

# Who Disciplines Bad Management?

Julian Franks<sup>\*</sup>, Colin Mayer<sup>#</sup> and Luc Renneboog<sup>@</sup>

Address for correspondence :

Tilburg University  
Department of Finance  
Warandelaan 2  
5000 LE Tilburg , Netherlands  
email : Luc.Renneboog@kub.nl

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- London Business School and CEPR Fellow (colin.mayer@obs.ox.ac.uk)
- # Said Business School, University of Oxford (jfranks@lbs.ac.uk)
- @ Assistant Professor of Finance, Tilburg University (luc.renneboog@kub.nl)

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## **Abstract**

Who disciplines management of poorly performing firms? Four parties are considered: existing holders of large blocks of shares, investors acquiring new shareholdings, creditors and non-executive directors. There is evidence of the involvement of all four parties in the US but no comparison of their relative significance. This paper reports the first comparative evaluation of the role of all four parties using a large sample of poorly performing UK companies. Like the US, we find that there is a high level of board turnover in poorly performing companies but, contrary to US evidence, outside directors perform a weak disciplinary function and outside owners of large share blocks exert little influence, with the exception of holdings held by industrial companies. Although, there is a large market in blocks of shares in the UK, the arrival of new shareholders is not associated with disciplining of management of poorly performing firms. Instead, high board turnover is closely linked to high levels of debt and new finance, particularly from existing shareholders in the form of distressed rights issues. Pre-emption right requirements in the UK prevent management diluting existing shareholder wealth and thereby allow shareholders to impose board changes as a condition for the provision of new equity finance.

**Key words:** Board turnover, corporate restructuring, ownership, capital structure

**JEL classification:** G3

## 1. Introduction

Several studies in the US have found that there is a high level of CEO and executive board turnover in poorly performing companies. Coughlan and Schmidt (1985) and Warner, Watts and Wruck (1988) report that high CEO turnover is associated with poor performance. This paper investigates who initiates these changes. There are four possibilities: holders of blocks of shares, acquirers of new controlling shareholdings, creditors and non-executive directors.

Demsetz (1983) and Shleifer and Vishny (1986) suggest that holders of blocks of shares can mitigate free rider problems of corporate control which afflict dispersed shareholders. However, large shareholders have incentives to pursue their own private interests at the expense of outside shareholders (Shleifer and Vishny (1997)). Consistent with this trade-off, several empirical studies report a non-linear relation between performance and outside ownership – performance rises with low levels of concentration and falls at higher levels (Morck, Shleifer and Vishny (1988), McConnell and Servaes (1990) and Wruck (1989)).

The nature as well as the size of shareholdings is important. Agency models, such as Jensen and Meckling (1976), suggest that shareholdings in the hands of insiders can be used to align the interests of management and shareholders. Demsetz (1983) and Fama and Jensen (1983) argue that they may also be used to impede disciplinary action against management, although Holderness and Sheehan (1988) do not find empirical support for this conjecture. Carleton, Nelson, and Weisbach (1997) report that financial institutions play an important role in corporate governance. The increasing shareholder activism by these institutions may account for the observation by Denis and Kruse (1998) of a decline in disciplinary takeovers in the 1990s, without any apparent decline in corporate restructuring following performance declines.

There is an extensive literature on the role of takeovers in disciplining poorly performing management. Both Martin and McConnell (1991) and Franks and Mayer (1996) report unusually high levels of board turnover following hostile takeovers but only in the former

study is there evidence that takeovers perform a disciplinary function. There is also an active market in share blocks in the UK and US, and Burkart, Gromb and Panunzi (1997) suggest that control can be changed at lower cost in partial than in full tender offers. Holderness and Sheehan (1988), Barclay and Holderness (1989, 1991) and Shome and Singh (1995) find that block purchases are followed by increases in share value. More recently, Bethel, Liebeskind, and Opler (1998) report that purchasers of share blocks typically target poorly performing, diversified firms and result in divestitures, share repurchases, and improvements in profitability and shareholder value.

Recent theories of debt point to their role in transferring control from managers to outside investors in poorly performing companies.<sup>1</sup> Denis and Denis (1993) provide some clinical evidence that high leverage and managerial ownership can increase shareholder returns, and Kaplan's (1993) study on LBOs finds evidence of benefits of high leverage.

The role of non-executive directors in corporate governance has been a focus of the Cadbury Committee (1992) in the UK, the Viénot report in France (Jack (1995)) and the Bacon study (1993) in the US. As agents of investors, non-executive outside directors should assist in the monitoring and disciplining of management (Williamson (1983) and (1984) and Fama and Jensen (1983)). Consistent with this theory, Weisbach (1988) shows that there is a stronger association between board turnover and prior performance where boards are dominated by outside rather than inside directors.

While there has therefore been much theoretical and empirical analysis of the influence of particular groups - new and existing holders of share blocks, creditors and non-executive directors - there has been no comparative evaluation of their relative significance. This paper provides a comparative study of the influence of all four groups on the restructuring of the board when performance is poor, using five different measures of performance.<sup>2</sup> They include abnormal stock returns, dividend cuts and omissions, earnings losses, cash flow margins, and

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<sup>1</sup> See Aghion and Bolton (1992), Berkovitch, Israel and Spiegel (1997), Grossman and Hart (1982), Hart and Moore (1989) and Jensen (1986, 1989 and 1991).

<sup>2</sup> We assume that the appropriate response to poor performance is board restructuring, reflected in high board turnover. While this may be a reasonable response, it is not the only one. Another might be reductions in remuneration. We do not attempt to establish which response leads to better subsequent performance. Bermalin and Weisbach (1998) present a theoretical model in which (outside) directors respond to poor performance with increased monitoring.

book equity rates of returns. The sample consists of 250 companies listed on the London Stock Exchange and randomly selected. The UK is an interesting country in which to perform such a study for several reasons. Firstly, contrary to popular opinion, there is substantial concentration of ownership in many UK firms; the largest five shareholders own on average more than 30% of the stock. Secondly, there is a substantial market in share blocks which is at least as large as the takeover market. Thirdly, there are some important regulatory differences between the UK and US which affect the way in which corporate control is exercised.

Despite high levels of concentration of ownership and markets in share blocks, we find little evidence that existing or new holders of share blocks discipline poorly performing management. Furthermore, contrary to the US evidence, non-executive directors in the UK appear to protect rather than discipline management. In one-third of the sample the positions of CEO and chairman are held by one individual and this is shown to impede governance when performance is poor. Similarly, we show that concentrated institutional ownership does not contribute to management turnover. In contrast, management replacement is closely associated with industrial companies as block holders. But the most significant relation of board turnover with performance occurs when firms encounter poor financial ratios and need to raise new finance. As suggested by Jensen (1986 and 1989), financial constraints provide the most potent corporate governance mechanism in the UK. However, in contrast to Jensen, we find that it is frequently shareholders rather than creditors who provide finance and exercise disciplining.

Central to the role of shareholders in exercising control is the requirement in the UK that all new equity issues in excess of 5% be in the form of rights issues. This confers greater control on dispersed shareholders than exists in the US, where companies frequently forgo rights requirements. In contrast, UK regulation weakens control by large share block holders and non-executive directors relative to the US. Differences in regulation, therefore, may account for a greater role for dispersed shareholders in disciplining management in new equity issues in the UK than in the US and a lesser role for block holders and non-executive directors.

Section 2 of the paper describes the data and methodology employed in this paper. The next four sections examine the role of each of the four groups in turn in disciplining poor

management: Section 3 describes large shareholders in the UK, Section 4 acquirers of large share blocks, Section 5 creditors and providers of new finance, and Section 6 non-executive directors. Section 7 brings all four groups together in regressions of board turnover on performance. Section 8 suggests reasons why regulation may explain the differences between UK and US results, and Section 9 provides a summary.

## **2 Data and methodology**

We collected data on ownership, performance, capital structure and board structure over the period 1988 to 1993. A sample of 250 companies was randomly selected from all the companies quoted on the London Stock Exchange in 1988 excluding financial institutions, real estate companies and insurance companies. Those companies had to meet the requirement that data sources for boards and ownership were available for at least three of the first six years of the sample period to allow panel data analyses to be undertaken. Companies delisted through takeovers or insolvencies between 1988 through to 1990 were therefore excluded from the data set. In addition, seven of the original 250 companies were dropped through lack of performance data. Of the remaining 243 companies, 29 were acquired subsequent to 1990 predominantly over the period 1992 to 1993, and 5 entered a formal bankruptcy process. The number of companies taken over represents an average takeover rate of just under 6% per annum and an insolvency rate of 1%.

### **2.1 The pattern of ownership**

We collected ownership data on the size of shareholdings both for existing and new shareholders for each year in the period 1988-1993. All directors' holdings greater than 0.1% are included as well as outside shareholders' stakes greater than 5% until 1989; as from 1990, the statutory disclosure threshold was reduced to 3%.<sup>3</sup>

We classified share holdings according to 9 categories: (i) banks, (ii) insurance companies, (iii) institutional shareholders including investment trusts, unit trusts and pension funds, (iv) industrial and commercial companies, (v) families and individuals, not directly related to

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<sup>3</sup> The disclosure threshold is 5% in the US.

any director, (vi) government stakes, (vii) real estate companies, (viii) executive directors and their immediate family and trusts, and (ix) non-executive directors and their immediate family and trusts.<sup>4</sup> We will refer to directors and their families as ‘insiders’ and financial institutions, industrial and commercial companies and other major shareholders as ‘outsiders’.<sup>5</sup> Share stakes of government and real estate companies are not reported because they were minor.

## **2.2 Performance measures**

We examine the relation of board turnover to five different measures of performance in the regressions: abnormal share price returns, dividends per share, after tax cash flow margins (cash flows divided by total sales), after tax rates of return on book equity, and total earnings after tax and interest. The dividend data were collected to identify cases of dividend cuts and omissions, and total earnings were used to establish the incidence of earnings losses. Abnormal share price returns were calculated from the London Share Price Database (LSPD) and Datastream.

Over the period 1986 to 1993, 17.0% of our sample reported dividend cuts or omissions on average each year, and 10.4% incurred earnings losses. We used two measures of leverage, the ratio of pre-tax earnings to interest charges, and a debt to book (and market) value of assets ratio.

## **2.3 Boards**

Data on the composition of the board of directors were compiled for each year from 1988 to 1993 from annual reports, Datastream, the Financial Times and Nexus databases. They include the names, tenure and age of the CEO, Chairmen, all directors, both executive and non executive. Where the company in our sample is taken over or becomes insolvent, board turnover is included only up to the year before the event.

We measured annual turnover of the board from 1988 to 1993. We distinguish between

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<sup>4</sup> We included all non-beneficial as well as beneficial holdings by directors held on behalf of families and charitable trusts. Directors do not obtain cash flow benefits from these holdings but they have control rights.

<sup>5</sup> The pattern of ownership may be significantly affected by recent IPOs where insider ownership is particularly high. However, the large majority of our companies, 71%, have been listed for at least eight years.

natural and forced turnover, classifying a resignation as 'natural' if the director was described as having left the board for reasons of retirement, death or illness. Otherwise the resignation was classified as being forced. The normal retirement age is 65 but some voluntary retirement does occur before that; we took 63 as the minimum retirement age and viewed any earlier retirement as forced.<sup>6</sup> This reflects the difficulty of interpreting public announcements of resignations.

Panel A of Table 1 partitions the sample into deciles of performance using abnormal returns in 1990. As Coughlan and Schmidt (1985), Warner, Watts and Wruck (1988) and Gilson, John and Lang (1990) have reported for the US, there is a high level of board turnover in poorly performing companies. A striking feature of Table 1 is the non-linear relation between board turnover and performance: total annual board turnover is substantially higher in decile one than in any of the other deciles, for example, 15.5% compared with 6.8% and 6.4% for deciles five and ten, respectively. Executive board turnover is higher than non-executive presumably because non-executives perform a monitoring and advisory function. CEO turnover is also much higher in decile 1 (at almost 28.8%) than in other deciles (for example, 11.6% in decile 5). Turnover of chairmen is relatively high in decile one, although the level is lower than for CEOs, reflecting the fact that some chairmen are non-executive and perform a monitoring role. When we partitioned the sample using abnormal returns for two years, 1989-1990, the relation between performance and turnover was very similar to that in panel A. Panel B reports that companies with losses and companies with dividend cuts or omissions have more than twice the executive board turnover of better performing companies. Companies with dividend cuts have 3.7 times the CEO turnover of those with increasing or stable dividends, and companies with earnings losses have 2.3 times than those without.

We therefore find that there is a relation between board turnover and performance; however, it is restricted to the very worst performing companies, i.e. those in the worst decile of share price performance, those that incur earnings losses and those that cut their dividends. We do not find evidence of managerial disciplining being related to performance

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<sup>6</sup> Weisbach (1988) assumes that any resignation over 62 is natural turnover, unless there is evidence of conflict.



for less extreme share price performance. Later in the paper we will provide an explanation for this observation.

## **2.4 Methodology**

In the next four sections we provide a description of our data and some analysis of (i) patterns of ownership, (ii) markets in share stakes, (iii) capital structure, and (iv) board structure. We report either individual year data for the whole sample period, or aggregate data averaged over the period 1990 to 1992. We choose a three year period because 1990 is the first year when the threshold for disclosing share stakes was reduced to 3%, and because we show in subsequent regressions that performance has an impact on board turnover in the current year and two years subsequent.

In section 7 we report the results of panel regressions of executive board turnover and CEO changes on performance, ownership and capital structure of firms over the period 1988 to 1993. We relate executive board turnover to performance in the current and each of the previous two years and to four classes of variables:

- (i) Ownership for the different categories of investors described above,
- (ii) Changes in share stakes of different categories of investors,
- (iii) Capital structure and the incidence of new equity issues,
- (iv) The proportion of non-executives on the board, separation of the position of chairman and CEO.

In addition we include interactive terms between performance and the four above categories. The results reported below refer to interactive terms with performance lagged one year; regressions using interactive terms with contemporaneous performance were also performed.

The board turnover regressions were estimated using OLS. In addition, Tobit regressions and logistic transformations of the dependent variable were undertaken to take account of the restricted range of the dependent variable, board turnover, which is in the interval [0,1].

Within (fixed effect) regressions were performed. Time dummies for individual years were used. The above regressions were repeated for CEO turnover. The CEO regression was estimated as a logit since the change in CEO is a zero-one variable.

### **3. Patterns of Ownership**

This section reports the pattern of ownership for the sample companies. Panel A of Table 2 records the largest individual share holding for all companies in each year from 1988 to 1993 with the average for all years being 15.3%. The largest five shareholders accounted for between 30-35% of shareholdings depending on the year. There is a large increase in reported blocks from 31.4% to 41.0% between 1989 and 1990 which we attribute to the change in the disclosure rule on block ownership.

Panel B of Table 2 reports the median size of the largest stake lying in the range [5-15%], but there is a significant number of blocking minorities of at least 25%. Panel C of Table 2 disaggregates large shareholders by their type and size of holding in 1991. Institutional investors hold the highest proportion (52.6%) of the largest shareholdings. Insiders, directors and their families, are the next most significant holders of the largest stakes; although not shown in the table, insider holdings are roughly split two-thirds executive and one-third non executive directors. However, the size distribution of institutional investors and insider holdings are very different. Insiders have larger controlling shareholdings than financial institutions, for example, 9.2% of their stakes are greater than 25% compared with 2.1% held by institutional investors. The picture of share ownership which emerges for the UK is quite different from the one which is frequently painted: control is not widely dispersed and potential coalitions of 5 shareholders can control 30% or more of shares in a company.

Similarly high levels of concentration have been reported for the US. Holderness and Sheehan (1988) report that 13% of publicly traded corporations have a single shareholder (family or another firm) holding a majority of the shares compared with slightly less than 3% for our UK sample.<sup>7</sup> Measuring concentration by accumulating the largest five holdings,

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<sup>7</sup> This reduces to 5% for companies traded on the NYSE and AMEX.

Demsetz and Lehn (1985) find a mean ownership for the largest 5 shareholders of 24.8% compared with an average of 33% for our UK sample. Denis and Denis (1995) report insider ownership of 11.7%, and Bristow (1995) of 12.5% for the US which are very close to the figure of 11.8% for the UK.<sup>8</sup>

These are still low levels of concentrations by Continental standards: 84% of Italian companies have a single shareholder owning majority stakes (see Bianco, Gola and Signorini, 1995); 93% of quoted Belgian industrial companies have a single shareholder who owns a block of at least 25% of voting rights (Renneboog (1996)), and in Germany, there is a single shareholder with at least 25% of shares in 85% of large quoted companies (see Franks and Mayer (1997)).

Table 3 disaggregates the UK sample by both size and performance measured by abnormal returns. While concentration of ownership is not related to performance, it is significantly greater in below median than in above median sized companies; the sum of large shareholdings is 31.3% compared with only 20.5% for the smallest and largest companies, respectively. In contrast, board turnover is more than double in the worst than in the best performing companies, controlling for size; for example, executive board turnover in the smallest companies is 17.5% for the worst and 6.5% for the best performers. Differences in performance reported in Table 1 are, therefore, not attributable to size effects and do not appear to be closely associated with differences in concentration. One implication is that different governance mechanisms are at work in large and small companies; another, is that concentration of ownership is not the primary governance mechanism in either types of company. The regression results, reported in Section 7, explore these issues in more detail.

#### **4. Sales of Share Blocks**

In the US, Bethel et al (1998) examine the relationship between block purchases of 5% or more and firm performance. They find that activist blockholders acquired stakes in highly diversified firms with poor profitability. They also find that the target firm's profitability

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<sup>8</sup> Bristow's (1995) data for insider ownership varies considerably depending upon the sample he uses. For the largest sample of 3963 firms the median is 12.5% and for other much smaller samples the median rises to about 16%.

increased after the block purchase, and as a result, they conclude that this market works as a market for corporate control. In the UK sample, we investigate the size of this market in share blocks and the extent to which it is motivated by poor performance, and leads to the disciplining of management.

In Panel A of Table 4 we show the total number of purchases of share blocks in excess of 5% for the three year period, 1991 to 1993.<sup>9</sup> There are a total of 303 purchases of stakes greater than 5% and 82 greater than 10%; the latter represents an annual rate of 9% per year.<sup>10</sup> The level of purchases in our UK sample is therefore much greater than that in Bethel et al's study which has an annual rate of block purchases of 6.7% (for blocks larger than 5%); the lower rate may be in part due to their sample being confined to the Fortune 500 companies. Almost one half of the blocks greater than 10% are made by companies, families and insiders.

In Panel B of the table we examine changes in the level of concentration by both existing and new shareholders. We accumulate share blocks by adding together individual purchases in each company of at least 10% in any one year. The panel reports purchases of 89 blocks for the 3 year period or 30 per year; as a proportion of the number of companies, this is a turnover rate of 14.7% per year. If the threshold is raised to 25% there is a turnover rate of 3.1% per year. This compares with an annual rate of takeover activity in the UK of 3-4%.

Panel C reports the relation between purchases of share blocks and performance, measured over two years prior to and the year of the purchase. The number of purchases of share blocks is virtually identical in the worst and best quintiles of performance and similar to the average for the complete sample. We explore in the regressions section the relation between performance and purchases of stakes by different categories of shareholders.

## 5. Capital structure and performance

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<sup>9</sup> If we included increases in existing shareholdings, the totals would increase by 22 for [5,10%], 15 for [10,25%], and 3 for [25,50%].

Banks may intervene when there is a violation of loan covenants or a request for new finance. Equally well, shareholder action may be prompted by a request for new equity, and outsider directors may use either a violation of loan covenants or an equity issue as an excuse to intervene. In this section, we examine the influence of capital structure and the demand for new finance by poorly performing companies and investigate who initiates the restructuring of the board: shareholders, creditors or non executive board members.

Panel A of Table 5 describes, for the period 1990 to 1992, average leverage and interest coverage for companies categorised by decile of abnormal returns for the year 1990. It shows significantly higher levels of capital leverage in decile 1 than in deciles 5 and 10: a median of 39.3% compared with 34.9% and 23.9%, respectively. Also, interest coverage is significantly lower in decile 1 than in deciles 5 and 10; a median of 1.8 compared with 4.0 and 8.3, respectively. As expected there is a close correspondence between poor financial performance, as measured by abnormal returns, and financial solvency; however, the relation is not monotonic.<sup>11</sup>

Panel B of Table 5 examines the relation between board turnover, share price performance and interest coverage. It reports average board turnover by decile of abnormal share price performance in 1990 for companies with interest coverage of greater or less than 2 in 1990. A level of two is chosen because investment grade companies ‘typically have coverage ratios exceeding two times interest expense’ (Copeland, Koller and Murrin (1995), page 178). For companies with interest coverage of less than two, board turnover is substantially higher in the lowest decile than in other deciles; for example, turnover of executive directors is 22.7% for decile 1 compared with 6.4% for decile 10. CEO turnover is also much higher in decile 1 (30.6%) than in deciles 2 and 3. The very small sample size in other deciles makes them less significant.

For companies with an interest coverage of greater than two, there is much less evidence of

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<sup>10</sup> More than one block may relate to the same company. This only significantly affects holdings below 10%.

<sup>11</sup> The relation between interest cover and dividend changes closely mirrors those of Panel A, that is companies with dividend cuts and omissions have higher capital leverage and lower interest coverage than those that increase their dividends. For example, median interest cover for companies with dividend cuts is 0.6 compared with 4.5 for those with stable or increasing dividends.

a relation between board turnover and performance, although the sample sizes are small. For example, executive board turnover in decile 1 is less than in decile 2 and only marginally greater than in deciles 5 and 10. CEO turnover is actually lower in decile 1 than in deciles 2 and 10 although greater than in decile 5. There is therefore less relation between board turnover and share price performance when financial difficulties are absent and a stronger relation for companies with poor financial ratios. The regressions will provide a more robust test.

In order to determine who initiated the board turnover, we investigated the restructuring of 34 companies in more detail. The criteria for selection was that firms both had interest coverage less than two and were in the bottom three deciles of performance in at least one year during the period 1990-1993. In 28 firms the CEO or chairman resigned, or both resigned. Eighteen firms or about 54% of the sample raised new equity finance. Of these, 15 were rights issues or open offers, while the remaining three were offered to new shareholders in the form of placings.<sup>12</sup> In three cases the offer took the form of convertible preference shares, otherwise it was for straight equity.

There were a substantial number of other ownership changes. In twenty four companies or 72% of the sample there was at least one of the following: a new issue, a takeover or the emergence of a large shareholder. In some cases board changes coincided with one of these events, but in many cases capital or ownership changes preceded board changes by a matter of several months.

Debt restructuring is also important. There were 5 cases of a public debt issue and another 5 of a capital reconstruction or public recontracting of existing debt. In one case the bank stated at an Extraordinary General Meeting that a renewal of loan facilities was conditional on a resolution to approve the sale of assets. Since much of UK debt is in the form of private bank debt, the actual level of bank restructuring will be much greater than that revealed publicly as above.

It is clear from the descriptions in The Financial Times (FT) that the party initiating the boardroom changes is not necessarily creditors. For example, in the departure of the CEO of

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<sup>12</sup>Rights issues are to existing shareholders in proportion to their holdings; open offers are to existing holdings

Burton the FT reported “that he had not performed with sufficient vigor to impress [the board’s] non executive directors.” ( November 30, 1990). In another company, Cookson’s, the FT stated that “the CEO/Chairman resigned after it became clear that he had lost the confidence of the company’s own senior executives”. (November 30, 1990). The Chairman of Taylor Woodrow left after what was described as a ‘boardroom coup’, and for Platon, “a series of boardroom changes was foreshadowed when the company detailed plans for a sterling open [equity] offer. The chairman of Era resigned a week after “a long and angry shareholders’ meeting”. Finally, in the case of Caledonian Newspapers, a large shareholder when approached about subscribing for new equity responded that “they would put more money up, but if so, it was good-bye management”.

Senior management at the largest fund managers in the UK informed us that although they might intervene where there was very poor performance, in the face of management opposition, they were likely to avoid confrontation because they disliked the consequent publicity and the costs of organizing other shareholders. However, it was a different story when the poorly performing company required new financing: “it comes to a crunch when companies raise additional finance” or “it all unpicks when a company needs money”.

The evidence is consistent with Easterbrook (1984) who advocates high payout ratios to force companies frequently into the equity market. It is also consistent with one part of Jensen’s free cash flow theory (1986,1989) which describes capital structure as an important influence on managerial disciplining. However, while Jensen predicted that it would be creditors who triggered the disciplining, we find that shareholders play an important role through new equity issues.

The association of corporate governance with new equity finance revolves crucially around the investment banks and underwriters which organize the issue. The underwriters (and the sub-underwriters) bear the cost of an under-subscribed issue and therefore have incentives to impose changes in corporate control which are required to achieve successful issues. The sub-underwriters are usually the current institutional shareholders (or other significant shareholders). This external control is reinforced by guidelines, authorised by the National Association of Pension Funds and the Association of British Insurers, recommending that companies be limited to raising 5 per cent of their share capital each year by any method apart

from rights issues - and 7.5 per cent in any rolling three year period. The guidelines further recommend that these rules should only be bypassed if agreement is obtained by a vote of shareholders. In reality therefore, existing shareholders cannot therefore be bypassed and, in particular, management is unable to underprice new issues at the expense of existing shareholders. A recent example involved the Olivier company, where shareholders controlling 30% of the shares prevented an open offer of equity being made.<sup>13</sup> Pre-emption rights are perceived as sufficiently important that they are currently the subject of an investigation by the Mergers and Monopolies Commission.

In the US, companies frequently obtain shareholders' agreement to drop pre-emption rights. Brealey and Myers (1996) suggest that 'the arguments [by management] for dropping pre-emption rights do not make sense' (p. 405). Our results suggest a reason why managers might seek to drop pre-emption rights, namely as a way of weakening corporate governance when companies perform poorly and need to raise new equity finance.

## **6. Board structure**

Panel A of Table 7 reports the board structure of the sample of firms partitioned by decile of abnormal share price performance in 1988. There is evidence that the proportion of companies in which the roles of CEO and chairman are combined is higher in the worst decile firms than in other deciles. However, in other respects there is very little relation between board structure and performance; for example, the proportion of non-executive directors is almost identical in the best and worst performing companies.

Panel B examines how the structure of the board alters after a change in CEO. It partitions the sample of firms into those when there was a change in CEO and those where there was no change in 1990. It reports the average board structure two years before and two years after 1990 for the two samples of firms. The proportion of non-executive directors on the board increased in both sets of firms over the period. This reflects the increasing emphasis on non-executives in corporate governance in the UK during the 1980s and 1990s.<sup>14</sup> More strikingly,

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<sup>13</sup> Financial Times, May 29, 1998. A 75% majority is required to drop pre-emption rights.

<sup>14</sup> This finding is consistent with Hermalin and Weisbach (1998) prediction that the "probability that independent directors are added to the board increases following poor corporate performance."



in those firms where there was a change in CEO in 1990, there was a significant reduction in the proportion of companies in which the roles of CEO and chairman were combined from 42.9% in the two years before 1990 to 14.3% in the two years after 1990. Where there was no change in CEO in 1990 there was no significant alteration in the proportion of companies with combined CEOs and Chairmen. This suggests that changes in CEO are associated with changes in the structure of boards as well as the leadership of firms.

## **7 Regression results for ownership, board turnover and performance**

This section reports the results of regressions of board turnover and changes in CEOs on performance, ownership and financial structure over the period 1988 to 1993. Table 7 records the results of board turnover using OLS; although not reported in the tables, the effects of using different estimation techniques including industry and time dummies, Tobit regressions and fixed effect regressions are discussed below.<sup>15</sup> Size, as measured by sales was included as a control variable but is not significant in any of the regressions.

Lines 3 to 5 of Table 7 show a strong negative relation between board turnover and three out of five measures of performance - abnormal returns, earnings losses and dividend changes - both concurrently and with lags of one and two years.<sup>16</sup> Overall the board turnover equation with earnings losses has the greatest explanatory power.<sup>17</sup> The regressions examine the influence of existing shareholders, changes in shareholdings, leverage and board structure on this relation.

*Existing shareholders:* If concentration of ownership overcomes a free rider problem of corporate control, we would expect that there would be higher board turnover in poorly

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<sup>15</sup> In 1989, the ownership disclosure threshold was decreased from 5% to 3%. We controlled for this change in regulation by including a dummy variable which equals 0 for 1988-89 and 1 afterwards. We also verified the robustness of our results, by including dummy variables for the years and by running the regression on subsamples which excluded the years 1989 and 1990 respectively. This did not significantly alter the results reported below.

<sup>16</sup> The performance term with the lag t-1 is not significant because it is used as the interaction performance variable. The same regression without the interactive terms show significant t-1 lag performance terms.

<sup>17</sup> Support for this is provided by Ball, Kothari and Robin (1997) who show that German managers have considerable discretion over the reporting of earnings and tend to use hidden reserves to smooth earnings. A revelation of an earnings loss is therefore significant.

performing firms where concentrations of ownership are high. The signs of the coefficients on the interactive terms between ownership and performance should therefore be negative in lines 11 to 15. In fact, there are few significant terms. Holdings of executive directors are negatively related to board turnover for four performance measures in line 9, but this is not related to corporate performance (line 14). This suggests that large ownership by insiders allows them to protect their position irrespective of company performance. This is robust to different estimation techniques

*Increases in shareholdings:* Significant changes in shareholdings are likely to give rise to changes in management irrespective of corporate performance. However, if these changes are performing a disciplinary function then there should be more board turnover with poor performance and changes in shareholdings. We would therefore expect to observe positive coefficients on lines 16 to 20 and negative coefficients in lines 21 to 25.

Table 7 shows a strong positive relation between increases in share holdings by both families and executive directors, and executive board turnover (lines 18 and 19). The growth in share stakes is for the most part new holdings rather than increases in existing holdings and is quite consistently observed across different estimation techniques. However, the interaction terms do not support the view that changes in family and executive holdings are performing a disciplinary function (lines 23 and 24). There is only evidence of a disciplining effect for increases in share stakes by industrial companies (line 22): board turnover is higher for poor performance measured by prior year earnings losses, low return on equity, low cash flow margins, and dividend cuts and omissions. The active role of industrial owners may reflect the fact that they are better informed and therefore better placed to monitor the company than institutional shareholders.

*Board structure:* If non-executive directors perform a corporate governance function then we would expect to observe more board turnover in poorly performing companies with the separation of the roles of chairman and chief executive and with a high proportion of non-executive directors (negative signs in lines 31 and 32, respectively). If, however, non-

executives merely serve to protect executive directors then we would expect negative coefficients in lines 26 and 27 and positive interactive effects in lines 31 and 32. Only one of the interactive terms with non-executive directors (line 32) is significant and one on separation of chairman and chief executive officer. There is therefore little evidence of non-executives performing a disciplinary function.

*Leverage:* If capital structure influences board turnover, we expect a high level of board turnover to be related to (i) low levels of interest coverage (a negative coefficient in line 28), (ii) high levels of leverage (a positive coefficient in line 29), (iii) low levels of interest coverage combined with poor performance (a positive coefficient in line 33), and (iv) high levels of leverage combined with poor performance (a negative coefficient in line 34). In addition, we examine whether board turnover is associated with new equity issues (a positive coefficient in line 30). There are three significant positive coefficients in both lines 29 and 33, reflecting a strong association between board turnover and capital structure: low interest cover and high market leverage are associated with high board turnover. But the really striking result is the high correlation between new equity issues and board turnover (four significant positive coefficients in line 30). These results are consistently observed using different estimation techniques.<sup>18</sup>

Table 8 relates CEO replacement to the same 5 performance and other variables.<sup>19</sup> We find that the relation between CEO replacement and performance is less pronounced than in Table 7; only when companies made losses or when dividends were cut or omitted is there a significant relation (lines 3 to 5). Ownership variables are not generally significant, except for holdings by executive directors, which suggest entrenchment (line 11). For four performance measures, changes in share holdings of non-executive directors are significant (line 20) implying that greater ownership by this group is related to higher CEO

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<sup>18</sup> Results remained unaltered when leverage and interest cover were included with a lag of a year, rejecting a reversed causation explanation for their significance. There was a difference between including leverage at market and book values. When book values were used instead of market, there was a significant relation between board turnover and an interactive term between leverage and performance. In this case, the interactive term between interest cover and performance was not significant, suggesting that book measures of leverage and interest cover are substitutes.

<sup>19</sup> Note that the results in Table 8 are conservative because a second CEO replacement is unlikely to be made immediately after an initial replacement. We have also run logistic models, excluding the firm-years after a CEO replacement. Similar results as in Table 8 are reached albeit with higher statistical significance, excluding the post CEO replacement years.

replacement. However, this effect is independent of performance (line 25), suggesting a non-disciplinary reason for replacement.

The structure of the board is important for all five measures of performance; in particular, the separation of the CEO and chairman leads to greater CEO replacement (a negative sign in all five columns of line 26).<sup>20</sup> However, there is strong evidence that a higher proportion of non executive directors are negatively related to CEO turnover (line 27), the opposite result to what might be expected if non directors performed a governance role. Of the two leverage ratios only interest cover has a significant relation with board turnover and performance, for three out of the five performance measures (line 33).

The overall conclusion from the panel regression results is, that although there is a strong relation between performance and board turnover, concentration of ownership and the category of owner play a limited role in the disciplining of management. The exceptions are inside ownership, which is used to entrench existing management, and industrial companies, which acquire stakes in poorly performing companies and precipitate high board turnover. Capital structure is important in explaining high levels of board turnover and the significance of new equity issues points to a role for shareholders in disciplining boards of poorly performing companies when they are forced to seek additional funds. Board structure has little influence on overall board turnover but is important in the CEO regression with separation of the position of CEO and chairman leading to higher CEO turnover.

## **8 Comparisons with the US**

There are some close parallels between the results recorded here for the UK and those reported by others for the US. Section 3 noted that concentrations of ownership by both inside and outside investors are similar in the UK and US. Section 7 recorded a strong

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<sup>20</sup> Including a variable for the length of tenure of the CEO eliminated the significance of the separation variable. However, length of tenure was only available for a sub-sample of firms (130 observations were lost) and has not therefore been shown in the table. There is likely to be less CEO-chairman separation in companies where CEOs have been in place for long periods of time and non-executive chairman may be able to exert less influence where CEOs are firmly entrenched. As a consequence, tenure extinguishes the significance of separation.

relation between board turnover and performance of UK firms. Similar results have been reported in the US by Weisbach (1988), Warner, Watts and Wruck (1988) and Coughlan and Schmidt (1985). Entrenchment by insiders has been found in the US by Hermalin and Weisbach (1991) and McConnell and Servaes (1990). It is also consistent with the use of anti-takeover amendments, recorded by Borokhovich, Brunarskia and Parrino (1997), to entrench management, and Stulz's (1988) argument that anti-takeover amendments substitute for insider ownership as an entrenchment mechanism.

Even so there are marked differences in the way in which control is exercised in the two countries. The relation between board turnover and performance in the UK is restricted to extremes of bad performance: bottom decile of share price performance, earnings losses and dividend cuts. There is no relation in response to more modest declines in performance. In the US, a non-monotonic relation between performance and inside ownership concentration has been reported. Morck, Shleifer and Vishny (1988), and McConnell and Servaes (1990) find that corporate performance as measured by Tobin's Q initially rises with low levels of insider ownership (for example, up to 5% in Morck, Shleifer and Vishny's study) and then declines. In comparison, we have observed in the UK a strong entrenchment effect where inside ownership protects incumbent management when performance is poor.

With respect to large outside ownership, Holderness and Sheehan (1988) find that the identity of the block owner is important in the US, and that firms with majority outside blockholders have higher accounting rates of return and higher Tobin's Q than firms with diffuse ownership, although the differences are not statistically significant. Still, they find that when majority blocks trade, stock prices increase and there is substantial management turnover. Denis and Kruse (1998) find that the presence of large blockholders, other than directors and their families, does not have an impact on industry-adjusted operating performance and they find no evidence of the ownership structure influencing non-routine board turnover. Our UK results are similar, we find little relation between ownership and different measures of accounting rates of return and share price performance. In addition, we find no significant relation between managerial disciplining and large outside share blocks held by institutions, industrial companies, individuals, families and non-executive directors.

In the US, hostile takeovers have been associated with the disciplining of bad management by Martin and McConnell (1991). Franks and Mayer (1996) found no such relation in the UK. Like hostile takeovers in the US, Bethel et al (1998) report that purchases of share blocks by active investors are targeted on poorly performing companies. We found no such evidence for in the UK, except in the case of purchases by industrial companies; this might suggest that companies are better monitors and more active shareholders than other types of shareholders.

In the US, Weisbach (1988) reports a closer relation of CEO turnover to performance in firms where non-executive directors dominate the board. Also, Gilson (1990) and Kaplan and Reishus (1990) find that non-executive directors of poorly performing companies in the US lose reputation and are frequently unable to find replacement positions. In the UK, we found no evidence of disciplining by non-executive directors but a strong association of separation of the positions of chairman and CEO with CEO turnover.

In sum, there is less evidence of control being exerted by either existing or new holders of share blocks in the UK than in the US and of less corporate governance by non-executive directors. Instead, control is more likely to be exercised in the UK when new finance is sought by firms in financial difficulty. The implication is that, unlike the US, corporate governance in the UK is restricted to extremes of poor performance.

What can account for these differences? One explanation comes from differences in regulation between the two countries. In the UK, protection of minorities is extensive. The 1989 Companies Act requires that share blocks in excess of 3% must be disclosed. Where there is a controlling firm the Stock Exchange lays down specific rules concerning the controlling shareholding (sections 3.12 and 3.13) and transactions with related parties (Chapter 11 of the Stock Exchange rules). Where there is a controlling shareholder, the firm "must be capable at all times of operating and making decisions independently of any controlling shareholder and all transactions and relationships in the future between the applicant and any controlling shareholder must be at arm's length and on a normal commercial basis" (section 3.13). A majority of the directors of the board of the subsidiary must be independent of the parent firm. Shareholders have to be notified about transactions with the parent firm and their approval has to be sought in advance with the related party abstaining

from voting on the transaction (sections 11.4 and 11.5). Minority shareholders therefore have the right to be consulted about and approve transactions with the parent firm.

Minority shareholders are protected in the UK by the City Code on Takeovers and Mergers. The Code requires that any person accumulating 15% or more of the voting rights of a firm must declare their intentions about making a takeover and those acquiring 30% must offer to purchase all remaining shares at the highest price paid by the acquirer for the target over the previous twelve months. Also, a 25% minority of shareholders can block particular forms of new equity issues and mergers, and new issues have to be made in the form of rights issues where they exceed 5% of share capital. In terms of Goshen's (1998) characterization of systems of minority protection, the UK has a "property rule" which prevents any transaction from proceeding without the minority owner's consent.

Stapledon (1996) records that although directors in the UK owe their companies 'fiduciary duties of honesty and loyalty, and a duty of care and skill', in practice 'actions to enforce the duties of directors of quoted companies have been almost non-existent' (pp. 13-14). Also, derivative lawsuits by shareholders in the UK are unheard of, possibly reflecting the absence of contingent fees (Miller (1998)). In contrast, in the US, protection of minorities is primarily the concern of the courts. For example, Delaware courts in the US approved a discriminatory share buyback by Unocal against Boone Pickens, who was a large shareholder attempting a coercive takeover (Herzel and Shepro, 1990). There is no US equivalent of the UK Takeover Code requiring full bids for companies to be made. However, there is extensive State legislation discouraging takeovers and companies implement more defence mechanisms than are permitted in the UK (Miller (1998)). There is no SEC rights requirement in new issues and many companies successfully encourage shareholders to forgo rights provisions. But courts implement fair price requirements and class actions are possible.<sup>21</sup>

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<sup>21</sup> Protection may even fall short of that provided by the application of a fair price rule. Gilson (1995) argues that in *Sinclair Oil Corp v. Levien* business judgement rather than intrinsic fairness tests should have been applied in determining whether the payment of dividends from Sinven to Sinclair was justified since a proportionate share of the dividends were received by Sinven's minority shareholders and the dividends were not therefore self-dealing. It is debated whether minority protection in the US interferes with business judgements of parents. Eisenberg (1976) states that "the checks on unfair dealing by the parent are few. In theory, of course, the fairness of the parent's behaviour is subject to the check of judicial review; but in practice such review is difficult even where the courts have the will to engage in it, and they often lack the will." However, Gilson (1995) notes that in practice the conventional wisdom is "that the ability to freeze out minority shareholders is critical to an acquisition's success" (p 1250).

In Goshen's (1998) terminology the US has a "liability rule" which allows transactions to be imposed on an unwilling minority but ensures that the minority is adequately protected in objective market value terms. Directors (both executive and non-executive) have a duty of care to shareholders and they can be sued for failing to fulfil fiduciary responsibilities.<sup>22 23</sup>

Differences in regulation (summarised in Panel A of Table 9) affect the relative costs of alternative forms of control. The liability rule and the absence of a takeover code make the cost of majority control in the US less than that in the property rule system of the UK.<sup>24</sup> The inability to enforce fiduciary responsibilities on directors makes control by non-executive directors ineffective in the UK in contrast to the US. On the other hand, rights issues provide existing investors in the UK with protection against dilution and allow them to impose control changes as part of the condition of the provision of new finance.

The effect of regulation is to make the cost of control by shareholders in rights issues low in the UK in relation to the cost of control by blockholders and non-executive directors (Panel B of Table 9). In comparison, US regulation favours blockholder and director control relative to control by shareholders in new equity issues. Thus, capital markets with remarkably similar ownership structures may have very different systems of corporate governance; regulation may explain some of the differences.

## 9 Conclusions

The question posed was, who initiates control changes in poorly performing companies. Four parties were suggested: existing shareholders, particularly large block holders, new holders of blocks, creditors and non-executive directors. The paper has challenged the conventional

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<sup>22</sup> Clark (1986) describes the circumstances under which shareholders can be sued in the US. For example, in *Smith v. Van Gorkum*, shareholders successfully sued directors for a breach of duty of care with respect to a merger. However, Clark also notes the paucity of such successful cases.

<sup>23</sup> The difference that is drawn here between UK and US minority protection conforms with the more general distinction which Atiyah and Summers (1987) and Posner (1996) draw between reliance on substantive reasoning under US law and formal reasoning in UK law.

<sup>24</sup> La Porta, Lopez-de-Silanes, Shleifer and Vishny (1996,1997) measure anti-director rights in the UK and US and find greater protection for minorities in the US. However, they focus on the rights under commercial law and do not consider the influence of the non statutory, but highly effective, Takeover Code and Stock Exchange rules.



wisdom that shares are too dispersed in the UK to encourage direct shareholder intervention: coalitions of five shareholders on average can control more than 30% of shares. However, with the exception of industrial companies, there is little evidence that they do. On the contrary, the main source of block holder control comes from those in the hands of insiders and these are used to entrench rather than to discipline management.

An as yet undocumented characteristic of the UK capital market is an active market in share blocks. Both hostile takeovers and markets in share blocks could be used to discipline poorly performing management. However, neither of them in practice do: in both takeovers and share block sales there are changes in boards but these are unrelated to performance. This contrasts with US evidence where hostile takeovers and block sales are associated with poor past performance.

More support for a role for boards is found. This was evidenced by a higher level of CEO replacement in the presence of separate non-executive chairmen. However, where there is more extensive board failure, non-executive directors do not perform a disciplining function, in contrast to US evidence. This suggests that non-executive directors do not perceive their role to be a disciplinary one in the UK.

We have attributed these differences at least in part to regulation. Extensive protection of minorities in the UK makes control by blockholders expensive relative to that in the US. Ineffective implementation of the fiduciary responsibilities of directors undermines disciplining by non-executives and gives rise to “capture” of non-executives by executive directors.

If neither existing and new holders of share blocks, nor boards discipline management in poorly performing companies in the UK, who does? One area where regulation confers more control on investors in the UK than in the US is when new finance is raised. We find that high board turnover only occurs where corporate performance is very poor. Capital structure is a significant determinant of board changes and high levels of leverage and low interest coverage

are associated with high levels of board turnover in poorly performing companies. This would suggest that creditor intervention is the main source of corporate reorganisation. However, evidence from 34 case studies and regression analyses revealed an important role for new equity issues in board restructurings. Rights issues protect existing shareholders against wealth transfers initiated by the management of poorly performing firms and allow outside shareholders to impose board changes as a condition for the provision of new equity finance.

This raises an important question of how governance is exercised in the absence of financial distress. One possibility, which has not been pursued in this paper, is that managerial incentive arrangements are used in place of disciplining. Another is that the market for corporate control is concerned with restructuring in the absence of very poor performance or financial distress. The evidence from Franks and Mayer (1996) that takeover targets are averagely rather than poorly performing firms is consistent with this view.

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**Table 1 : Annual board turnover in 1990-1992 partitioned by decile of abnormal share price performance for a sample of 243 UK quoted companies**

This table reports the turnover of the total board, the executive and non executive directors, the CEO and chairmen for the three year period 1990-1992. Board turnover is calculated by dividing the total number of directors who leave the company (excluding those leaving as a result of retirement, death or illness), by total board size. Executive and non-executive director turnover is calculated in the same way, except that the denominator is the number of executive and non-executive members, respectively. CEO and chairman turnover represents the proportion of sample companies where the CEO and the chairman, respectively, leave the company (corrected for natural turnover). Board turnover data for the sample of 243 companies are categorized by performance: panel A categorizes companies by abnormal share price performance in 1990; panel B categorizes companies by dividend cuts and omissions, and earnings losses.

**Panel A : Board turnover over 1990-92 partitioned by decile of abnormal share price performance in 1990**

Decile	Worst						Best	Average	t-test on differences in deciles	
	1	2	3	5	9	10			1 vs. 5	1 vs. 10
	<-45%	-45% to -27%	-27% to -19%	-13% to -5%	12% to 23	>23%				
Annual board turnover of:										
Total board	15.5%	7.0%	7.7%	6.8%	6.0%	6.4%	7.3%	2.122	2.085	
Executive directors	21.1%	10.0%	9.9%	8.1%	8.0%	6.9%	9.2%	2.300	2.388	
Non-executive directors	7.4%	1.7%	4.9%	4.2%	3.6%	4.8%	4.2%	0.758	0.511	
CEOs	28.8%	19.2%	11.4%	11.6%	14.5%	10.4%	13.6%	1.815	1.953	
Chairmen	15.8%	6.9%	5.8%	7.2%	2.9%	5.9%	7.0%	0.862	1.007	
Sample size	24	24	24	23	23	23	23			

**Panel B : Board turnover for 1990-1992 categorized by dividends changes and by earnings respectively for the period 1989-90**

Annual board turnover	Dividend cuts and omissions	Constant or increased dividends	t-test on differences in means	Losses	Positive earnings	t-test on differences in means
Executive directors	14.9%	7.0%	2.776	17.5%	8.0%	2.754
Non-executive directors	6.0%	5.8%	0.077	9.8%	3.7%	1.965
CEOs	25.9%	7.0%	2.795	26.0%	11.2%	1.846
Chairmen	15.9%	8.4%	1.464	19.1%	5.1%	2.302
Sample size (average)	36	181		18	190	

**Table 2: Size and category of the largest shareholder in the sample of UK quoted companies, 1988 to 1993**

Panel A shows the average largest shareholding, the sum of the largest 5 shareholdings and all reported large shareholdings. Panel B shows the percentage of companies with largest shareholdings in five size ranges. Panel C reports the size distribution of the largest shareholding by type of shareholder in 240 companies in 1991. All holdings by directors are recorded; shareholdings by outsiders in excess of 5% are reported in 1988 and 1989 and in excess of 3% thereafter. Source: Annual reports.

**Panel A : Size of largest shareholding, sum of ownership of largest 5 share stakes and of all reported large shareholdings.( a)**

Year	Largest shareholding	Largest 5 shareholdings(b)	All reported large shareholdings(b)
1988	15.3%	29.7%	30.6%
1989	15.6%	30.7%	31.4%
1990	16.5%	36.4%	41.0%
1991	15.6%	36.7%	42.7%
1992	15.0%	35.2%	40.7%
1993	13.7%	30.4%	33.5%

**Panel B : Percentage of sample companies with largest shareholding by size class.**

Year	[0-5%[	[5-15%[	[15-25%[	[25-50%[	[50-100%[
1988	23.0%	34.7%	18.4%	20.9%	2.9%
1989	17.0%	39.8%	20.7%	19.1%	3.3%
1990	11.6%	44.2%	21.9%	18.2%	4.1%
1991	10.0%	52.1%	19.6%	14.6%	3.8%
1992	10.6%	56.0%	17.4%	13.5%	2.4%
1993	15.5%	58.1%	13.5%	11.6%	1.3%

**Panel C : Distribution of largest shareholder by category of shareholder and size for 1991.**

Category of shareholder	Total	[0-5%[	[5-15%[	[15-25%[	[25-50%[	[50-100%[
Institutional investors	52.6%	6.3%	37.9%	6.3%	1.7%	0.4%
Industrial companies	13.0%	0.8%	3.8%	4.2%	3.8%	0.4%
Families, individuals	3.8%	0.0%	1.3%	0.8%	1.7%	0.0%
Insiders (directors)	28.0%	2.1%	8.8%	7.9%	7.1%	2.1%
All ( c)	97.4%	9.2%	51.8%	19.2%	14.3%	2.9%

Notes to table: (a) Sample sizes were 239, 241, 241, 240, 207 and 105 in each of the six years 1988 to 1993 respectively.

(b) The increase in 1990 reflects the reduction in the level at which shareholdings had to be reported from 5% to 3% in 1989.

(c) The sum is less than 100% because a few share stakes (held by the government and real estate companies) are not included in this panel.



**Table 3: The relation between concentration of ownership, market capitalisation and abnormal share price performance, 1990 to 1992**

The table reports average ownership concentration over the period 1990 to 1992 for firms in the smallest and largest size quartile of market capitalisation in 1990. Ownership concentration is reported for the largest shareholding and the sum of all disclosed shares held by institutions, industrial companies and individual and insiders.

Source: Annual reports, London Share Price Database.

	<b>Average 1990-92</b>	<b>Smallest</b> Below median of market cap.	<b>Largest</b> Above median of Market cap.	t-test on differences in means
<b>Worst performance</b> (lowest quintile of annual abnormal return 1990)	Largest shareholding (%)	16.2%	11.9%	1.029
	Sum of institutional investor shares (%)	31.3%	20.5%	3.030
	Sum of companies and family shares (%)	7.3%	5.9%	0.485
	Sum of insiders' shares (%)	13.1%	6.4%	1.753
	Executive board turnover	17.5%	14.7%	0.382
	CEO turnover	28.6%	28.0%	0.030
	Sample size	23	8	
<b>Best performance</b> (best quintile of annual abnormal return 1990)	Largest shareholding (%)	14.0%	13.0%	0.266
	Sum of institutional investor shares (%)	29.9%	12.5%	6.627
	Sum of companies and family shares (%)	3.5%	6.6%	-1.364
	Sum of insiders' shares (%)	11.3%	9.9%	0.684
	Executive board turnover	6.5%	7.7%	-0.267
	CEO turnover	6.7%	14.8%	-0.847
	Sample size	15	27	

**Table 4: Purchases of share blocks and their relation to performance, 1991 to 1993**

Panel A reports gross purchases of share blocks of between 5 and 10%, 10 and 25%, 25 and 50%, and more than 50% over the period 1991 to 1993 disaggregated by type of purchaser. Panel B reports the net purchases of share blocks (i.e. purchases less sales) which cumulated to between 5 and 10%, 10 and 25%, 25 and 50%, and more than 50% in any one year over the period 1989 to 1993. Panel C reports net purchases of share blocks by size of block and performance measured by quintile of abnormal share price performance averaged over the year of the purchase and the two years prior. Source: Annual reports.

**Panel A: Purchases of share blocks by new shareholders greater than 5% over the period 1991 to 1993**

	[5,10%[	[10,25%[	[25,50%[	≥50%	Total
Institutions	168	38	5	0	211
Companies	24	15	5	0	44
Families	19	6	2	0	27
Directors	10	11	0	0	21
Total	221	70	12	0	303

**Panel B: Number of companies with increases in concentration greater than 10% over the period 1991 to 1993**

Year	[5,10%[	[10,25%[	[25,50%[	≥50%	Total
1991	37	36	4	2	79
1992	16	25	5	2	48
1993	14	9	4	2	29
Total	67	70	13	6	156

**Panel C : Number of companies with increases in concentration greater than 10% over the period 1991 to 1993 for companies with lowest and highest quintile of abnormal share price performance**

Size of blocks	Worst performance quintile	Best performance quintile	Average per quintile
10-25%	18	20	14.0
25-50%	8	5	2.6
>50%	0	1	1.2

**Table 5 : Leverage, performance and board turnover**

Panel A reports capital leverage (book values of debt over assets) and interest coverage ratios (earnings over interest payments) averaged over the period 1990 to 1992 for the sample of 243 companies subdivided into deciles of abnormal share price returns in 1990. Panel B reports annual average board turnover over the period 1990 to 1992 for companies with interest coverage greater and less than two times, partitioned on the basis of abnormal share price performance in 1990. Panel C shows the t-statistics on differences in means of board turnover of companies with below median share price performance and interest coverage less than and greater than two times.

**Panel A : Average annual capital leverage and interest coverage for 1990 to 92 by decile of performance based on abnormal returns in 1990**

annual abnormal return 1990	decile 1		decile 2		decile 3		decile 5		decile 9		decile 10	
	mean	median	mean	median	mean	median	mean	median	mean	median	mean	median
leverage (%)	42.2	39.3	40.6	38.8	31.1	27.9	32.7	34.9	29.0	26.9	31.6	23.9
interest coverage	9.7	1.8	7.8	1.9	6.0	4.4	17.9	4.0	26.5	7.7	24.9	8.3
Sample size	24		24		24		23		23		23	

**Panel B : Average board turnover over the period 1990 to 1992 for companies with interest coverage greater and less than 2 by deciles of abnormal returns in 1990**

	Worst		decile 3	decile 5	decile 9	Best	Below median performance	Above median performance	t-test on Difference in means	All companies
	decile 1	decile 2								
<b>Interest coverage less than 2 times</b>										
Executive director turnover	22.7%	9.5%	13.0%	9.7%	11.8%	6.4%	14.3%	8.4%	1.542	12.7%
CEO turnover	30.6%	22.0%	10.0%	21.7%	26.7%	0.0%	22.1%	14.1%	0.842	19.8%
Chairman turnover	18.4%	4.9%	10.0%	13.0%	6.7%	0.0%	12.3%	7.8%	0.629	11.0%
Sample size	17	16	7	5	4	3	54	21		75
<b>Interest coverage greater than 2 times</b>										
Executive director turnover	8.1%	10.5%	7.6%	7.3%	6.9%	7.0%	8.3%	6.3%	0.986	7.1%
CEO turnover	10.0%	12.5%	12.2%	6.5%	11.1%	11.7%	8.9%	10.4%	-0.317	9.8%
Chairman turnover	0.0%	8.3%	2.4%	4.3%	1.9%	6.7%	4.1%	4.9%	-0.207	4.6%
Sample size	7	8	17	18	19	20	62	96		158

**Panel C : t-statistics on differences in means of board turnover for companies with interest coverage less than and greater than 2 times.**

	t-test on difference in means : interest coverage less than 2 minus coverage greater than 2		
	Below median of performance	Above median of performance	All companies
Exec. dir. turnover	1.955	0.685	2.457
CEO turnover	1.949	0.433	1.947
Chairman turnover	1.580	0.490	1.426

**Table 6: Board characteristics and firm performance**

Panel A shows board size, the proportion of non-executive directors on the board, the proportion of companies in which there is a combined CEO and chairman of the board, the age and tenure of the CEO and chairman of the board averaged over the period 1990 to 1992 for 6 deciles of abnormal share price performance in 1988. Panel B reports the proportion of non-executives, combined CEO and chairman of the board and age of CEO and chairman averaged over two years either side of 1990 for companies in which there was a change in CEO in 1990 and for companies in which there was no change in CEO in 1990.

**Panel A: Board characteristics by decile of share price performance in 1988**

	Worst Decile 1 <-45%	Decile 2 [-45,-27.9%[	Decile 3 [-27.9,-18.85%[	Decile 5 [-13.12,-5.0%[	Decile 9 [12.0,22.5%[	Best Decile 10 >22.5%	Average
Average 1990-92							
Total number of directors (units)	8.7	8.7	8.4	9.6	10.9	8.4	9.3
Proportion nonexec. dir.(%)	37.5%	37.3%	38.2%	42.4%	43.5%	40.7%	39.8%
Combined CEO/Chairman	27.1%	43.1%	31.0%	42.0%	34.8%	28.4%	32.9%
CEO age (years)	49.7	53.2	51.5	55.9	54.4	54.5	52.6
CEO tenure (years)	4.1	5.1	5.1	8.2	5.2	5.7	5.3
Chairman age (years)	55.0	60.3	59.8	59.6	60.3	58.5	59.0
Chairman tenure (years)	5.5	5.1	5.9	6.5	7.1	6.1	6.1

**Panel B : Board characteristics two years prior and post CEO turnover in 1990**

**Companies with CEO turnover in 1990**

	Sample size	Two years prior Average 1988-89	Two years after Average 1991-92	T-test on diff. In means
Proportion nonexec. dir.(%)	28	36.4%	41.5%	1.464
Combined CEO/Chairman	28	42.9%	14.3%	-2.449
CEO age (years)	19	51.9	52.6	0.329
Chairman age (years)	19	59.4	59.4	-0.032

**Companies without CEO turnover in 1990**

	Sample size	Two years prior Average 1988-89	Two years after Average 1991-92	T-test on diff. In means
Proportion nonexec. dir.(%)	180	36.2%	40.8%	2.483
Combined CEO/Chairman	180	42.2%	38.9%	-0.643
CEO age (years)	110	51.6	53.1	1.801
Chairman age (years)	121	57.8	59.1	1.419

**T-statistics of differences between companies with and without CEO turnover in 1990**

Proportion nonexec. dir.	0.068	0.305
Combined CEO/Chairman	0.062	-3.213
CEO age (years)	0.130	-0.332
Chairman age (years)	1.144	0.221

**Table 7: The relation between executive board turnover, performance, ownership, increases in shareholdings, board composition and leverage.**

The table reports the results of regressions of board turnover on performance, ownership, increases in share holdings and board composition for the period 1988 to 1993. Five measures of performance are reported: annual abnormal returns, earnings losses, return on equity, cash flow margin, and dividend changes. Eight blocks of independent variables are reported. The first relates to performance with up to two year lags; the second to concentration of ownership by five classes of investors; the third to the interaction of concentrations of ownership of the different classes of investors with performance in the prior year; the fourth to increases in concentrations of share holdings; the fifth to the interaction between these increases and Performance in the prior year; the sixth to the structure of the board (separation of CEO-Chairman =1 if there is separation, %nonexec directors is the proportion of non executives on the board), interest coverage, gearing, new equity issues=1 if there is a new issue, the seventh to the interaction of the board and financial structure variables with prior year performance; the eighth to a dummy variable which equals zero in the years 1988-1989 and 1 in the other years (1990-93) reflecting the reduction in ownership disclosure from 5% to 3% over the period 1989-1990, the ninth to size of firm measured by log of total sales. \* denotes significant at better than the 10% level, \*\* significant at better than 5% level and \*\*\* significant at better than 1% level. Source : own calculations based on annual reports, Datastream, London Business School's Risk Measurement Service

Performance 1988-1993	Annual abnormal return		Earnings losses		Return on equity		Cash flow margins		Dividend changes	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
1. Sample size	903		912		922		904		922	
2. Intercept	0.0636	*** 0.005	0.0903	*** 0.001	0.0552	** 0.048	0.0034	0.929	0.0589	** 0.011
<i>Performance</i>										
3. Performance T-2	-0.0402	*** 0.002	-0.0415	* 0.066	-0.0024	0.577	0.2016	** 0.017		
4. Performance T-1	-0.0546	0.384	-0.1404	0.359	0.1765	0.226	0.9401	** 0.026	-0.0392	*** 0.009
5. Performance T	-0.0227	** 0.043	-0.0918	*** 0.001	-0.0091	** 0.015	-0.2144	** 0.022	-0.1223	* 0.067
<i>Existing shareholdings</i>										
6. Institutional investors	0.0394	0.291	0.0066	0.858	0.0506	0.248	0.1279	** 0.031	0.0157	0.699
7. Industrial companies	0.0267	0.552	0.0198	0.659	0.1161	** 0.039	0.0212	0.726	0.0573	0.225
8. Families and individuals	-0.0682	0.290	-0.1042	0.104	0.0597	0.517	0.0486	0.607	-0.0615	0.371
9. Executive directors	-0.0810	** 0.048	-0.1039	*** 0.009	-0.0929	* 0.063	-0.0669	0.299	-0.1015	** 0.022
10. Non-executive directors	0.0216	0.715	-0.0153	0.783	0.0422	0.491	0.0560	0.523	0.0578	0.350
<i>Interaction of ownership with performance at T-1</i>										
11. Institutional investors	0.0307	0.800	0.4331	*** 0.009	-0.1715	0.203	-1.4300	** 0.017	0.0666	0.481
12. Industrial companies	-0.0551	0.662	0.1989	0.261	-0.7043	*** 0.006	0.4391	0.323	0.1139	0.376
13. Families and individuals	0.1822	0.229	-0.0312	0.912	-1.1100	** 0.040	-2.6100	* 0.071	0.4088	** 0.031
14. Executive directors	0.0390	0.726	0.3014	* 0.082	-0.0062	0.977	-0.6153	0.463	0.0600	0.541
15. Non-executive directors	0.1763	0.276	0.1814	0.453	-0.4290	* 0.027	-0.9552	0.312	0.2902	** 0.040

<i>Increases in shareholding</i>										
16. Institutional investors	0.0502	0.417	0.0989	0.109	-0.0085	0.904	0.0353	0.682	0.1069	0.105
17. Industrial companies	0.0764	0.528	-0.0156	0.891	0.2919	** 0.021	0.3136	** 0.023	-0.0168	0.892
18. Families and individuals	0.5337	*** 0.001	0.5891	*** 0.001	0.4362	** 0.040	0.1008	0.659	0.5896	*** 0.001
19. Executive directors	0.5737	*** 0.001	0.5461	*** 0.001	0.6202	*** 0.004	0.6486	** 0.035	0.5896	*** 0.001
20. Non-executive directors	0.2583	0.230	0.2881	0.104	0.1124	0.546	-0.3304	0.224	0.2562	0.198
Interaction of increases in shareholdings with performance at T-1										
21. Institutional investors	0.0174	0.917	0.3902	* 0.095	0.4377	** 0.033	0.3538	0.646	0.2606	0.133
22. Industrial companies	-0.4805	0.153	-1.5746	*** 0.001	-0.6832	* 0.097	-2.5700	** 0.010	-0.8021	*** 0.004
23. Families and individuals	-0.8230	** 0.030	0.6834	0.408	1.1600	0.222	9.5800	*** 0.003	-0.5208	0.187
24. Executive directors	0.9512	* 0.073	-0.0046	0.375	-0.2410	0.677	-0.3546	0.932	-0.0815	0.840
25. Non-executive directors	-0.6967	0.362	2.1842	* 0.072	1.8800	*** 0.001	11.3500	*** 0.001	-0.2533	0.581
<i>Board structure and leverage</i>										
26. Separation CEO-chairman	0.0110	0.245	0.0023	0.801	0.0142	0.196	0.0421	*** 0.005	0.0048	0.632
27. % non-executive directors	-0.0361	0.133	-0.0579	** 0.013	-0.0612	0.122	0.0625	0.219	-0.0651	*** 0.008
28. Interest coverage	0.0001	0.518	0.0001	0.795	-0.0004	0.941	0.0001	0.664	0.0001	0.570
29. Leverage-market value at T	0.0273	* 0.097	0.0128	0.418	0.0467	** 0.021	0.0323	0.256	0.0406	** 0.019
30. Equity issues	0.0451	*** 0.001	0.0191	0.151	0.0453	*** 0.002	0.0525	** 0.003	0.0316	*** 0.022
Interaction of board structure, leverage and performance at T-1										
31. Separation CEO-chairman	-0.0202	0.478	-0.0585	0.2584	-0.0042	0.902	-0.3948	*** 0.007	-0.0315	0.265
32. % non-executive directors	-0.0474	0.619	-0.2233	0.1829	0.0332	0.695	-1.1528	** 0.017	-0.1209	0.166
33. Interest coverage	-0.1117	*** 0.001	0.2548	*** 0.001	0.1332	*** 0.001	0.3039	*** 0.002	-0.03660	0.191
34. Leverage-market value at T	0.0535	0.195	-0.1175	0.244	-0.1853	*** 0.009	-0.2068	0.536	0.1293	*** 0.005
35. Equity Issues	-0.0452	0.509	-0.2203	*** 0.001	-0.0751	** 0.030	-0.2993	* 0.059	-0.0559	0.214
36. Disclosure dummy	-0.0302	** 0.010	-0.0212	* 0.051	-0.0196	* 0.081	-0.0235	** 0.035	-0.0219	** 0.047
37. Total sales (log)	-7.23E-10	0.551	-1.26E-09	0.289	-6.912E-10	0.578	-1.14E-09	0.224	-1.29E-09	0.290
Rsq	0.163		0.205		0.129		0.168		0.159	
Rsq adjusted	0.129		0.173		0.094		0.134		0.127	
p-value of F-stat	0.0001		0.0001		0.0001		0.0001		0.0001	

**Table 8 : The relation between executive board turnover, performance, ownership, increases in shareholdings, board composition and leverage.**

The table reports the results of logit regressions of CEO turnover on performance, ownership, changes in share holdings and board composition for the period 1988 to 1993. Five measures of performance are reported: annual abnormal returns, earnings losses, return on equity, cash flow margin, and dividend changes. Eight blocks of independent variables are reported. The first relates to performance with up to two year lags; the second to concentration of ownership by five classes of investors; the third to the interaction of concentrations of ownership of the different classes of investors with performance in the prior year; the fourth to increases in concentrations of share holdings; the fifth to the interaction between these increases and performance in the prior year; the sixth to the structure of the board (separation of CEO-Chairman =1 if there is separation, %nonexec directors is the proportion of non executives on the board), interest coverage, gearing, new equity issues=1 if there is a new issue; the seventh to the interaction of the board and financial structure variables with prior year performance; the eighth to size as measured by total sales. The p-values are of a Wald Chi-square distribution.

Source : own calculations based on annual reports, Datastream, London Business School's Risk Measurement Service

Performance 1988-1993	Annual abnormal return		Earnings losses		Return on equity		Cash flow margins		Dividend changes	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
1. Sample size	903		912		922		904		922	
2. Co's with CEO turnover	107		110		110		108		110	
3. Co's without CEO turnover	796		802		812		796		812	
4. Intercept	-2.5879	*** 0.001	-2.2903	*** 0.001	-2.8107	*** 0.002	-3.187	*** 0.004	-2.819	*** 0.001
<i>Performance</i>										
5. Performance T-2	-0.4900	0.174	0.522	0.359	0.0250	0.849	0.4980	0.800		
6. Performance T-1	-1.4800	0.422	11.744	0.978	1.5000	0.619	12.9400	0.307	-0.8300	*** 0.009
7. Performance T	0.1890	0.469	-1.292	*** 0.001	0.0340	0.700	-0.1399	0.945	-4.0936	*** 0.008
<i>Existing shareholdings</i>										
8. Institutional investors	1.0800	0.222	0.5740	0.519	1.3200	0.176	2.6300	** 0.043	1.3800	0.157
9. Industrial companies	0.5540	0.658	1.5400	0.159	0.4160	0.778	0.7720	0.655	1.6300	0.159
10. Families and individuals	0.1620	0.942	-1.0800	0.645	1.5500	0.571	2.7300	0.293	1.4000	0.444
11. Executive directors	-5.1700	** 0.011	-2.5600	* 0.084	-3.4300	* 0.089	-1.4300	0.486	-2.2220	0.171
12. Non-executive directors	-0.8580	0.646	-1.5300	0.383	-0.7880	0.685	-3.9900	0.169	-2.0100	0.346
<i>Interaction of ownership with performance at T-1</i>										
13. Institutional investors	-0.8600	0.763	1.8100	0.584	-1.9600	0.599	-26.7000	* 0.073	2.7300	0.150
14. Industrial companies	0.2000	0.958	16.9900	** 0.038	1.8000	0.778	3.0000	0.849	6.2500	0.102
15. Families and individuals	10.1000	** 0.027	-25.9900	0.332	-9.8500	0.569	-56.3000	0.236	13.7400	* 0.078
16. Executive directors	-9.3600	** 0.026	9.9200	0.287	4.4000	0.617	-24.7000	0.409	4.1300	0.253
17. Non-executive directors	11.6000	*** 0.007	32.6000	0.380	-8.1100	0.241	30.8000	0.270	-0.6310	0.864

<i>Increases in shareholding</i>										
16. Institutional investors	-1.5600	0.332	-0.2250	0.883	0.9330	0.571	-2.8100	0.162	-0.9820	0.563
17. Industrial companies	-0.5690	0.881	-0.1210	0.966	3.4400	0.228	1.5000	0.650	-0.0740	0.982
18. Families and individuals	4.3100	0.239	5.2500	0.151	4.1900	0.426	7.2000	0.189	2.4800	0.452
19. Executive directors	8.0000	* 0.063	0.7020	0.901	2.0300	0.739	-1.2200	0.892	0.6570	0.914
20. Non-executive directors	8.3500	* 0.065	7.1300	* 0.078	6.4500	* 0.100	8.7000	0.161	9.5500	** 0.033
Interaction of increases in shareholdings with performance at T-1										
21. Institutional investors	-1.9400	0.623	4.3700	0.424	2.6000	0.647	34.0000	* 0.095	-1.1900	0.729
22. Industrial companies	-10.2000	0.245	-11.0900	0.277	-12.8000	0.231	-5.3800	0.859	-6.4500	0.314
23. Families and individuals	6.5000	0.571	115.0700	0.988	-6.4400	0.826	-67.6000	0.529	-6.8200	0.525
24. Executive directors	23.9000	** 0.050	-48.1300	0.538	7.9000	0.611	60.9000	0.629	-12.6500	0.288
25. Non-executive directors	-12.5000	0.434	-7.2100	0.875	17.5000	0.162	2.0000	0.977	13.1200	0.297
<i>Board structure and leverage</i>										
26. Separation CEO-chairman	1.3535	*** 0.001	1.1232	*** 0.001	1.3106	*** 0.003	1.4318	*** 0.004	1.1946	*** 0.001
27. % non-executive directors	-2.3976	** 0.011	-1.7520	** 0.043	-2.2925	** 0.034	-1.6232	0.221	-1.5283	* 0.104
28. Interest coverage	-0.0025	0.580	-0.0228	0.486	-0.0040	0.395	-0.0078	0.188	-0.0043	0.469
29. Leverage-market value at T	0.6150	0.265	0.1747	0.709	0.8594	0.182	0.9202	0.301	0.3986	0.339
30. Equity issues	-0.1335	0.707	-0.4647	0.228	-0.4255	0.271	-0.2280	0.558	0.4691	0.246
Interaction of board structure, leverage and performance at T-1										
31. Separation CEO-chairman	0.0570	0.951	-28.0369	0.948	-0.1740	0.935	-2.2100	0.680	0.0586	0.936
32. % non-executive directors	-3.5400	0.169	2.4654	0.555	1.9500	0.641	-5.8100	0.656	2.7447	0.199
33. Interest coverage	-0.8420	0.207	2.0559	** 0.030	2.2250	** 0.019	4.6700	* 0.070	0.1711	0.777
34. Leverage-market value at T	2.2600	* 0.075	11.2278	0.324	-2.7800	0.121	-10.2400	0.321	1.2762	0.250
35. Equity Issues	1.7000	* 0.079	-0.8465	0.511	-0.2220	0.809	-3.5700	0.422	-0.3808	0.658
36. Disclosure dummy	-0.3826	0.206	-0.2714	0.346	-0.1772	0.525	-0.1667	0.588	-0.3266	0.256
37. Total sales (log)	3.27 E-7	0.192	2.42 E-8	0.347	3.46 E-8	0.147	3.07 E-8	0.203	3.0 E-8	0.251
-2 LogL (p-value)		0.0001		0.0001		0.0001				0.0001



**Table 9 : Regulatory and legal differences between the UK and US and their implications for the exercise of corporate governance**

Panel A summarizes regulatory and legal differences concerning minority protection, takeovers, directors' responsibilities and seasoned new equity issues. Panel B summarizes the implications of these differences for the degree of control which will be exerted by different parties in the UK and US.

**Panel A: Regulatory and legal differences between the UK and US**

	<b>UK</b>	<b>US</b>
Minority protection	“Property rule”: board representation, arms’ length transaction	“Liability rule”: fair price adjudication through the courts
Takeovers	Takeover code: 15% disclosure requirement, 30% full tender offer requirement, equal price rule, 75% majority required to approve Scheme of Arrangement	State legislation discouraging takeovers. Corporate defense mechanisms
Directors’ responsibilities	No legal enforcement of fiduciary responsibilities	Fiduciary responsibilities enforced through class actions
Seasoned equity issues	Rights issue requirement for issues in excess of 5%	No rights requirement

**Panel B: Implications for the relative degree of control exercised by different parties in the UK and US**

Large blockholders	Weaker in the UK than in the US
Market in shares	Impeded in both the UK and the US
Directors	Weaker in the UK than in the US
Shareholders in new issues	Stronger in the UK than in the US