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Executive Pay – a career perspective

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About The Author

Graduating with a physics degree from the University of St Andrews, Brian Main first worked for the United Kingdom Atomic Energy Authority before going on to study for an MBA at the University of California, Berkeley. After a short period as a manager with the Eli Lilly Corporation, he returned to Berkeley where he completed a PhD in Economics under the supervision of Professor George Akerlof and graduated Phi Beta Kappa.

Appointed to a Lectureship in Economics at the University of Edinburgh in 1976 and promoted to Reader in 1983, he subsequently moved to the Chair of Economics at the University of St Andrews in 1987. He returned to Edinburgh as Professor of Economics in 1991, and moved to a Chair in Business Economics in 2002. Between 1995 and 2005, he served as Director of the David Hume Institute. He has been a Fellow of the Royal Society of Edinburgh since 1998.

Initially working in the area of labour economics, his research centred on the distribution of unemployment and on the evaluation of manpower training programmes. More recently, he has focused on the economics of executive remuneration, examining executive reward both in the USA and in the UK. An important characteristic of much of this work has been its recognition of the effects of social psychology at the board room level and, in particular, in the board subcommittee charged with the executive remuneration decision, namely the remuneration committee. He has published widely in leading academic journals, both in the UK and in the USA.

Foreword

When I took over some six years ago as Director of the David Hume Institute my immediate predecessor was Professor Brian Main of Edinburgh University. Brian was very generous with his time and wise counsel as I felt my way into this new position – and subsequently he has kept in close touch with the Institute and frequently provided advice on a range of matters, including access to his excellent network of academic contacts.

Also, throughout the last few years, we have been strongly supported by the Economic and Social Research Council. The ESRC find the Institute to be a valuable partner in helping to disseminate research findings to a broad Scottish audience. We are most grateful to them for providing funds for a number of our seminars and publications.

In view of these links with both Brian Main and the ESRC I was delighted, as were our Trustees, when asked to arrange a seminar for Brian to present the results of his latest research, funded by the ESRC. We must acknowledge that this funding included an allocation for dissemination. Therefore the seminar on 1st June 2011 and this paper are both supported by the ESRC.

The research examined trends in executive pay, primarily based upon an examination of pay for CEOs of FTSE-350 companies for the past 15 years. This paper provides a very accessible overview of Brian's findings.

One key, and by no means unexpected, finding is that 'directors of large UK companies (as represented here by CEOs) are now paid at levels markedly higher than enjoyed by the counterparts in earlier times ... during a period in which the top rate of personal taxation has fallen'. Brian then sets this finding in the context of changes in corporate governance over an extended period; and also examines trends towards greater emphasis on payment by results – in a variety of forms.

He carefully considers the role of Remuneration Committees, noting the importance of recommendations in the Cadbury Report and also that such committees added 'legitimacy to those making the pay decision – through their being constituted in a transparent remuneration committee.' However, extracts from a host of interviews that Brian Main has conducted over the years make clear that being on a Remco is no easy option and further that due to a 'prisoner's dilemma' type situation these committees have tended to err on the side of generosity and edge pay for CEOs towards an ever rising top quartile level!

If increasing relative pay levels for CEOs are due to some combination of increased emphasis on shareholder value, the move towards performance related pay and institutional change then what is the best way forward to better relate pay to long-term and sustainable performance? In this paper Brian Main suggests a move towards 'career shares', with a requirement that shares from option schemes and the like are not cashed in at some early date by a departing CEO but retained for an extended period post exit – perhaps as long as four years. This would doubtless lead to complaints that share values would be influenced over this period by the performance of the CEOs successors, but why not? Should it not be a major part of a CEO role to look to the longer term for the company, rather than just maximising performance during his or her tenure and then grabbing the rewards and departing? Certainly Professor Main's paper provides ample scope for debate about pay levels, forms of CEO pay, governance systems and the optimum way forward. This paper represents an excellent combination of an important data set well used by an accomplished academic expert in his field and real suggestions for a way forward in an area of interest to many.

The Institute is delighted to be publishing the paper and hosting the seminar but as ever I must close by noting that as a charitable body the Institute has no views on the subject. We simply wish to inform constructive and sceptical debate.

Jeremy Peat, Director The David Hume Institute

Executive Pay – a career perspective.

1. Introduction

This paper argues that the rise in directors' remuneration in the UK over recent years has been, to a large extent, an unintended consequence of institutional change in the governance arrangements of UK companies. The increase in disclosure regarding the detail of what directors are paid and the adoption of transparent processes by which directors' remuneration is determined have combined to produce an outcome whereby the top management teams of large publicly held companies are able to command an ever increasing portion of the quasirent (surplus after running costs) earned by those companies.

It is also true that a shift in shareholder attitudes has brought about an increased emphasis on shareholder value which, in turn, has encouraged the uptake of payment-by-results arrangements for the remuneration of directors. These have made the reward stream more 'risky' as far as the individual director is concerned and, in recognition of this and to compensate for risk aversion, the actuarial value of remuneration has increased.

In a more general setting, runaway labour costs would be expected to be held in check by competitive forces in the product market or, in the face of diminishing profitability, by the market for corporate control, whereby underperforming companies are vulnerable to takeover. But while remuneration payouts to directors are large by many measures, they do not present a significant issue for the UK's larger companies. For reasons explored below, the upward pressure on directors' remuneration can be expected to continue. Some of the less desirable features of this trend (pay without performance, etc.) could in part, be remedied by a move to Career Shares – long term incentives which cannot be cashed out on vesting but must be held until some considerable time after the director has demitted office. The following section of the paper attempts to flesh out this argument, starting with an examination of Chief Executive Officer (CEO) pay trends in the FTSE-350.

2. Remuneration of directors

The remuneration of those who run large widely owned companies has long been an issue of concern. Perhaps most pithily put by Galbraith (1974):

"The salary of the chief executive of the large corporation is not a market reward for achievement. It is frequently in the nature of a warm personal gesture by the individual to himself."

Adam Smith had long before voiced similar concerns (Smith, 1776, p264), and the area has recently become the focus of considerable academic research concerning managerial power and optimal contracting (Frydman and Jenter, 2010).

As is well known, director remuneration has risen markedly in the UK over recent years. Using data taken from Manifest and focusing on the CEOs of FTSE350 companies, Charts 1 through 4 offer various measures of this increase (all in £2009). These also serve as a reminder that our choice of summary measure (e.g., mean versus median) can very much affect how things appear.

The narrowly based measure of remuneration (total cash compensation, TCC, which is essentially salary plus annual cash bonus) can be seen to have clearly increased, but a more dramatic increase occurs when one also includes the components of long term incentive, such as executive share options and performance share plans to form total direct compensation (TDC).

The concept of CEO pay is difficult to measure unambiguously. In Chart 1, for example, the average value at the time of award is used¹. For any given CEO, this may over value the eventual worth of the share options and performance shares involved. In addition, using mean values gives particular weight to very large awards - contrast Chart 2, which reports median values. The consequence of failure to satisfy performance conditions can be seen in Chart 3 which reports the realised values as actually observed (these are not always perfectly recorded, however). The range of companies included also affects the picture, as can be seen in Chart 4 which documents the much higher levels of reward that characterise CEOs in the narrower FTSE-100 group of companies.

But, unquestionably, Charts 1 - 4 do point to a strong rise in CEO remuneration over the past 15 years. Chart 5 makes some heroic assumptions and splices two quite distinct data series together to demonstrate just how marked the change has been over the longer period. Unfortunately, no information was available in the older (DTI Companies Accounts) data concerning long term incentives. In the period to 1984, this is unimportant but (as will be discussed below) share options became immediately popular following the 1984 Finance Act, and the period 1985–1995 is particularly poorly represented here. Nevertheless, the picture is clear – directors of large UK companies (as represented here by CEOs) are now paid at levels markedly higher than enjoyed by the counterparts in earlier times.

Furthermore, this rise occurs during a period in which the top rate of personal taxation has fallen: from 83% to 60% in 1989; to 40% in 1986; although recently (2010/11) back up to 50%. It is true that changes to National Insurance Contributions and pension tax allowances have offset this somewhat, but compared to 1970s and 1980s directors now enjoy significantly lower personal taxation. This makes the rise in their gross remuneration, as revealed above, all the more remarkable.

Those arguing that this rise in directors' remuneration owes to an abuse of managerial power (Bebchuk and Fried, 2002), whereby a powerful CEO or top management team are pulling the wool over the eyes of the company's gullible non-executive directors in order to be awarded overly generous awards, need to explain how this could occur over a period when corporate governance has become ever more closely scrutinised and tightly regulated (see below).

Those who view the boardroom as a classic nexus of the principal-agent problem (Jensen and Murphy, 1990) are on slightly firmer footing, in the sense that the rise in directors' remuneration is coincident with a rise in shareholder-value movement wherein institutional investors have become more demanding in terms of company performance and have promoted payment by results as a remedy to the perceived agency problem of misaligned interest between the owners of the company and its senior officers.

¹ To allow for the performance conditions that invariable attach to such awards, the face value of performance shares is reduced by a factor of 0.7, and of chare options by 0.3.

But, again, the rise in directors' remuneration continues unabated long past any reasonable adjustment period to accommodate such changes.

Other explanations based on the dynamics of the labour market face similar difficulties. Tournament theory sees the remuneration of directors as resembling the prizes in a sports tournament, and therefore reflecting (and rewarding) earlier efforts as much they reflect current performance (O'Reilly, Main and Crystal, 1988; Main O'Reilly, and Wade, 1993). But such models cannot explain why this effect gets stronger over time.

There are, however, some market-based explanations that retain traction in explaining recent trends, but these are best understood in the context of the changed institutional environment, in which the executive pay process now operates. It is the argument of this paper that the institutional changes set in train by the Cadbury Report (1992) provide the essential key to understanding developments in this field². The following section introduces these changes and offers an argument of how they led to a rise in directors' remuneration.

3. Changes in the way directors remuneration is determined in the UK

3.(i) – changes in process

With the advent of the Companies Act (1967) companies in the UK were required to publish the emoluments (roughly, salary plus bonus) of the chairman and, if different, of the highest paid director. But it was not until the Cadbury Report (1992) that any recommendations were made regarding the operation of a remuneration committee to oversee the process by which these amounts were set. In fact, the concept of a remuneration committee was not much discussed before that time (see Chart 6 for a time series of articles in the *Financial Times* mentioning this concept). In addition, although most companies had a process in place, a study (Main 1992) of practice in 1989/90 found that only 30% of large companies listed the membership of its remuneration committee in its annual report. An executive presence on such committees was more common than not (Chart 7).

In relatively quick succession, the Cadbury Report (1992), Greenbury Review (1995), Hampel Report (1998), the Combined Code (1998, now the UK Governance Code), Directors' Remuneration Report Regulation (2002), and the Higgs Report (2003) resulted in a transformation of this process by prescribing the extent of reporting and desired standards of conduct (mostly under the UK's 'comply or explain' self-regulatory approach). While these government and industry led reviews have mainly concerned reporting and procedures, representative bodies of institutional investors – most importantly the NAPF (1984) and ABI (1987) have also issued a series of guidelines which have been every bit as influential in shaping the design of directors' pay.

For the first time, Cadbury (1992) introduced the recommendation that there be a remuneration committee and that this should comprise wholly or mainly non-executive directors. As Chart 7 (Main and Johnston, 1992, 1993a) indicates this was a marked departure from custom and practice in the UK.

² Similar changes in terms of disclosure in the USA can be traced to (SEC,1983) although there the institutional setting is quite different.

Very soon, with further prompting from the Combined Code (1998), essentially all large UK companies operated independent remuneration committees. The now near total compliance with these rules has made it difficult to construct a robust test of the effectiveness of this arrangement in terms of holding directors' remuneration in check. It is worth mentioning, however, that in a pre-Cadbury study Main and Johnston (1993) found that in their sample of 220 companies surveyed in 1990 it was the 30% declaring they had a remuneration committee that were observed to have remuneration a significant 15% higher than could be explained by company characteristics such as size or performance. This effect, which is key to the argument developed in detail below, can be interpreted as owing to the legitimacy afforded to those making the pay decision – legitimacy derived from their being constituted in a transparent remuneration committee.

In a related interview study (Main and Johnston, 1992) conducted with executive directors from 24 of these companies³ between October 1992 and March 1993, there was no sign of any resistance to the Cadbury-inspired changes that were by then afoot. All welcomed clarity as to how the remuneration decision should be taken. In hindsight, however, it is now noticeable how different the remuneration arrangements of these executives were as compared to those enjoyed by their counterparts today. Most had only modest amount of long term incentive – in the form of executive share options, usually limited to the value of four times current cash pay. Nor did they seem particularly driven by concerns of remuneration, one commenting that his teenage children were much more acquainted with the valuation of his stock options than he himself. On the other hand 19 of the 24 directors interviewed had contracts of at least three years duration – something that was also destined to change.

In contrast, a more recent set of interviews, this time in 2006 and with some 22 non-executive directors who sit on the remuneration committees of FTSE350 companies, found that the process of setting directors' remuneration was much more emotionally charged (Main et al, 2008). The picture revealed was far from the stereotype of tame remuneration committees delivering rich rewards in return for modest performance hurdles, as caricatured by the cartoon in Economist (20-05-2006) which represented the remuneration committee as two compliant pinstriped non-executives proffering bags of cash to an overweight executive while holding a performance bar low to the ground for the executive director to easily step over.

The reality is that a substantial effort is spent by remuneration committee members in designing remuneration to link to company performance. Considerable reliance is placed on remuneration consultants for market intelligence regarding current practice in other comparator companies. Furthermore, remuneration committee members find themselves pulled two ways – between the top management team (alongside whom they work on a unitary board) and the shareholders (to whom, following the DRR 2002, they are accountable in the form of a vote on remuneration report at each AGM). Two quotations from Main et al. (2008) serve to illustrate the tension with executive directors:

"Life is one long negotiation with our chief executive. We have a thrusting, dynamic young man who has thrusting, dynamic ideas of remuneration." (Director 5: Remco member)

³ Executive directors interviewed included, among others, Malcolm Bates (GEC); Sir Denys Henderson (ICI); Peter Davis (Reed International); Lord Young of Graffham (Cable & Wireless); Sir Alick Rankin (S&N); Peter Salisbury (M&S).

"He claimed he wanted the team to benefit but, when it got down to it, he was the only one in the team." (Director 10: Remco member)

And, as to the awareness of the scrutiny by shareholders, also from Main et al. (2008):

"How is this going to look in the annual report when the institutions crawl over it?" (Director 9: Remco Chair)

"Normally I am happy to put my head over the parapet but not in remuneration. I would be slightly cautious as I don't want to be castrated by the ABI." (Director 22: Remco Chair)

Of course, at the end of the day, determining remuneration through a remuneration committee remains a human process subject to all the cognitive bias and social influence effects to which people are prone. Research in the USA has demonstrated a range of such effects in the context of the remuneration (compensation) committee, including the fact that the level of pay to which outside directors sitting on the remuneration committee are accustomed in their own companies can influence their decisions, as can the reciprocity effect of having been appointed by the incumbent CEO, or similarity effects between the CEO and the remuneration committee member (O'Reilly et al. 1988, 2010; Main et al., 1995; Main and O'Reilly, 2010).

But, the argument being developed in this paper is not that the remuneration committee is in itself the problem. With all its human frailties, the evidence (Main et al. 2008) seems to point to the remuneration committee making a good effort to do the right thing. The argument here is that in these efforts, and indeed, owing to the awareness of the transparency of the process and of the scrutiny and accountability of the outcome, the remuneration committee finds itself trapped in an institutional isomorphism of practice (DiMaggio and Powell, 1983), whereby the practice of others becomes a guide as to what should be done. In conjunction with what is essentially a prisoners' dilemma in setting the level of remuneration, this results in an increasing level of directors' remuneration. These ideas will be developed in more detail below, but first it is necessary to look in more detail at the development of remuneration design over recent years.

3.(ii) – Changes in Design

Of course, the imperfection of corporate governance at the top of a company due to information asymmetries or human failings is exactly why payment mechanisms that formulaically tie performance to reward are so appealing in this context. Such arrangement can also reveal underlying assumptions regarding human motivation. As Pfeffer (1998) ironically expresses it:

"The image of workers in these models is somewhat akin to Newton's first law of motion: employees remain in a state of rest unless compelled to change that state by a stronger force impressed upon them - namely, an optimal labor contract."

But one need not accept the causal interpretation of payment by results as favoured by principal-agent theorists (Jensen and Murphy, 1990). Such an arrangement also affords an expost justification for any reward delivered as directors' remuneration, thus easing the subsequent dialogue with shareholders.

Charts 1 through 5 document the rise in empirical importance of such arrangements – particularly in the form of executive share options and performance share plans (the difference between TCC and TDC in those Charts). The information on such components of reward are only available in Chart 5 from 1995 onwards but, in fact, these started to gain prominence as of the 1984 Finance Act which provided generous tax incentives for remuneration delivered in the form of executive share options (initially limited in value to four times emoluments, but soon extended in magnitude, in spite of the subsequent withdrawal of most tax advantage in the 1988 Budget). Chart 8 demonstrates the sharp rise in uptake in share options schemes following the 1984 Finance Act.

The dip in popularity in the mid-1990s was, in part, due to the nudge given by the Greenbury Report (1995) towards the adoption of performance share plans (see below). The bursting of the dot-com bubble in 2001 added further momentum to the move away from options and towards performance share plans.

One issue related to the move to increase the amount of "pay at risk", i.e., dependent on performance, through this increased use of share-based long term incentive plans was that the director might, in all probability, value such an award at less than its expected (or actuarial) value (Hall and Murphy, 2002). Chart 9 attempts to demonstrate this point by representing the equivalent package to a given amount of base pay as having a higher expected value when performance related pay in included – compensating for the risk-aversion of the director. The pie has to be bigger.

In an attempt to demonstrate the increased variability in realised remuneration, Chart 10 contrasts the Lorenz Curve for FTSE 350 CEOs in 1996 versus 2007. Recall, that if remuneration was distributed equally across the CEOs then 10% of CEOs would earns 10% of total remuneration, 20% would earn 20%, and so on – the Lorenz Curve would form the diagonal line in this rectangle. The further from this diagonal the more unequal is the distribution. As Chart 10 demonstrates, inequality had increased by 2007. Winners win big, but losers also lose more. This can be viewed as the consequence of both the tightening of the performance conditions imposed on long term incentives during the vesting period, and of the shift towards greater use of performance-contingent equity awards.

Pressure from institutional shareholders, mainly through Guidelines issued by the ABI but also through rating mechanisms of the Proxy voting advisory schemes such as IVIS, had successfully encouraged firms to increase the severity of the performance conditions that attach to the vesting of long term incentives (Main, 2006). For example, in the case of share options, the possibility of 're-testing' (trying again in a later year) was eliminated.

Performance criteria were encouraged to be relative to a comparator peer group, with no pay out for below median performance and no cliff-vesting (so when vesting began it would not be in full but at a lower level, say 30%). Full vesting was only to be achievable for upper quartile performance.

Chart 11 offers a further insight into this variability in remuneration. Chart 11 summarizes the Lorenz curves of realised TDC for each year between 1995 and 2008 by presenting their respective Gini Coefficients (the nearer to 1.0 the greater the inequality as, in terms of Chart 10, the coefficient measures the ratio of the area between the diagonal and the curve divided by the total area below the diagonal). This can be seen to rise over the period

Directors' remuneration has become more risky as it has increasingly depended on relative performance. Allowing fully for the influence of shared-based long term incentive schemes, the pay performance relationship in the boardroom has risen over recent years (Main et al., 1996; Conyon and Murphy (2000); Conyon et al., 2010). It is not as high as found in the USA, where share linked remuneration is more aggressively deployed, but must go part way to explaining the increase in overall level of remuneration (see Chart 9).

Another indication of inequality can be found in the 'pay-slice' taken by the CEO. This is the share of the total remuneration going to the executive directors which is awarded to the CEO. Over the period of Chart 12, this is seen to rise from just over one quarter to over one third. This is consistent with the notion of the CEO as the corporate saviour (Khurana, 2002), and also with models that portray CEO remuneration, as the prize resulting from winning a tournament played over a career (O'Reilly et al., 1988, Main et al., 1993). But, again, it is difficult to reconcile with the observed fact that the CEO career, although typically brutally short, has not changed much over the period of increasing director remuneration. Chart 13 reports by year the median (and lower and upper quartile) length of career enjoyed by those FTSE350 CEOs who terminate their career between 1993 and 2009. The overall mean is 5.7 years (median 4.3 years) and the completed tenure does not seem to have changed much over the period. If there is a tournament going on, then it does not seem to have become more intense.

So, it can be argued that some of the increase in directors' remuneration has been to compensate for the increased risk involved in accepting a component of remuneration that it performance based in this way. But as the relatively less risky annual or cash based component (TCC) of remuneration has also increased, it is questionable if this is the whole story. It is also necessary to examine the reaction to the new institutional procedures now encompassed in the remuneration committee.

3.(iii) – Changes in Institutional Forces

While several plausible explanations of the level of directors remuneration have been offered above, no strong contender has emerged that will explain the continuing increase in the level of remuneration.

One claim that has attracted considerable support in the USA (Gabaix and Landier, 2008) is that companies are simply becoming bigger and, with that increase in scale, the productive potential and remuneration of the top management team is increasing (with implications for the remuneration of the executive directors). An examination of the FTSE100 over recent years shows that the growth in scale – as measured by turnover or by market capitalisation (see Chart 14) – may be sufficient to explain the movement of annual cash remuneration (TCC), but inadequate to explain the movement in the broader measure of remuneration that includes long term incentives such as share options and performance share plans.

In the decade or more since the Greenbury/Hampel reviews, institutional pressure (much of it channelled through the ABI) has brought the remuneration committee into the ascendancy (and with it the role of the remuneration consultant). Pressure for change has been channelled through remuneration committees and, by and large, remuneration committees have delivered.

When service contracts for directors were deemed to be too long, they were, following a campaign eloquently spearheaded by Alastair Ross Goobey⁴, reduced to an effective maximum one year. This is a remarkable change. Contract lengths of a rolling three years had been the norm. Main (1993) found 19 of the 24 directors interviewed in 1992 to have a contract of three years duration. Such contract lengths would now be unthinkable.

Similarly, in terms of pay design, when the Greenbury Report (1995) made a positive reference to performance share plans:

"...schemes along these lines may be as effective, or more so, than improved share option schemes in linking rewards to performance" Greenbury Report (1995)

from literally nowhere the use of performance share plans in the FTSE100 had risen to 84% by 2005 (Booker and Wright, 2006).

Also, when the same Report promoted relative performance metrics:

"Consideration should be given to criteria which reflect the company's performance relative to a group of comparator companies in some key variables such as shareholder return (TSR)" Greenbury Report (1995)

by 2005 some 86% of the FTSE100 were utilising relative TSR as a performance metric.

It has been argued elsewhere (Main et al., 2008) that, placed very much in the spotlight and finding themselves between the executive directors (with whom they work on a regular and ongoing basis) and the shareholders and their representative bodies (to whom, following the DRR 2002 they are accountable at the AGM in the form of a vote on the remuneration report), most remuneration committees fall back on an isomorphism of practice (Scott, 2001). Facing a decision (what remuneration arrangements to set) where the uniqueness of each situation ensures there is no clear answer, remuneration committees look around to see what others are doing. This offers them the legitimacy they desire.

There have been arguments regarding the extent to which remuneration consultants cause higher remuneration (Conyon et al., 2009; Voulgaris, et al., 2010). These studies often confuse the role of auditor with that of remuneration consultant. The latter, of course, lacks the 'sign-off' power enjoyed by auditors, and any causal interpretation placed on their presence is consequently suspect. But remuneration consultants certainly play an important role in allowing remuneration committees to assess what current practice is in each sector. Guided by this information, it is therefore easy for there to emerge an isomorphism (or at least similarity) in practice.

⁴ Alastair Ross Goobey was CEO of Hermes Pension Management and a key figure in the institutional shareholder activism movement of the 1990s.

In this way, the "zero vesting for below median" and "full vesting only at upper quartile" quickly became the norm – even though this leaves any incentive, as such, effective only over a remarkably narrow range of achievement.

Of course, the post-Cadbury improvement in disclosure is exactly what allows remuneration committees to pay such assiduous attention to each other's actions. Add to this the major difference between labour markets and product markets – namely that paying slightly more he market clearing rate is not always an expensive error – and it becomes possible to see the dynamic that has led to escalating levels of directors' remuneration.

First, to clarify the statement regarding paying in excess of the market clearing rate in labour markets. Here, the concept of efficiency wages is useful (Akerlof and Yellen, 1986). When employment involves activities that are not easily monitored and where productivity is dependent on the consummate cooperation of the employees, then paying what is perceived to be generous levels of remuneration can induce a sufficient improvement in performance on the part of the employees as to make such apparent generosity 'efficient' – in the sense that any extra remuneration is earned by consequent higher productivity on the part of each employee, who feels valued and psychologically more disposed to offer a consummate level of cooperation.

The boardroom is an obvious setting for such thinking. Indeed in our interview study of remuneration committee members (Main et al., 2008) when we asked whether thought had been given to paying directors less than was eventually awarded, the response was that this would have been a false economy – given the serious disruption and expense that would ensue were there to have been either turnover among directors (as they left for better paying jobs) or if these key employees were to become demoralised or distracted owing to the way they were being treated on remuneration (in contrast to those at rival companies – whose treatment is, of course, now highly transparent). In this logic, erring on the side of generosity is only wise – this is especially true in larger companies where the amounts under discussion, although significant, are relatively modest when set against the activities of the enterprise as a whole.

This leaves the remuneration committee confronting something of a Prisoners' Dilemma (Axelrod, 2006), as illustrated in Table 1. Here the remuneration committee makes its decisions without yet knowing how other remuneration committees will decide. In reality, of course, there is a variation in the remuneration cycle across companies, but this stylisation serves to illustrate the point. It can be seen from Table 1 that it is always the best policy to err on the side of generosity.

If no one else is similarly generous, then one's own executive directors will feel especially valued, and the committee can always attempt to realign remuneration next time around if this generosity in not returned in the form of higher productivity by the directors. If other companies are similarly generous, of course, then one would have been a fool to do otherwise oneself, as the consequences of 'holding the line' when everyone else drifts up is to leave one's own executive directors feeling particularly aggrieved, which can be a costly state of affairs. While the extent of labour mobility at this level is often overstated, the possibility certainly cannot be ruled out. And even without exits of senior directors to other companies, the ensuing period might produce unnecessary and distracting boardroom tensions. The dominant strategy for the remuneration committee is to err on the side of generosity.

This, rather than the much quoted 'upper quartile' strategy, may be the root cause of the upward drift in directors' remuneration. It is axiomatic that if every remuneration committee tries to set their remuneration levels in the same upper quartile, there will be a marked upward drift in remuneration. The reality, however, is that each company has its own relevant comparators and an appropriate choice leaves that particular upper quartile to be neither inflationary nor deflationary. Of course, problems, can arise when directors are allowed to influence the choice of comparators (Porac et al., 1999), so this possibility should not be entirely ruled out.

The key problem, however, seems to be rooted in three things: (i) the desire to be seen to do the right thing and hence mimic the practice of other companies in terms of remuneration levels and design; (ii) the ready availability of information thanks to improved disclosure; and (iii) the bias in decision making which makes it individually rational (although collectively irrational) to err on the generous side in setting remuneration arrangements for executive directors. In small companies in highly competitive product markets the impact on overall wage costs would quickly rein in this upward bias. With very large companies where the levels of directors' remuneration, while large, represents but a small fraction of overall labour costs, this is not going to happen anytime soon.

The next section suggests a possible improvement that will at least remove some of the less desirable aspects of the current situation.

4. What can be done? Career Shares.

The obvious solution to the situation sketched above is to introduce a measure of coordination across the various actors (remuneration committees). But, as recent efforts in terms of bankers' bonuses have demonstrated, this is extremely difficult to arrange in unregulated labour markets.

The concept of incentive pay in the form of "Career Shares" offers a second best solution that at least ensures that remuneration relates to performance delivered to shareholders in a genuinely sustained way. At the moment, long term incentive schemes tend to run for three years after which time, subject to the surpassing of the relevant performance hurdles (as discussed above), the directors are free to cash in their vested shares and invest the proceeds elsewhere (diversifying away from what is an over-exposure to the fortunes of the one company). This is shown over a typical director's career in Figure 1.

Recent efforts have been made to ensure that at least some of these shares are retained, to allow directors to accumulate a required holding of shares in the company of around the value of one or two times the director's salary (the "target shareholding"). But this is a modest and limited effort. The bulk of equity vesting from long term incentive schemes remains free to be sold off at the director's discretion. This leads to situations where an early promising run of good performance can turn sour – but only after the director has been rewarded.

Or, it may be some time after a director leaves the company that, owing to either poor succession planning or a failure of long term strategy, the company's performance falters badly. By this time, however, the retired director has already cashed in his or her gains. Under the Career Shares proposal (see Figure 2) there would be a requirement to hold on to all vested shares until the end of some set period following exit from the company. Bebchuk and Fried (2009) have recommended a period as long as 10 years after vesting, while Bhagat and Romano (2009) suggest four years after retirement.

Such an arrangement provides a longer term horizon on pay for performance – and encompasses a mechanism for settling up or clawing back reward for what turns out to have been illusory or non-sustained increases in performance. There is an automatic "clawback" for any performance that turns out not to have been sustained. At the same time, the arrangement rewards due attention being paid to succession arrangements. It is also commendably transparent and easy to understand by both shareholders and directors. The latter are offered a clear "line of sight" between their performance and reward (Main et al., 2010).

Table 2 demonstrates the advantages of this arrangement. With no need to use what some directors find to be the obfuscating arrangement of relative performance, the Career Shares arrangement rewards the director for sustained good performance. Consistently poor performance is unremittingly punished - "holding their feet to the fire" by requiring directors to continue to hold onto all company shares, even as they continue to perform poorly. On the other hand, there is a "forgiving" element that is absent in conventional schemes. This works by allowing earlier poor periods of performance to be compensated for by later outstanding performance (thus redeeming the value of the shares that vested during lean times). As previously discussed, for early performance that later turns sour there is an automatic "settling up" as the value on those early vesting shares plummets.

The second part of Table 2, rehearses these possible outcomes from the perspective of someone who has already left the company. Their final reward depends on how the company is faring several years after their exit. Strategies put in place during their career must, therefore continue to deliver. Successor holders of their post (and the rest of the top management team) must also continue to perform well. Otherwise earlier reward is automatically clawed back These are all desirable aspects of any long term incentive scheme – and features that were felt to be absent in several cases following the recent financial crisis.

While simplest if applied to restricted shares (share awards made where vesting is conditional merely on staying with the company for a given number of years, usually three), the approach can also be applied to the now more common executive share options or performance share plans, where vesting is conditional on the attainment of certain performance targets, again usually after three years. In both cases, while the shares would vest as normal, there would be a restriction against cashing in until the much later period – what Murphy (2010) has termed "transferability restrictions".

Chart 15 simulates the working of such arrangements in the case of Sir James Crosby during his time (and afterwards) at HBoS. It should be emphasised that this is a simulation that does not reflect how Sir James was actually rewarded.

It assumes a yearly grant of £100k of HBoS shares (in £2009) and illustrates the outcomes that would ensue under four scenarios: Restricted Shares; Career Shares; Performance Shares-plus, which add the career shares feature to the shares that vest under a performance share plan⁵. Vested shares that are cashed in (under the Restricted Shares and Performance Shares plans) are assumed invested in the FTSE All Share index and all values are in £2009.

The first part of Chart 15 reminds readers of the relative performance of HBoS over the period and the second part clearly demonstrates the power of Career Shares to claw back reward as performance fails in the period following Sir James' exit from the company.

Chart 16 describes a similar simulation for Lord Simpson and GEC/Marconi (a case of company failure), and Chart 17 describes the simulation results for Sir Richard Greenbury and Marks & Spencer (used here as an example of imperfect succession). In both of these simulations, the power of the Career Shares approach to adjust the directors' remuneration in the light of long term performance is clear – as is the failure of alternative arrangements to achieve this outcome.

Of course, there are some issues that would need to be addressed were the Career Shares approach to be adopted. Long-serving directors whose companies have been successful will end up carrying a high valuation of shares. In such cases, late-career decisions have growing significance and there may be a greater avoidance of risk than is in shareholder interest. This may demand some early release to the director of accumulated value. Considerations of tax may also require the director to be allowed to cash in some vested shares, although the company may agree to meet such tax liabilities as part of the remuneration scheme.

In case of takeovers, it is not always possible to implement the "career+x years" cashing in condition. But when shareholders have voted for the takeover, then they have implicitly agreed to draw a line under the previous company's existence and, in such cases, cashing in would not be inappropriate. In cases of a management recommended share-based takeovers, it may create a positive signal if the incumbent directors in the target firm (if they are stepping down) agree to continue to hold equivalent shares in the new company through the usual restriction period before cashing in.

Some directors may complain that their earnings are being locked up, but as long-term incentives are only part of overall remuneration (say around one-third), and as levels of remuneration are generally high, then it is unlikely that consumption patterns will be severely restricted by such a Career Shares arrangement.

In terms of levering the maximum pay-performance connection from a given amount of expected remuneration, it is hard to better performance shares (or, indeed, executive share options with similar performance hurdles). But these lack transparency and line of sight for the both the director and the shareholder. Most importantly, they also fail to connect remuneration with long term performance in a comprehensive way. Career Shares or variants of that arrangement are certainly worth considering as an improved long term incentive.

⁵ For Performance Shares, the assumed performance conditions require total shareholder return (TSR) to be above the median of the FSTE AllShare for the relevant period. Vesting starts at 30% and full vesting occurs for upper quartile performance.

5. Conclusion

Directors' remuneration has increased markedly in recent years. There are some plausible economic explanations of why this has occurred – mainly that an increased emphasis on shareholder value and the related move to performance related pay has placed more remuneration at risk and required a higher expected value of award to be made to directors. But institutional change has also been responsible and may continue to be responsible for increasing remuneration levels among directors of the UK's largest companies.

The remuneration committee has available to it abundant information on what and how rival companies are paying their directors. It also finds itself at the centre of a highly visible and, at times, contentious process of determining directors' remuneration. Caught between providing the directors of the company with remuneration arrangements that leave them satisfied in the light of what they see rival companies doing, and being accountable to shareholders at the next AGM, the remuneration committee tends to revert to an isomorphism of practice and mimics what others are seen to be doing. But owing to the essentially Prisoners' Dilemma aspect of such decisions, they err on the side of generosity. In a playing out of the law of unintended consequences, directors' remuneration in large UK companies is set to continue to drift upwards in the near future. As discussed above, the situation can at least be improved somewhat by recommending the use of Career Shares as long term incentives.

There was a time when commentators used to lament the poor earnings prospects afforded in the private sector as compared to the public sector⁶. The statistics introduced above suggest that this is no longer the case. From this perspective, the quality talent attracted into this labour market should be increasing as the expected rewards increase.

The downside occurs when John Dunlop's (1966) wage contours start to distort remuneration levels more widely – where high wage levels among executive directors start influencing wages elsewhere in the enterprise. For example, were the remuneration levels in investment banking to influence the remuneration arrangements of commercial bankers in the same company. Such occurrences need to be guarded against through the vigilance of remuneration committees (now tasked with a wider oversight; FRC, 2010), institutional investors, and commentators more generally.

In summary, the discussion above has pointed to three key drivers that have contributed to the observed increase in directors' pay over recent years. First, changes in the rules and guidelines pertaining to the governance of the executive pay process have placed the remuneration committee in the spotlight. Remuneration committees, keen to be seen to do the right thing, find themselves mimicking the observed practice in other comparable companies in an effort to achieve legitimacy.

Second, the improved disclosure that has been an important part of governance reform in this area has increased the pressure on remuneration committees to make use of the resulting market-based data in their deliberations regarding executive pay awards.

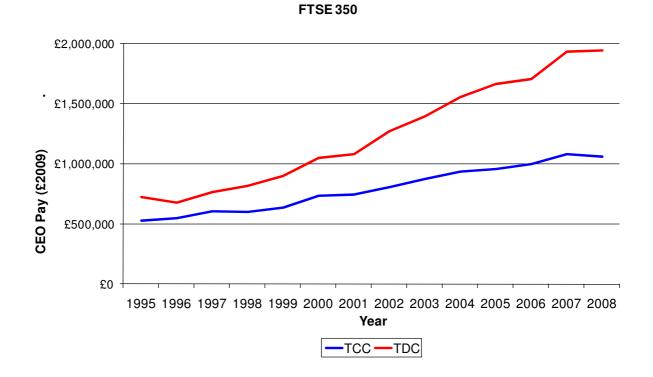
⁶ See, for example, a series of articles in the Times: 09/09/1969; 11/11/1975; 27/01/1976; 21/04/1976; 06/08/1976.

Third, and finally, the rational desire to avoid any costly turnover or productivity sapping distraction that might be brought about in the top management team through a misjudged pay award, leads remuneration committees to tend to err on the side of generosity when deciding executive pay awards. Taken together, these effects result in an upward pressure on directors' pay.

In small and medium sized companies, market forces could be expected to hold such tendencies in check. In large companies, however, where the executive pay bill, while large is proportionately a modest part of overall labour costs, these market disciplines may be slow to impact. In the absence of any centrally coordinated agreement to enforce restraint in directors' pay awards (an unlikely prospect in a market-led economy), it may be best to simply encourage companies to deliver reward in a form that promises a more robust linkage between pay and performance than is achieved by current arrangements. In this context, the promotion of the use of Career Shares, as discussed above, seems to offer considerable promise. Recent moves in the financial sector, prompted by the G20 (FSB, 2009) and developed and endorsed by the Financial Services Authority (FSA 2009, 2010) have enforced a longer time horizon and a more equity oriented payment of bankers' bonuses. Career Shares would ideally apply to the top management team of all companies, and would introduce a considerably longer time horizon – one that runs beyond any resignation or exit date.

Average (mean) award of CEO pay over time in FTSE 350 companies

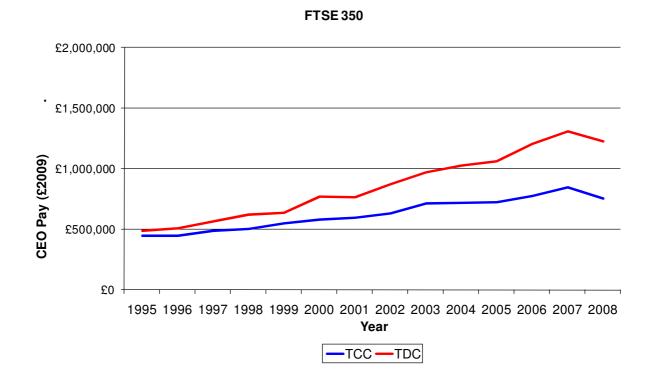
[TCC represents total current remuneration in terms of base pay, annual bonus etc. TDC represents total direct remuneration which adds to TCC a valuation of the option grants and performance share grants made in the year.]



Note: Source: Manifest; FTSE 350 under-represented in sample for the years 1995 (N=163) and 2008 (N= 136); All values in \pounds 2009.

Average (median) award of CEO pay over time in FTSE 350 companies

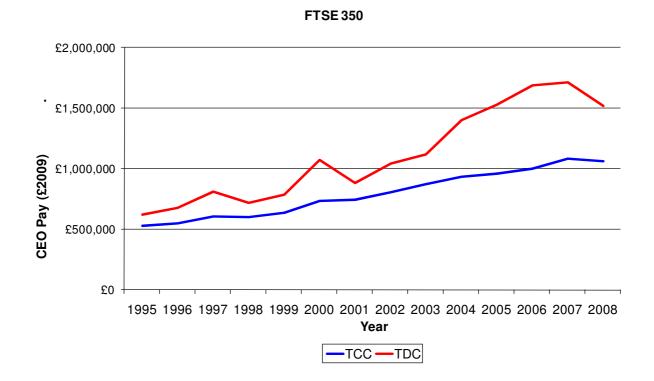
[TCC represents total current remuneration in terms of base pay, annual bonus etc. TDC represents total direct remuneration which adds to TCC a valuation of the option grants and performance share grants made in the year.]



Note: Source: Manifest; FTSE 350 under-represented in sample for the years 1995 (N=163) and 2008 (N= 136); All values in £2009.

Average (mean) of CEO pay realised over time in FTSE 350 companies

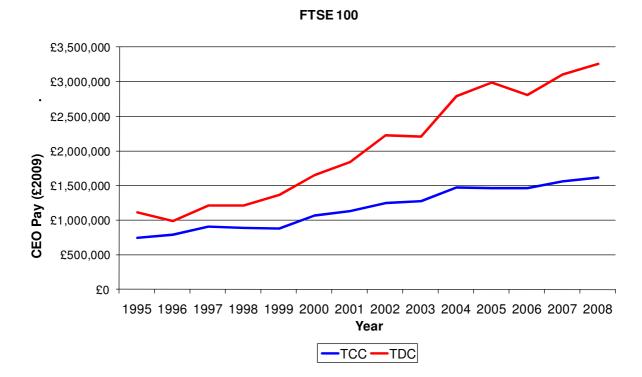
[TCC represents total current remuneration in terms of base pay, annual bonus etc. TDC represents total direct remuneration which adds to TCC the face value of the gains from option grants and performance share grants realised in the year.]



Note: Source: Manifest; FTSE 350 under-represented in sample for the years 1995 (N=163) and 2008 (N=136); All values in \pounds 2009.

Average (mean) award of CEO pay over time in FTSE 100 companies

[TCC represents total current remuneration in terms of base pay, annual bonus etc. TDC represents total direct remuneration which adds to TCC a valuation of the option grants and performance share grants made in the year.]

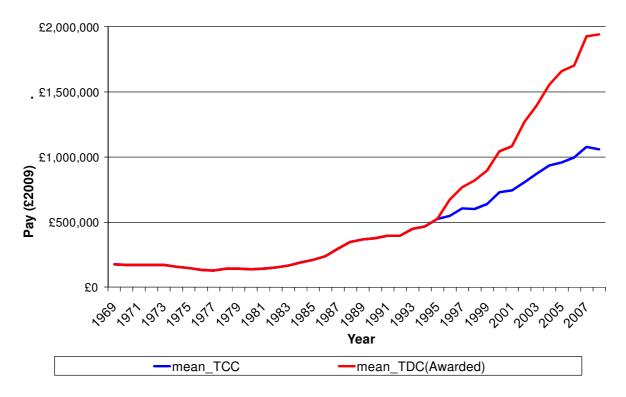


Note:

Source: Manifest; FTSE 100 under-represented in sample for the years 1995 (N=55) and 2008 (N=43); All values in £2009.

Average (mean) award of CEO pay over time in large UK companies

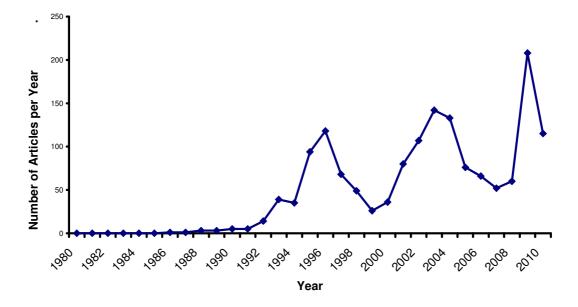
[TCC represents total current remuneration in terms of base pay, annual bonus etc. TDC represents total direct remuneration which adds to TCC a valuation of the option grants and performance share grants made in the year.]



Note: This is a highly imperfect splice of two data series.

Source: 1969-1995: DTI Company Accounts data which include emoluments of the highest paid director with no data on incentives such as share options or share plans.(max N = 440; min N = 139); 1995-2008: Manifest: FTSE 350 under-represented in sample for the years 1995 (N=163) and 2008 (N= 136); Average N of other years = 307. All values in £2009.



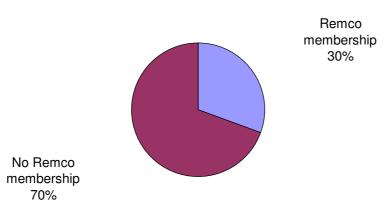


The results of a year-by-year search in the *Financial Times* for articles containing a reference to remuneration committees, using Lexis.

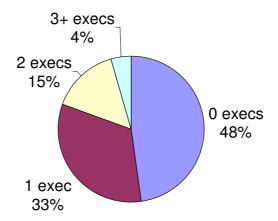
1990 Study of Remuneration Committees in largest UK Companies (N=220)

[Results from a survey of the UK's largest companies in 1990, using Annual Reports from 1989/1990]

a) Percentage of companies reporting existence of remuneration committee in annual report:



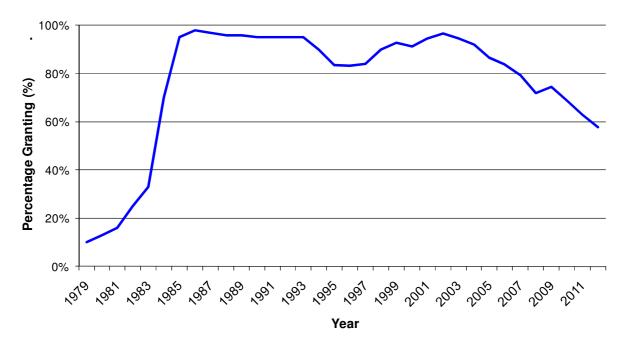
b) Number of executives reported serving on remuneration committee (N=67 Committees)



Source: Main and Johnston (1992, 1993). N= 230 companies. N= 67 Remuneration Committees.

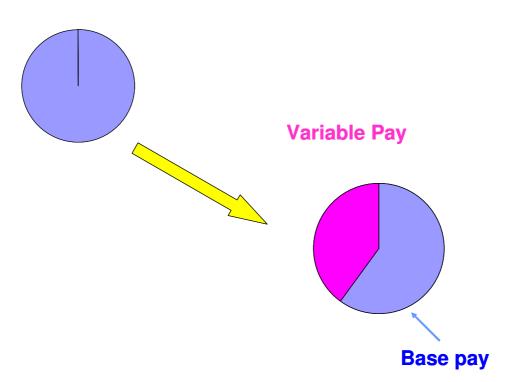
Chart 8

Companies Granting Executive Share Options

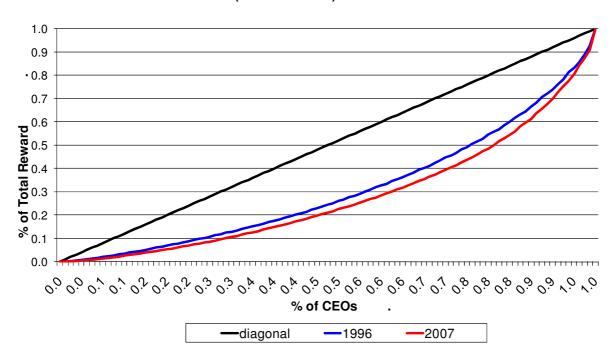


Source: Early data provided by Towers Perrin and updated post 1994 by reference to Manifest data on behaviour of FTSE350.

Need for increased expected value of remuneration package to compensate for risk aversion on the part of the director



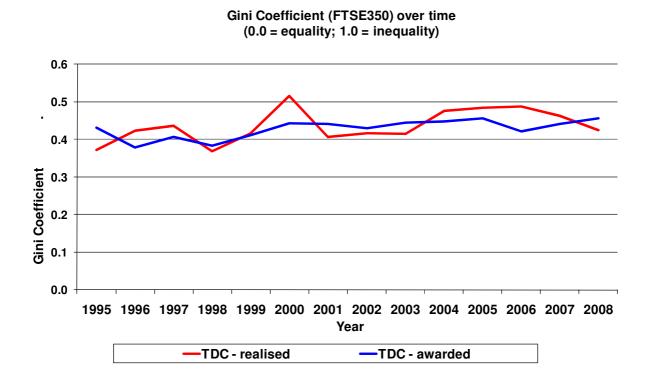
Lorenz Curve for Realized total remuneration of FTSE350 CEOs



Lorenz (TDC - awarded) - 1996 versus 2007

Source: Computations by author using Manifest data.

Gini coefficients over time for distribution of total realised remuneration among FTSE350 CEOs



Source: Computations by author using Manifest data.

Median Pay Share (CEO Pay divided by pay of all executives) over time for distribution of total realised remuneration among FTSE350 CEOs

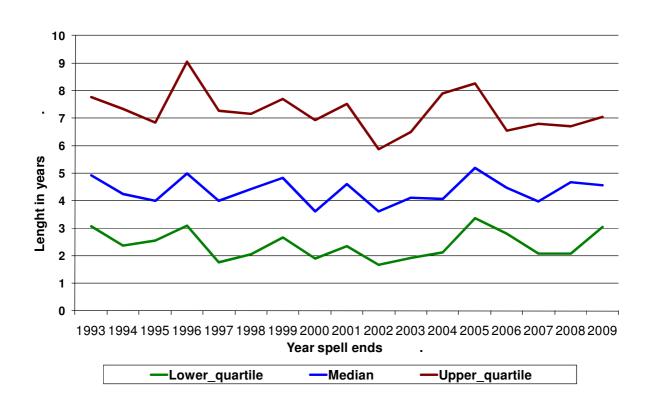


Median Realised Pay Share FTSE350 CEOs

Source: Computations by author using Manifest data.



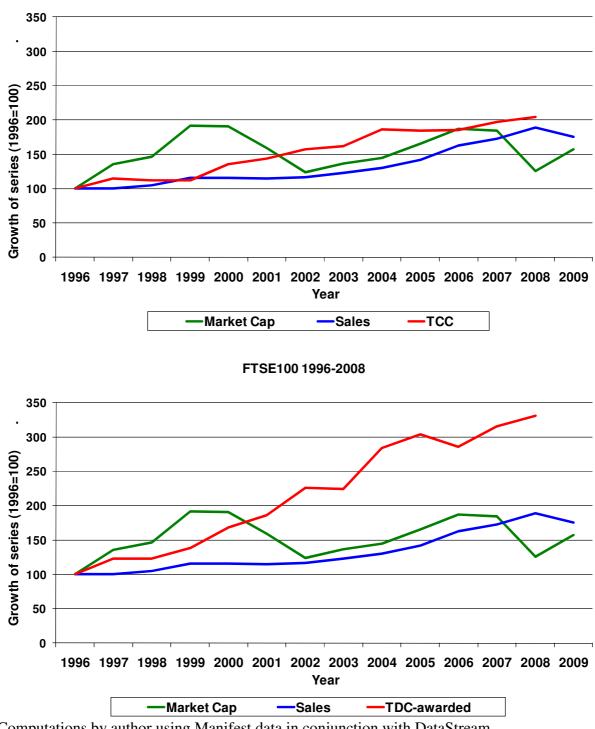




* This is years as CEO of the plc.; Median = 4.3 years; Mean = 5.7 years. Source: Hand collected data for Main et al. (2010).



Growth of Size of Company versus Reward (FTSE100)



FTSE100 1996-2008

Computations by author using Manifest data in conjunction with DataStream.

Table 1

		Rival Company	
		Resist upward pressure	Yield to upward pressure
This Company	Resist upward pressure	(2, 2)	(4, 1)
	Yield to upward pressure	(1, 4)	(3, 3)

The Prisoners' Dilemma representation of the Remuneration Committee decision

1 = best; 4 = worst

Adapted from Sandy Pepper (2006, p24)

1: Pay above market but small extra expense is rewarded by improved 'attract, retain, and motivate' outcomes.

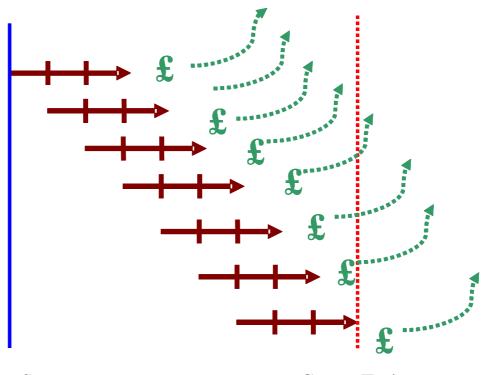
2: Pay 'going rate' – same as everyone else, and can compete effectively in market for talent, although not especially attractive.

3: All pay a higher 'going rate' but higher rate brings no advantage as end up same as everyone else (and is more expensive).

4: Pay below going rate which results in high cost in attract/retain/motivate outcomes.

Figure 1

Conventional vesting pattern

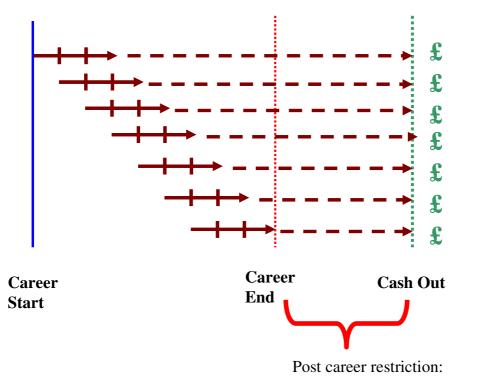


Career Start

Career End

Figure 2

Career Shares Vesting and cashing-in pattern



+1-year, or +2-years, or +4-years

Table 2

Career Shares in operation

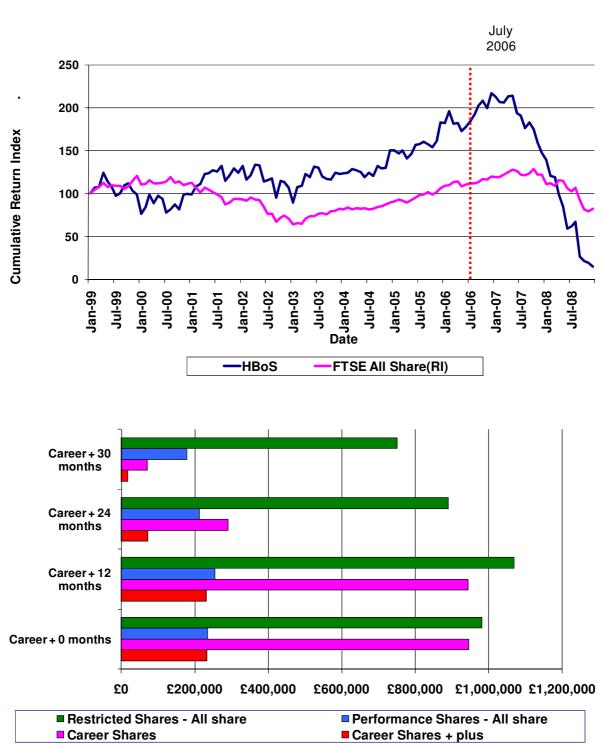
i) Career holding requirement

	Late career: under-perform	Late career: out-perform
Early career: under-perform	Hold their feet to the fire	Forgiveness
Early career: out-perform	Settling-up	Reward

ii) Post Career holding period requirement

	Post career: under-perform	Post career: out-perform
Balance of career: under-perform	Hold their feet to the fire/ Claw-back	Forgiveness
Balance of career: out-perform	Claw-back	Reward

Chart 15: HBoS Group



Counterfactual Simulation: Sir James Crosby and HBoS (Jan 1999 - July 2006) Cumulative investment returns:

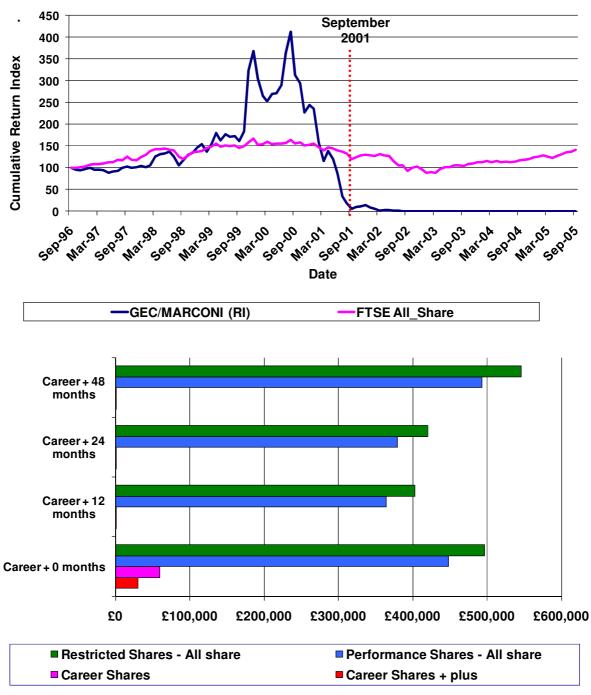
Source: Main et al. (2010) unpublished.

Chart 16

Counterfactual Simulation: Lord Simpson and GEC/Marconi

(Sept 1996 to Sept 2001)

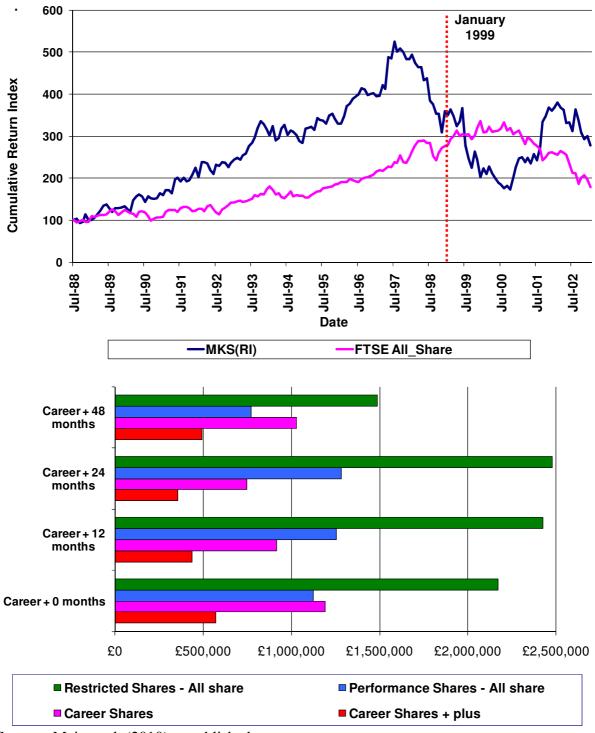
Cumulative investment returns:



Source: Main et al. (2010) unpublished.

Chart 17

Counterfactual Simulation: Sir Richard Greenbury and Marks & Spencer (July 1988 to Jan 1999)



Cumulative investment returns:

Source: Main et al. (2010) unpublished.

References

Axelrod, Robert (2006), The Evolution of Cooperation (Revised ed.), Perseus Books Group

Akerlof, George and Yellen, Janet (1986), *Efficiency Wage Models of the Labor Market*, Cambridge: Cambridge University Press

Association of British Insurers (1987). *Share Option and Profit Sharing Incentive Schemes. Summary of Revision to Guidelines to Requirements of Insurance Offices as Investors.* ABI, 51 Gresham Street, London EC2V 7HQ (13 July, addendum 6 May 1988, and amended 14 August 1991).

Bebchuk, L. A. & Fried, J. M. (2009), *Paying for long-term performance*. Harvard: John M Ohlin Center for Law, Economics and Business, Discussion Paper No. 658 (December).

Bhagat, S. & Romano, R. (2009), "Reforming executive compensation: Simplicity, transparency and committing to the long-term". Yale: John Ohlin Center for Studies in Law, Economics, and Public Policy, Research Paper No. 393.

Booker, Robert C and Wright, Vicky (2006) 'Relative shareholder return – the best measure of executive performance?' What if? Perspective. Watson Wyatt (June).

Cadbury Committee (1992). *The Financial Aspects of Corporate Governance*. London: Professional Publishing Ltd.

Clementi, Gian Luca and Cooley, Thomas F. (2009) 'Executive Compensation: Facts', National Bureau of Economic Research, working paper 15426.

Combined Code (1998). *The Combined Code of the Committee on Corporate Governance*. London: Gee Publishing Ltd. (June).

Conyon, Martin J., Core, John E. and Wayne R. Guay (2010). "Are U.S. CEOs Paid More Than U.K. CEOs? Inferences from Risk-adjusted Pay", *Review of Financial Studies*, (published online October 28, 2010)

Conyon, Martin J., Peck, Simon and Sadler, Graham V. (2009). "Compensation Consultants and Executive Pay: Evidence from the United States and the United Kingdom". *Academy of Management Perspectives*, Vol. 23 Issue 1 (February), pp. 43-55.

Conyon, M.J. and Murphy, K.J. (2000). 'The Prince and the Pauper? CEO Pay in the United States and United Kingdom', *Economic Journal*, 110 (647), 640-671

Conyon, M.J, Peck, Simon, and Sadler, Graham V. (2001). 'Corporate tournaments and executive compensation: evidence from the UK'. *Strategic Management Journal*, vol. 22, pp. 805-815.

Core, John E, Guay, Wayne R (2010) 'Is pay too high and are incentives too low? A wealthbased contracting framework'. The Wharton School, University of Pennsylvania Working Paper (January 28, 2010) DiMaggio, Paul J and Powell, Walter W (1983). 'The iron cage revisited: institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, Vol. 48, (April), pp. 147-160.

DTI (2002). *Directors' Remuneration Report Regulations*, Statutory Instrument 2002 No. 1986, revised April 2008).

Dunlop, John T. (1966) "The Task of Contemporary Wage Theory" in *The theory of Wage Determination*, John T. Dunlop (ed.). New York: Macmillan.pp.3-27.

Financial Reporting Council (FRC) (2010) . *The UK Corporate Governance Code*. London: Financial Reporting Council (June).

Financial Services Authority (FSA) (2010). *Revising the Remuneration Code. Feedback on CP09/10 and final rules*. London, December 2010.

Financial Stability Board (2009). *Financial Stability Forum - FSF Principles for Sound Compensation Practices*. Bank for International Settlements in Basel, Switzerland. 2 April 2009

Financial Services Authority (FSA) (2009). *Reforming remuneration practices in financial services. Feedback on CP09/10 and final rules.* London, August 2009.

Frydman, Carola and Jenter, Dirk (2010) 'CEO Compensation'. National Bureau of Economic Research Working Paper 16585 (December).

Gabaix, Xavier and Landier, Augustin (2008). "Why has CEO pay increased so much?". *The Quarterly Journal of Economics*, February, pp. 49-100

Galbraith, John Kenneth (1974). 'What comes after General Motors', *The New Republic*, (2 November), reprinted in *Annals of an Abiding Liberal*. London: André Deutsch Limited, 1979, page 79.

Greenbury, Sir Richard (1995). *Directors' Remuneration. Report of a study group chaired by Sir Richard Greenbury.* London: Gee Publishing Ltd (July).

Gregory -Smith, Ian, Thompson, Steve and Wright Peter W. (2009). 'Fired or Retired? A Competing Risks Analysis of Chief Executive Turnover'. *Economic Journal*, 119(536), 463-481.

Guest, Paul M. (2009). "The Impact of Mergers and Acquisitions on Executive Pay in the United Kingdom". *Economica*, Vol. 76 Issue 301 (Feb), p149-175.

Hall, Brian J. and Murphy, Kevin J. (2002). 'Stock options for undiversified executives', *Journal of Accounting and Economics*, vol. 33, no. 2 (April), pp. 3-42.

Hampel, Ronnie (1998). *Committee on Corporate Governance*. Preliminary Report, August 1997; final report January 1998. London: Gee Publishing Ltd.

Higgs, Derek (2003). *Review of the role and effectiveness of non-executive directors*. Department for Trade and Industry (January).

Jensen, Michael C. and Murphy Kevin J. (1990). 'Performance pay and top-management incentives', *Journal of Political Economy*, vol. 98, pp.225-264. Khurana, Rakesh (2002). *Searching for the Corporate Savior*. *The irrational quest for charismatic CEOs*. Princeton: Princeton University Press

Main, Brian G M, Thiess, Rolf and Wright, Vicky (2010) 'Career Shares as Long Term Incentives'. University of Edinburgh Business School, Working Paper (December).

Main, Brian G. M., Jackson, Calvin, Pymm, John and Wright, Vicky (2008) "The Remuneration Committee and Strategic Human Resource Management", *Corporate Governance. An International Review*, Vol.16, No. 3 (May), pp.225 - 238.

Main, Brian G M, Berry, Gareth, Neate, Jeff and Wright, Vicky (2008) "The potential for backdating executive share options in the UK. The length of a footprint – does it matter?" with, University of Edinburgh Business School, Centre for Financial Markets Research Working Paper 08.01, July, 2008.

Main, Brian G. M., Jackson, Calvin, Pymm, John and Wright, Vicky (2008) "The Remuneration Committee and Strategic Human Resource Management", *Corporate Governance. An International Review*, Vol.16, No. 3 (May), 2008, pp.225 - 238.

Main, Brian G. M. (2006) 'The ABI Guidelines for share-option based incentive schemes.Setting the hurdle too high?'. *Accounting and Business Research*, forthcoming.Main, Brian G. M. (2001). "Directors' remuneration and the DTI review of Company Law", *Economic Affairs*, Vol. 21, No. 1, pp.48-54.

Main, Brian G. M., Bruce, Alistair, Buck, Trevor, and Udueni, Henry (2000). 'Keep it Simple: Company law and directors' remuneration', *Hume Papers on Public Policy*, vol. 8, no. 1 (Winter), pp 92-110.

Main, Brian G. M. (1999). 'The Rise and Fall of Executive Share Options in Britain' in Jennifer N. Carpenter and David Yermack (eds.). *Executive Compensation and Shareholder Value: Theory and Evidence*, London: Kluyer Academic Publishers, pp. 83-113.

Main, Brian G.M., Bruce, Alistair and Buck, Trevor (1996). 'Total board remuneration and company performance', *Economic Journal*, vol. 106, no.439 (November), pp.1627-1644.

Main, Brian G.M., O'Reilly, Charles A., and Wade, James (1995). 'The CEO, the board of directors, and executive compensation: Economic and psychological perspectives', *Industrial and Corporate Change*, vol.4, no.2, pp. 293-332.

Main, Brian G.M. and Clark, Simon (1995). 'The governance of remuneration for senior executives: making use of options', *Hume Papers on Public Policy* vol. 3, no. 4 (Winter), pp. 59-77.

Main, Brian G.M. (1994a) "The Nominations Process and Corporate Governance: A missing link", *Corporate Governance*, Vol.2, No.3, pp.161-169.

Main, Brian G.M. (1994b) "The Economics of Organization, Top Executive Pay and Corporate Governance", *British Review of Economic Issues*, Vol.16, No.39, pp.85-106.

Main, Brian G.M. (1994c) "Reflections on Institutional Guidelines on Top Executive Pay", *The Review of Policy Issues*, Vol.1, No.2, pp.75-84.

Main, Brian G.M., O'Reilly, Charles A., and Crystal, Graef S. (1994). 'Over here and over there: A comparison of top executive pay in the UK and the USA', *International Contributions to Labour Studies*, vol.4, pp.115-127.

Main, Brian G.M. (1993a). "Pay in the Boardroom: Practices and Procedures", *Personnel Review*, Vol.22, No.7, (1993), pp.1-14.

Main, Brian G.M. (1993b). 'Directors' service contracts. Why so long?' *Hume Papers*, David Hume Institute, (Autumn), pp.35-40.

Main, Brian G.M. and Johnston, James (1993), 'Remuneration Committees and Corporate Governance', *Accounting and Business Research*, vol.23, no.91A, pp.351-362.

Main, Brian G.M., O'Reilly, Charles A. III, and Wade, James (1993). 'Top executive pay: Tournament or teamwork?', *Journal of Labor Economics*, vol.11, pp.606-628.

Main, Brian G.M. and Johnston, James (1992), *Remuneration Committees as an Instrument of Corporate Governance*, Hume Occasional Paper no. 35. Edinburgh: The David Hume Institute, 54pp.

Main, Brian G.M. (1991). 'Top executive pay and performance', *Managerial and Decision Economics*, vol. 12, pp.219-229.

Murphy, Kevin J. (2010) 'Executive pay restrictions for TARP recipients: An assessment'. Evidence presented to United States Congressional Oversight Panel, October 21, 2010. University of Southern California Marshall School of Business, Working Paper FBE 23-10.

Murphy, Kevin J. and Zábojník, Ján (2004). "CEO Pay and Appointments: A Market-Based Explanation for Recent Trends," American Economic Review, vol. 94(2), pages 192-196, May

National Association of Pension Funds, NAPF (1984). *Share Scheme Guidelines*, NAPF (November). 12/18 Grosvenor Gardens, London SW1W 0DH

O'Reilly, Charles A. III and Main, Brian G M (2010) "Economic and Psychological Perspectives on CEO Pay: A Review and Synthesis." *Industrial and Corporate Change*, Vol. 19, no.3, 2010, pp. 675-712.

O'Reilly, Charles A. III, Main, Brian G M and Crystal, Graef S. (1988). 'CEO compensation as tournament and social comparison: A tale of two theories' *Administrative Science Quarterly*, vol.33, (June), pp. 257-274.

Pepper, Sandy (2006) *Senior Executive Reward: Key Models and Practices*. London: Gower Publishing Ltd.

Pfeffer, Jeffrey (1998) 'Six dangerous myths about pay'. *Harvard Business Review*, Vol. 76 Issue 3 (May/June), pp.109-119.

Rosen, Sherwin (1981). 'The economics of superstars', *American Economic Review*, vol.71, pp.845-858.

Porac, J.F., Wade, J.B. and Pollock, T.G. (1999). 'Industry Categories and the Politics of the Comparable Firm in CEO Compensation'. *Administrative Science Quarterly*, 44, 1, 112-144.

Scott, Richard W. (2001). *Institutions and Organizations*. 2nd ed., Thousand Oaks, California: Sage Publications.

Securities and Exchange Commission (1983). *Disclosure of Executive Compensation*, Securities Act Release No. 6486, Fed. Reg. 44,467 (Sept. 29, 1983).

Voulgaris, Georgios; Stathopoulos, Konstantinos; Walker, Martin (2010) "Compensation Consultants and CEO Pay: UK Evidence". *Corporate Governance: An International Review*, Vol. 18 Issue 6 (Nov), p511-526.

Walker Report (2009). A Review of Corporate Governance in UK Banks and other Financial Industry Entities. London: Canary Wharf (November)

Williamson, Oliver E. (1985). *The Economic Institutions of Capitalism*. New York: Free Press.

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