findings for the theoretical literature on corporate governance systems. In the remaining sections I outline what I believe are the main caveats to this research, and offer some potentially fruitful areas for further research on this topic.



### ***9.3. Limitations and caveats***

Within the theoretical and empirical content of this thesis a number of important limitations and caveats have been explicitly and implicitly made. Some of these minor issues have been considered within the individual chapters of this thesis. However, this section briefly considers some of the key aspects of these limitations and their implication for the empirical findings presented within this thesis.

#### ***9.3.1. The timing of the Cadbury Report (1992)***

As noted in chapter 1 of this thesis, the Cadbury Report was issued in December 1992. However, as Dahya et al. (2002) note, the committee was formed in May of 1991 in response to a series of accounting scandals where the finger of blame had been pointed at the failings of corporate governance. In addition, the time period of this analysis overlaps with the actual publication of the Greenbury Report (1995) and the consultation period prior to the publication of the Hampel Report (1998).

The examination of the evolving board structure of UK companies in chapter 4 highlights a large increase in the fraction of outside and non-executive directors, and an increased willingness to split the roles of the Chairman and the CEO on UK company boards over the time period of this analysis. However, it is possible that this increase had begun in response to the formation of the Cadbury committee in 1991, rather than its actual publication date. Additionally, the publication of the Hampel Report (1998) may have led to companies adding further outside directors to their board in anticipation of the increased calls for board independence that were anticipated upon the publication of this report.

To the extent that this is the case, it is probable that the findings presented within this thesis are not entirely attributable to the publication of the Cadbury Report (1992). However, the empirical analysis is not designed as a before and after test of Cadbury compliance, and its impact on observable corporate governance structures and company decision-making. Rather, the empirical chapters of this thesis use the time period following the publication of the report as a means of analysing the factors that drive changes in corporate governance structures, and the role of these structures on company decision making.

### *9.3.2. Cause and effect in equity issuance and changes to company board structure*

The empirical findings of chapters 5, 6 and 8 indicate the important role played by the equity issuance process in driving changes to company board structure. Chapter 6 attempts to address the issue of spurious correlation between firm performance, CEO turnover and equity issuance. However, alternative issues of causality may still exist in the relationship between capital market activity and changes to company board structure.

The interpretation of the empirical findings of chapters 5 and 8 of a positive correlation between equity issuance and changes to company board structure is that equity issuance drives changes in board structure, as suggested by Franks, Mayer and Rossi (2003). However, an alternative interpretation would be that changes in board structure drive equity issuance. This is possible if companies appoint directors with specific skills, such as investment banking, for the purpose of providing expertise when attempting to raise further capital in the near future.

Chapter 6 specifically examines the role of equity issuance in forced CEO turnover. The significant coefficients are interpreted as providing evidence that equity issuance again drives the incidence of forced CEO turnover. However, even within this there are two types of equity issue that may occur during the same year as CEO turnover. Companies may have voluntarily raised equity finance, and separately removed their CEO. Alternatively, companies may have removed their poorly performing CEO as part of a process designed to secure a fresh injection of capital for the company. The interpretation of the empirical findings in chapter 6 is based on the second of these possible explanations.

In order to differentiate between these alternative hypotheses, equity issuance would need to be separated based on some subjective definition of whether or not the company specifically indicated that the departure of the CEO was as a result of the need to raise further finance. However, doing so would require a great deal of information that is unlikely to be publicly available. In addition, such variables could not be incorporated within the multivariate regressions considered in chapter 6 because, by definition, no company that does not experience forced CEO turnover will experience a turnover related equity issue.

### *9.3.3. Signalling vs. agency explanations*

The empirical results of this thesis largely favour agency explanations of the behaviour of companies. However, some of these results could be explained within a signalling context. For example, chapter 6 suggests that companies are forced to replace their poorly performing CEO in order to raise further finance. However, based on the signalling models of Zwiebel (1996) and Novaes (2002), the decision to



issue equity could provide a signal of poor managerial quality, which in turn triggers their replacement as the company CEO. Formal modelling and further empirical examination of this process would be required in order to better differentiate between these alternative explanations.

#### *9.3.4. The measurability of corporate governance structures*

Chapter 4 provides a detailed description of the sample variables that have been used in this analysis. However, as with most empirical research, these definitions are by no means perfect. Some of these limitations are discussed here.

Firstly, one of the primary measures of director independence used in this study is the fraction of the board that is comprised by *outside* directors. However, defining directors as outsiders is inherently difficult and must be based on a subjective definition, such as that employed in chapter 4. One of the most important issues not included in this definition is the problem of director interlocks. This occurs where the CEO of company A sits as an outside director on the board of company B, and likewise, the CEO of company B is classed as an outside director on the board of company A. Given the collection costs of this type of data within a sample as large as the one that has been employed within this thesis, this issue has been ignored. However, this problem may cause serious conflicts of interest for directors who are regarded as being outsiders within the definition that has been used throughout this thesis. Such conflicts would reduce the ability of these directors to act independently in their non-executive duties.

The variable *financial blockholdings* has been used to proxy for the monitoring of financial institutions. This is based on the formal definition of a block shareholder

as being one that owns 3% or greater of the firm's equity under UK Company Law. However, institutional monitoring is unlikely to be restricted to only those shareholders who own greater than 3% of the company's shares, particularly in larger firms. The recent removal of Sir Peter Davis as the Chairman of J. Sainsbury highlights this case. News reports indicate that Sir Peter resigned following pressure from the 20 largest institutional shareholders in the company over a dispute regarding his compensation package. However, the 2004 annual report indicates that two disclosable block shareholders outside of the Sainsbury family held only 12% of the firm's outstanding common equity. The block shareholder definition used in this thesis is likely to underestimate the capability of financial institutions to monitor company management. However, outside of obtaining data directly from the company's shareholder register, there is no obvious solution to this problem.

In defining CEO turnover as *forced* this thesis has used the definition of Huson, Parrino and Starks (2001). This procedure takes into consideration the public statements made by the company, newspaper reports, the age of the departing CEO, the length of time between the first announcement of the CEO's departure and the actual leaving date, and the future employment of the departing executive in filtering out those announcements that are likely to be characteristic of the CEO being forced out of their position. All remaining announcements are classified as *voluntary*. Under this definition, the onus is to prove that changes have been *forced*, and where this cannot be proven then announcements are taken as *voluntary*. The alternative to this definition, is the *routine* and *non-routine* distinction that is employed by studies such as Denis, Denis and Sarin (1997b), where the onus is to prove that CEO changes are *routine*, and where this cannot be proven, announcements are regarded

as *non-routine*. Either of these definitions is inherently subjective, and the preference of this thesis has been to favour the definition of Huson et al. (2001) where the larger fraction of CEO turnover announcements are classified as *voluntary*.

While the problems discussed above do restrict the ability to draw conclusive inferences from the empirical chapters within this thesis, it is not felt that they have severely limited the empirical findings presented here.

### 9.3.5. *Survivorship bias*

The sampling procedure for the data used within this thesis began with 683 companies in 1992 for which data was available from company annual reports and *Datastream*. It was also required that companies must have had annual reports until at least 1994. The motivation for this restriction was that company governance structures should not be influenced by the immediate danger of firm failure or being the target of a takeover threat. However, sampling in this way introduces an aspect of survivorship bias within the sample of companies. This may have influenced the results of this thesis in a number of ways.

Buckland (2001) reports evidence that newly listed companies were unable to comply with the proposals contained within the reports of the Cadbury (1992) and the CISCO (1993) committees. This raises the possibility that board independence within sample companies is greater than that of the population of companies listed on the London Stock Exchange (LSE), which limits the ability to draw generalisations from the results presented here. In addition, chapter 4 highlights a decrease in managerial ownership over the time period of this analysis. Given that a negative relationship between firm age and director ownership is also reported in this chapter,



it is most likely that the decline in ownership over the sample period is due to survivorship bias in the way that the sample has been constructed.

In addition, the sampling procedure employed in chapter 8 draws a sub-sample of firms that were originally healthy and then suffered a year of poor performance from the overall sample. However, to the extent that poorly performing companies are more likely to fail, the filtering procedure of limiting the sample to firms that survived until at least 1994, distorts the selection process for this sample.

### *9.3.6. Summary of data limitations and caveats*

This section has highlighted a number of important limitations to the empirical research documented in this thesis, while individual chapters have also highlighted particular issues in relation to data definitions and empirical difficulties. While these problems do present important caveats to the findings that have been presented within the empirical chapters of this thesis, it is not felt that they significantly invalidate the research that has been presented here.

#### ***9.4. Summary and areas for future study***

The findings presented in this thesis have contributed to the existing literature on corporate governance, and in particular the literature examining governance within the UK and the literature on the interaction of corporate governance structures. In addition to this, the following areas may be of particular interest for future research.

##### ***9.4.1. Corporate governance compliance for family controlled companies***

The findings of this research indicate that managerial control and board independence are inversely correlated with one another. A particular form of managerial control occurs at companies where there is a strong family and/or founder presence on the company's board of directors. These firms are less likely to employ outside directors and separate the functions of the Chairman and the CEO. This raises a number of potential research implications for these firms.

Firstly, does the lack of board independence affect the ability of these firms to raise capital, and/or the cost of doing so? In addition, how does the lack of board independence affect the ability of these companies to grow and profit? What affect does the departure of family and/or founder involvement from these companies have on board independence? Each of these represents valuable contributions to the existing literature on the determinants of corporate governance structures.

##### ***9.4.2. The speed of corporate governance adoption and firm value***

Kole and Lehn's (1999) study of deregulation in the US airline industry reports that companies who quickly adapted their governance structure were more likely to

survive than those which did not. This finding immediately raises the same question with respect to compliance with the recommendations of the Cadbury Report (1992). Are companies who immediately complied with the report's proposals able to survive and profit to a greater extent than companies that did not comply, or who were slow in doing so?

#### *9.4.3. The manner of corporate governance adoption and firm value*

In the same manner as above, how does the way in which companies adopted the proposals of the Cadbury Report (1992) affect their profitability? For example, Yermack (1996) finds an inverse correlation between board size and firm value. Dahya et al. (2002) find that companies which adopted the recommendations of the Cadbury Report (1992) did so by increasing the number of directors serving on their board. This begs the question, is there a difference in the profitability or decision making of companies that complied by increasing their board size and those that adopted the report's proposals by substituting non-executives for existing executive directors?

#### *9.4.4. Information disclosure and measuring company performance surrounding forced CEO turnover*

The findings presented in chapter 7 suggest that announcements of forced CEO turnover are viewed positively by the stock market when no confounding information is released with the turnover announcement, but are viewed negatively when confounding information is released. This has important implications for measuring performance changes surrounding forced CEO turnover.



In general, forced turnover is found to follow poor performance. However, CEOs who are dismissed on the basis of publicly available information should be expected to significantly underperform those CEOs who are removed on the basis of previously private information. The stock price reaction to announcements of forced CEO turnover will be positive when based on publicly available information regarding performance and negative when based on previously private information.

In addition, chapter 7 examines changes in operating performance following CEO turnover, relative to performance in the last full year of the departing CEO's tenure. However, the operating performance of companies where the CEO has been removed on the basis of privately held information at this point will be less negative than the performance of managers who were removed on the basis of publicly available information. The new earnings information that is disclosed simultaneously with announcements of forced turnover may represent a more appropriate benchmark against which to evaluate future performance changes for these companies

#### *9.4.5. Corporate governance and corporate decision making*

The findings presented in chapters 6, 7 and 8 suggest that capital markets play an important role in all aspects of company decision making, while board structure is important only in decisions regarding CEO replacement. A further examination of major corporate decisions that board structure has an impact on, and those which it does not, is important in understanding the implications of corporate governance codes of best practice that call for companies to adopt a model board structure.

#### *9.4.6. Measuring long-run performance surrounding corporate events*

The sample matching criteria of Barber and Lyon (1996, 1997) have been used to measure the long-run accounting and stock price performance of sample companies surrounding CEO turnover and corporate restructuring decisions. However, these decisions tend to follow certain corporate events, such as takeover threats and equity issuance. Events of this type may illicit their own long-run performance implications, and including these as additional criteria when forming benchmark proxies may provide improved measures of long-run performance surrounding these events.

#### *9.4.7. Concluding remarks*

The findings presented in this thesis have drawn on several aspects of corporate governance and corporate finance in general, and offer contributions to these fields of research in both specific and general senses. The data used in testing the results reported in this thesis have come from a variety of sources, which have proved fruitful in allowing the examination of a variety of testable hypotheses concerning the interaction of corporate governance systems and their role in discrete board tasks.

In future, I aim to study the other research areas that I have discussed in this thesis and other areas of interest that stem from this further research. Given the publication of the Higgs Report (2003), future research in the area of corporate governance in the UK is almost certainly guaranteed. As further disclosure on non-executive directors and their role on company boards is provided, and their number and influence on these boards continues to grow, we will be able to enhance our understanding of the tasks that these directors contribute to and those which they do

not. Exactly what impact further increasing non-executive director representation and insisting on the separation of the roles of the Chairman and the CEO will have remains to be seen.



## 10. References

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