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## **INDEPENDENT DIRECTORS, EXECUTIVE REMUNERATION AND THE GOVERNANCE OF THE CORPORATION: SOME EMPIRICAL EVIDENCE FROM THE UNITED KINGDOM**

*James Johnston\**

*One aspect of the study of executive remuneration that has received comparatively little attention is its ability to shed light on the governance of the corporation. The level of a Chief Executive Officer's remuneration will embody information on both the market within which a business operates and the effectiveness of its independent directors as instruments of corporate governance. Differences in the salaries of top directors that cannot be accounted for by differences in business performance may provide useful evidence on the health of a company's governance mechanisms. This paper contains the results of an empirical investigation into the role of external competition and internal controls in generating the executive salaries that we observe in the United Kingdom's leading firms. It also considers whether compliance with the corporate structures prescribed by external committees is likely to curtail some of the excesses seen in the past.*

**JEL Classifications:** J30, M52

**Keywords:** CEO remuneration, independent directors, corporate governance reform

### **INTRODUCTION**

It has long been recognised that the opportunity for the pursuit of goals other than profit maximisation by top managers is present more often than not. Even those who take the most sanguine view of managerial motivation recognise that where the threat of takeover or loss of market share is not particularly acute, and the business has a large number of small shareholders, other governance devices must be relied upon to mitigate the risk of management failure. Highly publicised corporate collapses at businesses such as the BCCI and the Maxwell group sparked what quickly became a heated debate on the management of the United Kingdom's publicly held companies. Though some have held on to the view that business is best left to manage itself, critics have increasingly argued that these events are evidence of deep-seated problems with the governance of our major companies and the need for tighter regulation. General disquiet about the running of big business began to crystallise around the level of compensation being paid to Britain's top executives. In the 1980s, for example, much opprobrium was directed towards the directors of newly privatised utility companies, where, despite little change in the

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I would like to thank two anonymous referees for helpful comments on an earlier version of this papers.

job or the executive, pay levels rose steeply and rapidly. All too often directors appear to have been lavishly rewarded for lacklustre or even poor performance. Faced with increasingly vocal calls for new legislation, the United Kingdom business community responded with alacrity by establishing a series of inquiries chaired by business luminaries. Unsurprisingly these committees came down in favour of strengthened self-regulation and rejected pleas for greater statutory control. Reflecting the fact that directors' pay awards had for many come to symbolise much that was wrong with the management of public companies, several of the detailed recommendations of these committees dealt either directly or indirectly with the setting and disclosure of executive pay.

The purpose of this paper is to investigate the extent to which market forces and internal controls act as limits on the scope for managerial discretion and the award of unjustified remuneration packages to top executives. The reports of the expert panels set up under Cadbury (1992), Greenbury (1995) and Hampel (1998) contained numerous recommendations on best practice in the area of corporate governance and its relationship to top executive pay. If compliance with these guidelines is shown to limit executive rewards, after controlling for measures of performance, then it may suggest that self-generated internal controls are not sufficient to ensure effective governance, and that there is a need for greater external regulation of business. The research findings confirm the important contribution made by corporate performance to the salaries enjoyed by top directors. It is also demonstrated that the relationship between a company's internal corporate structure and the rewards enjoyed by its top executives is more complex. The empirical results lend support to the concerns that lie behind some of the proposals to emerge from various inquiries into the state of corporate governance in Britain but are not supportive of others. Instead of depressing CEO remuneration, the appointment of higher numbers of independent directors to the board is associated with higher levels of CEO remuneration. In contrast, the presence of at least three non-executives in the remuneration does appear to lower CEO remuneration as expected. One of the most interesting findings to emerge from the study is that the mere presence of institutional investors in the remuneration committee does not appear to affect pay, but that strengthening the personal shareholdings of committee members may be associated with an increase in their resolve to restrict unjustified executive pay settlements. Rather than being viewed as substitutes, this study suggests it may be more helpful to think of the market and internal controls as complements in the governance process.

This paper is organised as follows. Section 1 adumbrates the relationship between the market within which a business operates and the scope for managerial discretion. Section 2 explores the potential for internal controls to fill the governance gap created by weaknesses in the external business environment. In section 3, various hypotheses regarding the relationship between compliance with best practice guidelines on internal corporate structures and CEO remuneration are developed. Section 4 specifies the general model, describes the sample, estimation method and reports the results of the empirical analysis. In section 5, the study is concluded.

### **MARKET RESTRICTIONS ON MANAGERIAL BEHAVIOUR**

Since Smith (1776) first drew attention to the "negligence and profusion" that may arise from the separation of ownership and control, organisation theorists such as Berle and Means (1932)

have analysed its implications for the behaviour of managers. Rather than maximising company profits, Hicks (1935) suggested that company officers might prefer to pursue the “quiet life”. Leading exponents of the managerial school of economics such as Baumol (1959), Williamson (1963) and Marris (1964) maintained that managers would maximise an objective function but opted for sales, managerial utility and growth respectively as the likely maximand. One of the key problems with the early empirical work in this area, e.g. Roberts (1956) and Cosh (1975) was that although it established the now familiar link between sales revenue and executive remuneration, it did not enable researchers to fully discriminate between competing models. More recently, Bebchuk and Grinstein (2005) report the continued existence of a strong positive relationship between directors’ pay and the level of and growth in firm size (either assets or sales). Other business theorists rejected the very idea of maximisation. Simon (1955), for example, argued that limits on human rationality and information deficiencies meant that it was more helpful to think of managers as satisficing rather than maximising. Cyert and March (1963) took the view that the goal pursued by management would be the outcome of a compromise between conflicting interest groups, and that organisational change was likely to be characterised by considerable inertia.

Attention gradually turned to a consideration of the extent to which external constraints could limit the scope for management to pursue non-profit maximising strategies. Yarrow (1985) argued that the take-over threat might fail as a result of the high transaction costs associated with take-overs. Even if transaction costs were zero, Grossman and Hart (1980) pointed out that the public good nature of monitoring management together with its costs gives small shareholders a financial incentive to free-ride on each other, with the result that a sub-optimal level of control will take place. When added to the costs of acquiring and interpreting information on management performance it is easy to see how under-performing directors may continue to retain their posts. For Jensen and Ruback (1983) competition for their job from others in the managerial labour market ought to raise the incentive for managers to maximise profits. Yet it has been pointed out that the dismissal of top managers is rare and tends to be associated with legal or ethical violations rather than poor or mediocre performance (Bebchuk and Fried, 2005). Helm (1989) reminds us that manager heterogeneity, information problems, institution-specific skills, and geographical inertia may limit the effectiveness of competition in the market for managerial talent in restraining self-serving managers. Finally, the pivotal role of product market competition in stimulating business efficiency cannot be overstated: Edwards (1977), for example, uncovered evidence that the managers of firms in regulated industries were more likely to aim for utility as opposed to profit maximisation. As a consequence of the problems associated with leaving corporate governance to the market, companies, to varying degrees, have come to rely upon internal instruments of corporate governance.

### **INTERNAL CONTROLS ON MANAGEMENT**

Williamson (1983) argued that where external controls on management are weak, strong internal controls will tend to emerge, i.e. internal and external controls can be thought of as substitutes for each other. Hart (1995) portrays a company’s governance arrangements as the product of a bargaining process involving insiders and outsiders, and reminds us that any third-party ex post intervention may do more harm than good. Hart (1995) also points out that within a competitive

business environment, a firm is likely to have a strong incentive to endeavour to find its own particular value-maximising set of governance arrangements. The idea of an externally imposed “one size fits all” approach to governing firms is anathema to those with faith in the market. In contrast, those who take a less optimistic view of the laissez faire approach to company management such as Kay and Silbertson (1995) contend that neither the market nor the internal control process has prevented the abuse of managerial discretion on the part of self-perpetuating oligarchies. They are particularly scathing of Chief Executive Officer (CEO) pay awards, claiming “the only restraint on executive pay and perks appears to be the modesty of executives themselves, and that is a commodity in increasingly short supply.” (Kay and Silbertson, 1995, p80) It has typically been assumed that executive salaries arise out of a process of arm’s-length contracting in which CEOs attempt to get the best deal for themselves and the board of directors do likewise on behalf of shareholders. Consequently, questions have been raised about the ability of company boards to control top executives.

### **The Board of Directors**

In the United Kingdom, against a historical backdrop of insider dominated and passive boards of directors, organisations such as PRO NED have long campaigned for the buttressing of the contribution of independent or non-executive directors (NEDs) to the running of business. The appointment of strong and genuinely independent directors to the board has been seen as a way of counterbalancing increasingly powerful CEOs and adding shareholder value. However, Dalton et al. (1998) remind us that in addition to their monitoring function, outsiders are often an important source of general and specialist advice. Moreover, it has to be borne in mind that there are many factors that may reduce the ability of independent directors to effectively monitor and influence executive behaviour. Jensen and Ruback (1983), for example, make it clear that less than complete access to information can hinder them in this task. Bruce and Buck (1997) warn us that even with the necessary information non-executives may lack the influence to prevent excessive rewards. There are also likely to be question marks over the willingness of outsiders to take tough decisions on sensitive issues such as the CEO’s salary. Bebchuk and Fried (2005), for instance, highlight the importance of social and psychological factors such as team spirit, friendship and loyalty in undermining the independence of non-executive directors. It is also suggested that the threat of losing the prestige and influence that stems from a seat on the board of a prominent business might also dissuade many outsiders from challenging CEO pay awards (Bebchuck and Fried, 2005). On the other hand, Clark (2005) reminds us that possible damage to a non-executive director’s reputation from becoming drawn into a corporate controversy is likely to create a strong incentive to monitor CEO rewards effectively. Quite how these competing pressures will work themselves out will obviously vary from case to case. The available evidence suggests not only that boards dominated by outsiders are more likely to remove poorly performing executives (Weisbach, 1988), but that they are more likely to look outside the company for replacements (Borokhovich *et al.*, 1996).

Moreover, the monetary, social and psychological conflicts of interest that are alluded to above are likely to be exacerbated by other factors. If, for example, a non-executive is also an adviser of the company on whose board he sits, then he may not want to create difficulties for the CEO for fear of losing profitable contracts. There is also the awkward question of who

monitors the performance of the NEDs themselves, most of whom do not face strong performance-related rewards or penalties. Further, Hart (1995) insists that as most outside directors have little or no financial interest in the company whose board they are members of they have little incentive to monitor its behaviour very closely. Furthermore, if the NED is an active executive at another company he may lack the time and energy to effectively monitor the CEO of another business. There is also the possibility that excessive interference with the running of a business by outsiders might actually be detrimental to the interests of its owners. Despite the putative importance of director independence to business governance, research has largely failed to uncover any convincing evidence of a link between the degree of independence of a firm's board of directors and its financial performance (Dalton *et al.*, 1998). One way of rationalising the absence of any empirical link between a business's governance arrangements and its performance is that firms in competitive markets will be forced to adopt those corporate governance arrangements that best enable them to compete, i.e. they are likely to firm-specific, endogenous internal controls that will not show up as significant explanatory variables in regression analyses of governance and performance (Hart, 1995). Sceptics such as Clark (2005) have questioned whether the cost to companies of compliance with these new externally imposed governance rules is likely to outweigh any benefits. As the remuneration committee is the conduit through which the board influences executive remuneration, any investigation of executive pay requires us to consider this committee in some detail.

### **The Remuneration Committee as an Instrument of Corporate Governance**

While there is a market in executive talent, the salaries of CEOs are determined by committee within the firm. It should also be borne in mind that the function of these committees is not to hold down executive emoluments but to ensure rewards that reflect their contribution to company performance. Nonetheless, difficult decisions have to be made and there is much scope for the award of inappropriate remuneration. To aid their decision making the remuneration committee may use both internal and external advice. Conyon (1997), for example, found that 80% of firms sought advice from outside remuneration consultants. However, the use of outside advice has its own problems. Firstly, Greenbury (1995) alerted us to the possibility of executive directors entering into tacit agreements to bid up each other's wages. Secondly, Hampel (1998) cautions against an over-reliance on remuneration surveys as few companies will want to pay less than the average, with the result that salaries may be ratcheted up without any corresponding increase in performance. Thirdly, despite the obvious potential conflict of interest, Conyon (1997) found CEOs were sometimes involved in the appointment of consultants. Moreover, even when the CEO was not a member of the remuneration committee, Conyon (1997) found that it was not uncommon for the CEO to "sit in" on meetings. Nevertheless, this is perfectly acceptable in some circumstances. Main and Johnston (1993), for example, recognised that the CEO may have to attend meetings of the committee to give advice on the performance of junior executives, but they also stressed that the CEO should not be present when his or her own pay is being discussed.

It is also important to note that the mere presence of outside directors in the remuneration committee is, of course, no guarantee of effective control. Rather, it is the interaction between outside directors and the CEO that is likely to be crucial in this respect. Monks and Minow (1991) argue that the timing of a director's appointment to the remuneration committee can

have an important impact on the power balance between the CEO and other board members. Main *et al.* (1995) discovered that remuneration committees whose chairs have been appointed after the CEO took office have tended to provide more generous rewards. In a later study, Core *et al.* (1999) found CEO pay to be increasing in the number of independent directors appointed by the CEO. The independence and effectiveness of members may also depend on their current work status, i.e. whether they are active externals, active internals, retired externals, or retired internals. O'Reilly *et al.* (1988) find that having a highly paid active external director serving on the remuneration committee raises CEO pay. They attribute this to the framing phenomenon developed by Tversky and Kahneman (1981), i.e. what a NED deems a reasonable salary will depend on what he himself is paid. In other words, CEOs seeking high salaries could do worse than appoint other highly paid executive directors to the compensation committee. Perhaps nothing better provides an incentive to monitor management than investing directly in a company's equity. Therefore, it is interesting to note that Cyert *et al.* (2002) find evidence that the stronger the ownership stake of remuneration committee members the lower is the level of CEO pay. In recent years the role of institutional shareholders has come to the fore in the corporate governance debate, and it is to a consideration of this phenomenon that we now turn.

### **Institutional Investors**

Even though there has been a rapid increase in the number of small shareholders in Britain, financial institutions remain the most important investors in company equity. Short and Keasey (1997), for example, found that 62% of the ordinary shares in Britain's leading companies were owned by large financial institutions in 1992, and that these holdings accounted for a high proportion of the value of their investment portfolios. Therefore, it has been argued that institutional investors ought to have a strong incentive to monitor executive decisions (Demsetz, 1983). Commentators such as Charkham (1989) have urged institutional investors to take a much more proactive role in the running of the companies in which they invest, arguing that they should make greater use of their voting rights, and ensure proper checks and balances are in place to prevent governance failures. However, although institutional investors may be uniquely positioned to moderate management excess, Hutton (1995) claims that, "Pension funds and insurance companies have become classic absentee landlords, exerting power without responsibility." In contrast, others, such as Drucker (1976), contend that, "The pension funds are not "owners", they are investors. If they do not like a company or its management, their duty is to sell the stock". Hirschmann (1970, p30) described the responses open to organisational participants when unhappy with a company's performance, concluding that broadly they could opt for either "exit" or "voice". Exit involves the organisational member terminating his relationship with the company. Voice, on the other hand, refers to "any attempt to change rather than escape from the objectionable state of affairs". Short and Keasey (1997) argue that easy access to liquid stock markets means exit costs are likely to be low in comparison with the burden of trying to organise collective action, and that as these institutions typically hold only 2-3% of the total share capital of any one firm, they are unlikely to have a strong incentive to rein in management. The conclusion, therefore, of Black and Coffee (1994) that, "for most British institutions, activism is crisis driven" should come as no surprise.

Moreover, the empirical evidence on the link between institutional investment and executive pay is inconclusive: Bilimoria (1992) found a positive relationship, Mangel and Singh (1993) a

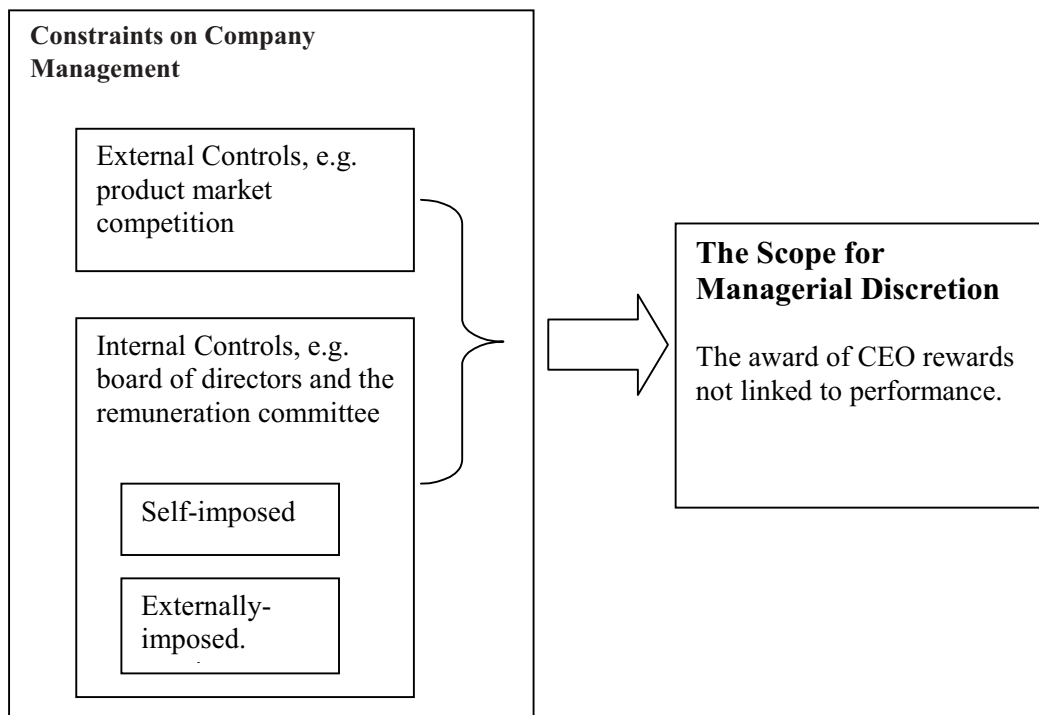
negative one, and Conyon and Leech (1994) found none at all. Nevertheless, there are signs that the institutions intend taking a stronger line on executive pay. Hartzell and Starks (2003), for example, present evidence that executive rewards tend to be lower and more performance-sensitive in companies with more concentrated institutional ownership. More generally, Leech and Leahy (1991) present evidence that suggests large shareholders through their governance activities do enhance a company's overall performance.

**MODELLING CEO REMUNERATION AND DATA DESCRIPTION**

Figure 1 illustrates how external competition and internal managerial controls might be expected to come together to determine the scope for managerial discretion and executive salaries. It is important to note that all internal managerial controls are self-imposed in the sense that there is no legally binding obligation on a company to change its existing arrangements in order to adhere to the prescriptions of external experts such as Greenbury (1995). However, these codes of practice do provide a benchmark against which a firm's internal corporate structures can be compared.

Furthermore, externally generated guidelines sometimes take the form of precise rules regarding what constitutes best practice, but, on other occasions, they are expressed as broad aspirations. It is expected that just as some firms will strictly comply with all of the guidelines,

**Figure 1: Internal and External Controls on the Scope for Managerial Discretion and the Determination of Chief Executive Officer (CEO) Rewards**





others will opt for varying degrees of partial compliance. Yet just as non-compliance is not necessarily evidence of poor governance, complete compliance may not be sufficient to ensure effective governance. Indeed, a company may reasonably decide that its best governance structure differs from that prescribed by the experts. Nonetheless, if compliance with these codes of practice helps explain the variation in executive remuneration, after controlling for measures of business performance, then this may suggest that internally generated committees are not sufficient to ensure effective governance and that external regulation has an important role to play in bolstering corporate governance.

### **Internal Controls on Management and Executive Remuneration**

This section sets out the relevant governance recommendations and their predicted relationship to CEO remuneration.

#### ***The Board of Directors***

With respect to the board of directors, the main thrust of the recommendation has been to increase the number and quality of outside directors. To this end, Cadbury (1992, p. 21) recommends that “all boards will require a minimum of three non-executive directors”, and that the roles of CEO and chair be kept separate to avoid too much power being vested in one individual. Hampel (1998) contends that to be effective one third of the board must be non-executive directors.

**Hypothesis 1:** *Ceteris paribus*, CEO remuneration will be higher in businesses that fail to comply with these guidelines.

To take account of possible vintage or tenure effects, Hampel (1998) also argues that “There should be no fixed rules for the length of service or age of non-executive directors: but there is a risk of their becoming less efficient and objective with length of service and advancing age”.

**Hypothesis 2:** *Ceteris paribus*, CEO remuneration will be negatively related to the tenure of non-executive directors.

#### ***The Remuneration Committee and Executive Pay***

Given the pivotal role of the remuneration committee, Cadbury (1992) warns against the CEO being a member of the committee that decides his or her pay.

**Hypothesis 3:** *Ceteris paribus*, CEO remuneration will be higher if the CEO is a member of the remuneration committee that sets his or her own pay.

PRO NED (1992) recommended that: *only* NEDs should chair and sit in on committee meetings. Greenbury (1995) suggests that: the “Remuneration Committees should consist *exclusively* of non-executive directors”; there should be “at least three” non-executives in the committee, and that two of them should be independent in the sense that “they should be free from any business or other relationship which could materially interfere with the exercise of their independent judgement”; there should be “no potential conflicts of interest arising from cross-directorships”; and, finally, a non-executive chairman who is actively involved in the

running of the company should not also chair the committee as such a director may not be sufficiently independent.

**Hypothesis 4:** *Ceteris paribus*, compliance with the above recommendations is likely to be associated with stronger governance and lower CEO remuneration.

The reasons for believing that institutional investors might be uniquely placed to control excessive executive emoluments were examined in section 2.3 above, and so we might anticipate their presence in the remuneration committee to be associated with a lower level of pay.

**Hypothesis 5:** *Ceteris paribus*, the presence of institutional investors in the remuneration committee is likely to be associated with stronger governance and lower executive pay awards.

PRO NED (1992), among others, have cautioned against appointing company advisers financially dependent on fees to the remuneration committee as this is likely to be associated with a conflict of interest.

**Hypothesis 6:** *Ceteris paribus*, the presence of advisers in the remuneration committee is likely to be associated with higher levels of CEO remuneration.

The ultimate in incentive alignment is ownership itself, and the greater the total number of shares held by committee members, the greater the incentive to prevent top executives misappropriating company assets in the form of unjustified payments.

**Hypothesis 7:** *Ceteris paribus*, the higher the value of share ownership among remuneration committee members the lower the level of CEO remuneration.

#### ***The Behavioural Dynamic of Remuneration Committee***

Independent directors newly appointed to the remuneration committee might be reluctant to enter into disputes with well-established executives. Alternatively, short-tenure non-executives having invested less in relationship and firm-specific human capital might have less to lose and so may be more willing to voice their concerns. Similarly, remuneration committee members appointed before the CEO may be less easily influenced and more willing to restrain pay awards. On the other hand, they may be reluctant to get into clashes with the new CEO. Analogous arguments can be made for committee members appointed before and after the CEO takes up his or her post as opposed to joining the company.

**Hypothesis 8:** *Ceteris paribus*, the relationship between the timing of appointments to the remuneration committee and CEO remuneration is a priori unclear.

Previous research suggests that the effectiveness of non-executive members of the remuneration committee may also depend on whether they are active or retired, internal or external. A committee dominated by highly paid outsiders might be less likely to balk at a high pay. However, the fact that external directors, whether active or not, are not employed in an executive capacity by the company on whose board they sit means that they are likely to be less threatened by conflict. Thus the sign of any relationship between the two could go either way.

**Hypothesis 9:** *Ceteris paribus*, the relationship between the current work status its membership and CEO remuneration is a priori unclear.

### External Competition and Executive Remuneration

The relationship between the external market and executive remuneration is discussed in section 1 of the paper. Turnover, profitability and the industrial sector within which a company operates will, in part, capture the competitive performance of the top executive and the degree of competition that the business faces in its product and factor markets.

**Hypothesis 10:** *Ceteris paribus*, sales and profits will vary positively with CEO remuneration will vary positively with sales and profits.

**Hypothesis 11:** *Ceteris paribus*, it is expected that salaries will be lower in those industrial sectors where competition is least intense, e.g. the utilities sector.

## AN EMPIRICAL EVIDENCE OF CEO REMUNERATION IN THE UNITED KINGDOM

### Model Specification and Data Description

The general form of the model to be estimated is described in equation (1) below.

$$CEOSalary = f(\text{Scope for Managerial Discretion}, \text{Firm Performance}) \quad (1)$$

In equation (1), the dependent variable is the natural logarithm of the salary of the highest paid director. It is assumed that the scope for managerial discretion will itself be a function of internal controls and external competition. In common with much of the previous research in this area, a reduced-form, log-linear specification of this general model is estimated.<sup>1</sup> Variable definitions, the predicted sign of the relationship between the explanatory variables and the dependent variable, and basic descriptive statistics are presented in Table 1. In Table 2, the relationship between the composition of the remuneration committee and CEO remuneration is explored. The model parameters are estimated by ordinary least squares using version 7 of the Limdep software, and the parameter estimates are presented in Table 3 below.

The sample used in our empirical work is drawn from Britain's 50,000 largest companies (Key British Enterprises, 1998). The top 500 companies (ranked by sales) were selected, and for each of these companies detailed information on business performance (e.g. sales and profits), corporate governance and directors' pay for the accounting period 1995/96 was gathered from the Price Waterhouse corporate register (1997). Given the main purpose of our study is executive pay, it is fortunate that the Companies Act of 1985 requires companies to provide details of the chairman's and, if he or she is not the chairman, the highest paid director's emoluments, excluding pension contributions. The final data set contained fairly complete information on some 220 companies.<sup>2</sup>

### Descriptive Statistics

Our results confirm that there has been widespread adoption of the remuneration committee as an instrument of corporate governance. The vast majority of companies in our sample (95%) had established remuneration committees, ranging in size from one to eight members, with the modal size being three and the mean four. In terms of composition, the dominant group represented within these committees were retired external executives, followed by active external

**Table 1**  
**Variable Names, Definition, Predicted Sign and Mean Value<sup>3</sup>**

| <i>Variable</i> | <i>Definition</i>   | <i>Predicted Sign</i> | <i>Mean</i> |
|-----------------|---|-----------------------|-------------|
| TURN            | Company turnover  | +                     | £2,893m     |
| ROT             | Pre-tax profits as a percentage of turnover   | +                     | 8.36%       |
| MAN             | =1 if company operates in the General Manufacturers sector, 0 otherwise   | ?                     | 0.38        |
| SERV            | =1 if company operates in the Services sector, 0 otherwise  | ?                     | 0.35        |
| CONS            | =1 if company operates in the General Manufacturers sector, 0 otherwise   | ?                     | 0.14        |
| EXTR            | =1 if company operates in the Mineral Extraction sector, 0 otherwise  | ?                     | 0.03        |
| NEDS            | Number of non-executive directors in the board.   | -                     | 5           |
| SIZE            | Number of members of the Remuneration Committee.  | -                     | 4           |
| BOTH            | =1 if the Highest Paid Director is both the Chairman and CEO, 0 otherwise.  | +                     | 0.09        |
| CHAIR           | =1 if the Highest Paid Director is the Chairman only, 0 otherwise.  | ?                     | 0.21        |
| EXCH            | =1 if Executive Chair is a member of the Remuneration Committee, 0 otherwise  | ?                     | 0.04        |
| DEPCH           | =1 if the Deputy Chair is a member of the Remuneration Committee, 0 otherwise.  | ?                     | 0.15        |
| THREE           | =1 if there are <i>at least</i> three non-executive directors in the board, 0 otherwise   | -                     | 0.88        |
| ON              | =1 if the Highest Paid Director is a member of the Remuneration Committee, 0 otherwise.   | +                     | 0.08        |
| C1              | =1 if the Highest Paid Director is both CEO and Chair and the NEXCH is a member of the remuneration committee, 0 otherwise.                         | ?                     | 0.03        |
| ALLNED          | =1 if the Remuneration Committee is made up <i>solely</i> of non-executives, 0 otherwise.   | -                     | 0.94        |
| 3NEDS           | =1 if there are <i>at least</i> three non-executive directors in the Remuneration Committee, 0 otherwise.   | -                     | 0.83        |
| NEXCH           | =1 if the Non-Executive Chair is a member of the remuneration committee, 0 otherwise.   | ?                     | 0.031       |
| THIRD           | =1 if <i>at least one third</i> of the board is made up of non-executive directors, 0 otherwise.  | -                     | 0.93        |
| RCAGE           | Age of the Remuneration Committee members.  | -                     | 59yrs       |
| NEDTEN          | Tenure of Non-Executive Directors in the Remuneration Committee.  | -                     | 4yrs        |
| PRECOY          | The number of Remuneration Committee members appointed BEFORE the Highest Paid Director joined the company.   | -                     | 1.22        |
| POSTCOY         | The number of Remuneration Committee members appointed AFTER the Highest Paid Director joined the company.  | +                     | 2.47        |
| PREJOB          | Number of Remuneration Committee members who joined the RC BEFORE the Highest Paid Director took up his post.                                       | -                     | 1.98        |
| POSTJOB         | Number of RC members who joined the Remuneration Committee AFTER the Highest Paid Director took up his post.  | +                     | 1.63        |
| ACEXT           | The number of active (executive) external directors who are members of the Remuneration Committee.  | ?                     | 1.54        |
| INEXT           | The number of inactive (retired) external directors who are members of the Remuneration Committee.  | +                     | 1.84        |
| ININT           | The number of inactive (retired) internal directors who are members of the Remuneration Committee.  | +                     | 0.17        |
| SHARES          | Total number of shares held by members of the Remuneration Committee.   | -                     | 641,500     |
| ADVISERS        | = 1 if a representative of <i>at least one</i> of the company's advisers (e.g. accountants) is a member of the remuneration committee, 0 otherwise. | +                     | 0.05        |
| INST            | =1 if <i>at least one</i> director of a financial institution (e.g. merchant bankers) is a member of the Remuneration Committee, 0 otherwise.       | -                     | 0.06        |

directors. The mean salary of CEOs in our sample was £527,797, ranging from a low of £127,800 to a high of £6,512,000. Table 2 shows that average remuneration was highest when there were four active external directors (£913,461). It is interesting to note that the lowest average level of pay occurred when there was one active internal director in the remuneration committee (£404,641). On the basis of these simple statistics, the presence of external directors (active or inactive) seems to be associated with higher levels of CEO remuneration.

**Table 2**  
**CEO Remuneration and the Composition of the Remuneration Committee**  
**(Number of Cases in Brackets)**

|              | <i>Active Externals<sup>4</sup></i> | <i>Inactive Externals<sup>5</sup></i> | <i>Active Internals<sup>6</sup></i> | <i>Inactive Internals<sup>7</sup></i> |
|--------------|-------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|
| None         | £442,743 (39)                       | £557,374 (22)                         | £543,245 (192)                      | £556,787 (172)                        |
| One          | £486,709 (70)                       | £458,685 (65)                         | £404,641 (13)                       | £415,086 (31)                         |
| Two          | £562,858 (50)                       | £530,944 (63)                         | -                                   | £464,145 (2)                          |
| Three        | £599,372 (38)                       | £659,140 (39)                         | -                                   | -                                     |
| Four or more | £913,461 (8)                        | £520,665 (16)                         | -                                   | -                                     |

In 8% of our sample the highest paid director was also a member of the remuneration committee, but, despite the obvious potential conflict of interest, the average salary was a relatively modest £520,555, i.e. slightly less than the average for the sample as whole. Another possible source of concern stemmed from the fact that in 9% of our sample the CEO also held the post of chairman. However, the average pay for CEOs who were also chairmen was £515,118, compared to £522,145 for CEOs and £545,503 for chairmen. With regard to the industrial sector within which the business operates, the average CEO salary was highest in the services sector at £644,809, and lowest in manufacturing at £423,234. Typically there was one non-executive for every two executives on the board, with non-executives making up at least one-third of the board of directors in 93% of the sample. It was typically smaller firms (in terms of sales) that failed to meet this rule but salaries also tended to be lower in these cases. In companies with at least three NEDs on the board, the typical salary was notably lower at £388,682 compared to £545,187 when this was not the case. The average tenure of non-executives members of the remuneration committee was four years, ranging from zero to a massive twenty-seven completed years. Where there were at least three non-executives in the remuneration committee (80% compliance) average salaries were £547,004 compared to £465,657 for two or less. We now go on to examine whether any of these initial statistical impressions hold up in a multivariate context.

### Regression Analysis

Our parameter estimates are presented in Table 3. Column one lists the explanatory variables, details of which can be found in Table 1. In terms of their explanatory power all models perform reasonably well, explaining some 30% of the variation in highest paid directors' salaries.<sup>8</sup> Column three lists the results of the initial model specification. Both turnover (TURN) and return on turnover (ROT) are correctly signed, similar in size to other studies, significant, and very robust to model specification. Top executives working in services (SERV), consumer goods (CONS), and manufacturing (MAN) enjoyed significantly higher salaries than those working in the utilities

sector. With respect to corporate governance, where the highest paid director was both chairman and CEO (BOTH), there was no significant difference in salary. Neither the failure to have at least three non-executive directors (THREE) on the board, nor a remuneration committee made up entirely of non-executive directors (ALLNED) had any discernable impact on CEO remuneration. However, it is somewhat surprising that higher numbers of non-executives on the board of directors is associated with significantly higher pay awards, even after controlling for measures of business size (TURN) and profitability (ROT).

Having an executive (EXCH) or deputy chair (DEPCH) serving on the remuneration committee made no significant difference to CEO remuneration. Similarly, if the CEO was a member of the committee (ON), then his or her salary was not materially enhanced. While the

**Table 3**  
Regression Analysis of Corporate Governance and Executive Remuneration  
(Dependent Variable = ln CEO Remuneration)<sup>9 10</sup>

| <i>Explanatory Variable</i> | <i>Specification 1</i> | <i>Specification 2</i> | <i>Specification 3</i> |
|-----------------------------|------------------------|------------------------|------------------------|
| CONSTANT                    | 11.118(16.632)         | 11.337(16.652)         | 11.395(16.332)         |
| TURN                        | 0.00003(3.977)*        | 0.000028(3.372)*       | 0.000028(3.152)*       |
| ROT                         | 0.0100(2.386)*         | 0.0102(2.436)*         | 0.0100(2.352)*         |
| MAN                         | 0.2980(2.181)*         | 0.2855(2.091)*         | 0.2651(1.908)*         |
| SERV                        | 0.5010(3.623)*         | 0.5249(3.786)*         | 0.5254(3.742)*         |
| CONS                        | 0.2832(1.871)*         | 0.2187(1.417)          | 0.2091(1.318)          |
| EXTR                        | 0.0516(0.228)          | 0.1145(0.487)          | 0.1335(0.541)          |
| NEDS                        | 0.0806(2.870)*         | 0.0760(2.622)*         | 0.0742(2.439)*         |
| SIZE                        | 0.0599(1.469)          | -0.1316(0.970)         | -0.1300(0.932)         |
| BOTH                        | -0.1338(0.787)         | -0.2343(1.369)         | -0.2558(1.410)         |
| CHAIR                       | 0.1461(1.285)          | 0.1006(0.830)          | 0.0908(0.721)          |
| EXCH                        | 0.3380(0.883)          | 0.4436(1.160)          | 0.4477(1.154)          |
| DEPCH                       | -0.0406(0.383)         | -0.0488(0.457)         | -0.0429(0.396)         |
| THREE                       | 0.2803(1.328)          | 0.3103(1.481)          | 0.3375(1.533)          |
| ON                          | 0.1440(0.964)          | 0.3261(1.646)**        | 0.3275(1.617)**        |
| C1                          | 0.541(1.877)**         | 0.6603(2.240)*         | 0.6917(2.268)*         |
| ALLNED                      | 0.2980(0.833)          | 0.0273(0.074)          | 0.0286(0.076)          |
| 3NEDS                       | -0.1800(1.225)         | -0.2600(1.750)**       | -0.2894(1.903)**       |
| NEXCH                       | 0.0173(0.181)          | 0.0191(0.198)          | 0.0073(0.074)          |
| THIRD                       | -0.0121(0.072)         | -0.0618(0.364)         | -0.0782(0.448)         |
| RCAGE                       | 0.0041(0.515)          | 0.0035(0.426)          | -0.0040(0.482)         |
| NEDTEN                      | 0.0023(0.180)          | 0.0096(0.730)          | 0.0120(0.891)          |
| PRECOY                      | -                      | 0.0377(0.749)          | 0.0424(0.825)          |
| POSTCOY                     | -                      | 0.1050(2.057)*         | 0.1044(2.008)*         |
| PREJOB                      | -                      | -0.0912(0.897)         | -0.0899(0.831)         |
| POSTJOB                     | -                      | -0.0696(0.666)         | -0.0726(0.644)         |
| ACEXT                       | -                      | 0.2396(1.858)**        | 0.2473(1.890)**        |
| INEXT                       | -                      | 0.2127(1.597)          | 0.2204(1.621)**        |
| ININT                       | -                      | 0.1502(0.954)          | 0.1578(0.988)          |
| SHARES                      | -                      | -0.00000003(1.841)**   | -0.00000003(1.684)**   |
| ADVISERS                    | -                      | -                      | 0.6155(1.233)          |
| INST                        | -                      | -                      | 0.2642(0.893)          |
| No.ofobs.                   | 187                    | 186                    | 182                    |
| Adj R-sq.                   | 0.2916                 | 0.3237                 | 0.3160                 |

size of the remuneration committee (SIZE) itself also made no difference to pay, the interaction term (C1), which picks up when a highest paid director is both CEO and chair, and a non-executive chair is a member of the remuneration committee, enters positively and significantly. It is also interesting to note that the average age of the remuneration committee members (RCAGE) and the average tenure of non-executive remuneration committee members (NEDTEN) did not appear to significantly influence the level of pay. Fears that a remuneration committee made up of older, longer tenure non-executive directors might fail to control top executives do not appear to be borne out by this result.

The third column of Table 3 contains the estimates of a model specification that attempts to capture the impact of both the timing of the appointment of remuneration committee members and their career background on the committee's ability to control CEO rewards. In terms of overall explanatory power, this specification is the best of the three models we estimate. Though most parameter estimates change little as a result of the new model specification, ON, which picks up the presence of the highest paid director serving on the committee, becomes noticeably stronger and achieves statistical significance, albeit at the 10% level. Indeed, if a CEO is on the remuneration committee this is worth 38.5% to him or her, which amounts to some £200,000 when evaluated at the mean salary of £527,797.<sup>11</sup> 3NEDS also becomes significant, and implies that having at least three non-executive directors as members of the remuneration committee is associated with lower levels of CEO remuneration. In contrast, higher numbers of appointments to the committee after the CEO has joined the company (POSTCOY) appear to lead to higher levels of executive reward. Moreover, the greater the number of active external directors (ACEXT), the greater is reward of the CEO, possibly reflecting some sort of "framing" effect. It is also interesting to note that the total number of shares held by members of the committee (SHARES) has a small but significant depressing effect on the level of CEO remuneration. This may reflect the controlling influence of long-standing directors with major shareholdings on executive rewards. In the final model specification, an attempt is made to detect the impact on CEO pay of having company advisers (ADVISERS) and representatives of institutional investors serving on the committee. On this occasion, there is no obvious significant impact on the level of executive pay. Perhaps this should come as no surprise as the representatives of institutional investors are not there to increase or lower executive rewards but to ensure they are fair and efficient.

In conclusion, although the market does appear to determine executive emoluments, it is by no means the only important factor. Internal instruments of control also add to the explanatory power of our model, sometimes in counter-intuitive ways. Moreover, it is worth noting that the majority of variation in executive reward remains unexplained by the variables that are examined above.

### **CONCLUSIONS AND POLICY IMPLICATIONS**

The central hypothesis of this paper is that the level of CEO remuneration is likely to reflect the interaction of market forces and the workings of various internal control mechanisms. The empirical evidence demonstrates not only that top executive pay is very firmly linked to profitability, sales revenue and industrial sector, but also that the size and sign of these relationships is consistent with both our expectations and the results of previous studies. However,

the contribution of internal controls to the determination of CEO salaries is not as straightforward. Though some elements of a company's internal controls have little or no discernable impact on executive salaries, others appear to have a significant role to play. After controlling for profits and turnover, higher numbers of independent directors were associated with higher levels of CEO remuneration, contrary to expectations. In contrast, having at least three non-executive directors in the remuneration committee was associated with lower levels of CEO pay as predicted. Furthermore, though it is suggested in the literature that institutional investors might be expected to have both the incentive and the expertise to control managerial behaviour, the presence of institutional investors in the remuneration committee does not appear to have an impact on executive salaries. In contrast, it is interesting to note that those non-executive directors with a personal shareholding in the company appear to be more willing to take measures to restrict top directors' pay awards.

### NOTES

1. Though not reported, the exploratory research for this paper did include some experimentation with alternative functional forms. However, these were not found to improve the explanatory power of the model.
2. While the data set is not current, the time period is selected as it is likely to capture the consequences of some of the key governance recommendations in the area of executive remuneration, such as those proposed by Greenbury (1995).
3. Presented in the same order as they appear in Table 3.
4. Active external directors are directors who are employed in an executive capacity at another company.
5. Inactive external directors are directors who were previously employed in an executive capacity at another company but who are now retired.
6. Active internal directors are executive directors within the company being examined.
7. Inactive internal directors are directors previously employed within the company being examined but now retired.
8. Greene (1993) states that "in cross-sections an R-squared of 0.5 is relatively high" and that "coefficients of determination in cross-sections of individual data as high as 0.2 are sometimes noteworthy". Moreover, these regressions compare well with other studies in the same area. Main (1992), for example, using UK data, regresses executive pay on a set of explanatory variables and achieves an R-squared between 0.21 and 0.24.
9. Refer to Table 1 for variable definition and mean value.
10. \*Significant at the 5% level. \*\* Significant at the 10% level.
11. The percentage effect of a dummy variable with coefficient  $\beta$  is  $\exp(\beta)-1$ .

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