

HOW NOT TO PAY YOUR OUTSIDE DIRECTORS:

Determinants of non-executive director remuneration in the UK

ABSTRACT

Using an agency framework, this paper tests the proposition that the remuneration of outside or non-executive directors at the UK's largest firms is positively determined by the firm's performance and time contributed by non-executive directors. The results show that non-executive director remuneration is not related to corporate or market performance but it is driven by firm market size and CEO remuneration. These findings suggest that non-executive directors' key financial incentives are to encourage acquisitions and increase CEO pay. The fixed fees received by the UK's non-executive directors seem to circumvent the agency framework that supports the role of non-executive directors and may suggest that non-executive directors are more the agents of management than acting on behalf of shareholders.

1.0.0. Introduction

Explaining the rationale for non-executive director remuneration, the 2005 Annual Report for HSBC Holdings PLC² states

"Having considered comprehensive data it is clear that the current [non-executive] Director's fee is below the level paid in other major UK companies. The approval of shareholders will therefore be sought ...for an increase to £65,000 per annum [+18% over the prior year]."³

Whilst such an increase may be appropriate for HSBC's non-executive directors, the sole explanation that other UK companies pay more seems wholly lacking in explaining what HSBC's non-executive directors have incrementally added to the group to justify their increased cost to the firm. As a policy, it should be frightening for shareholders to imagine that any company increases the pay of any of its human resources based solely on the actions of 'other major UK companies'. I will later refer to this type of remuneration increase as the 'bureaucracy effect'; I use 'bureaucracy' intentionally for its negative connotations of action or inaction occurring for its own purpose.⁴ Cadbury (1992) instructed that non-executive directors be paid fixed fees and Greenbury (1995) specifically instructed that non-executive directors should be paid for their "time" both firmly supporting the concept that non-executive directors remuneration may not be related to corporate performance factors. The purpose of this paper is to determine the factors that influence non-executive

¹ The author thanks his supervisor and friend, Professor Meziane Lasfer, Cass Business School, for his guidance and comments.

² HSBC is one of the world's 3 largest banks and is headquartered and listed in London.

³ HSBC 2005 annual report, p. 218.

⁴ In contrast to the annual fee, HSBC details the fees it pays to its non-executive directors to act as committee chairmen and committee members providing explanations for these fees with descriptions of the number of committee meetings and, more interestingly, the preparation time required.

director remuneration. The academic literature on board remuneration is mainly concerned with the link between CEO remuneration and performance (see Jensen, Murphy and Wruck (2004) for a review) and, in general, the evidence is at best mixed and at worst suggestive of the failure of the agency framework, the board (Bebchuk and Fried (2004)) and modern corporate governance. Surprisingly, little research has focused on the majority of board members, non-executive directors, who corporate governance grants the role of determining CEO remuneration. Recent US research on non-executive director remuneration has also provided controversial results (Ryan and Wiggans (2004) and Yermack (2004)), but the form of such remuneration in the US (largely share and incentive based) is vastly different than in the UK and does not enable comparison. Very little research has been done on non-executive director remuneration in the United Kingdom; a recent study by Stathopoulos, Espenlaub and Walker (2003) examined incentive remuneration for non-executive directors at selected established and new economy firms, however, perhaps most revealing of research available is Main, Bruce and Buck's (1996) study of board remuneration of FTSE 100 firms during the 1980s which lacks any discussion of non-executive remuneration. Sir Richard Greenbury's 1995 extensive and prescriptive report on board remuneration adopted by the London Stock Exchange, "Directors Remuneration", devotes minimum attention to non-executive remuneration and makes no mention of any research supporting its recommendations. It is a notable theme for this paper that Greenbury noted that UK non-executive directors should be remunerated for their "time" whilst the equivalent US National Association of Corporate Directors (1995) commission report noted that US non-executive directors should be remunerated for their "value".

To my knowledge, no recent study in the US or the UK has focused on the remuneration determinants of non-executive directors. I have not found literature discussing historic remuneration of UK non-executive directors prior to the 1990s and suspect that this is due to their minor presence prior to Cadbury (recall Cadbury's call for a minimum of three non-executive directors in 1992).

The purpose of remuneration is to either attract to (motivate) or reward for a task. Candidates may be attracted to non-executive directors positions (and any other type of employment) for other than pecuniary reasons, however, there are no large listed firms in the UK that do not provide pecuniary remuneration for non-executive directors strongly supporting the fact that pecuniary remuneration is an essential remunerative factor.⁵

Remuneration of non-executive directors is dependent on the role the non-executive directors' play. The debate on the role of the non-executive director spans much of financial theory but inevitably comes within three spectra: (1) acting on behalf of shareholders, (2) acting on behalf of stakeholders or (3) acting on behalf of management; though (1) and (2) may not be mutually exclusive. The Combined Code on Corporate Governance (2003) states: "The board's role is to provide entrepreneurial leadership within a framework of prudent and effective controls" with non-executive directors specifically instructed to "...challenge and help develop proposals on strategyscrutinise the performance of management....satisfy [themselves on] the financial controls and systems of risk management...[and that they] are responsible for appropriate levels of (executive) remuneration...." One can wonder if the order of statement prioritises each

⁵ Lorsch and MacIver (1989) provide substantial anecdotal evidence of US CEOs finding non-executive director positions attractive educational experiences among other non-pecuniary rewards.

activity, however, I note that whilst the monitoring efforts of non-executive directors require the nebulous and hard to measure factors of scrutiny and satisfaction, to develop strategy and to be responsible for remuneration provide clearly active and observable events. Agency theory suggests a more limited active role in developing business strategy, but perhaps places a greater emphasis on controlling management through dividend policy and interest alignment.

The motivation for this research is to verify the alignment of non-executive director remuneration with the shareholder interests espoused in the Combined Code and agency theory. In particular, I test the hypothesis that non-executive directors' remuneration is influenced by firm specific characteristics which reflect the duties undertaken by non-executive directors reflected by size, growth prospects, performance, financial stress, market performance, corporate governance characteristics, executive remuneration, and demographics.

Role of Non-Executive Directors

The agency framework, suggests that non-executive directors act as monitors, controllers and advisors of management on behalf of shareholders. However, PLCs' unitary boards of directors provide a number of structural challenges or conflicts for non-executive directors to earn their keep as monitors, controllers and advisors. Their tacit support from the CEO, implied self-selection, implied indeterminable term of appointment, and implied self determination of workload and remuneration do not suggest that the non-executive directors' role is acting as an agent for investors (Zajac and Westphal (1996), Lorsch and MacIver (1989), Shivdasani and Yermack (1999), Kaufman et al. (2005), Higgs (2003)); though, non-executive directors may certainly demonstrate stewardship by acting in a fiduciary capacity⁶ for shareholders or the corporation and influencing board decisions (Landier, Sraer, and Thesmar (2005) and Richardson, Tuna, and Wysocki (2003)). Further challenging the agency framework are non-public board sessions with a business logic and desire for boards to convey public agreement which may overemphasize collegiality, dissuade constructive criticism efforts, and result in the avoidance of

Historical & Cultural Precedent (UK vs. USA Comparison)

Today's discussion of global competitiveness is mostly viewed in the context of the developing world 'catching up' with the developed world, however, in the early 1990s many UK and US (see Porter (1992)) commentators saw their corporate systems as the causes of economic decline. ^A (see endnote A).

I suggest that historical and cultural biases have influenced non-executive director remuneration similar to that of economic and financial factors and for readers outside the UK I note certain key factors occurring at the beginning of the UK's modern corporate governance efforts.

In the UK, the scandals at Polly Peck (fraud) and British & Commonwealth Holdings (poor due diligence) in 1990 lead to the call for financial reform at the board level, and the subsequent scandals of Maxwell Communications (fraud) and Bank of Credit and Commerce International (fraud) expanded attention to the role of modern boards of directors. Notably, while the first two scandals damaged institutional and individual market participants, the latter two scandals most severely wounded employee pensioners and small depositors who viewed corporate governance, structural, legal, and auditing elements all at fault. Thus, I suggest that in the UK, the force for change at boards of directors was more of a reaction to fraud and began with government, financial services providers (particularly the accounting profession), and to a lesser degree firms themselves (perhaps seeking to avoid government regulation). These beginnings have strongly influenced the evolution of non-executive director remuneration. By contrast, the pre-2000 US force for change was more related to performance. ^{B, 21}

⁶ In a caution reminding non-executive directors of the "fiduciary duty of Directors" regarding the pitfalls of excess remuneration for senior executives, Greenbury noted that "[excess pay] can spread through normal differentials to other levels in the company, thus, increasing the cost base and impairing the company's ability to compete. It can cause resentment among staff and damage the company's reputation."

facing managerial problems. Potentially litigious shareholders and claimants, as in Equitable Life, may stimulate greater monitoring and control efforts but may also discourage any advisory efforts; though perhaps the greatest challenge to non-executive directors exercising their roles may be the simple fact that strong chairman and CEOs, by definition, control board meeting discussion and information flows to non-executive directors (see Jensen (1993)). Undoubtedly, to overcome these structural impediments, non-executive directors must have some motivation to exercise their monitoring and advisory roles. US and UK institutional objectives now agree on increased focus on non-executive directors skills but differentiate the role and motivations with the US focused on financial alignment for non-executive directors with shareholders while UK institutional objectives believe non-executive directors should not have substantial investment in the firm or be substantially aligned with shareholders (Higgs (2003)). Highlighting the need to focus on non-executive director motivation, Lipton and Lorsch (1992) noted that US non-executive directors often had confused or varied understanding of their accountabilities which limited their effectiveness; and Jensen (1993) observed that US boards [of the early 1990s] might have been motivated by avoiding legal liabilities, lawsuits and adverse publicity which might have been in shareholders' interests but seem unlikely as motivators of increased corporate efficiency and growth.

Non-Executive Director Responsibility

The Combined Code notes the role of the board and non-executive directors is "...to provide entrepreneurial leadership to the firm" but its pages almost exclusively focus on what are viewed as monitoring or fiduciary responsibilities. Legal literature, from Berle and Means (1932), notes the overwhelming legal precedent for the fiduciary role of non-executive directors. More recently, Johnson and Millon (2004) noted that under US and English legal precedents and law, the fiduciary duties of directors (non-executives) and officers (executives) are the same⁷ while in the US much fiduciary legal focus has been on the board of directors⁸ as opposed to

1995

In 1995, the Greenbury Report^C on board of directors remuneration was published "...in response to public and shareholder concerns about Directors' remuneration". Also in 1995 in the US, the National Association of Corporate Directors published its Report of the NACD Blue Ribbon Commission on [non-executive] Director Compensation^D. In the US, experimentation on non-executive directors' remuneration was rife at this time (Hempel & Fay (1994)) but in the UK, only three years earlier, Cadbury had called for non-executive directors to receive only fixed cash payments^E.

Comparing Greenbury and the NACD Report ('NACD') provides not only a basis for understanding non-executive director remuneration differences but much of the cultural biases underlying these *often mistakenly perceived similar Anglo-Saxon environments* – they are not the same for non-executive remuneration.^F

Greenbury provides extensive detailed recommendations or instructions to boards (and HM Government on taxation policy) and extensive procedural and descriptive detail for remuneration committees' efforts and reporting.^G Specifically, Greenbury notes that non-executive directors are to be remunerated with fixed fees "...reflecting the amount of time they give to the company's affairs" and that non-executive directors should not be involved in any "discussions or decisions relating to their own remuneration."

In contrast to Greenbury, the NACD notes that non-executive director remuneration has two purposes: "(1) to align the interests of shareholders and non-executive directors [Greenbury only notes alignment for executive directors] and (2) to provide value to non-executives for value received" [recall Greenbury's focus on *time*]. The NACD provides five principles for setting non-executive remuneration largely similar to Greenbury's principles for executive directors with the addition of "(2) [non-executive] director compensation should be aligned with the long-term interests of shareholders and (3) compensation should be used to motivate [non-executive] director behaviour."^{H I}

Whilst Greenbury was adopted into the Combined Code in 1998 and listed firms must 'comply or explain', the NACD was totally voluntary.^J

⁷ p. 3.

officers and management; Johnson and Millon note the conflicts of recent financial scholarship focusing on agency theory of non-executive directors⁹ when in US law non-executive directors may *not* be agents of shareholders but be agents of corporations and have fiduciary responsibility for the corporation and its shareholders because they are agents of the corporation. The Companies Act (2006) clearly confirms the longstanding perception that all UK board directors act on behalf of shareholder interests.ⁱ Responsibility is a key element of most remuneration assessments (Hempel and Fay (1994) and Jensen (1993)). However, legal responsibility should not be confused with legal liability (unlike the US, actions against board members of large listed firms are unknown in the UK).

Fee Remuneration

The fees paid to individual non-executive directors of the largest listed firms in the United Kingdom vary as firms endogenously chose their own formulas or structures for remuneration; however, they are virtually always cash amounts that are determined in advance without any incentive bases^{ii iii iv}. This contrasts with various forms of equity option remuneration provided in the USA that evolved during the late 1980s and 1990s.^v

Baker, Jensen and Murphy (1988) suggested that firm remuneration is founded upon the 'functional form' which defines the relationship between remuneration and performance, specifically how performance is defined, and leading to how the employee will behave after employment....this suggests, form may be more important than amount. As a form, Cadbury's and Greenbury's instructions on fixed annual fees without links to any measure may raise questions on how directors behave after employment. Baker et al noted that incentive remuneration agreements rarely have commensurate downsides (also Hall and Liebman (1998)) such that managers do not share the costs of poor decisions as "Board members are reluctant to terminate or financially punish poor performing CEOs...uneconomic actions that could be [also] interpreted as being equitable and socially responsible."

Traditionally, individual remuneration is conceived of as a market event where the firm pays the market requirement to secure talent depending on supply and demand especially when talented individuals are in short supply. Yet boards of directors are in the unique position to effectively determine their own remuneration¹⁰ and work requirements (how often they meet). Whilst it may be the extreme case for certain industry CEOs or exotic derivatives traders, it is hard to argue that the broad skills required of non-executive directors are in short supply¹¹ in the seventy plus countries within which HSBC operates, for example. Thus, I do not focus on the supply and demand aspects of non-executive remuneration but focus upon firm idiosyncratic determinants of remuneration.^{vi}

⁸ The Sarbanes Oxley legislation's requirements for CEO financial statement and control certification seemingly returning legal focus to Officers fiduciary requirements.

⁹ p.8 and p. 27.

¹⁰ The Combined Code on Corporate Governance (2003), following Greenbury, instructs that no one should determine their own remuneration and indeed shareholders must often approve board of directors remuneration decisions, however, in large part such procedures only serve to establish process and define responsibility. In practice, there is no one other than the board that effectively determines directors' remuneration.

¹¹ Coates, Marais, and Weil (2005) show that between 1996 and 2004 US firms increased the presence of non-executive directors with financial skills, though it does not seem likely that such individuals would be in short supply.

I study annual report and market data for the 150 largest listed firms in the UK, particularly focusing on information available in the annual report corporate governance sections for demographic and remuneration information and use public data base material for activity based detail. I examine the evolution of large UK boards 1998-2004 for evidence of changes that occurred endogenously and exogenously.¹²

I find that the remuneration of non-executive directors is not related to firm performance. Instead, my results indicate that remuneration of non-executive directors is positively related to the firm's size, as expressed by market capitalisation, and CEO remuneration, which is also supported less significantly by dividend payout ratios, market to book ratios and board independence measures. Managerial power theory finds strong support with the correlation of CEO remuneration with non-executive director remuneration suggesting that boards providing generosity to the CEO find the CEO reciprocating; this evidence is supported by the lack of correlation found among performance and non-executive director remuneration (as expected) and also the lack of correlation amongst CEO remuneration and firm performance. Corporate governance code support for remuneration linked to time, as measured by board meetings, is positively correlated but not significant. The bureaucracy effect (i.e. as at HSBC), or basing remuneration upon what selected peers paid last year, strongly grows more significant over each year of my data. Table A illustrates a consistent and accelerating growth in the median remuneration noting also that the combined annual growth rate for the median exceeds that of the mean confirming that it is not only the largest firms that are increasing pay. My analysis also found no evidence of firms reducing non-executive director fees. In cricket and baseball, 50% of batters perform below average and suffer the consequences; unsurprisingly, 100% of all non-executive directors seem to perform above average. Ticket holders and paying fans judge batters, boards judge their own performance and shareholders appear to just watch.

Table A - Non-Executive Director Remuneration (Avg. per Board) Annual Growth Analysis

Mean & Median Analysis					
150 Largest Listed Firms	Mean (000s)	Mean Growth Rate	Median (000s)	Median Growth Rate	Obs
1998	£ 31.27		£ 28.00		80
1999	£ 31.61	1.1%	£ 29.17	4.2%	93
2001	£ 35.40	6.0%	£ 32.50	5.7%	122
2002	£ 38.22	8.0%	£ 34.70	6.8%	127
2003	£ 42.18	10.4%	£ 38.06	9.7%	130
2004	£ 46.29	9.7%	£ 44.00	15.6%	130
CAGR		5.8%		6.7%	

This sample is selected from the 150 largest listed firms in the UK as published in Spencer Stuart's 1998, 1999, 2000/2001, 2002, 2003, 2004 Board Indices providing 900 total firm years which subsequently provided a sample of 677 firm years (198 different firms) due to missing board data. Observations are biased towards the latter years due to increased data availability. Non-executive director average remuneration is the sum of all fees paid to all non-executive directors excluding the chairman divided by the number of non-executive directors at the firm.

¹² It is important to note that much of the UK research on board of directors is cross-sectional using one year or two year samples (Singh (2004), Lasfer (2004), MORI-HIGGS (2003)) which is informative but does not provide significant information on change.

Charts I and III below graphically illustrate the general lack of correlation of non-executive director remuneration and market capitalisation and CEO remuneration in my 1998 sample. For example, Chart I depicts increasing market capitalisation (quintiles) on the vertical axis while non-executive director remuneration on the horizontal axis illustrates that the second quintile (number 1 is the smallest and 5 is the largest) had higher mean non-executive remuneration than the third and fourth largest quintiles, whilst Chart III depicts CEO remuneration by quintile illustrating that in the second lowest quintile (number 1 is the least remunerated CEOs and 5 is the highest remunerated) non-executive directors had the highest remuneration. Charts II and IV below graphically illustrate the general correlation of non-executive remuneration and market capitalisation and CEO remuneration in my 2004 sample.

Chart I – 1998 Market Capitalisation v. Non-Executive Director Remuneration

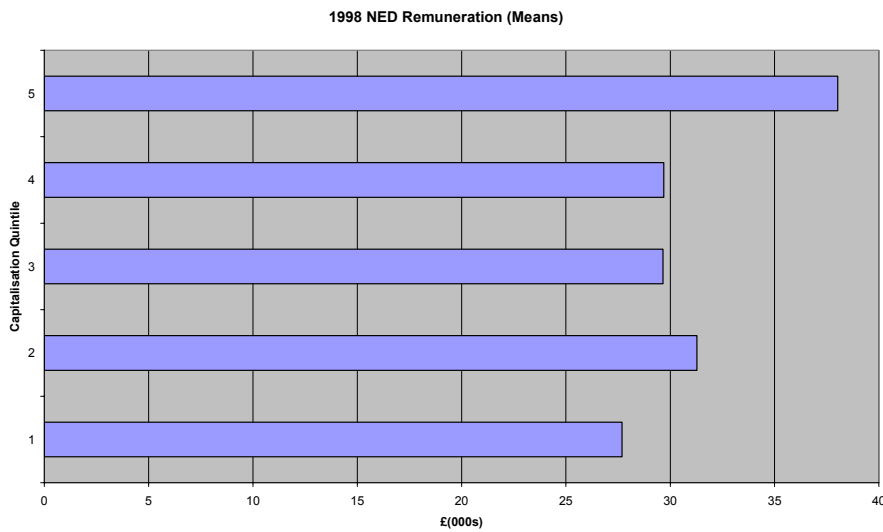


Chart II – 2004 Market Capitalisation v. Non-Executive Director Remuneration

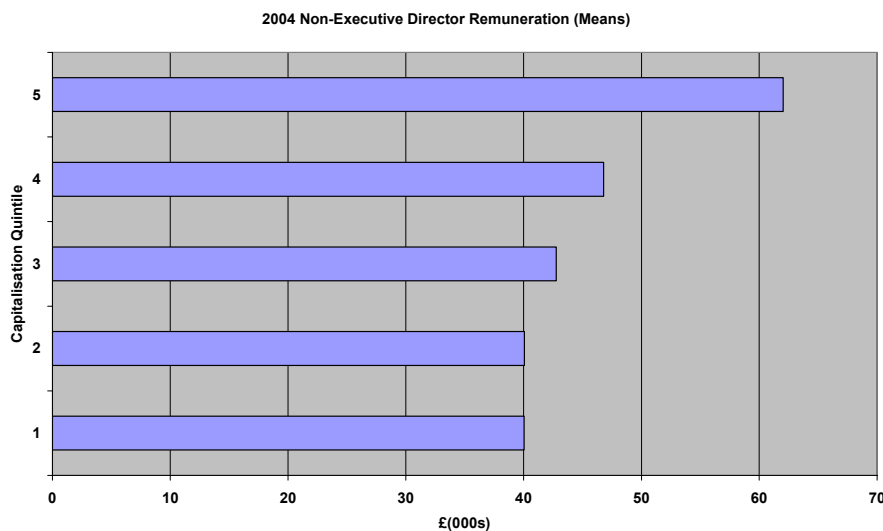


Chart III – 1998 CEO Remuneration v. Non-Executive Director Remuneration

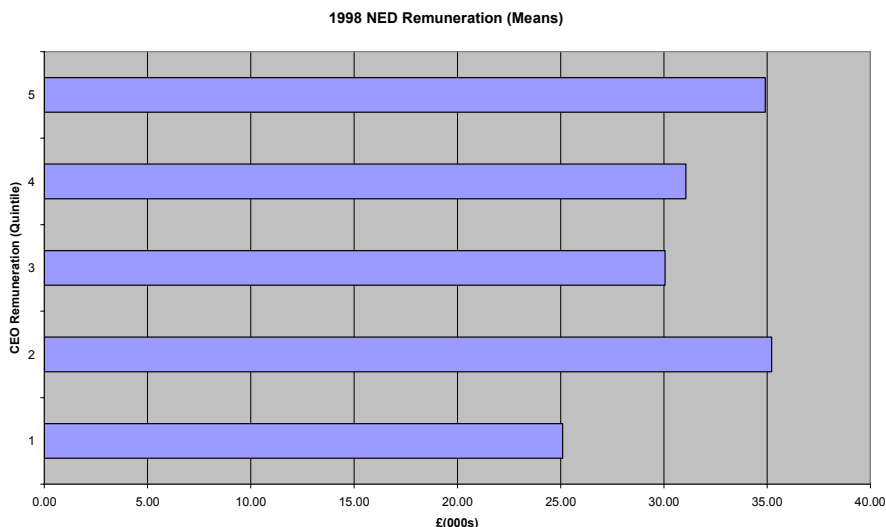
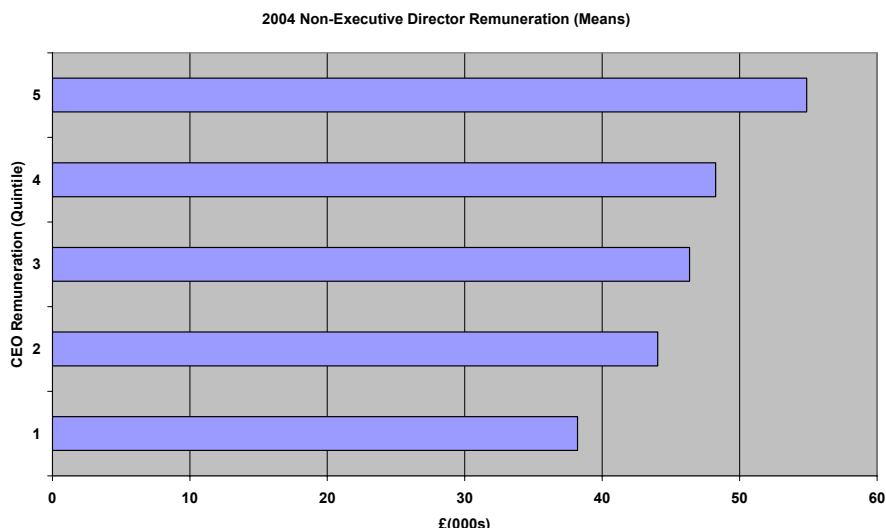


Chart IV – 2004 CEO Remuneration v. Non-Executive Director Remuneration



The remainder of this paper is divided into four sections. Section two discusses theoretical bases and testable propositions. Section three reviews data and methodology. Section four reviews and discusses empirical results. Section five contains my conclusions. Finally, as an ever greater number of the UK pensioners are dependent on the monitoring and strategic roles of non-executive directors through their investments in index funds, it seems financially unsound (and poor policy for all concerned) that non-executive directors are dependent on corporate sprawl and how they remunerate the CEO for their remuneration. Thus, I include a proposal for reforming remuneration that maintains fixed fee concepts and provides improved alignment with shareholders’ and pensioners’ long term interests.

2.0.0. Theoretical Bases & Hypotheses

Non-Executive Director Motivation (Intangible & Pecuniary)

Lipton and Lorsch (1992) observed that the board of directors is not the full time activity or the single highest priority for any of its non-executives, thus means were required to strengthen its cohesiveness and efforts to commit. Non-executive directors' other commitments, and particularly multiple board appointments, have controversially been suggested as limiting non-executive director attention and focus or providing sub-optimal decisions on monitoring tasks (Core, Holthausen, and Larcker (1999)) but providing superior decisions on advisory tasks (Cotter, Shivdasani, and Zenner (1997) and Brown and Maloney (1999)), whilst non-executive directors multiple part-time board commitments have been suggested as both neutrally and negatively correlated to firm performance (Ferris, Jagannathan, and Pritchard (2003) and Fich and Shivdasani (2004)). The team concept inherent in board efforts also weakens the link with individual contributions.¹³

Economic theory holds that if participants have common interests or motivation, participants act in the same manner. Independence of action depends on the motivations of participants being different. Management's motivations are more simply viewed as maintenance of remuneration and position with greater weight on remuneration, whilst some interpretations of agency theory hold that part-time non-executive directors may have different and more salient non-financial motivations. This appears as a lapse in theory as inevitably the non-financial motivators suggested in research imply the obtaining of other benefits that will lead to further financial benefit, for example obtaining the "reputation" of an expert director leading to obtaining further board seats (Fama and Jensen (1983)) will lead to increased fees.^{14 vii} Brickley, Linck and Coles (1998) found that the reputations that were of primary value in board selection as a non-executive director were the achievement of success in prior executive positions and less related to subsequent board performance suggesting that once on a board, motivation may not be reputation.^{15 16}

It is difficult to understand why theory ascribes greater significance to non-financial attributes only for non-executive directors and why the same theory does not suggest that the power, prestige, recognition, and social status of being Chief Executive should also be considered as of greater significance than financial remuneration or more appropriately why remuneration is not always viewed as the principal non-executive director motivator as it is for CEOs. The physical proximity of large firms in the London area means that there are board members that have status that cannot be augmented and networking opportunities that cannot be improved beyond the excellent network offered already by their Club or status, but from the standpoint of pecuniary reward all non-executive directors can add more to their totals.^{viii}

¹³ Baker, Jensen and Murphy (1988) noted the challenges for economists to understand 'horizontal equity' systems which treat employees at the same level of organisations "fairly" and "equally", thus not distinguishing individual contributions.

¹⁴ Fama and Jensen (1983) suggested that non-executive directors may serve for non-monetary factors such as establishing good reputations (amongst other non-pecuniary factors).

¹⁵ Kaplan and Reishus (1990), found that US executive directors whose firms were experiencing financial difficulties were likely to retain their non-executive director positions at other firms (over 80% three years after) conflicting with a view that such non-executive directors were less desirable, but, as they did not give up non-executive director positions to focus on their executive role this may have suggested significant motivation to retain their NED positions.

¹⁶Harford (2003) found that non-executive directors of poorly performing firms did not suffer in obtaining additional non-executive director positions compared to non-executive directors of superior performers.

Other factors are also thought to motivate non-executive directors to be better monitors such as financial stress in the form of debt covenants and debt payment constraints, i.e. non-executive directors will want to avoid serving on the board of a company in default or controlled by creditors (John and Senbet (1998)).

Controversial Economics & Motivation

Accepting the economic motivating factor for non-executive directors to provide monitoring and control is crucial to the agency framework, unless one accepts that non-executive directors give their time and credibility solely for altruistic reasons to shareholders. The concept that non-executive directors receive rewards that are either invisible to the shareholder or gain financial reward through the use of their non-executive position implies costs that shareholders, at best, may not want to pay and, at worst, are costs shareholders should not have to bear and may potentially be an unutilised resource for the benefit shareholders. In the early 1980s, when more US non-executive directors received fixed fees, Mitchell and Lehn's (1990) study of acquisitions and divestitures suggested non-executive directors had little power or motivation to influence strategy or to correct it [recall the NACD's call for compensation to "motivate"].

Jensen and Murphy (1990) suggest that non-executive directors holding substantial equity 'better' align their interests with shareholders or are best motivated to act on behalf of shareholders. However, both Yermack (2004) and Ryan and Wiggins (2004) raised the question of whether a more quiescent non-executive director could receive more wealth from compliance rather than contestation and monitoring. Yermack (2004) suggests the key factor to gaining greater wealth was hanging around (more option value), which surely is easier to do with less contestation which suggests that non-executive director motivation may be more aligned with management. Harford's (2003) pre-bull market study of large US firms in the late 1980s suggested that non-executive directors largely suffered from takeovers as they did not replace their seats and their equity based financial benefits were less than lost income due to the loss of their board seat, perhaps providing incentive to support management's independence and maintain their income.

In complete contradiction of the theory of aligning the interests of shareholders (Jensen et al. (1990)) with the interests of non-executive directors, Higgs stated that it was "...undesirable for any shareholdings [in the same company] to represent a large proportion of the individual non-executive director's financial wealth." Whereas executive directors might have conflicts of interest on whether their prospective remuneration and benefits outweighed their prospective share returns (assuming material share ownership), Higgs did not explain what conflicts he saw with non-executive directors having substantial ownership positions. The non-executive director without alignment with shareholders suggests the potential alignment with other interests. Absent legal connections or electoral powers, monitoring on behalf of stakeholder interests remains a theoretical domain.¹⁷

Non-Executive Director Remuneration

¹⁷ For example, though pre-bankruptcy highly indebted firms' bondholders may perceive that non-executive directors have a fiduciary duty to their interests in the firm, such interest may conflict or contradict with shareholder interests to utilise available cash for investment v. repayment.

The majority of remuneration research at the board level is focused on CEO remuneration, and particularly US combined chairman and CEO remuneration. CEO remuneration research largely provides inconclusive and controversial results (for the US see Hall and Liebman (1998) for the UK see Buck, Bruce, Main and Udeni (2003)). Research and policy, based upon the agency framework, has long supported both long and short term incentive remuneration (Bizjak, Brickley and Coles (1993), Jensen and Murphy (1993), Greenbury (1995), and Guay (1999)), with more recent findings suggesting that long-term incentives in place and particularly share options have been misused (Buck et al. (2003), Bebchuk and Fried (2004)), mismanaged (Porac, Wade, and Pollock (1999)) or misunderstood (Jensen, Murphy and Wruck (2004), Meulbroek (2001) and Carpenter (2000)). Missing from the literature on board remuneration is any assessment of the remuneration of the UK's split role chairman (over 90% of the UK large listed firms had split the chairman and CEO role by 1998) and the UK's non-executive directors.

A unique and fundamental problem of non-executive director remuneration is that it is either determined by the non-executive directors themselves (i.e. a seemingly unacceptable situation of self-dealing) or by the executive directors and management that the non-executive directors are expected to monitor and remunerate. US corporate governance participants suggest that a solution to this dilemma is a form of share based incentive or aligned remuneration (CalPERS (2005)), whilst in the UK Cadbury and successive revisions have been strongly negative on incentive remuneration for non-executive directors.

UK corporate governance does not condone any board director to set his or her own pay, whilst US SEC regulations limited executive directors voting on their own remuneration. Greenbury stated that "to ensure...no personal interest [for non-executive directors] in the remuneration arrangements they decide for the Executives...their own remuneration should take the form of fixed fees", further noting that "non-executive directors should abstain from any discussion or decisions relating to their own remuneration..." Such conditions simplistically eliminate direct face to face trading of benefits perhaps with the intent of avoiding conditions supporting contracting theory. However, it is hardly inconceivable that each side may view correlations to their positive or negative decisions upon the other's decisions on their remuneration.¹⁸ Conflicting with the agency framework, Cadbury's and Greenbury's fixed fee (and non-incentive or aligned) recommendations also relieve non-executive directors of any personal financial suffering, pain or loss regardless of the amount they support for executive remuneration. Thus, Greenbury's prescription for non-executive directors supported stewardship over the agency framework. I test whether there is a relationship between CEO and non-executive director remuneration.

The NACD noted that US boards of directors must decide "What message does the board want to communicate through its non-executive director compensation programme?", there is no equivalent question in Britain.

¹⁸ Conyon and Peck (1998) studying large UK firms 1991-1994 could not find a correlation between increased non-executive directors on the board of director and executive remuneration and found a positive correlation of non-executive directors on the remuneration committee and executive remuneration.

Limited US research has explored determinants of non-executive director remuneration with similarly conflicting and controversial results as CEO remuneration research (Cordeiro, Veliyath, and Erasmus (2000)).^{ix} Studying large US firms in 1980 and 1987, before the explosion of incentive remuneration for non-executive directors found positive correlations with firm size and profitability, and negative correlations with non-executive director shareholdings, noting that all explanatory variables declined substantially in relevance in 1987 (Boyd (1996)). Studying large US firms in 1985 and in 1989 found non-executive director remuneration positively correlated with board meeting frequency, without correlations to industry, size, CEO remuneration or firm performance (current or future), noting that in 1989 only 4.5% of firms offered share options to non-executive directors (though a much larger number offered equity grants), however, also finding that firms that offered any form of equity remuneration did not perform better than those that did not offer similar remuneration plans) (Hempel & Fay (1994)).

Hempel & Fay noted one of the great challenges of judging non-executive director remuneration is the understanding of what non-executive director remuneration is for as the specific responsibilities of non-executive directors were insufficiently detailed to be measured correctly as they continue to be today. CEO replacement in the US has been found to have a correlation with non-executive remuneration where Perry (1999) found that firms with non-retirement replaced CEOs had higher paid non-executive directors than non-executive directors at firms with continuing CEOs, and that firms with non-executive director incentive remuneration were more likely to replace the CEO regardless of firm performance.

Ryan and Wiggins (2004) non-executive director remuneration statistics for US year 1997 compared to my UK year 1998 (actually 9/1997-8/1998) show average total non-executive director remuneration of \$111k (£31k or \$45k in the UK) with a median of \$56k (£28k or \$42k) noting that this was a positive year for the equity market in the US. UK non-executive directors received substantially lower total remuneration (and lower risk); however, due to US equity incentive plans' importance in the total remuneration, on a cash or fixed minimum basis UK directors received higher remuneration by comparison.

Flaws in Incentive Remuneration¹⁹

The agency framework, economic and behavioural theory all support the alignment of shareholder and non-executive director interests through the provision of incentive remuneration to non-executive directors. However, British corporate governance has eschewed incentive remuneration for non-executive directors (in total contrast to the US) with the effect that large firms rarely provide any variable or equity based remuneration to non-executive directors (Stathopoulos, Espenlaub, and Walker (2003)). Whilst I have not located research supporting our system, there are many accepted challenges to incentive remuneration that question the viability and effectiveness of incentive remuneration for many management or executive tasks.

¹⁹ For a thorough review of behavioural research on flaws incentive remuneration see Hamner (1975).

Flaws in the design of incentive remuneration at the board level include 1) the selection of own goals and objectives (Porac, Wade, and Pollock (1999)), 2) the choice of unchallenging performance tests (Meyer et al. (1965)), 3) the establishment of false bases or comparators (Buck, Bruce, Main and Udeni (2003)), 4) the inclusion of external factors beyond management's control, 5) the incorporation of avoidance clauses to override missed objectives, 6) exercise periods and trigger events favourable on all events (Hall and Liebman (1998)), and 7) complexity beyond the understanding of only those covered (Bebchuk and Fried (2004)) and establishing goals that are so narrow as to steer focus from other important tasks or establishing goals that are so broad that key specific tasks are overlooked (Baker, Jensen and Murphy (1988)). Baker et al noted that incentive systems can be "too effective" in motivating people to desired results but not how people should achieve those results pointing to a lack or failure in measurement systems; recall Perry's (1999) finding that US firms with non-executive incentive remuneration were more likely to replace the CEO regardless of performance. The structure of certain incentives in remuneration may also result in unintended incentives toward excess or the avoidance of necessary risk (Carpenter (2000)).

Two simple but strong theoretical refutes of incentive remuneration for non-executive directors are that poorly skilled non-executive directors will not become more effective solely due to incentive remuneration (Hempel and Faye (1994)) and that superior non-executive directors may be making superior efforts for firms suffering external events and, thus, have no benefit from share price related pay (Kaback (1996)). In the US, despite the appearance of less conflicted non-executive director dominated remuneration committees for many years remuneration committee member non-executive directors were more likely to be (than the board average) older (Vafeas (2000 and 2003)) and more likely to be current or former corporate officers (Kaufman et al. (2005)), amongst other factors potentially influencing pay decisions. An econometric model developed by Meulbroek (2001) suggests that executive directors' personal capital is so at risk (aligned with the firm) that he or she values the added risk of equity incentive remuneration less or at a lower value than the cost to the firm implying that such incentive remuneration is inefficient.

Remuneration Theory and Conflicts with Economics & Finance

An underpinning of economic and financial theory is the individual's efforts to maximise his or her position and minimise the effort required in so doing. It is beyond the scope of this paper to review all of the psychological theory involved in remuneration, however, it is worthwhile to review the psychological underpinnings that are a basis for and challenge to economic and financial theory on remuneration as they are used in discussing unique aspects of non-executive director remuneration. Please see the End Notes for this discussion.^x

Non-Executive Director Incentive Remuneration

It was not until the 1967 Companies Act, effective in 1969, that UK firms were required to disclose information about directors pay. It should be recalled that the UK board model of the time was largely or solely made up of executive directors.^{xi xii xiii 20 21}

Whilst the US had a largely cash (and benefits) form of non-executive director remuneration similar to the UK through most of the 20th Century, institutional practice and motivations largely diverged in the late 1980s onwards, particularly heralded by Cadbury's call for non-executive director remuneration to remain non-incentive based and the NACD's call for non-executive directors to become more exposed to firm shares. Recall that key promulgators of UK reform included accounting bodies and government (e.g. Financial Reporting Council and the Department for Trade and Industry) whose members would not likely have been subject to incentive remuneration, while key drivers and participants in the US were largely investment managers and academics (e.g. the NACD and CalPERS) and the investment community's senior officers were more than likely to be subject to incentive remuneration.²²

The number of US firms (1992-1995) that provided incentive remuneration for non-executive directors increased from 48-70% of firms (providing over one-third of total remuneration by 1995), the proportion of non-executive directors was positively related to the adoption of incentive remuneration, and institutional ownership was positively correlated to the adoption of incentive plans for non-executive directors (Perry (1999)). Over a similar period and noting that cash payments increased only marginally, non-executive director cash remuneration was positively correlated to business size while share option award amount was negatively related to firm size, and regulation was negatively correlated with all forms of remuneration (Bryan, Hwang, Klein, and Lilien (2000)).^{23 24}

Controversy continues over the effectiveness of US equity incentive remuneration for non-executive directors and its effects ranging from Boumosleh's (2005) study of the proportion of equity incentive compensation provided to non-

²⁰ Meeks and Whittington (1975) found that among UK firms 1969 to 1971 size of the firm was the major positive correlation to total board remuneration, though outlying profitability measures were also correlated but too a much lesser degree.

²¹ Gregg, Machin and Szymanski (1992) found that UK CEO remuneration at large and mid-sized firms had a positive correlation to size and a small positive correlation to share performance during the 1980s but became completely uncorrelated and perhaps negatively correlated during the bear market of the early 1990s highlighting the absence of market performance as a measurement or basis for remuneration pre-Greenbury.

²² The historical discussion above noted three major UK corporate scandals in the early 1990s involved fraud, whereas in the USA prior to Enron the largest corporate scandal, PennCentral, involved questions of competence and uninterested non-executive directors (see Goldschmid (2003)).

²³ Bryan, Hwang, Klein, and Lilien (2000) examined US firms 1992-1997 and found that non-executive director share option remuneration was positively correlated to growth opportunities (using market/book as the proxy for growth), and negatively correlated with firm size, and regulation.

Bryan and Klein (2004) examined US firms 1997-2002 and found that non-executive director option granting firms increased from 60.8% in 1997 to 72.7% in 2002, while noting that in 1995 only 48% of firms had non-executive director option plans. They noted that there were wide varieties of forms of remuneration by industry, and found that non-executive director and CEO incentive compensation were positively correlated to firm performance (with non-executive directors more exposed to firm volatility).

²⁴ Brick, Palmon, and Wald (2002) study of US firms 1992-1999 for determinants of non-executive director remuneration, found that CEO and non-executive director remuneration were positively correlated, non-executive directors receive a greater proportion of cash remuneration at higher cash flow firms, non-executive director remuneration was positively correlated to the number of employees and negatively related to sales, and non-executive director total remuneration was negatively correlated with firm leverage while cash remuneration was positively correlated to leverage.

executive directors at US firms which found that greater proportional stock option remuneration was negatively correlated to the cost of debt and negatively correlated to dividend payouts; Fich and Shivdasani (2005) examining US firms 1997-1999 found that non-executive director share option plans were positively correlated with share performance; and Song and Windram's (2000) study of UK firms finding that non-executive director shareholdings were higher in a group of firms experiencing accounting irregularities (though no correlation was found) compared to a control group, raising doubts over whether equity ownership increases monitoring. It is also important to note that most modern US research on non-executive director remuneration surveys the time of a one way bull market (prior to 2001). Research on the effectiveness of incentive remuneration for non-executive directors is growing and remains controversial.^{xiv}

Bureaucracy & Motivation

Employees including management are driven by increased personal enrichment (perhaps with some status added in), however, the Combined Code differs on non-executive directors instructing remuneration by fixed fees without any specification of performance criteria, motivators or upside. Cadbury continuing through Higgs discourage pay tied to value or firm performance; however, both Cadbury and Higgs noted the need for remuneration commensurate with the non-executive director workload. An assumption that must be made, based upon Cadbury and Higgs, is that non-executive directors are much more bureaucrats than drivers of performance, similar to what Jensen and Murphy (1990) noted among 1980s US CEOs. If non-executive directors are bureaucrats they must work a given set of hours, with minimal variation, have minimal upside opportunity, and suffer limited downside risk. This is indeed an odd position for the captains of the private sector, for it would hold that those with the ultimate corporate decision making power have a 'no risk, no reward' situation. Without clear roles, responsibility, or motivators remuneration for non-executive directors appears to be based upon an arbitrary factor or factors. Kohn (2001), writing on children but no less applicable to adults, notes that the regular provision of reward drives a desire for ever more significant reward for the same effort.²⁵

Managerial Power & Circumventing Motivation

Executive directors' or managers' ability and willingness to circumvent and exploit non-executive directors' inadequacies (or lack of shareholder aligned motivation) is known as the managerial power theory (on remuneration, Bebchuk and Fried (2004)). Recent research suggests greater executive control over non-executive directors to facilitate executive control (management compensation, Jensen and Murphy (2004), poor performance, Higgs (2003), or fraud and failed controls in Enron, Powers Report (2002), and the selection of compliant non-executive directors, Kaufman, Englander and Tucci (2005)).²⁶

Testable Propositions

²⁵ My analysis confirms that non-executive directors' remuneration increased during years when firms performed poorly, the market performed poorly, and boards of directors held fewer board meetings, i.e. the bureaucracy effect.

²⁶ Kaufman et al. further suggest that boards of directors in the US were becoming more compliant arguing for improved analysis of boards of directors' composition beyond the traditional measures of independence.

Remuneration Amount

Under the agency framework, pecuniary remuneration for the non-executive directors responsible for the most complex, financially observed, and international listed firms in the UK would be expected to be based upon such factors as firm complexity, maturity, performance, and market factors (all representing economic measures and perceptions of relative success or failure). However, non-executive director remuneration is determined by people and not models. Very few people are involved in the determination of non-executive director remuneration and they are subject to few constraints largely consisting of fellow board members and corporate governance guidelines (if boards decide to utilise). Thus, I explore both economic and financial factors and demographic and corporate governance factors as determinants of non-executive director pecuniary remuneration.

Firm Characteristics

Large or complex firms with relatively higher controlling, monitoring and advisory needs require more non-executive director monitoring effort either in terms of time commitment or intensity within the agency framework. This suggests that non-executive directors of complex firms demand or deserve relatively higher remuneration relative to less complex firms. ^{xv 27} I expect size as a measure of complexity to correlate with remuneration (Boyd (1996) and Bryan et al (2000)), however, due to the fixed fee structure I also base this expectation upon the agency framework and the bureaucracy effect (Deci (1971) and Kohn (2001)).

Growth firms are increasing activity relatively faster and might be expected to increase non-executive directors' remuneration in line with their growth opportunities, however, the agency framework also suggests that such firms do not have an agency problem and need less monitoring and control. The ratio of market to book value is a common measure of the market perception of growth opportunities of the firm and is thought to affect board of directors' composition (Lasfer (2004)). Prior to 1998, Financial Reporting Standards required acquiring firms to write-off one hundred percent of acquired goodwill at acquisition which effectively understated the book value of acquisitive firms. Thus, the market to book ratio becomes more accurate with each year post 1998. US research has shown that CEOs of growth firms received higher total remuneration (Gaver and Gaver (1993)), and that non-executive directors received relatively higher remuneration at growth firms (Bryan et al. (2000)). In line with agency theory, I expect market to book to be negatively correlated with remuneration.

Mature firms are likely to present a greater agency problem through increased cash generation and diminishing attractive investment opportunities. Agency theory suggests mature firms place greater monitoring burdens on their non-executive directors, thus I expect that firms paying out more of their earnings as dividends will pay non-executive directors more for controlling the agency problem (Fama and Jensen (1983)) in this respect market to book and dividend payout ratios are expected to have opposite correlations with remuneration. Clientele theory supports the 'demand for dividends'

²⁷ Hahn (2006) found that industries with the traditionally highest R&D expense had the lowest mean board meetings suggesting that R&D intensive firms may not be the most complex to control.

amongst institutional investors (a relatively small, but not a cohesive group in the UK) whose interest in receiving regular cash flows may exceed their interest in controlling the agency problem. In this instance, higher dividend payouts may not support the agency framework but simply executive directors preserving their positions with the support of non-executive directors (DeAngelo and DeAngelo (1990) and DeAngelo, DeAngelo and Skinner (1992)), in this case no correlation between market to book and dividend payout ratios would be expected.

Financially stressed firms, those with relatively higher debt, are believed to have reduced (Brick, Palmon and Wald (2002) and Ortiz-Molina (2005), John and John (1993), and John and Senbet (1998)) non-executive director monitoring requirements (i.e. debt replaces otherwise required efforts from non-executive directors) though debt may increase risk and impose increased monitoring requirements from shareholders, thus under the agency framework I expect that financially stressed firms will offer lower remuneration to non-executive directors.

The agency framework and the Combined Code encourage non-executive directors to monitor and control CEO remuneration in alignment with firm performance (Jensen and Murphy (1993) and Greenbury (1995)). UK corporate governance codes specifically advise against such remuneration for non-executive directors, however, financial theory suggests that firms with superior market performance may have received more valuable (advisory) contributions from their non-executive directors and may so reward their non-executive directors. I expect that firms with superior performance provide higher levels of remuneration to their non-executive directors (Bryan and Klein (2004)).

Board Demographics

Agency framework's underpinning of non-executive directors' monitoring and controlling the agency problem supports adding diversely skilled non-executive directors to board. The influence of different non-executive director groups on CEO remuneration has been noted in the USA (Belliveau, O'Reilly, and Wade (1996) and Kaufman et al. 2005)), but has largely not been researched in the UK. I am unaware of any research on non-executive director characteristics as an influence of non-executive director pay.

Foreign non-executive directors on a board may suggest that the firm has sought out specialised expertise that is unavailable in the home market. However, foreign non-executive directors, by definition, have greater travel burdens and due to travel time have greater opportunity costs. I expect that firms with foreign non-executive directors provide higher levels of remuneration to their non-executive directors.

The presence of women non-executive directors on a board suggests enhanced diversity and skills on the board, but may imply increased costs and increased remuneration. Whilst foreign directors' opportunity costs for travel time are obvious, women's rarer presence may suggest some degree of rarity value. However, recent research has found women more likely to be employed at the board level by poorly performing and smaller firms (Ryan and Haslam (2005)) suggesting that women may be more likely to be non-executive directors at firms that may provide lower levels of remuneration. I expect women non-executive directors to be negatively correlated with remuneration or have no correlation at all.

The tenor of non-executive directors can provide insight into their own power and ability to influence board decisions (on their remuneration) or pressure on remuneration in the recruitment process suggesting that shorter non-executive director tenor increases annual remuneration. US research suggests that executive tenor is negatively correlated to executive remuneration, but that executive tenor is positively correlated to executive cash remuneration (Vafeas (2003)). Perry (1999) found that US non-executive directors brought in by replaced CEOs received relatively higher remuneration perhaps also supporting the notion that reduced tenor may be correlated to higher remuneration. The Combined Code states that longer serving directors lose their independence implying they become entrenched and controlled by management; thus, I expect that longer serving non-executive directors receive lower remuneration.

Corporate Governance

Corporate governance guidelines are effectively the codification of the agency framework and they may be drivers or representative of non-executive director efforts. Board independence implies greater power and responsibility have been transferred to non-executive directors providing an expectation that more independent boards have relatively higher remuneration. However, the combined code dictates that non-executive directors should not determine their own pay suggesting no correlation with remuneration (Daily, Johnson and Ellstrand (1996) and Daily, Johnson, Ellstrand and Dalton (1998)). Contracting theory (Hermalin and Weisbach (1998)) adds to the expectation of positive correlation.

Boards that meet more often ask more of their directors (at least in time), providing an expectation that non-executive director remuneration is relatively higher or correlated to meetings (Hempel and Faye (1994)); recall Greenbury's basis for non-executive director remuneration was time. Research on UK full board meetings has found negative correlation of performance and full board meetings (Hahn (2006)), thus directors demonstrating enhanced fiduciary responsibility would be expected to receive higher remuneration within the agency framework as seeking to control management or provide advice (also stewardship), though non-executive directors' efforts to enhance or protect their reputations (Fama and Jensen (1983)) or obtain future board seats (Gilson (1990)) could provide an agency framework explanation for negatively correlated remuneration and meetings.

Ryan and Wiggins (2004) found that larger (members) US boards received cash in greater amounts and in greater percentages of total remuneration when compared to smaller boards. This split of remuneration led to significantly higher mean total remuneration at smaller boards (\$123k) than larger boards (\$91k). Yermack (2004) studied non-executive directors of large US firms and found that tenor and wealth creation were positively correlated; finding non-executive directors had substantial opportunities to create wealth. I test the relationship of board size to remuneration.

Executive Remuneration

Agency theory suggests that non-executive directors monitoring and controlling management would not find their remuneration correlated with CEO remuneration. Contracting theory (Hermalin and Weisbach (1998)) could explain CEOs and non-executive directors each enhancing the others' benefits as part of their trade-off relationship; however, the agency framework may suggest that successful non-executive directors' remuneration is negatively correlated to CEO remuneration for control or positively correlated if firm performance justifies. The managerial power theory (Bebchuk and Fried (2004)) suggests that CEOs circumvent corporate governance guidelines and may influence non-executive directors to award higher pay. I expect that CEO's and Chairmen's remuneration are correlated to non-executive director remuneration and performance. Non-executive chairmen have the responsibility of managing the board which must include overall responsibility for recruiting and remunerating non-executive directors and executive directors – those responsible for his or her remuneration. The agency framework may suggest that the non-executive chairman has a monitoring and controlling role over the other non-executive directors providing an expected negative correlation. I have not identified any existing research on the determinants on non-executive chairmen's remuneration to better postulate this hypothesis.

3.0.0. Data & Methodology

I begin by constructing a panel data sample that covers the largest 150 listed firms on the London Stock Exchange for the years 1998 to 2004 as selected by Spencer Stuart, the executive search firm, and published in their UK Board Indices. There are no investment trusts and virtually all industrial segments are represented. The Board Indices include board data from annual reports which I have supplemented when missing (rare cases).²⁸ ²⁹ All board data was manually entered for quantitative analysis. Corporate, accounting, and market data was downloaded from Thomson Datastream.

I chose to work with the 150 largest firms and not solely the FTSE 100, the UK's largest 100 listed companies, in order to have a larger amount of data.³⁰ The 150 largest firms in the UK include firms with market capitalisations exceeding £100 billion to firms with market capitalisations of slightly less than £1 billion.^{xvi} Whilst that gap is vast, prejudice on size in the top 150 is not totally appropriate, for example the four highest paid CEOs in 2004 were not among the mega sized top twenty firms and two of these four were in the smallest third of firms. The top 150 firms are the firms that are the most international, most researched by investment banks, have access to public capital markets, and are advised by domestic and foreign banks. The large majority of these firms have headquarters within the greater London area or have board meeting facilities within the London area, an important dynamic for a diverse board of directors in the UK (and also perhaps allowing the directors to belong to the same social clubs).^{xvii} Information on non-executive directors and

²⁸ I have collated and statistically analysed information taken from the Board Indices independently and have not used any statistical analysis that may have been provided in the board indices unless noted. UK listed firms rarely follow a calendar year reporting cycle, particularly as the UK annual tax cycle is April to March. Therefore, whilst the 1998 selection criteria is market size at July 1998, the annual reports utilised for the year 1998 include firms with year ends from September 1997 through August 1998.

²⁹ There was no board index published for the year ending July 2000.

³⁰ Dependent on the year, the largest 150 firms will represent roughly 85-90% of total market capitalisation in the UK and by definition these firms are included within the FTSE 100 and FTSE 250 (literally the 1st to the 100th and the 101st to the 350th largest listed firms) indices which make up the major components of tracking or index fund investment in the UK and from abroad. Material institutional holdings are represented in both indices based upon the structure of UK pension investment.

executive directors is relatively clear (though occasionally director changes overlap or leave gaps at reporting periods which may slightly distort my data).

Only a handful of firms failed to provide non-executive director remuneration³¹ in each year, most often these were demerged or merged firms, none omitting the information consistently. I utilise average non-executive director remuneration for each firm defined as the total amount paid to all non-executive directors (excluding the chairman) divided by the average number of non-executive directors on the board (using the statistic Spencer Stuart has published in their Board Indices).

Missing or inaccurate firm and market information further reduces my sample size to 677 firm years (missing data largely results from corporate omissions in the earlier years of my data – for example in 1998, 15% of top 150 listed firms do not disclose how frequently their boards of directors met – and market data omissions from Datastream on companies that have been acquired, acquire, demerge, or are dual listed; inaccurate information is a slight misnomer for certain dual listed firms whose annual reports may present financial information on a number of entities). These omissions do not provide survivorship bias as they are equally distributed among vanished and continuing firms; however, more data is available in more recent years.

Univariate Models

I test for means, medians, and standard deviations of the entire sample and in annual tranches, industry tranches, and in quintiles by remuneration in the last two years. Chi-square tests were applied to verify the validity of distributions.^{xviii} To further test the validity of the quintile analysis, I used the t-test for the differences between the some of the distributions (assuming unequal variances) using the Microsoft Excel function.^{xix}

Multivariate Models

Following the theoretical bases outlined, I suggest that

$Remuneration_{Non-ExecutiveDirector} = f(\text{size, growth opportunity or maturity, agency, profitability, director diversity, board size, board independence, board longevity, board time commitment, executive pay, industry, and historical context})$.

I use the following variables in the regression model:

$Non-Executive\ Director\ Remuneration_{Average} = \alpha_0 + \alpha_1 \text{ Market capitalization}(\log) + \alpha_2 \text{ Market Value to Book Value}(\log) + \alpha_3 \text{ Dividend Payout Ratio} + \alpha_4 \text{ Return-on-Equity} + \alpha_5 \text{ Foreign Non-Executive Directors} + \alpha_6 \text{ Women Non-Executive}$

³¹ Morrison (Wm) plc is excluded from my calculations during the years it appeared in the top 150 firms and did not have any non-executive directors.

Directors + α_7 Board Size + α_8 Board independence + α_9 Non-Executive Director Tenor + α_{10} Full Board Meetings + α_{11} Chairman Remuneration + α_{12} CEO Remuneration + α_{13} Industry Dummies.... + α_{19} Year Dummies.... + ε

For an assessment of the effect of financial stress on remuneration at non-financial firms as a subset of the sample, I add α_{27} Total Debt to EBITDA as an independent variable in separate regressions.

Eviews software was used to calculate my regressions.

4.0.0. Descriptive Statistics & Univariate Analysis

Whilst Table I (p. 25) Panel A provides cumulative statistics over the study period, it cannot demonstrate the evolutionary processes occurring to boards of directors' remuneration over the study period (Panel B). Panel A indicates firms having a mean average non-executive director remuneration of £38,400 over the study period amongst other variables that I have examined for their influence upon this amount. Included with the univariate analysis are correlation statistics suggesting strong explanatory power for market size, board size, and CEO remuneration. Mean firm market capitalisation is £8,115 billion and the median firm market capitalisation is £3,280 billion. Size and board remuneration were not very correlated at the beginning of the study period with firms in the 4th quintile (i.e. 4th smallest) by capitalisation having the second largest mean non-executive remuneration in 1998 (see Chart I, p. 7).

Panel B illustrates the evolution of remuneration, particularly the increases for non-executive directors and CEOs that occurs over the study period. Other variables showing significant change over the period include board size (declining), board independence (increasing consistently), the presence of foreign non-executive directors (increasing significantly), turnover amongst directors (increasing consistently), and boards of directors having fewer full board meetings. Whilst research has suggested that UK CEO remuneration was becoming more correlated with US CEO remuneration (Conyon and Murphy (2000)), the means are fractions of the US non-executive director remuneration reported by Ryan and Wiggins (2004) and Yermack (2004) for an overlapping period which noted the decline in relevance of the cash fees received in the US compared to the reliance on cash fee remuneration in the UK.

Panel C illustrates potential industry biases involved in remuneration with non-executive directors at financial services firms having the highest mean remuneration, a sector that is largely not international, product diverse, or highly volatile and is regulated (contrasts with Bryan, Hwang, Klein and Lilien (2000)), whereas similarly more domestic oriented utilities provided the lowest mean remuneration whilst holding the highest mean number of full board meetings (Bryan et al (2000)) – noting the low mean market capitalisation. Women have more significant presence amongst both these sectors, but are most visible in the least remunerated group (small sample size) with the suggestion that adding women to the board does not increase remuneration. Not surprisingly, the UK's basic industry sector which includes many of the most global firms listed in the UK has higher non-executive director remuneration than the mean with the highest mean representation of foreign non-executive directors (42%), and the highest mean board independence. Panel D

providing further industry variance statistics includes a chi-square statistic casting doubt on the strength of industry influence on remuneration.

Non-executive director remuneration has steadily increased (mean & median) over the study period with a mean of £38,400. Charts I and III (p.7-8) above depict the general concentration of remuneration around the mean level in 1998 moving to increased levels and correlation with market capitalisation in 2004 (Chart II). Most noticeable over the study period is the one way direction of remuneration relative to the variability of the independent variables underlining the fixed fee nature of remuneration and also its immunity from negative factors.

Firm descriptive attributes include market capitalisation and employee numbers (and specific industry segmentation in Panel B). Market capitalisation varied widely over the time periods' ballooning and collapsing markets. The mean employee number of 35,289 overstates a small number of the largest firms and a group of domestic retailers and financial institutions (see Panel C) but is less volatile than capitalisation. I have used a logarithmic scale for these variables in my regressions.

As a measure of market perception (and growth prospects) that may influence remuneration, I utilise Market Value to Book Value ratio noting that where firms had negative equity I substituted the average ratio of the sector in that year. The market's balloon and bust extreme swings in values encouraged the use of a logarithmic scale in my regression analysis.

Dividend payout ratio is used as a measure of firm maturity and control of the agency problem. The mean 56% payout may overstate the payout policy of firms as during the bear market (early 2000s), firms choose not to reduce their dividend payments (DeAngelo and DeAngelo (1990) and DeAngelo, DeAngelo and Skinner (1992)). This relatively high dividend payout ratio across industries (Panel C) demonstrates the overall maturity of Britain's largest listed firms.

Total share return confirms market movements over the period with the mean 10% (Panel A) best viewed in comparison with the annual volatility in Panel B. Return on equity provides further confirmation on volatility in the market over the study period. The mean 25% ROE is illustrative of the large amount of intangible assets that were not recorded on balance sheet (as assets or as equity).³²

Foreign directors presence on the boards of large listed firms is the percentage of foreign non-executive directors (those listed in the annual report as not British) to total non-executive directors.³³ Foreign non-executive directors increased from 14% to 27% of non-executive directors from 1998 to 2004 with a mean of 25.5%,^{xx} by 2004 over 70% of large UK firms had at least one foreign director (Hahn (2006)).

³² Prior to 1998 financial reporting standards required all acquired goodwill to be written off at acquisition and firms were encouraged to 'recognise' or 'monetise' these assets in the bull market of 1998 to 2000.

³³ I believe that using total foreign directors as a measure may be misleading as foreign executives would be more likely to be resident in the UK with similar attributes to UK directors.

Women directors' presence on the boards of large listed firms is the percentage of women non-executive directors to total non-executive directors.³⁴ Women non-executive directors increased from 10% to 12% from 1998 to 2004 with a mean of 11%.

Mean board size of 11.13 directors belies the consistent trend for smaller boards as encouraged by the Combined Code. The consistently negative correlation between board size and independence underlines the fact that board independence has been achieved not through the addition of non-executive directors but through the loss of executive directors over the sample period suggesting support for the agency framework and suggesting increased power for non-executive directors (Ryan and Wiggins (2004)).

Board independence is measured using non-executive directors³⁵ to total board directors. The mean figure of 50.9% cannot convey that the 1998 mean was a 48% minority which steadily increased to a 53% majority in 2004. The mean board of directors was not independent prior to the millennium.^{xxi} Boards of directors in the US effectively made this change (endogenously) 20 years earlier (also see Denis and Sarin (1998) for the US and Lasfer (2005) for the UK for certain factors affecting board changes).

The average length of service for each board's non-executive directors is a mean 4.26 years. This figure belies the increasing speed of non-executive director turnover from 4.68 years in 1998 to 3.97 years in 2004; Yermack (2004) found only 16% of non-executive directors in the US left boards before 5 years of service – based upon mean turnover a UK board would have seen over 100% turnover in less time. For completeness, I also examined the average age of non-executive directors finding a high correlation (autocorrelated) with non-executive tenor. The mean age of non-executive directors (average per board) remained 58 years old over the sample period with continually declining standard deviation. The average age of executive directors remained between 50-51 years old over the sample period.

Full Board Meetings are as noted in the annual report as board meetings and strategy sessions. The mean number of board meetings of 8.88 belies the consistently declining number of full board meetings from a mean of 9.81 in 1998 to a mean of 8.57 in 2004; prior research has suggested this change was largely due to the increased presence of foreign non-executive directors (Hahn (2006)).

CEOs' remuneration (Greenbury) is based upon factors tied to firm performance, with the chairman's remuneration somewhere between CEO incentive and non-executive director fixed fees. I examined average chairman's remuneration³⁶ and CEO remuneration with the understanding that options, pensions, and other management remuneration may not have been accurately reported for CEOs and chairmen during the study period based upon disclosure standards of the time.

³⁴ I believe that the very small minority of women executive directors would challenge the significance of any findings based upon such statistics.

³⁵ I do not include the chairman as a non-executive director following UK corporate governance convention.

³⁶ In each year 5-7 chairmen are listed as CEOs (or executive). Some annual reports list chairmen as part-time and some as executive or non-executive, I consider a chairman as non-executive if there is a separate chief executive officer.

Mean chairmen's remuneration of £348,000 is less representative of the industry variability that is visible on Panel C and the overall variance amongst firms evidenced by the large standard deviation of £416,000. ³⁷

For non-financial firms, I examined financial stress as Total Debt to EBITDA. Traditional gearing (leverage) or debt to capitalisation ratios are less accurate measures of stress³⁸. The average Total Debt to EBITDA of 2.56x indicating an average A- to BBB credit range³⁹ is slightly distorted (negatively) by a strong representation of consumer goods and services firms supporting higher gearing ratios and a regulatory regime that encourages higher debt amongst utilities (suggesting a somewhat higher and centre investment grade quality and limited average financial stress). Few firms are stressed to below investment grade status. I did not examine financial stress for financial services firms as their regulatory regimes permit minimal variation in financial stress.

Industry Variation

Table I, Panel C above, notes the two industries most effected by regulation have the highest (financial services £43,580) and lowest (utilities £33,410) mean remuneration. Collectively, these sectors represent almost 30% of listed market capitalisation. Whereas financial services firms, on average, have boards larger than the mean, utilities firms have the smallest mean board size and meet most often of the sectors utilised (on the basis of time and effort it appears utilities get the most value from their boards), also noting that utilities have the highest percentage of women non-executive directors.

Basic industries, with the largest mean capitalisation of £14 billion, include many of the titans of global oil and mining and the highest percentage of non-British non-executive directors (42%).^{xxiii} As the most independent of boards (mean is 56%), the diversity of foreign non-executive directors is contrasted by the paucity of women non-executive directors. The global reach of these companies suggests lower political needs in any single market, a potential correlation for women non-executive directors (Agrawal and Knoeber (2001)).

The maturity and disappearing prospects of the industrial sector are highlighted with the highest mean dividend payout ratio (66%) and the smallest mean market capitalisation. Global pressures on British industries may not be fully grasped based upon the mean 21% of foreign non-executive directors, the lowest percentage of the non-regulated sectors.

³⁷Subsequent to the splitting of the CEO and chairman's roles, chairmen are principally responsible for the management of the board of directors, thus, it is hard to understand the practical and theoretical underpinnings of why mean chairmen's remuneration rises and falls. Empirical research on board performance is as challenging as the definition of a successful board of directors.

³⁸ See note 31 above (on UK accounting write-off policy).

³⁹ A substantial number of firms do not have public ratings.

TABLE I DESCRIPTIVE STATISTICS

PANEL A - 1998-2004

	Non-Executive Director Remuneration (avg.)	Market Capitalisation	Employees	Market to Book Ratio	Dividend Pay Ratio	Total Share Return	Return on Equity	Foreign Non-Executive Directors	Women Non-Executive Directors	Full Board Size	Board Independence	Non-Executive Tenor (avg)	Full Board Meetings	Chairman's Total Remuneration	CEO Total Remuneration
	£000s	£000,000s		Multiple	%	%	%	%	%	Members	%	Years		£000s	£000s
Mean	38.4	8115	36205	3.17	56%	10%	25%	25%	11%	11.129	0.510	4.262	8.884	348	1001
Median	35.4	3280	19952	2.25	53%	8%	14%	20%	9%	11	0.5	4	9	216	777
Maximum	104.2	128579	412574	151.04	100%	353%	3213%	100%	67%	22	0.8	16	17	6175	6883
Minimum	14.5	582	137	-345.22	0%	-90%	-139%	0%	0%	5	0.222	0	4	0	170
Std. Dev.	12.63	15627	49195	16.97	29%	36%	134%	25%	12%	2.745	0.109	2.166	2.397	416	750
Correl.	1	0.43	0.21	-0.01	0.15	-0.04	-0.01	0.21	0.12	0.34	0.25	0.02	0.01	0.23	0.45

This sample is selected from the 150 largest listed firms in the UK as published in Spencer Stuart's 1998, 1999, 2000/2001, 2002, 2003, 2004 Board Indices providing 900 total firm years which subsequently provided 677 firm years (198 different firms) due to missing board data (e.g. 15 without non-executive director remuneration data, 70 without board meeting data). Observations are biased towards the latter years (see below) due to larger number of firms provided full detail. Non-executive director average remuneration is the sum of all fees paid to all non-executive directors excluding the chairman divided by the number of non-executive directors at the firm. Market to book and return on equity in the UK often provided extreme measures due to the pre-1998 Financial Reporting Standards policy of writing off 100% of goodwill on acquisition and the large asset write-downs post 2000. Negative market to book occurs where firms have negative book equity. Dividend payout ratio is capped at 100% and includes firms paying dividends that incurred losses, such that a firm incurring a loss and paying any dividend has a 100% payout ratio. Total share return is the dividend and share price appreciation (or depreciation) during the prior 12 months. Foreign non-executive directors is the number of foreign non-executive directors divided by the number of non-executive directors (excluding the chairman). Women non-executive directors is the number of women non-executive directors divided by the number of non-executive directors (excluding the chairman). Board independence is the total number of non-executive directors (excluding the chairman) divided by the total number of directors. Non-executive tenor is the average of length of service of the non-executive directors at the firm (excluding the chairman). Chairman's and CEO total remuneration are as stated in the annual report.

PANEL B - ANNUAL STATISTICS (Means Only)

	Non-Executive Director Remuneration (avg.)	Market Capitalisation	Employees	Market to Book Ratio	Dividend Pay Ratio	Total Share Return	Return on Equity	Foreign Non-Executive Directors	Women Non-Executive Directors	Full Board Size	Board Independence	Non-Executive Tenor (avg)	Full Board Meetings	Chairman's Total Remuneration	CEO Total Remuneration	Obs.
	£000s	£000,000s		Multiple	%	%	%	%	%	Members	%	Years		£000s	£000s	
1998	31.37	7377	32303	5.01	48%	36.7%	28%	14%	10%	11.57	48.3%	4.68	9.81	340	652	79
1999	31.64	8237	34662	3.56	46%	15.4%	67%**	19%	10%	11.47	49.6%	4.60	9.39	346	754	91
2001	35.43	10006	36972	3.39	59%	0.0%	10%	28%	9%	11.50	50.5%	4.31	8.55	427	1012	121
2002	38.26	7304	35957	1.88	63%	-12%	10%	28%	11%	10.90	51.4%	4.12	8.65	328	1001	126
2003	42.29	7421	37479	5.25	62%	10%	14%	28%	12%	10.90	51.8%	4.16	8.82	321	1134	129
2004	46.29	8192	37908	3.41*	54%	22%	31%	27%	12%	10.73	53.1%	3.97	8.57	326	1242	131

*In 2004, British Sky Broadcasting market to book ratio was -325 due to its £12 billion market value and its minimal negative equity value, based upon existing UK accounting standards (a most extreme situation). Inclusion of BSKyB in the 2004 Market to Book ratio would have provided a mean of 0.741 but does not affect other statistics. **Return on equity figures in 1998 and 1999 were highly affected by UK accounting standards goodwill write-off requirements prior to 1998 which resulted in acquisitive firms having minimal book values (particularly the media and brands sectors were affected). The acquisition and subsequent sale of largely intangible based businesses at the height of the bull market (late 1990s) produced numerous very high ROE figures that were later shown to have poor business fundamentals.

TABLE I - PANEL C SELECTED INDUSTRY MEANS (1998-2004)

		All Non-Financial Sectors	Financial Services	Basic Industries	Technology & Telecoms	Cons. Goods & Healthcare	Cons. Services	Industrials	Utilities
Non-Executive Director Remuneration (avg.)	£000s	36.97	43.58	42.82	39.47	37.83	36.78	34.78	33.41
Market Capitalisation	£000,000s	7353	10912	14357	18064	10973	4359	2676	4534
Employees	000s	38536	27655	50106	35361	42977	50946	27842	12289
Market to Book Ratio	Multiple	3.40	2.29	2.67	5.06	4.88	3.54	2.20	2.46
Dividend Pay Ratio	%	55%	60%	45%	44%	50%	57%	66%	56%
Total Share Return	%	11%	10%	24%	-2%	12%	12%	7%	9%
Return on Equity	%	27%	14%	20%	11%	**71.1%	19%	17%	17%
Foreign Non-Executive Directors	%	28%	15%	42%	34%	41%	23%	21%	14%
Women Non-Executive Directors	%	10%	12%	5%	13%	12%	13%	4%	17%
Full Board Size	Members	10.73	12.61	11.90	10.84	11.15	10.62	10.33	9.96
Board Independence	%	50.5%	53.2%	56.0%	50.0%	54.3%	50.3%	46.4%	48.5%
Non-Executive Tenor (avg)	Years	4.05	5.04	3.69	3.19	3.97	4.37	4.39	3.58
Full Board Meetings	No.	8.72	9.48	8.41	8.26	7.75	8.94	8.93	10.02
Chairman's Total Remuneration	£000s	316	466	336	320	379	318	309	194
CEO Total Remuneration	£000s	963	1141	1107	1115	1208	974	840	526
Debt/EBITDA*	Multiple	2.56	n/a	3.28	1.92	2.02	2.64	2.38	3.54
Obs.		532	145	52	45	99	155	124	57

**In 1998 British American Tobacco reduced its book equity to a minimal amount through divestiture resulting in an ROE of 3200%, excluded the industry ratio drops to 35%; high returns on equity and assets are typical of UK consumer brand companies. *Scottish Power with almost no cash flow in 2002 had Debt /EBITDA of 302x, the non-FI figure would have inflated to 3.5x, and the Utilities industry figure would have inflated to 8.54x, respectively if these were used.

TABLE I - PANEL D INDUSTRY VARIANCES (1998-2004)

Non-Executive Director Remuneration (avg.)		Financial Services	Basic Industries	Technology & Telecoms	Cons. Goods & Healthcare	Cons. Services	Industrials	Utilities	$\chi^2(6)$
£000s	Mean	43.58	42.82	39.47	37.83	36.78	34.78	33.41	2.303
£000s	Median	41.33	38.60	35.00	35.00	34.17	33.25	30.25	
£000s	σ	14.74	14.37	17.05	11.70	10.46	8.98	9.13	
£000s	Maximum	93.27	73.60	93.63	82.00	104.20	67.63	61.17	
£000s	Minimum	18.30	22.50	17.00	17.13	14.50	20.00	21.00	

Non-executive director tenor is 25% longer in financial services (the sector with the highest non-executive director remuneration) relative to non-financial services; I suggest this longevity may also be due to the low business volatility suffered by a very visibly regulated industry with low volatility. Higher remuneration for financial services non-executive directors may also be suggestive of additional responsibilities for depositors and claimants (John and Senbet (1998)), for example, though it is hard to say that the board of an industrial firm producing a hazardous product has any less responsibility.

Chairmen's mean remuneration by industry varies considerably more than non-executive director remuneration with financial services (£466,000) substantially more than double utilities (£194,000), noting market capitalisations with similar variation, and the different sizes of boards (12.6 v. 10 directors).

CEO mean remuneration by industry shows relatively minor variation with the notable exception of utilities at roughly one-half the mean. The limited variation from the mean of most sectors casts doubt on the concept of remuneration for complexity (agency framework) and is more suggestive of bureaucratic or managerial effects, and ineffective non-executive director control.

Multivariate Analysis

Table II (p. 29) presents evidence from testing the theoretical bases discussed above.

The multiple regression model (Panel A) has a strong explanatory power, adjusted $R^2 = 47.2\%$, providing support to both the agency framework and managerial power. Within the agency framework and as expected, market capitalisation (0.0000) as a proxy for complexity (Boyd (1996)), board meetings (0.0119) as evidence of effort (Hempel and Fay (1994)), and dividend payout ratio ($.0238$) as evidence of controlling the agency problem (Boumosleh (2005)) are correlated with non-executive director remuneration. However, managerial power is strongly suggested by the correlations with CEO remuneration (0.0001) and non-executive director tenor with non-executive director remuneration (Bebchuk and Fried (2004) and Yermack (2004)); in light of the non-business management role of non-executive directors and their lack of incentive remuneration, correlation with CEO remuneration may be suggestive of CEOs rewarding non-executive directors as a *quid pro quo* for increasing their own remuneration.

Within the agency framework non-executive directors have the key task of monitoring for shareholders, and whilst finding market value as a proxy for complexity correlated with remuneration, I also expected the industry dummies to provide some explanatory power confirming that certain sectors were influential on non-executive director remuneration, i.e. that complexity for the director is more than just size. Finding that only the financial services sector was correlated (not significant) suggests that market capitalisation may also be a proxy for another remuneration factor but not necessarily complexity. Other than financial services, other industry dummies were negatively correlated with non-executive director remuneration. Year dummies, which were all significant (0.0000), further suggest the dominance of non-firm performance determinants of remuneration (the bureaucracy effect).

The alignment of full board meetings and non-executive directors' remuneration provides support for the agency framework (and the Combined Code) as non-executive directors appear to be receiving more remuneration for more effort on behalf of shareholders (as measured by time). Though, it has been shown that board meetings are not correlated to firm needs (Hahn (2006)). This correlation occurs despite the fact that the industry sector

providing the lowest level of remuneration had the highest mean board meetings (Utilities). Non-executive director remuneration alignment with the dividend payout ratio may provide the ultimate support for managing the agency problem, and is supported by similar negative correlations with market value to book value (no significance). However, negative correlation with return on equity suggests disservice to the shareholder and cannot support the agency framework. Whilst correlation with dividend payout ratio is largely a function of poor performing firms maintaining their dividend in the top quintile of remuneration.⁴⁰ Amongst the largest listed firms, by definition, are the most successful growth firms having achieved the highest market values, thus it seems that non-executive directors may receive higher remuneration from firms with lower prospective growth and higher agency problems. These correlations support monitoring and control under the agency framework but do not suggest advisory provision. In addition, not provided, models I tested non-executive director remuneration and total shareholder return and found no correlations further questioning non-executive directors' advisory role under the agency framework.

Extending the agency framework for stakeholders (in a separate unprovided model), I found no correlations for financial stress, measured by total debt to EBITDA, and non-executive director remuneration amongst non-financial institutions (contrasts with Brick, Palmon and Wald (2002)). Whilst it may be disputed whether non-executive directors have a role monitoring for debt holders, the largest listed firms have relatively higher debt capacities and this evidence suggests no incentives for non-executive directors for increased use of debt (univariate analysis also demonstrates a high mean credit quality). With debt as a theoretical control factor due to its claims on cash flow, this lack of correlation may support executives easily avoiding the use of debt and its constraints.

Demographic factors provided mixed evidence of diversity's effect on remuneration though without strong statistical significance. Foreign non-executive directors are positively correlated to remuneration supporting the agency framework if they are brought on to the board to add to the advisory skill base but their presence may also only serve to increase overall remuneration levels. In Table I (Panel C) I noted the higher relative presence of foreign non-executive directors in three of the top four industry sectors by remuneration while foreign non-executive directors have their lowest relative numbers in the sector with the lowest remuneration. Women non-executive directors are negatively correlated with non-executive remuneration in conflict with the agency framework if they are adding skills to the board. This can be explained (Table I, Panel C) by women non-executive directors' largest relative representation (17%) in the sector that offers the lowest remuneration (Utilities) and virtual absence (5%) from the second highest remunerated sector (Basic Industries).

⁴⁰ Further research to explore the links between remuneration and dividend payout is suggested.

Table II Non-Executive Director Remuneration Regression Analysis

PANEL A - CUMULATIVE STATISTICS 1998-2004

Variable	C	Market Capitalisation (log)	Market to Book Ratio (log)	Dividend Pay Ratio	Return on Equity	Foreign Non-Executive Directors	Women Non-Executive Directors	Full Board Size	Board Independence	Non-Executive Tenor (avg)	Full Board Meetings	Chairman's Total Remuneration	CEO Total Remuneration	Industry Dummies	Year Dummies
Coefficient	-1.0405	9.0247	-0.7289	2.9135	0.0010	2.9444	-0.2386	0.3099	3.7115	0.3175	0.4450	0.0015	0.0025	-	-
t-statistic	-0.255	7.575	-0.676	2.265	0.370	1.523	-0.074	1.752	0.988	1.806	2.521	1.496	4.072	n/a	n/a
p-value	0.7987	0.0000	0.4995	0.0238	0.7117	0.1283	0.9407	0.0803	0.3235	0.0714	0.0119	0.1350	0.0001	.04-42	.00-.02
Correlation	n/a	0.427	-0.008	0.152	-0.007	0.208	0.122	0.335	0.246	0.016	0.010	0.225	0.447		
R-squared			49.0%												
Adjusted R-squared			47.2%												

The sample data is the same as in Table I. Coefficients, t-statistics, and p-values are as stated. Correlations for market capitalisation, employees, market to book and CEO remuneration are not logarithmic (correlations using log are marginally higher values). Industry dummies all have negative coefficients, except financial services (all not significant). Year dummies all have negative coefficients and are significant (<0.002). N.B. Data has a bias for the latter four years as sample size increased during these years (see table below).

PANEL B - ANNUAL STATISTICS (Coefficients and p-Values)

	C	Market Capitalisation (log)	Market to Book Ratio (log)	Dividend Pay Ratio	Return on Equity	Foreign Non-Executive Directors	Women Non-Executive Directors	Full Board Size	Board Independence	Non-Executive Tenor (avg)	Full Board Meetings	Chairman's Total Remuneration	CEO Total Remuneration	Adj. R ²
1998 Coef.	-	+	-	-	-	-	-	+	+	-	+	+	+	18.8%
p-value									0.0162		0.0689			
1999 Coef.	-	+	-	-	+	-	-	+	+	+	+	+	+	28.8%
p-value	0.0658	0.0037		0.0670					0.0516	0.0328				
2001 Coef.	-	+	-	+	+	-	+	+	+	+	-	+	+	46.8%
p-value	0.0007	0.0063	0.0572			0.0865				0.0885		0.0057	0.0006	
2002 Coef.	-	+	-	+	+	+	-	+	+	+	+	+	+	39.0%
p-value	0.0027	0.0077	0.0537	0.0115	0.0912	0.0577			0.0249				0.0671	
2003 Coef.	-	+	-	+	-	+	+	+	-	+	+	-	+	24.8%
p-value		0.0058												
2004 Coef.	-	+	-	+	-	+	-	+	-	+	+	-	+	48.2%
p-value	0.0005	0.0000		0.0375					0.0656		0.0772	0.0371	0.0431	

The sample includes the 150 largest listed firms in the UK as published in Spencer Stuart's 1998,1999,2000/2001, 2002,2003, and 2004 Board Indices providing 900 total firm years which were subsequently reduced to 677 firm years due to missing board meeting data (70 firms) and other board data and missing or unreliable financial data (largely from acquiring and acquired firms). Observations have bias towards the latter four years due to greater data availability (79,91,121,126,129,131). Non-executive director average remuneration is the sum of all fees paid to all non-executive directors except the chairman divided by the number of non-executive directors for each firm.

CEO remuneration provides significant correlation (*0.0001*) with non-executive director remuneration. Table II (Panel B) notes the continuing correlation of CEO remuneration and non-executive director remuneration over of my study period; however, it is important to note how the significance of this correlation strengthens over time (see also Charts II & IV). Greenbury's prescription for non-executive directors to be paid based upon their time commitment was more prevalent prior to the millennium when it may have been argued that non-executive directors may not have had their interests aligned with shareholders or with management (with the exception of retaining their positions), however, in more recent times the correlation (increasing significance) suggests that non-executive directors have greater alignment with management. Non-executive directors thus may have enhanced their positions with increased awards to executives supporting the managerial power theory of control.

Chairman's remuneration is positively correlated with non-executive director remuneration though the evolutionary data in Table II (Panel B) provides a depiction of alignment in earlier years and an increasing negative correlation in the later years. ^{xxiii} More research needs to be completed on rewarding non-executive chairmen.

Corporate governance variables of board size and independence were correlated with non-executive director remuneration; however, evolutionary examination in Table II (Panel B) suggests that as boards were becoming independent pressure was exerted on increasing non-executive director remuneration providing correlation. After the majority of boards of directors became independent such pressure no longer existed. In large part, board independence was achieved through the loss of an executive director on the mean board rather than the addition of an incremental non-executive director (board size declined from 11.57 members to 10.73 members whilst independence increased from 48.3% to 53.1% from 1998 to 2004). Thus, upward pressure on non-executive director remuneration was not necessarily the result of wholesale recruiting of new non-executive directors. Non-executive director tenor (average length of service) is correlated (*0.016*) with non-executive director remuneration which may be interpreted as conflicting with the agency framework and confirming corporate governance views that longer serving non-executive directors lose independence and either become self-serving and/or more aligned with management. Non-executive director tenor decreased markedly over the study period suggesting increased demand for non-executive directors, though the correlation of longer serving non-executive directors with remuneration suggests that it is incumbents who exert upward pressure on remuneration. The Greenbury Group would have been pleased to observe the number of full board meetings (*0.010*) was correlated with non-executive director remuneration, though the evolutionary and descriptive data illustrate less consistency and suggest concentrations amongst selected industries (for example, the financial services sector has the highest non-executive director remuneration and the highest number of board meetings amongst the larger industry sectors).

Robustness

The most dominant explanatory variable for non-executive director remuneration is market capitalisation which I have shown to become more salient over time, but is market capitalisation a proxy for the complicated task of non-executive directors or simply a representation of available largesse for excess remuneration? To verify the robustness of this

explanation for remuneration, I ran similar regressions substituting the number of employees for market capitalisation (*adj. R²* declines from 47.2% to 44.1%) and employees(log) is significant (*0.000*). The reduction in explanatory power is due to the large number of consumer services firms (grocers and retailers) with large staffs but relatively more modest market capitalisations. Having noted the negative correlations and lack of significance of industry dummies (as another proxy of complexity), I used a similar regression model as the principle model on various industry bases. Amongst financial services firms, the number of employees was a stronger explanatory variable for non-executive director remuneration than market capitalisation, whilst amongst non-financial services firms CEO remuneration has the greatest explanatory power (superior to market capitalisation), however, on an industry by industry assessment the models provide reduced explanation perhaps confirming that market capitalisation is more a proxy for largesse than complexity.

CEO remuneration is the second most consistent explanatory variable and is correlated with non-executive director remuneration. The Combined Code instructs that CEO remuneration be based upon corporate performance, therefore CEO remuneration's correlation with non-executive remuneration may serve as a proxy for performance (and supportive of the agency framework) or may represent two self-serving interests at the corporate trough. I utilised models with total shareholder return statistics (TSR) and found no correlations with CEO remuneration. This is not surprising as TSR varies widely from year to year and CEO remuneration only increases year to year.

The annual regression models provide further confirmation of the limited effect of independent variables in the early years of the study period (1998 *adj. R² = 18.8%*) to the increasing effect of the independent variables in the latter years of the study period (2004 *adj. R² = 48.2%*) confirming Greenbury as rewarding all non-executive directors in a stewardship or bureaucratic model.⁴¹ Whilst greater market influence would have been expected as determinants over time, the key determinants of size and CEO remuneration inevitably are confirmed as supporting the inability of boards to measure their own performance (Meyer et al (1965)) and the choosing of bureaucratic remuneration solutions (Kohn (2001) and Ezzamel and Watson (2002)).

Confirming the robustness of the annual regression statistics of Table II Panel B are the chi-square statistics in Table III Panels A & C which utilize the last two years of data. Size and executive remuneration are strongly influential of non-executive director remuneration.

⁴¹ Cordeiro et al's (2000) model of 1995 US non-executive director remuneration provided an equivalent *adj. R² = 12%* and Brick et al's (2002) model of US non-executive director remuneration 1992-1999 provided a comparable *adj. R² = 36.8%* by comparison.

TABLE III - 2003 & 2004 Descriptive Statistics Robustness – Quintile Analysis, Chi-Square (χ^2), and *t*-statistic tests. Panels A, B, and C illustrate within quintile ranges the average remuneration of non-executive directors of the UK's largest listed firms. Under the Combined Code on Corporate Governance (1998 and 2003) inclusive of the Greenbury Report (2005) and since Cadbury (1992), NEDs received fixed fees set in advance that reflect time devoted. The Combined Code does not suggest that any other factor should influence remuneration (which perhaps suggested a view that the NED task is similar amongst firms) and specifically has clauses that seek to limit NED remuneration tied to Executive Remuneration. This sample is derived from the UK's largest 150 listed firms for the 2 years (or 300 firm years); the sample was reduced to 254 firms through missing or incomparable data mostly from firms that were dual listed, had combined Chairman/CEOs (apprx. 5%), and firms with partial reporting years. Firms were selected from Spencer Stuart's Board Indices for 2003 and 2004 and include no investment trusts. No other industries were excluded.

PANEL A

Non-Executive Director Pay (Avg)	Obs	Market Capital (£millions)		Employees No.		Dividend Payout %		Return on Equity %		Market to Book Ratio	
		μ	Median	μ	Median	μ	Median	μ	Median	μ	Median
£54,501-£105,00	50	23310	12040	59467	34936	63.0%	56.0%	19.2%	16.4%	3.23	2.09
£44,501-£54,500	50	7986	4194	51397	23296	59.8%	56.5%	22.2%	12.3%	2.75	2.06
£38,001-£44,500	50	3158	2221	30335	17741	60.0%	60.4%	15.5%	11.0%	4.18	1.88
£34,000-£38,000	51	3116	1873	32211	19749	60.3%	57.6%	19.7%	13.4%	2.57	2.36
Up to £33,999	53	1978	1568	19570	9199	48.8%	41.7%	16.5%	15.0%	2.54	1.59
χ^2 (4)		57947***		24359***		4.194		0.953		0.552	
<i>t</i> -diff (low & high)		5.233***		4.256***		2.585***		0.463		1.229	

Panel A illustrates the relationship of NED remuneration to firm descriptive measures suggestive of complexity of the monitoring task (capitalisation and employees), maturity and growth opportunities (dividend payout and market to book ratio), and relative performance (ROE) – note that NEDs receive fixed fees determined in advance that are not dependent on performance. The average NED remuneration in 2003 & 2004 was highly correlated with size of the firm and to a minor degree with the dividend payout.

PANEL B

Non-Executive Director Pay (Avg)	Obs	Board Meetings No.		Board Independence %		Board Size Members		NED Avg. Length of Service Years	
		μ	Median	μ	Median	μ	Median	μ	Median
£54,501-£105,00	50	8.82	8.00	54.9%	53.6%	13.12	13.00	4.41	4.00
£44,501-£54,500	50	8.86	9.00	53.5%	50.0%	11.18	11.00	3.41	3.80
£38,001-£44,500	50	8.72	9.00	52.9%	50.0%	10.26	10.00	4.35	4.00
£34,000-£38,000	51	8.71	9.00	51.5%	50.0%	10.02	10.00	4.40	4.00
Up to £33,999	53	8.64	8.00	48.4%	50.0%	9.45	10.00	3.76	4.00
χ^2 (4)		0.014		2.604		3.213		0.481	
<i>t</i> -diff (low & high)		0.409		3.193***		7.346***		1.538	

Panel B illustrates the relationship of NED remuneration to corporate governance factors specifically identified in the Combined Code (meetings should be 'sufficiently regular', boards should have a majority of independent directors, boards should not be 'unwieldy' as to size, and longevity is viewed negatively losing independence). NED remuneration did not seem highly correlated to any of these variables.

PANEL C

Non-Executive Director Pay (Avg)	Obs	Foreign NEDs %		Women NEDs %		Chairman's Pay (£000s)		CEO's Pay (£000s)	
		μ	Median	μ	Median	μ	Median	μ	Median
£54,501-£105,00	50	0.356	0.333	0.1394	0.1250	506	416	1628	1470
£44,501-£54,500	50	0.330	0.292	0.1577	0.2000	285	223	1414	1172
£38,001-£44,500	50	0.283	0.211	0.1019	0.1056	275	200	1075	866
£34,000-£38,000	51	0.256	0.200	0.1028	0.0000	253	177	924	792
Up to £33,999	53	0.171	0.000	0.1048	0.0000	306	170	867	691
χ^2 (4)		8.728*		2.039		108.63***		633.53***	
<i>t-diff (low & high)</i>		3.930***		1.262		2.274***		5.279***	

Panel C illustrates factors that may have influenced NED remuneration that are not in the Combined Code or are identified as arms-length issues in the Code. Whilst significant correlation with the incremental increase of foreign board members is witnessed and significant and suggests that addition of foreign skills adds expense, the correlations with CEO's and Chairman's remuneration seem almost in direct conflict with the Combined Code. Whilst NEDs are paid fixed fees based upon time, CEOs are expected to be paid relative to firm performance which occurs subsequently. Chairmen, under the Code, are responsible for the operation of the board and may receive or additional pay. Panel C highlights the conflict with theory suggesting that the NED that may make the most significant effort monitoring the agency problem and controlling management may not be appropriately rewarded or the perhaps the reverse – in that the shirking of monitoring and control provides increased reward. It should be noted that the Appendix Correlations Table suggests that Chairmen's and CEO remuneration is not correlated to measures of performance. χ^2 as utilised in this table is from Curwin & Slater (2002) and *t-diff* is the test for the difference between to means with unequal variances utilising the Microsoft Excel function.

5.0.0. Conclusions

Accepting a non-executive director's position at either a financial services firm (mean remuneration of £43.58k) or a consumer goods firm (£37.83k) or a utility (£33.41k) during the 1998-2004 period on the basis of remuneration might have seemed an easy choice. Being hired on fixed fee contract with no upside or downside remuneration risk, accepting candidates might have been expected to assess the workload and effort required before their decision. However, the most astute candidate would have limited his assessment to the firm's relative size on the stock exchange, how much the CEO is remunerated, and perhaps as an afterthought if there was enough cash coming in to keep up the dividend.

The agency framework suggests that non-executive directors are the agents of shareholders, monitoring, controlling and advising on shareholders' behalf. However, corporate enlargement (M&A), higher CEO reward, and longevity appear to be principal determinants of non-executive director remuneration. I do not suggest that non-executive directors arrive at board meetings encouraging acquisitions and excessive executive remuneration as a means to enrich themselves, however, the annual report and market data analysed indicates that these activities are ultimately rewarded. The correlation and significance of dividend payouts and non-executive director remuneration should not be understated as strong evidence supporting non-executive directors' monitoring and controlling the agency problem and confirmation of working aspects of the agency framework for shareholder alignment. Similarly, boards have been able to add the diverse skills of foreign non-executive directors without strong evidence of their influencing upward movements in remuneration which provides further support for non-executive directors acting as the agents of shareholders. Yet the single direction of non-executive director remuneration changes, the greater correlation of non-executive director remuneration with market size and CEO remuneration, and the continuing correlation of non-executive director tenor and remuneration all provide support to managerial (executive) power or bureaucracy as key determinants and not the agency framework. Non-executive directors, based upon remuneration, largely do not appear to have the same interests as shareholders.

Anecdotally, support is frequently noted for non-executive director remuneration levels more commensurate with executive remuneration (the mean non-executive director fee appearing miniscule compared to the mean CEO remuneration); support is also noted due to increased workloads⁴² for non-executive directors. The latter point contrasts with the continually declining number of full board meetings held by large firms (Hahn (2006)), but may have more to do with board members' increased perception of their responsibility (and board committee work) under the heightened attention given to corporate governance in the last decade. 2004's mean non-executive director's remuneration £46,290 – viewed as £3,086 per day based upon 8.5 meeting days and 6.5 preparation days – is equivalent to £802,000 per fifty-two week year and noting that many CEOs work evenings and weekends (and have downside pay) does not seem that far below mean CEO remuneration of £1,242,000. With the mean boards' non-executive director age at 58 years old (executive directors at 51), there is strong likelihood that the majority of non-executive directors are no longer full time executives further suggesting of remuneration that may be attractive for a part-time position for perhaps someone with dated experience that is not exposed to any financial risk.

⁴² See "Non-executive directors' pay up nearly 40%", 2004, Financial Times, 12 December, p.4.

Thus, I suggest that the changes to non-executive director remuneration should not be focused on the amount but on the form (Baker, Jensen, and Murphy (1988)).

More than financial theory, Kohn's (2001) suggestion that human expectation is to have increased reward for the same effort each year and Meyer, Kay and French's (1965) finding that individuals poorly measure their own performance appear as strong factors in the current form of non-executive director remuneration. Our strong historical commitment to fixed remuneration and the avoidance of incentives for non-executive directors are contrary to the agency framework and support stewardship theory, however, my findings do not strongly support the agency framework or stewardship theory, and I suggest they may provide support for managerial power or simply bureaucratic creep. It is difficult to refute our system entirely based upon conflicting US research on incentive remuneration's effects, however, change is merited if the basis of remuneration is either managerial power or bureaucratic effects. Finally, a last 'nail in the coffin of stewardship' and Greenbury is the consistent showing of the regression constant as negative. Surely, if stewardship was the overriding non-executive director role and responsibility of all directors, with firms largely having the same committee structure and meeting frequency, I would expect to see the constant as positively correlated and significant.

Researchers have long suggested that non-executive directors receive some form of mixed remuneration reflecting short and long term objectives (e.g. Boyd (1996)). Clarifying the role and responsibilities of non-executive directors and accepting that remuneration's purpose is to motivate non-executive director behaviour is the key first step to improvement. The concept of self-remuneration will always have the faults described by Meyer et al., thus I suggest that while size (proxy for complexity) continue to influence overall amounts, the form of non-executive director remuneration should be changed. I suggest that non-executive director remuneration continue to be the annual fee now used, but shall be paid by meetings attended, and that other committee fees (amounts) be paid similar to today but also based upon meetings attended (with annual report disclosure). Fees provided in this form provide visibility and financial incentives for meeting attendance as well as the potential for increased remuneration if board requirements increase further supporting stewardship and agency. Following on the theme of changed form and disclosure, I propose that non-executive directors be given the opportunity to receive up to 80% of their fees in restricted shares (at a discount indicative of the option cost of the required holding period and in a tax-deferred format) and that non-executive directors' share take decisions be disclosed in the annual report. Fees accepted in this form demonstrate non-executive directors' own views on management's prospects and their own monitoring, control, and advisory role.

The principles espoused by this structure are

- a) *Retain fixed fee remuneration.*
- b) *Provide clearer motivation to attend meetings (and reduce cost to shareholders if directors fail to attend) and built in remuneration when increased meetings are required.*
- c) *Demonstrate commitment to the firm's medium to long term prospects in relation to each director's capacity.*

d) *Build substantial non-executive director risk and reward without increased cost to the firm or reduced remuneration to non-executive directors.*

These principles and the structure suggested provide non-executive directors a public means to demonstrate alignment with shareholders disclosing whether they are acting as a fiduciary (which investors may prefer in certain directors) monitoring and controlling, or an advisor (or both).^{xxiv} Based upon mean statistics, growth assumptions, and an average 60% equity take, in four years' time the mean boards' non-executive directors' collective interests may would exceed those of a relatively recently arrived CEOs and likely exceed those of poorly performing CEOs (with out-of-the-money options) strengthening the alignment of non-executive director remuneration and interests with those of shareholders and returning support for the agency framework.

The Unintended Consequences of Corporate Governance Efforts?

Our Corporate Governance ethos and its non-executive director remuneration guidance were developed following a number of high profile board failings and particularly corporate failings due to fraud. In 1992 there was a strong need to demonstrate board integrity and the arms-length independence of non-executive directors – whose considerable minority position was focused on the audit committee. The world has moved on since 1992 and we expect more of non-executive directors ---- one only needs to think about the largely non-existent hedge funds and large scale venture capital buyers that did not exist in that era. Corporate governance needs to move on. Should non-executive director remuneration continue as it is today?

In an attempt to gauge the system wide interest in the conclusions and reforms suggested in this paper, I met with key players in the market after producing a draft of this paper. Colin Melvin of **Hermes**, the largest pension fund in the UK and considered 'active', said "Remuneration that is paid by meeting attendance encourages and rewards non-executive directors for their participation at board meetings whilst the disclosure of the form of remuneration chosen (equity or cash, but not share options) by non-executive directors provides a demonstration of their commitment and interest the firm's future."⁴³ In contrast and strongly contrasting with agency theory, alignment and motivation, Andrew Ninian of the **Association of British Insurers** [more passive investors], representing the largest grouping of domestic equity investors, noted the current system "...[of fixed in advance fees] encourages the NED to carry out due diligence on the company and to weigh up possible future time commitments"⁴⁴ strongly supporting the *status quo* and stewardship theory. This divergence of opinion would appear to offer the largest group of investors in the UK's largest listed firms, foreign investors (ONS (2005)), the opportunity to influence the future direction of board remuneration. However, the board of directors of one of the 20 largest listed firms stated "...[US institutions] tend to vote in accordance with UK corporate governance practices rather than US practices"⁴⁵, suggesting that it is the current largest group of investors that are shirking their responsibility to advance UK corporate governance.

Prior to Greenbury's adoption in the 1998 Combined Code, the absence of remuneration committee reporting resulted in totally opaque remuneration decisions and which were also difficult to challenge. Anecdotaly, NEDs note and today it is impossible to find a major firms remuneration committee that does not justify its remuneration recommendations without paid consultant support. The obvious conflicts for these consultants are that they are hired by those whose pay they advise upon and as pay consultants, they are most likely unqualified to judge their clients' performance. Finally, virtually all non-executive directors that I interviewed during this research expressed a view that firm size is inversely correlated with non-executive director effort due to the lack of board support available at smaller firms and the greater likelihood of a single event having a more profound effect on firm viability. The author is the non-executive chairman of a small firm filing with Companies House.

⁴³ Letter to the author dated 10 October 2006.

⁴⁴ Letter to the author 26 September 2006.

⁴⁵ Letter to the author (22 August 2006) from the Company Secretary (available to readers on request).

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Additional Charts

(All tables from the sample group described in Table I)

Chart V – Progression of Remuneration 1998-2004

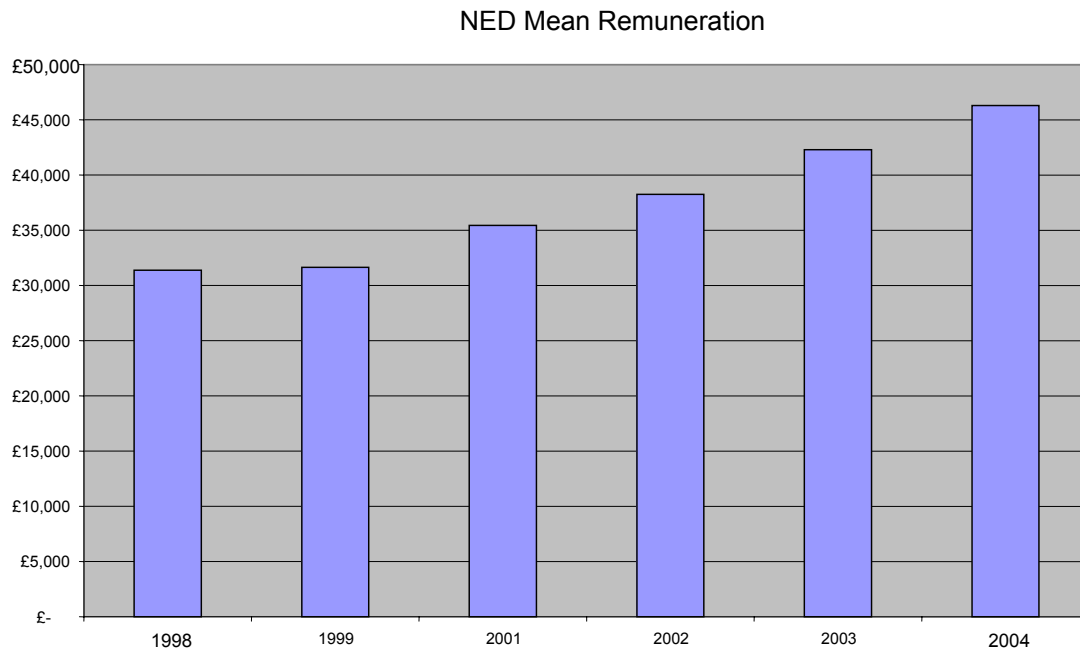


Chart VI

Non-Executive Directors' v Chief Executive Officers' Mean Remuneration

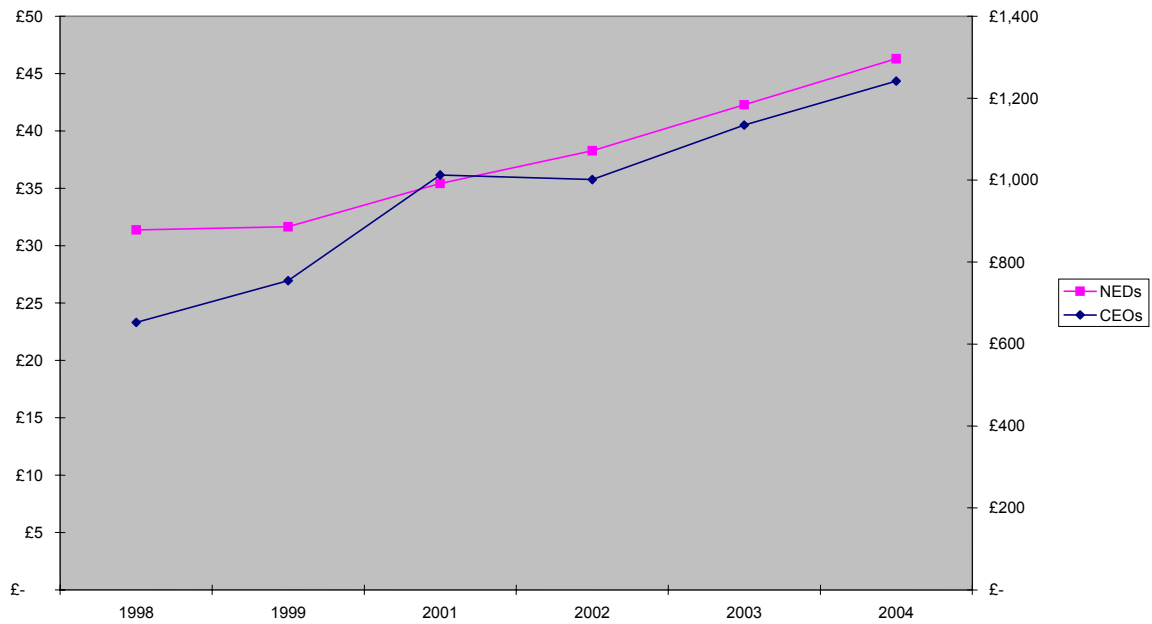


Chart VII

Non-Executive Director Tenor (Avg) v NED Remuneration

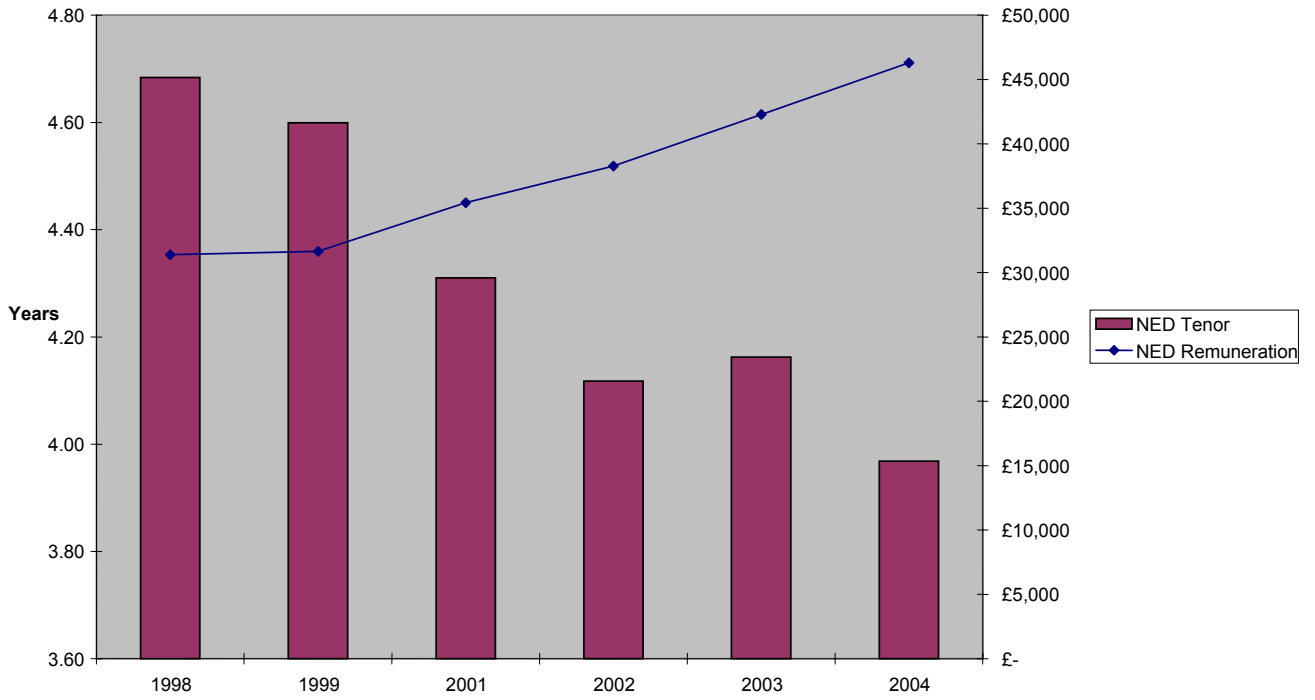
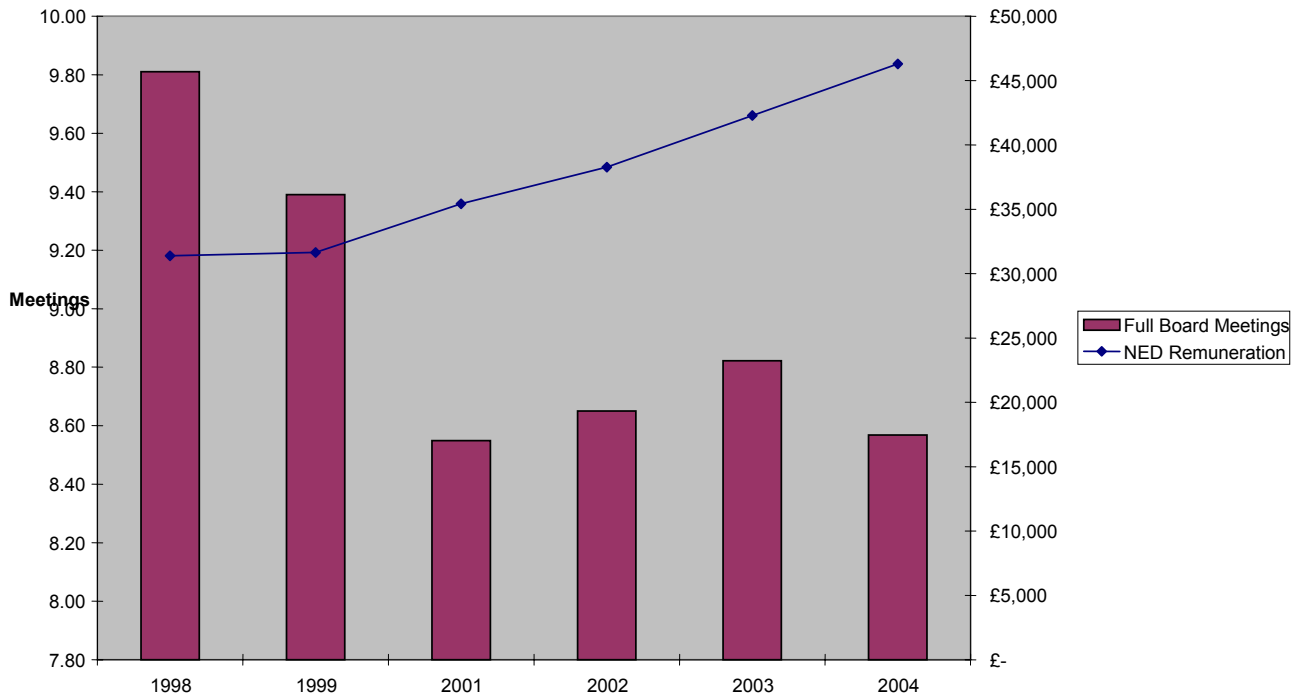


Chart VII

Full Board Meetings v Non-Executive Director Remuneration (Means)



Appendix

Correlations Table	NED Pay	Market Cap.	Employees	Market to Book Ratio	Dividend Payout Ratio	TSR	ROE	Foreign NEDs (%)	Women NEDs (%)	Board Size	NED % of Board	NED Tenor	Full Board Meetings	Chair's Pay	CEO Pay
NED Pay	1	0.43	0.21	-0.01	0.15	-0.04	-0.01	0.21	0.12	0.34	0.25	0.02	0.01	0.23	0.45
Market Cap.	0.43	1	0.41	0.02	0.06	0.01	0.03	0.21	0.17	0.47	0.27	-0.04	0.00	0.22	0.41
Employees	0.21	0.41	1	0.00	0.16	-0.03	0.05	0.17	0.17	0.41	0.10	-0.10	0.04	0.34	0.27
Market to Book Ratio	-0.01	0.02	0.00	1	0.02	0.08	0.08	-0.03	0.00	-0.02	-0.03	0.02	0.00	0.02	-0.05
Dividend Payout Ratio	0.15	0.06	0.16	0.02	1	-0.23	-0.02	0.00	0.09	0.10	-0.06	0.02	0.02	0.09	0.08
TSR	-0.04	0.01	-0.03	0.08	-0.23	1	0.09	-0.13	-0.02	-0.06	-0.03	-0.01	0.07	-0.02	-0.05
ROE	-0.01	0.03	0.05	0.08	-0.02	0.09	1	0.04	-0.04	-0.03	0.02	-0.06	-0.07	0.06	0.02
Foreign NEDs (%)	0.21	0.21	0.17	-0.03	0.00	-0.13	0.04	1	-0.07	0.18	0.37	-0.11	-0.44	0.17	0.33
Women NEDs (%)	0.12	0.17	0.17	0.00	0.09	-0.02	-0.04	-0.07	1	0.06	0.02	-0.12	0.21	-0.05	0.07
Board Size	0.34	0.47	0.41	-0.02	0.10	-0.06	-0.03	0.18	0.06	1	0.15	0.14	0.04	0.32	0.26
NED % of Board	0.25	0.27	0.10	-0.03	-0.06	-0.03	0.02	0.37	0.02	0.15	1	0.04	-0.13	0.08	0.22
NED Tenor	0.02	-0.04	-0.10	0.02	0.02	-0.01	-0.06	-0.11	-0.12	0.14	0.04	1	-0.04	0.07	0.02
Full Board Meetings	0.01	0.00	0.04	0.00	0.02	0.07	-0.07	-0.44	0.21	0.04	-0.13	-0.04	1	-0.16	-0.17
Chair's Pay	0.23	0.22	0.34	0.02	0.09	-0.02	0.06	0.17	-0.05	0.32	0.08	0.07	-0.16	1	0.42
CEO Pay	0.45	0.41	0.27	-0.05	0.08	-0.05	0.02	0.33	0.07	0.26	0.22	0.02	-0.17	0.42	1

End Notes

ⁱ Johnson and Millon's legal analysis conflicts with practice noting the US National Association of Corporate Directors' statement that "directors are elected as shareholders' agents" and, thus, responsible to shareholders (National Association of Corporate Directors (1995), but may highlight that the role of non-executive directors should not be associated with performance in financial theory and also highlight the continuing confusion on non-executive directors' responsibility.

ⁱⁱ Most large firms, e.g. HSBC, offer a variety of fees to each non-executive director and a shrinking minority of firms continue to provide the same fee to all non-executive directors whilst virtually all large firms generally have similar committee structures and meeting schedules for their non-executive directors' participation.

ⁱⁱⁱ For example, Barclays PLC's eight full year non-executive directors each received a unique amount ranging from £43 to £175,000 in 2001 (excl. one partial year amount) whilst Vodafone PLC's seven full year serving non-executives received either £57,000 or £62,000 in 2001.

^{iv} To the mid-1990s it was common for all non-executive directors on a board to receive similar remuneration. By the time of my sample, individual directors' fee opportunities (basic fees, meeting fees, committee chairman's fees, committee membership fees, etc.) create a group that can only be analysed on an average basis

^v US corporate governance during this period was largely focused on performance motivation of already non-executive director majority boards whilst UK corporate governance of the early 1990s was largely a response to several high visibility (accounting) frauds perhaps adding more focus on raising the representation of non-executive directors and establishing monitoring mechanisms than performance.

^{vi} It is important to note that firms and boards of directors have exogenous and endogenous motivators for improving their overall skill set. The New York Stock Exchange's listed company manual (Section 303A.07) states that "at least one member of the audit committee must have accounting or related financial management expertise, as the listed company's board interprets such qualification in its business judgment". The Combined Code on Corporate Governance (Section C.3.1) states that "the board should satisfy itself that at least one member of the audit committee has recent and relevant financial experience." The absence of such skills has been found to correlate to financial irregularities in the UK (Song and Windram (2000)). The skills demanded do not appear to be in short supply suggesting any influence on non-executive director remuneration over the recent past.

^{vii} Holmstrom (1999) noted various conflicts with the concept of developing a positive reputation using his econometric model, effectively questioning "what is a positive reputation?" The lingering question on what is 'reputation' or what is the best reputation for a non-executive director remains unanswered; for example, is a non-executive director likely to obtain more board seats by having an 'agreeable reputation' or a 'contesting reputation'. Thus, if 'agreeable' outweighs 'contesting' there will be no balance and no independence.

^{viii} Intrinsic motivations such as status, influence, and networking opportunities offer measurement challenges to the financial economist, but all involve some degree of increased visibility among peers. In the US, a senior corporate officer of a large firm might reside in any number of localities that may not offer national networking opportunities; however, in the UK the equivalent corporate officer of a FTSE 100 firm is likely to have the same national opportunities including physically rubbing shoulders at the same social events any night in London. It is not my intention to say that status and networking do not have value, but question whether they provide motivation for many board members.

^{ix} The inclusion of firm and external non-numeric factors (such as reputation surveys, the number of analysts following, etc.) in large model analysis provided limited explanatory power and weak correlations of non-executive remuneration to sales per board director, reputation, the number of securities analysts following the firm, CEO remuneration and to a weaker extent firm historical growth; perhaps more interestingly finding no correlations with stock returns, institutional holdings, inside ownership, or the number of board meetings, and noting 13 independent variables had an $R^2 = 12\%$ (Cordeiro, Veliyath, and Erasmus (2000)).

^x Skinner (1953) suggested that behaviour can be influenced through the offering of a stimulus and the granting of the stimulus after the behaviour is performed, though Skinner noted that incentives alone cannot compensate for the lack of facilitating work conditions.^x Contrasting with Skinner, non-executive directors know their remuneration in advance circumventing stimulus while an admission of the problem of unobservable board failings is Higgs' instruction that departing directors provide written reasons for departures beyond planned retirement. Meyer, Kay and French (1965) found that a substantial majority of managers believed they were above average suggesting that individuals may not be able to subjectively or quantitatively determine their own or others' performance or the setting of appropriate measures and tasks for remuneration. Indeed, only a rare, if any, board of directors would admit that it was doing an average or worse job though statistically this must be half of all boards; accepting that boards cannot evaluate themselves may suggest the avoidance of evaluation entirely or lead to the use of arbitrary and easily surpassed factors for relative evaluation. Deci (1971) and Deci et al (1989) found that creating task satisfaction produced superior job performance and satisfaction (often called 'intrinsic' i.e. - self satisfaction at

completing a challenging task) when compared to incentive remuneration (monetary remuneration is 'extrinsic'), though when economic factors surfaced amongst the studied group, intrinsic issues became secondary to economic motivators. Whilst intrinsic rewards to the employee may be numerous – promotion, office size, title, holidays - intrinsic rewards available for non-executive directors remain anecdotal and doubtful. Kohn (1988) noted that people focused on 'high quality' tasks may be more motivated by problem solving or applying initiative to the task and may produce less quality work if focused on the reward; he suggested that [financial] incentives announced in advance may undermine performance more than rewards provided unexpectedly for outstanding efforts defying much of Cadbury and Greenbury. Kohn (1993) suggested that individual incentive remuneration can destroy team efforts and cooperation, deemed necessary at the board of directors' level. Kohn's findings are diametrically opposed with fixed in advance remuneration.

^x Prior to the 1960s, the accepted theory of US remuneration for senior management was growth above all else and it was widely accepted that pay was largely tied to size.

^{xii} McGuire, Chiu, and Elbing (1962) found that sales or revenue were the major determinant of executive remuneration among the largest US firms. Lewellen and Huntsman (1970) provided one of the first empirical studies positively correlating executive remuneration at large US firms to profitability and share price performance.

^{xiii} Smith and Watts (1992) studying US firms 1965-1985 found that higher gearing was positively correlated with lower executive compensation though noting that this might be industry specific to utilities, whilst growing firms were positively correlated with executive remuneration (specifically, options and bonuses).

^{xiv} I suggest that in the US institutional investors influenced the form of non-executive director remuneration (based upon the agency framework and shareholder alignment). Research on the appointment of new non-executive directors in US firms during 1981-1985 (a period prior to non-executive equity incentive plans) found that on average the appointment of non-executive directors was positively correlated with positive CARs perhaps being viewed new or refreshed representatives of shareholders (see Rosenstein and Wyatt (1990)). However, controversy returns as Fich and Shivdasani (2005) found that during 1997-1999 US firms with non-executive director share option plans appointing a new non-executive director had minimal CARs, while firms without non-executive director share option plans appointing a new non-executive director had negative CARs while Gerety, Hoi and Robin (2001) researched US firms adopting non-executive director incentive plans over 1988-1998 and found CARs on the adoptions of plans were insignificant, perhaps suggesting that investors viewed the plans as allowing management increased influence over non-executive directors but most likely suggesting mixed impressions.

^{xv} The UK researcher is posed with a challenge in determining what type of firm is more or less complex. Researchers have used many measures, including research & development expenses, employees, industry group, globality, and market size amongst others. Problems persist with all measures, more than one-half of the largest listed firms are either financial services, consumer services, or utilities largely without traditional research expenses making such a measure less applicable, employee numbers may suggest a more challenging task for directors but is indeed an uncertain measure as many large employee businesses such as grocery and retailing do not suggest greater complexity or monitoring challenges than the biotechnologies of pharmaceuticals, globality or foreign operations immediately suggests greater monitoring but is indeed uncertain as measure for companies that may have virtually all of their trading in one foreign market or a small amount of operations in many foreign markets, and market size may suggest a more complex monitoring position but the largest market size may be accorded to groups that focus on a narrow activity globally.

^{xvi} By 2004 only 95 of the original 150 firms remain (roughly 40 of the original firms disappeared due to merger, acquisition, or failure), whilst my results could potentially be different if I restricted my analysis to this surviving 95 firms, my intention is to reveal how the largest 150 firms structure their boards of directors efforts each year as a group and less so the individual board changes that have occurred at each firm. I believe it may be more relevant to observe whether the largest 150 firms in 1998 had more international board members than in 2004 rather than whether the 95 surviving firms changed their boards to be more or less international (which is also of interest). 198 different firms were analysed. From findings that non-executive directors' average board tenure is slightly over 4 years survey data over the 7 year period implies that non-executive directors turned over almost two times suggesting data on more than 1200 different non-executive directors participative decisions were assessed (incl. multiple directors).

^{xvii} An invisible and immovable line seems to exist in the UK wherein, generally, firms with significantly less than £1 billion market caps will likely have fewer investment banks researching their share performance, fewer international shareholders, less access to public capital markets, be less banked by non-local banks, be less international, and less likely to be in London and, may thus, attract different directors to their boards of directors solely due to size. Broadly speaking, the UK domestic market is relatively small (for non-retailers); firms solely focused domestically will generally be unlikely to achieve the market capital size to be among the 150 largest firms. The Financial Times (2005) noted that UBS, the Swiss Headquartered bank, had estimated that FTSE 100 (non-financial companies) had 51% of their sales in the domestic market in 1999 which had declined to 32% in the UK (28% were in North America) by 2005, if accurate, such figures would surely over represent UK activity through the inclusion of 3 large grocers in the FTSE 100 that have no North American Business.

^{xviii} Chi-Square calculations from Curwin and Slater and Amir Alizadeh, 2004, Quantitative Methods, Cass Business School, London.

$$X^2 = \sum \left[\frac{(O - E)^2}{E} \right] \text{ or}$$

$$X^2 = \sum \frac{(f_o - f_e)^2}{f_e} \text{ with d.f.} = \text{rows} (-1) \times \text{columns} (-1)$$

^{xix} Student t-test for means assuming unequal variances (heteroscedastic)

$$t' = \frac{\bar{x} - \bar{y} - \Delta_0}{\sqrt{\frac{S_1^2}{m} + \frac{S_2^2}{n}}}$$

^{xx} The Economist (1990) noted that over the prior 10 years the number of large US firms with non-US non-executive directors declined from 17% to 12% as these foreign non-executive directors were being replaced with women and minority representation.

^{xxi} In the US, where a similar exogenous force to Cadbury did not occur, Hermalin and Weisbach (1988) found that the average presence of non-executive directors was 37.6% of the board in 1971 and had increased to 53.9% by 1983; this change largely occurring long before any major period of public or investor calls for US board reform.

^{xxii} By definition these businesses have limited potential activity in the UK's small domestic market.

^{xxiii} Whilst I have not found empirical research on the determinants of non-executive chairman's remuneration, my univariate analysis may provide some explanation. The separation of chairman and CEO occurred relatively rapidly in the decade prior to the beginning of this study period. I suggest that without significant market bases, initially non-executive chairman's remuneration was set in greater similarity to CEO salaries (see Ezzamel and Watson (2003)) and after the role of non-executive chairman took on greater definition, remuneration began to be perceived of as more similar to non-executive directors albeit at a much higher level reaching an inflection point (see Table I, Panel B).

^{xxiv} The addition of a university professor of accounting on the board of directors and audit committee would be expected as a monitoring addition with perhaps limited expectation of equity take due to personal finances or role perception, whilst the addition of a major firm's CEO or a large successful investor to the board would signal the addition of advisory resources (and perhaps fiduciary) and would certainly raise questions if cash was then taken over equity.

^A In 1993 the Royal Society for the encouragement of Arts, Manufactures & Commerce commissioned an Inquiry sponsored by 25 of Britain's largest businesses, and led by their senior executives – their 1995 report began "Britain has a long tail of underperforming companies, too many of whom are not nearly as good as they like to think they are." Most firms sponsoring the Inquiry failed to survive in the following ten years.

^B For discussion of US shareholder activism and effects on corporate governance see Millstein and MacAvoy (1999), Wu (2000), and Karpoff, Malatesta, and Walking (1996).

^C Sir Richard Greenbury (then chairman and CEO of Marks & Spencer) chaired a study group which included 10 other members, the group was principally made up of large company chairman, the head of the Institute of Directors, and two institutional investment management senior executives (neither from groups that were publicly known as activist and both likely to be dependent on business from large corporations); some of the members had university degrees, whilst Sir Richard was noted for his career achievement having left school at 16 years of age. Sir Richard's group also engaged professional advisors from a law firm and a remuneration consultancy.

^D NACD was chaired by Robert Stobaugh, a business school professor, among his 18 other commissioners were three large current or former corporate CEOs or chairman, two further academics, three well-known investor activists, and an assortment of senior legal advisors, remuneration consultants an executive search firm partner (and amongst these, two commissioners had UK affiliations).

^E Prior to Greenbury and the NACD, US research also suggested that non-executive director remuneration should be commensurate with firm's non-executive director time commitments and responsibilities noting that the 'vast majority' of board time be spent on the boards' monitoring role with key tasks of CEO issues, 'approving of strategy', and compliance and governance (Lipton and Lorsch (1992)). Hempel and Fay (1994) noted that without precise measurable inputs, non-executive directors should only receive remuneration based upon their time commitment with a unit of measurement relative pay at other firms for appropriate individuals.

^F Indeed, Greenbury's presentation style takes a form that is often seen in auditors or accountants review letters (the accounting firm KPMG provided a secretary to Greenbury) whilst NACD's presentation style takes a form that appears more like a textbook. One is authoritative without providing any basis, the other has basis and is informative but not instructive.

^G There is no mention of the use of any research, public, private, academic or sponsored, to support any of the recommendations. In the fifty-five page report on 'Directors' remuneration, roughly one page focuses on non-executive directors' remuneration.

^H To accommodate these principles and based upon research at the time, the NACD provides best practices which encouraged substantial equity ownership by non-executive directors. The NACD noted that non-executive director remuneration policy "...signal(s) to the board and to the investor community the very substance of a company's hopes and expectations for [non-executive] director performance." The NACD notes that non-executive directors may serve for more than pecuniary remuneration [detail is not provided] and that pay should complement non-executive directors' sense of responsibility, and, finally, the NACD accepts the inherent conflicts with non-executive directors involved in determining their own pay believing such conflicts are mitigated through disclosure in stark contrast to Greenbury [non-executive directors should not be involved in setting their own pay].

^I NACD references issues raised by research in making its recommendations.

^J Controversy surrounds the contribution of the board of directors and non-executive directors' contribution to various measures of firm performance (Hermalin and Weisbach (2003), Bhagat and Black (1999 and 2002), amongst others) and inevitably the cost of capital (Collier and Gregory (1999)), and this paper does not address whether shareholders receive value for money in the remuneration of non-executive directors.

^K In 1999 when HM Government appointed Price Waterhouse Coopers (PwC) to monitor compliance to Greenbury, PwC (2000) reviewed approximately 300 listed firms' 1999 annual reports and found less than 3% of firms sought shareholder approval for their remuneration reports (as incorporated in the Combined Code of 1998).