

Research report
April 2014

Executive reward

A review of the drivers and consequences



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Executive reward: A review of the drivers and consequences

Contents

Foreword	2
Introduction	4
1 What determines executive pay?	7
2 The consequences of executive pay	20
3 A group-level analysis	30
Conclusion	35
Further reading	36
References	37

Acknowledgements

This review has been researched and written on behalf of the CIPD by Rebecca Campbell and Professor Alexander Pepper from the London School of Economics and Political Science.

Foreword

This report is based on a review of academic research on executive reward, carried out on behalf of the CIPD by the London School of Economics and Political Science. The purpose of our report is to review recent academic studies into top pay between 2007 and 2013, to highlight the findings and consider the implications for practice. A summary of our research can be found on the CIPD's website at cipd.co.uk/executivereward

The review focuses on two main areas, namely assessing those studies that attempt to explain what has been driving executive income upwards and evaluating those studies that endeavour to explore what, if any, have been the consequences of this increase in pay.

The report is written for and aimed at reward and HR professionals working in the area of executive remuneration, as well as those who would like to know more about this topic. The report has implications for reward practice as well as public policy.

Perhaps no other element of reward management has attracted as much attention as executive remuneration, seemingly under constant scrutiny from the media, politicians and the public, with a clamour that 'something needs to be done' to reign in high pay, better link pay with performance and ensure that failure is not rewarded. There is also no other part of reward management that has been subject to as much scrutiny by academics from a multitude of disciplines.

So, has all this research come up with an easy, neat and plausible solution to how executives should be rewarded? Not as such. There is no single explanation for why executive earnings have increased by so much. Nor is there common agreement around the consequences of this rise and ideas for how executive remuneration should be managed. As the authors point out: 'To anyone who has read this entire report, it should be clear that it is possible to find research to back up almost any argument [or recommendation] one could care to make.'

Partly, this is because the academic research studied as part of this review has looked at directors' pay and performance from a variety of standpoints and has used different definitions and measurements. Another explanation for the lack of consensus, as the authors point out, is that these studies often fail to consider pay from the perspective of those on the receiving end, the executives. They suggest that pay cannot be considered a singular concept. If we recognise that it has multiple meanings, it's not surprising that this review finds no consensus for practitioners or policy-makers on 'what to do'.

For me, the review highlights the importance of context. For instance, while many studies have highlighted the dangers of making large long-term incentive plan (LTIP) awards or stock option grants, there may be situations where this may be exactly the right thing to do. Context is king and if there is a universal message, it is that there is no best practice. In many

instances, it will make sense to link reward to long-term performance; on some occasions it may be more appropriate to concentrate on short-term achievement.

Organisations should reflect on how the leaders are supporting the culture by encouraging a workplace where individuals want to work to their best and are unified by a common endeavour underpinned by mutual trust, respect and a free flow of ideas. Conventionally, agency theory has emphasised performance rather than behaviours, but as organisations become more knowledge- and innovation-based, executive behaviour becomes as important as executive outcomes.

Similarly, while variable pay has been traditionally linked to individual achievement, as work, the workforce and workplaces all become increasingly interrelated and connected, CEO bonuses and incentives should start to reflect this fact. In addition, if what leaders need to do to create and sustain success is changing, investors need new ways of assessing, rewarding and recognising success.

While there may be no best practice, the research indicates that there are good processes, but trade-offs may be needed. For instance, while incentives should support the business strategy of the organisation as well as its mission, vision and culture, the report notes incentives 'designed with alignment in mind are often highly complex, with performance benchmarked against comparator firms and subject to considerable delay.

However, complexity and delay will tend to reduce the motivational impact. You can't be motivated by something you don't understand, or feel you have control over.'

As a consequence, while alignment is important in incentive design, it should not result in the creation of remuneration practices that are

not fully valued by executives or, worse, encourage inappropriate behaviours. As a consequence, in some instances, higher base pay and smaller, simpler, incentives may be more appropriate.

Finally, corporate governance is important to ensure that the rewards support the requirements

of the relevant stakeholders. This balancing act will require a remuneration committee that is robust and has an independence of mind.

Charles Cotton
CIPD Adviser, Performance and Reward

Introduction

Pay is a complex and fraught subject, more so executive pay. This can be illustrated by the three following, seemingly irreconcilable, perspectives:

- In 2011 the final report of the High Pay Commission argued that excessive top pay is ‘deeply damaging to the UK as a whole, and action is urgently required to address it’ (p7).
- A few years on, *The Economist*, commenting on the \$52 million pay package of the CEO of McKesson, John Hammergren, suggested that he had outperformed the market and ‘hard-nosed investors may see it as a reasonable deal’ (*The Economist* 2013).
- Most recently, the public outrage over excessive payouts at the BBC illustrates that ‘negligence and profusion’ may indeed prevail (Adam Smith 1776¹).

What makes this topic so complex and fraught is that when discussing pay, people are very often not really talking about the same thing. While the examples above do not obviously

¹ Adam Smith famously criticised the joint stock company, as he argued the separation of ownership and control would lead to corruption and inefficiency: ‘The directors of such [joint-stock] companies, however, being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnership frequently watch over their own.... Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company’ (1776, Book 5, chapter 1, part III, 1st Article, p265).

present a harmonious perspective on pay, they need not necessarily be seen as contradictory. In other words, what looks superficially like disagreement is due to the fact that much of the dispute arises because, when people discuss pay, they are talking about different things.

Baudrillard’s (1981) object value system suggests that at least some disagreement around executive compensation might be a function of the conflicting meanings that pay can have. He argues that there are four ways for an object to have value. To take the example of a pen, it has:

- functional value (a pen, for example, writes)
- exchange value (you can swap a pen for, say, three pencils)
- symbolic value (the importance that a person assigns to an object in relation to another person – this pen was given to me as a prize for academic achievement)
- sign value (this particular pen, while functionally no better than another, has prestige relative to another pen: presidents use Mont Blanc pens).

For example, a diamond ring has little functional value, has some exchange value, may have symbolic value and most obviously has sign value – its primary role is to signal wealth and status. While economists tend to assume that money, or pay, has only one meaning (its exchange value), the perspective above suggests that pay is considerably more complex and lends itself to a multi-disciplinary approach. Pay can be considered

from its ‘functional’ aspect – is it economically efficient? Pay might have symbolic value – my boss gave me a bonus and I feel personally valued. For senior executives one could make the argument that its most important value is its ‘sign’ value – I expect to be paid X as that means I am a success. As Frydman and Saks (2010) argue in their perspective on the historical changes in executive pay, no single explanation can account for the long-run trends, because executive pay cannot be considered as a ‘singular’ concept.

What does this literature review offer, and what is new?

The value of this literature review is in part due to its timing. The time frame that separates this research from the last literature review on pay (Devers et al 2007) is one punctuated by the crash of Lehman Brothers in September 2008 – the largest bankruptcy in US history. Unsurprisingly, this has resulted in an increased focus on the role that pay has on risk-taking and a rather more negative tone to the research.

This review also offers a more UK perspective on the debate; while most research has been, and continues to be, dominated by US data, where possible we include UK and European evidence. Traditionally, economic factors have dominated the debate on executive pay; however, there is a growing emphasis on social and political perspectives. There is an emerging consensus that the clarity that economic models can provide in revealing underlying structure should be balanced with a more subtle behavioural perspective if

they are not to become dangerously simplistic.

Outline of structure of review

As indicated above, 'pay' can be approached from many different theoretical and political perspectives, and the research is voluminous and often conflicting. Finkelstein et al (2009) adopt a very clear organising structure to look at the subject of executive pay, which we have broadly followed here. Accordingly, we arrange the research into:

- that which looks at what influences pay (that is, it considers pay as the dependent variable), and
- how pay influences behaviour (that is, it considers pay as the independent variable).

Most research, and popular interest, has focused on the first question – why are senior executives paid the amounts they are? In one camp you have free-market advocates who argue pay is (or should be) about nothing more than the invisible hand of market forces.

This perspective is captured by the response of a CEO of a large UK quoted company to a question at the annual general meeting: 'My remuneration is determined by market forces. There is really nothing more to say on the matter' (Pepper 2006, p15).

That there might be more to pay-setting than a textbook interaction of supply and demand curves is, however, suggested by the former CEO of Royal Dutch Shell, Jeroenvan der Veer, who in contrast to the unnamed CEO above, stated: 'You have to understand, if I had been paid 50% more I would not have done it better, if I had been paid 50% less I would not have done it worse.' (High Pay Commission 2011, p16).

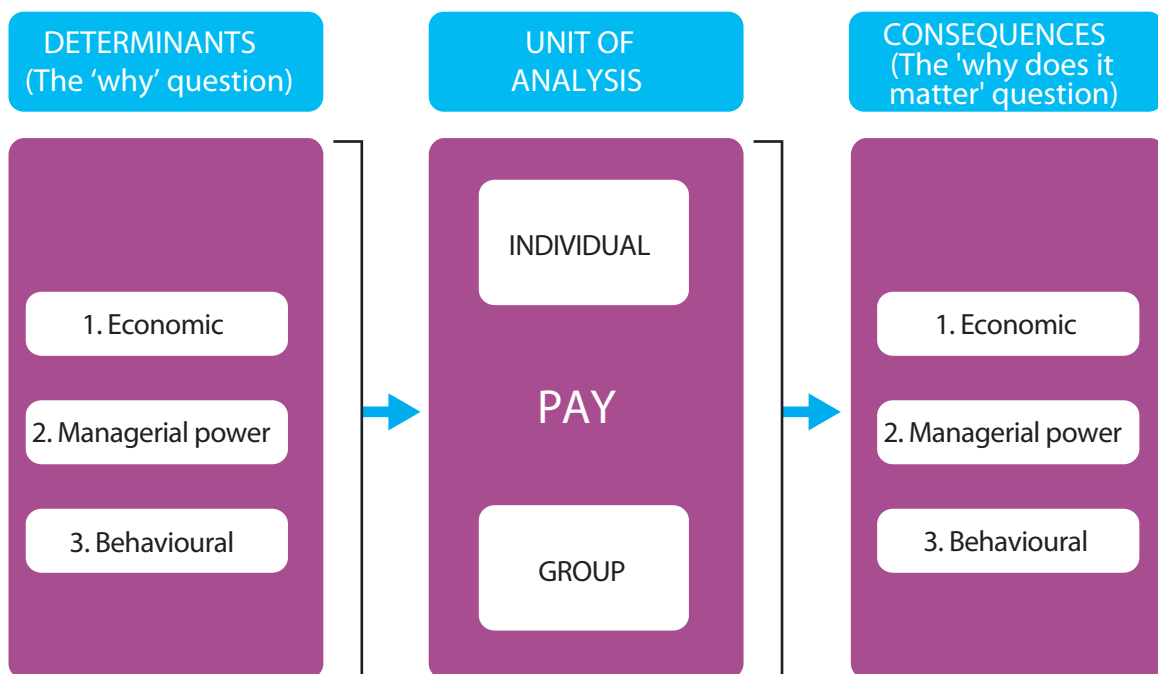
Turning to consider the second question, how pay influences behaviour (pay as the independent variable), Finkelstein et al suggest that this is perhaps the more interesting area, that is, what are the consequences of different patterns of compensation on strategic choice and firm performance?

Within these two categories, (1) what determines how executives are paid, and (2) what the consequences of pay patterns are, this review further breaks down the literature into the theoretical perspective adopted. That which looks at: economic factors; political factors; and social and behavioural factors.

Finally, the unit of analysis is considered. Most research looks at pay at an individual level and implicitly uses CEO compensation as a proxy for the compensation of senior executives. Therefore, in Section 2 a group-level analysis is examined, reflecting the fact that pay is not set in a social vacuum. This looks at the pay differentials between CEOs and other top executives, and the pay dispersion within the top management team. Using the same organising principle, this looks at what accounts for, or what the determinants are of these differences, and what the consequences are.

Figure 1

A model for thinking about senior executive pay



In brief, this review asks three questions when arranging the research on pay:

- 1 Is pay the dependent or independent variable (that is, does the research look at what factors explain pay, or is it looking at how pay explains behaviour)?
- 2 What theoretical approach is taken (economic, power or social/behavioural)?
- 3 What unit of analysis is considered (individual or group)?

It should be emphasised that this is an organising device for the report, a way of providing a road map for navigating through the mass of evidence; much research – and

indeed reality – often does not fit neatly into boxes.

Senior executives – a definition

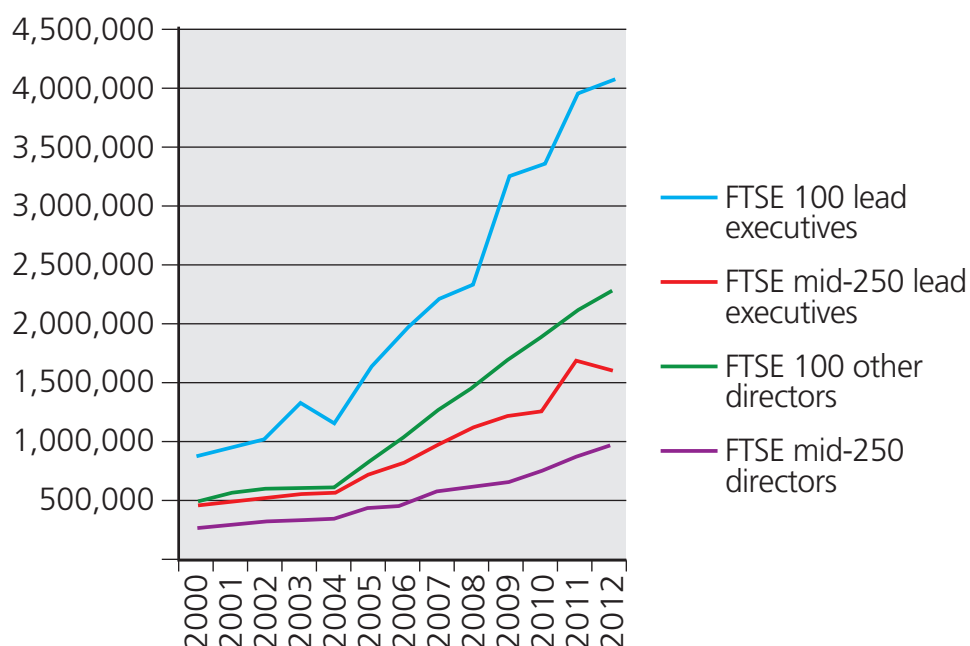
‘Very senior executives [are] responsible for defining and executing a company’s strategy, who through their actions are capable of directly affecting (positively or negatively) the company’s profits, share price, reputation, market positioning and so on.’ (Pepper 2006, p5)

Method

The last major literature review of the research on executive pay was

conducted by Devers et al (2007). Consequently we concentrate our research on the period 2007–13. We based the choice of academic journals that we searched in from those used by Devers et al. A few more UK-based journals were included to broaden the results to reflect more UK and European data. In nearly all cases the journals were three- and four-star rated (by the Association of Business Schools). The choice of keywords used when searching the journals was again based on those used by Devers, being: executive compensation; compensation design; incentive pay; corporate governance; risk; agency theory; behavioural theory.

Figure 2 CEO remuneration in the UK , 2000–2012



Source: Income Data Services *Directors’ Pay Reports* for the relevant years.

‘Indicative total earnings’ is defined as: ‘Salary plus benefits plus maximum bonus potential (not actual bonus paid) plus the face value of LTIP and share option grants made during the year. LTIP and option grant values are estimated by multiplying the number of share or options awarded during the year by the share price at the date of grant.’

1 What determines executive pay?

'Business history is littered with firms that got what they paid for.' (Jensen et al 2004, p77)

This section considers the determinants of executive remuneration. The research literature is grouped according to economic, political or behavioural perspectives.

A. The economic perspective on the determinants of pay

Agency theory is the dominant theoretical framework for thinking about executive pay. In the tradition of Adam Smith (1776) and Berle and Means (1933), it focuses on the costs of the separation of ownership and control. At its heart, agency theory is directed towards the common problem where you have co-operative behaviour, but the parties to the contract have differing goals and differing attitudes towards risk.

This leads to two central problems. The first problem arises when the desires or goals of the principal and agent conflict, and it is difficult or expensive for the principal to verify what the agent is actually doing. The second is that of risk-sharing, when the principal and agent have different attitudes toward risk (Eisenhardt 1989). Essentially the question becomes one of whether it is more efficient to monitor behaviour, or measure outcomes; in other words, the trade-off is between the cost of measuring behaviour and the cost of measuring outcomes and transferring risk to the agent.

As with the best economic

insights, agency theory is not without its critics. There is a case that it has been taken up so enthusiastically because it offers an appealing theoretical legitimacy for high pay. Economics, as Heilbroner said (paraphrasing Schumpeter), is perhaps *'the analysis of that which we wish to see or cannot help ourselves from seeing rather than a detached and objective dissection of a world that is unambiguously there'* (Heilbroner 2000, p309).

One of agency theory's core texts — Jensen and Meckling (1976) — was principally a theoretical discussion of the impact of agency costs on the capital structure of the firm (that is, given agency costs, what is the optimal balance of outside equity to debt?) rather than specific prescriptive advice in how to use equity pay to reduce agency costs. It is worth paying close attention to the distinction between normative and positive arguments. Normative arguments are a statement of what 'ought' to be (in other words normative economics contains a value judgement of how the world should be), while positive arguments are a statement of 'what is' (so positive economics restricts itself to describing and explaining economic phenomena). Jensen and Meckling's hugely influential article was positivist theory (an abstract description of 'what is'), but has been taken by some of agency theory's more ardent admirers to be a cry for what 'should be'. It is also worth mentioning that Jensen (Jensen et al 2004; Jensen and Murphy 1990) has gone on to challenge many of the subsequent arguments made by

agency theory's more single-minded supporters.

At its most simplistic, the debate over the causes of the recent huge increase in senior executive pay centres on two competing perspectives: is pay an efficient reflection of market forces (the optimal contract model) or the result of overpowerful executives capturing excessive 'rent' at the expense of shareholders (the managerial power perspective, Bebchuk and Fried 2004)? This section looks at the economic perspective on the setting of pay, which is generally theoretically supportive of the efficiency arguments for pay, even if the empirical evidence for pay-for-performance links remains somewhat disappointing. Below we review the literature from an economic perspective. The theoretical arguments underpinning the debate on pay-setting are considered first, turning next to look at the empirical evidence on pay-performance links. Finally, we look at the evidence on human capital theory that makes the argument that in an efficient labour market, compensation will rationally reflect the experiences, education and background of the manager.

The theory

Gabaix and Landier's (2008) model is illustrative of the economic perspective. One of the most predictable (and, to agency theorists, disappointing) findings in the literature is the fact that firm size rather than performance is the best predictor of executive pay (Tosi et al 2000). Justifying this link as economically rational, Gabaix and

Landier argue that the marginal impact of a CEO's talent increases with the value of the firm under his or her control. Consequently, the recent rise in CEO compensation can be seen as an efficient equilibrium response to the increase in the market value of firms, rather than resulting from agency issues. Put simply, Gabaix and Landier argue that talent is worth more in larger firms, so CEO talent and firm size become positively correlated. They contend that the six-fold increase in US CEO pay between 1980 and 2003 can be fully attributed to the six-fold increase in the market capitalisation of large companies.

Edmans and Gabaix (2009) reiterate this defence of the optimal contract model of pay in a specific challenge to the managerial power hypothesis (detailed below). They argue that examples of pay practices that some regard as aberrant can in fact be seen as examples of efficient pay-setting. For example, they argue that severance pay, which some criticise as a reward for failure, can make it easier for boards to get rid of underperforming CEOs. Large pensions can be regarded as unsecured debt and thus can be an efficient deterrent to risk-taking. They do not argue that there is no rent extraction, rather seeking to point out the alternative theories to the managerial power hypothesis. Both Ruiz-Verdu (2008) and Van Wesep and Wang (2013), in a similar vein, also take an economic perspective to argue that CEO contracts that look like rent extraction can nevertheless result in economically efficient outcomes.

However, the argument that executive pay is an efficient response to the increase in the market value of firms is challenged by other academics. In particular, Frydman and Saks (2010) offer a historical perspective showing that while executive pay and firms have

indeed expanded at almost the same rate from the 1980s onwards, this was certainly not the case in earlier periods. Before the 1980s, aggregate market capitalisation increased considerably, while the level of executive pay experienced little change (see Figure 3). They look at the long-run trends (in the USA) in both the level and structure of compensation from 1936 to 2005 for the top three executives in a firm. Their figures reveal three distinct phases: from 1936 to 1950, the real value of compensation fell from about \$0.9 million to \$0.75 million; this period of deterioration was followed by 25 years of slow growth from 1950 to 1975. Finally, the level of executive pay climbed at an increasing rate from the mid-1970s. Although compensation dipped briefly from 2001 to 2003, it resumed a rapid rate of growth during the last two years of the sample.

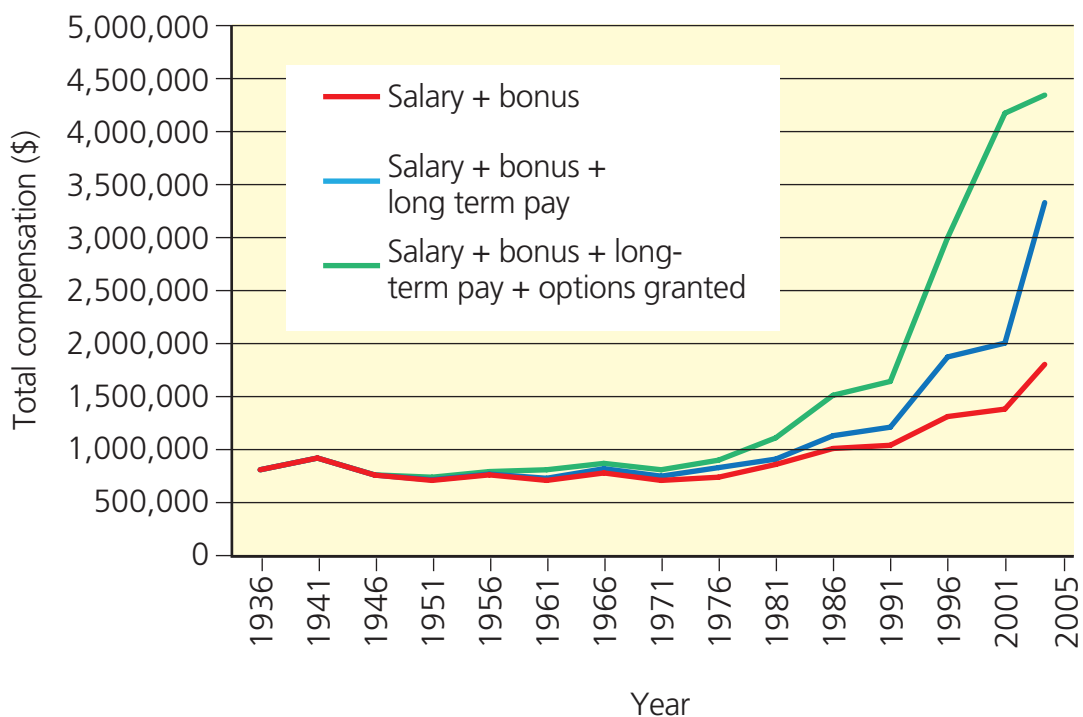
Their analysis is more than just a historical curiosity. Frydman and Saks argue, with some justification, that the contrast between these two periods poses a challenge to many explanations for the rise in executive pay. The correlation between firm size and pay, one of the most consistent relationships shown in recent research, has not been present in earlier periods and so, they argue, the recent correlation may be driven by upward trends in both variables, rather than resulting from a true causal connection. If there is one central theme that emerges through our report, it is that pay should be considered from multiple theoretical perspectives, and Frydman and Saks's research underscores this argument. They conclude that: *'Overall, it seems unlikely that a single explanation can account for the long run trends that we document in this article'* (p2102).

Philippon and Reshef (2012), again

taking a historical perspective, also challenge the strength of Gabaix and Landier's (2008) economic justification for changes in executive pay. Their study looks specifically at the financial sector in the US from 1909–2006, focusing on the impact of deregulation and compares wages and skill levels with those in the wider economy. They argue that while the Gabaix and Landier model, discussed above, can account for some of the increase in relative executive compensation, it still leaves much of the excess wage in the finance sector unexplained. They show that high wages have not been a permanent feature of the finance industry, and they argue that the impact of deregulation explains why they appear in some periods and not others. From 1909 to 1933, the finance industry was a high-wage, high-skill industry. There was then a dramatic decline, starting from the mid-1930s, and by the 1950s through to the 1980s the average skill and wage level in the financial sector was similar to that of the wider economy. From the 1980s onward, finance began a dramatic climb, with both average skill and wages returning almost to their 1930 levels. By 1995–2005, executive compensation in finance was, on average, 2.7 times greater than that in the private sector.

Cuñat and Guadalupe (2009a) also examine, albeit over the much narrower time frame of 1992–2002, the impact that deregulation has on pay in the financial sector, but come to a different conclusion. Their results suggest that performance-related pay as a proportion of total pay rose, and the sensitivity of pay–performance also increased. They argue that as competition increased post deregulation, managers were faced with steeper incentives to increase firm performance. However, they find that total executive

Figure 3 Median total compensation and its components, 1936–2005



Source: Frydman and Saks (2010)

pay increased only marginally in deregulated sectors.

Gabaix and Landier’s argument, which justifies recent increases in executive pay as economically efficient, rests upon the assumption that the market’s estimate of talent, given noisy signals such as past performance, is an accurate estimate. If a CEO is 1% more talented than the alternative CEO and that 1% can translate into an equivalent increase in firm value, pay and firm size may well be legitimately connected. As mentioned in the opening paragraph, John Hammergren, the boss of McKesson, a big American wholesaler of drugs and healthcare supplies, received total compensation of \$52 million in 2012. On the back of a \$19 billion increase in the company’s stock market valuation over his tenure, *The Economist* argued this made him cheap. The search for a

link between pay and performance therefore underpins much economic theory and is intricately bound up in a wider ethical or political debate over income inequality and fairness, attitudes to which often form an unspoken subtext to much of the research. It is to this research that we turn to next.

The empirical evidence on pay–performance links

‘Elasticity of pay-to-performance = the percentage change in compensation for a 1% change in firm value.’ (Katz and Rosen 1998)

Previous research on the link between pay and performance has been disappointing (both Jensen and Murphy (1990) and Tosi et al (2000) found weak or inconclusive links) and the most consistently

found relationship continues to be that between the size of the firm and pay. Both Gomez-Mejia and Wiseman (1997) and Devers et al (2007) question the use of firm performance as an indicator for interest alignment. They suggest that too much of firm performance is outside the manager’s control, and too much academic research is weak methodologically in terms of how it selects and measures performance indicators. Despite these methodological difficulties and the lacklustre results, academics continue the search for evidence of correlation between executive pay and firm performance. It should be pointed out that while it is customary to talk about pay–performance links, what the majority of research is looking for is a performance–pay link, in that direction. Most research looks at the extent to which pay is an ex-post reward for past behaviour. There

is considerably less research that considers the impact that past pay has on future performance.

Nyberg et al (2010), while acknowledging that sociological and socio-political theories should balance agency theory as an explanation for CEO pay, nevertheless defend incentive pay as a device (but not a universal panacea) for aligning the interests of shareholders and managers. They argue that earlier meta-analyses that show disappointing links between incentive pay and performance should be more closely scrutinised. Like Devers et al and Gomez-Mejia and Wiseman, they argue that there are methodological weaknesses in previous pay–performance research, with most primary data omitting the explicit incentive of equity pay and stock ownership. They also suggest that studies do not focus on the relevant timescales, confusing long-term components of pay with short-term performance measures or vice versa.

Their research aimed to find out the degree of financial alignment between shareholders and CEOs, and the extent to which such alignment affected future firm performance. Unlike most studies which look at the absolute dollar changes in equity value, Nyberg et al put forward a new concept of CEO return (analogous to total shareholder return) which looked at percentage returns. They measured the degree to which a CEO's firm-based wealth (including fluctuations in accumulated stock and option holdings as well as annual cash compensation) changed in a given year, expressed as a percentage of beginning wealth. They found substantial evidence of the alignment of CEO return and shareholder return. However, as a predictor of future shareholder return, financial alignment was less impressive, having a very small

effect. In conclusion, they were modestly optimistic about the value of agency theory: *'Agency theory may not tell the whole story, but its propositions about alignment remain an important part of the CEO compensation story. If management researchers prematurely shut the door on agency theory, they may miss an opportunity to develop a richer understanding of the incentive alignment construct'* (p1030).

Banker et al (2013), also writing from an agency perspective, present a possible explanation for the weak links found between pay and performance. They look at the different roles played by salary and bonus and argue that salary, as the fixed component of total compensation, will exhibit a positive association with past performance. However, the authors expect bonuses to be *negatively* related to past performance. This is because, if past performance is high, principals will be confident to provide a higher salary and a less high-powered bonus. They find that, as they predict, past performance is indeed both positively and significantly associated with salary, and bonuses are negatively associated with performance. When combined, the two effects offset each other. They offer this as a potential explanation for the fact that prior studies (as pointed out by Nyberg et al can be methodologically flawed) have largely failed to find any significant link between past performance and pay. The pay–performance link is not a straightforward connection to measure.

Kaplan (2008) also mounts a polemical defence of CEO pay as determined by market forces. He cites his own earlier research (Kaplan and Rauh 2007), which sorted firms by size and within each size group sorted CEOs according to pay, and found that actual pay

was highly correlated with firm stock performance. Kaplan also argues that CEO turnover (which he maintains is strongly related to poor performance) is much higher than at previous periods. He cites as evidence the job losses and subsequent huge loss of wealth of the CEOs of Bear Stearns and Lehman Brothers as evidence for poor performance being punished: *'Collectively, the poor performance of their companies cost them many hundreds of millions of dollars'* (p6). (It should be noted that this argument is vehemently contested by Bebchuk et al (2010a), discussed in more detail later.) While the strength of Kaplan's assertions rests upon slightly light evidence, Kaplan does point to one of the key nuances in the debate over executive pay – the average or median case is quite different from the extremes. There are often very large differences between the average (mean) and the (usually much lower) median, and the mean is driven by a few large (and well-publicised) egregious payments.

Sapp (2008), while primarily looking at the impact of corporate governance on executive compensation, also provides evidence on Canadian pay–performance elasticity. Like many other studies, he finds a clear link between pay and size of the company, finding a pay–size elasticity of 0.36 for CEO total compensation (in other words, a doubling of firm size would increase CEO compensation by 36%). However, Sapp finds no significant relationship between pay and performance: *'The one statistically significant relationship we find is a negative relationship between the firm's own performance, ROA [return on assets], and compensation. This suggests that firms with the highest ROA pay their executives less than those with lower ROA'* (p729). They point out

that this, counter-intuitive, result may imply that across-the-board measures of performance are failing to capture individual circumstances. For example, it may be possible that an ailing firm (with a poor ROA) feels the need to retain the most skilled (and expensive) CEO.

Ozkan (2011) and Farmer et al (2013) both provide some rare UK evidence of pay–performance links. At non-financial firms over the period of 1999 to 2005, Ozkan found that average (mean) total CEO compensation increased from £386,902 to £700,507. Over the same period median compensation is considerably lower and shows a lower rate of growth, increasing from £298,000 to £492,000. She looks at pay–performance links and finds that pay–performance elasticity for UK CEOs is lower than that typically found for US CEOs. She finds that the CEO pay–performance elasticity for total compensation in UK companies is 0.095 (so an additional 10 percentage point shareholder return would correspond to an additional 0.95% increase in total compensation). A possible explanation for this difference is that during the observed period (1999–2005) there was a significant decline in the use of options, which Ozkan suggests is due to the change in accounting regulations that required options grants to be charged to the profit and loss account, greatly decreasing their accounting advantage.

Farmer et al are more bullish about the strength of the link between pay and firm performance, finding a significant relationship between relative performance and CEO pay. They point out that the vast majority of the studies consider US data, where it is much more common for stock options to vest over time. In contrast, in the UK, it is normal for long-term awards

to vest according to performance criteria. Additionally, they argue that not only should CEO performance be assessed by comparison with the performance of peers facing similar market conditions (to remove the impact of factors that are outside of the CEO's control), but that measures of pay must include the realised aspects of incentive pay such as bonuses, stock options and LTIPs. Under these conditions, their results are consistent with an agency perspective and showed significant evidence of pay and performance links.

Ballantine et al (2008) provide another rare snapshot of research that looks at the UK, this time looking at the public sector. They look at the relationship between CEO turnover and performance, and pay and performance in English NHS hospital trusts between 1998 and 2005. Although they find considerable evidence of a link between poor performance and CEO turnover, they find no evidence of a relationship between pay and performance, across a range of performance standards. CEOs (whose median earnings were £122,000 in 2005) of the worst-performing trusts were significantly more likely to leave than those at the best-performing trust: *'the rate of turnover for zero star [the worst] Trusts is 44% and this falls steadily to 14% for 3 star [the best] Trusts'* (p396).

The disappointing results on linking pay and performance are, as already suggested, partially due to the inherent complexity of the relationship. Wowak et al (2011) take a more nuanced approach to this puzzle, drawing upon Fama's (1980) concept of 'settling up', but nevertheless find no clear link between performance and pay. They investigate the extent to which boards will, over time, adjust pay to the extent to which CEOs have over- or underperformed, relative

to their earlier pay. Most studies on pay and performance take only a snapshot view. This research takes a more intuitively realistic approach, regarding pay as a recursive, iterative process where boards will make an initial, imperfect, estimate of the CEO's abilities and over time adjust pay to actual and past performance accordingly. In other words, they are not only looking at the pay–performance relationship but also introduce the more subtle notion of 'arrears' (which refers to a retrospective assessment of the extent to which the CEO was 'over' or 'under' paid in the past).

Their research shows that there is a positive relationship between earlier performance and CEO pay. However, their hypothesis that prior over- (or under-) payment would negatively (or positively) impact pay revision had mixed support. Recent over- or underpayment had the expected impact, so in the short term there was evidence of 'settling up'. However, over a longer period, over- (or under-) payment had the opposite effect – over the longer term CEOs who have been prevalently overpaid tend to receive the biggest raises or smallest pay cuts. In other words, over the longer term the *'rich got richer'* while the *'poor got poorer'* in terms of pay. In conclusion, Wowak et al suggest that their model of 'settling up', which attempts to find a rational basis for pay determination, can only explain some of the wide variance in CEO pay. Other possible reasons for the variance that they suggest are social or political factors such as interpersonal ties and the celebrity status of the CEO.

Human capital theory

Human capital theory sits within the economic tradition, and looks at how the experiences and background of managers determine their pay. Market-based theories (like Gabaix and Landier's 2008

model) predict that CEOs with the ability to be more productive should earn higher pay. In uncertain and complex environments it can be enormously hard to understand, let alone measure, pay–performance links. Factors such as education, managerial experience, previous success and tenure are, however, more readily judged and it is argued that a significant portion of the variation in CEO pay is due to these (perhaps unobservable) differences in human capital (Graham et al 2012; Falato et al 2010).

Custodio et al (2013) argue that in the marketplace for CEOs, general managerial skills have become more important than firm-specific skills. This means that executives have more bargaining power; there will be more competition in the labour market and higher pay when CEOs capture these rents. Based on a study of over 25,000 CEO-firm-years in the 1993–2007 period, they estimate that there is an annual pay premium for generalist CEOs of 19% relative to specialist CEOs, which represents on average nearly \$1 million per year. They found that CEO pay increased the most when firms hire a new CEO externally and switch from a specialist to a generalist CEO. Furthermore, the pay premium is higher when CEOs are hired to perform complex tasks such as restructurings and acquisitions.

Cuñat and Guadalupe (2009b) suggest that increased foreign competition is one important factor that explains some of the recent trends in compensation structures. Their analysis is complementary to that of Gabaix and Landier and Custodio et al in that foreign competition could be an additional reason why general skills are more important and for which small differences in talent matter more. Their research tracked executives as the extent of foreign competition

faced by the firm evolved and evaluated how incentives changed over time and across industries. They found that higher foreign competition substantially changes the structure of compensation, leading to lower levels of fixed pay, increased sensitivity of pay to performance, with total compensation increasing, particularly for the highest-paid executives.

Fulmer (2009) also argues that, while agency and power explanations for pay have received much more attention, just as important in explaining pay levels are labour market conditions and individual human capital variables such as experience and previous performance. In particular, she argues that while the most commonly cited justification for CEO pay is incentive alignment, the need for retention has been under-considered by academics. The growth in external recruitment for CEOs, plus higher turnover rates, have made the external labour market for CEOs much more salient and the cost of replacing a CEO can be painful: *'Ford, for example, lured Alan Mulally from Boeing, reportedly paying an \$11 million lump sum in order to replace Mulally's unexercised options and forfeited bonuses at Boeing'* (Fulmer 2009, p665). Thus boards can be forgiven if, when weighing the easily imaginable costs associated with the departure of a CEO against the more nebulous costs of inadequate incentive alignment, they focus on the former. Fulmer's research on US CEOs finds that while firm size, as usual, was the most significant predictor of pay, industry median pay (which she used as a proxy to measure the external market demand) and performance measures (a proxy for CEO skill) were significantly predictive of pay levels. While the quantitative data put forward provides no great surprises, the

value of Fulmer's perspective is the multidisciplinary approach it offers.

The focus that Fulmer places on the need for retention accords with the findings of Balsam and Miharjo (2007), who find that (voluntary) executive turnover is inversely related to forfeitable equity pay – particularly un-exercisable in the money stock options and restricted stock. They also find that the degree to which an executive receives cash compensation in excess of that of their peers lowers the likelihood of voluntary turnover. Put simply, their findings suggest that if you really want to keep your talent, make sure they have a large amount of forfeitable equity and pay them better than their peers.

To sum up, while there is good evidence that pay has risen in step with the market value of firms, this was clearly not the case before the 1980s. The research on pay–performance links continues to be disappointing, but the theoretical pull of the idea that pay should be an economically rational reflection of performance remains strong for many researchers, who continue to defend the agency model. A labour market perspective argues that valued human capital should be associated with higher pay and that increasing competition may have given executives more bargaining power. Nyberg et al present a very balanced conclusion to this debate, arguing that while an agency perspective may not tell the whole story, it is still an important lens through which to understand executive pay. Nevertheless, to understand the full picture of executive remuneration one needs to go beyond purely economic explanations and consider social and political factors. It is to these political explanations that we turn to next.

B. The power perspective on the determinants of pay

'The difference is that in political models goal conflicts are resolved through bargaining, negotiation, and coalitions – the power mechanism of political science. In agency theory they are resolved through the coalignment of incentives – the price mechanism of economics.'
(Eisenhardt 1989, p63)

We turn now to examine the research from one of the principle alternative views – that of the managerial power perspective, the best-known champions of which are Bebchuk and Fried (2004).

From this standpoint, in large publicly traded companies shareholders are increasingly distant from decision-making, allowing managers to exercise considerable control over corporate policy. It is not the invisible hand of the market that decides, but the all too visible fist of the powerful executive. These socio-political theories argue that excessive managerial power is able to influence the design of compensation so as to extract rents at the expense of the shareholder. While the truth may lie in between the two models, the managerial power hypothesis is an influential viewpoint.

That agency problems do exist and that managerial compensation is not always a matter of elegantly aligned supply and demand curves is illustrated by Edgerton's (2012) research on corporate jet ownership. The CEOs of General Motors, Ford and Chrysler came in for some negative criticism in 2008 when they flew to the US capital in their private jets to ask for a \$25 billion taxpayer bailout. Edgerton's research showed that firms owned by private equity funds (which he argues tend to improve efficiency) average 40% smaller aircraft fleets

than observably similar public firms, and that similar fleet reductions are observed within firms that undergo leveraged buyouts. While the misuse of corporate jets by CEOs is not a particularly widespread problem, this evidence contributes a nuanced point to the debate on the severity of agency problems in public firms. Two main issues are considered in this section: transparency (the degree to which managers use opaque pay design to minimise public and shareholder outrage) and the role of corporate governance in checking managerial opportunism.

Stealth compensation (where more transparency would be a good thing)

The notion of 'rent extraction' (defined as the difference between the manager's actual compensation and the compensation that would have been received under the optimal contracting scenario) is one that receives considerable attention. Bebchuk and Fried (2004) have argued that hidden benefits are one of the ways in which over-powerful executives obscure their remuneration to limit the 'outrage' factor. Kalyta (2009) tests this argument, suggesting that pension pay, as one of the more opaque forms of compensation, will be the most vulnerable to managerial rent extraction. His results are supportive of the managerial power argument that dominant CEOs are more likely to exert influence over relatively more hidden benefits.

He finds a positive association between proxies for CEO power and CEO pension increment (but no such association with other forms of compensation). For example, CEOs who also hold chair positions receive an extra 0.8 million Canadian dollars in retirement benefits per year. Kalyta finds that *'on average, CEO power over the board explains 15.8 percent of the variation in the level of CEO pension*

increment, 7.1 percent of the variation in the level of CEO stock option grants, and only 3.9 percent of the variation in the level of CEO cash pay' (p419).

He surmises that the less transparent forms of pay are most influenced by power, while the more visible forms are more influenced by economic variables such as the size of the firm or performance. In other words, *'the optimal contracting framework may be more appropriate when managerial compensation is transparent, whereas the managerial hegemony framework may be more appropriate when managerial compensation is opaque'* (p421). Clarkson et al (2011) also look at the impact that increased disclosure has on pay. During a period of regulatory change in Australia, they found that improved disclosure and shareholder oversight led to a general strengthening of the pay-performance relationship for the CEO.

Another way of subtly inflating executive pay is through the use of 'lucky' timing in option grants. Bebchuk et al (2010b) looked at the incidence of 'lucky' option grants (grants given at the lowest price of the month) for both CEOs and outside directors. They found that 'lucky' grants were correlated with factors associated with greater CEO influence on corporate decision-making and associated with significantly higher total reported compensation. There were three main findings:

- The opportunistic timing of grants to CEOs is linked to opportunistic grants for independent directors (in other words, it's *not* a coincidence).
- CEOs benefiting from lucky grants also received significantly higher total reported

compensation, and the gains can be significant.

- Opportunistic timing is correlated with variables associated with weak governance.

In conclusion, they estimated that *'the gain to CEOs from lucky grants due to opportunistic timing exceeded, on average, 20% of the reported value of the grant, and added, on average, more than 10% to the CEO's total reported compensation for the year'* (p2365).

Nevertheless, it should be noted that senior executives can expect to be punished quite severely if option backdating comes to light. Efendi et al (2013) found a much higher incidence of forced turnover after backdating allegations, and CEOs and CFOs who lose their jobs in such a scandal are much less likely to be rehired at comparable positions. So while boards are often accused (by Bebchuk among others) of being unresponsive to criticisms involving executive compensation, Efendi et al showed they do respond quite decisively to option backdating allegations and the accompanying negative publicity.

The role of corporate governance in limiting managerial power

'At the heart of a political model of executive compensation is the realization that the board of directors – acting as monitors of managerial behaviour – and top managers are fundamentally in conflict.' (Finkelstein et al p321)

The central thesis of the managerial power hypothesis is that over-powerful executives will extract rents at the expense of shareholders if not checked by diligent boards. Thus, better corporate governance

should provide a corrective to abuses of power. The impact that corporate governance structure has on pay has consequently been a popular subject for research. However, while it is often taken as an article of faith that better corporate governance will result in reduced rent extraction, and the empirical results are generally supportive of the impact of good governance, the debate is not without its dissenters.

Sapp (2008) uses Canadian evidence to examine the impact of corporate governance on executive and CEO pay over the period 2000–05 and finds results that are broadly supportive of the managerial power perspective. They consider the influence of both internal factors (characteristics of the CEO, the compensation committee and board of directors) and external aspects of governance (ownership structure and regulatory environment).

In general, they find that the overall level of executive compensation in Canada has increased rapidly, and options, although less important in comparison with the US, still form a large part of compensation in big firms – especially the financial services. The rate of increase has been much larger for the CEO compared with the next four most senior executives (the gap almost doubled over the six years considered) and the compensation structure is different for the top executives and the CEO, with the CEO receiving more in options, while for the top executives, increasingly, restricted shares are taking the place of options.

With respect to the impact of external governance factors, they found that firms with a controlling shareholder pay their CEO less and also have a smaller gap between the CEO and the management team. These firms use fewer

options. Firms that are more active in the US capital markets pay more and use more options. Looking at the impact of internal governance, they find that there is a relationship between having a weaker board (larger, more directors with multiple directorships, and longer tenure) and an increase in compensation. However, the presence of representatives of the controlling shareholder and the board members having larger equity positions in the firm are related to lower executive compensation. Consequently they conclude that both internal and external governance features do impact on compensation.

Devos et al (2009) also present evidence in support of the tendency for powerful executives to extract rents. They argue that interlocked directors are indicative of weak governance and may compromise the effectiveness of the board – particularly with respect to the setting of CEO compensation. Among other measures they look at the effect of interlocked directors on the pay–performance sensitivity of CEO incentive compensation. They found that poorly performing firms are more likely to have interlocked directors on their boards. In addition, they find that interlocked directors are associated with lower than optimal levels of equity incentive compensation (compared with CEOs with non-interlocked boards). Finally, they find evidence that interlocked directors lower the sensitivity of CEO turnover to prior firm performance.

The results of Westphal and Bednar 2008 research again support a political perspective to understanding CEO–board relations. While power in relationships between managers and external constituents is often assumed to be determined by economic and legal factors, their evidence backs Bebchuk and Fried's contention that,

in reality, the relationship between CEO and board is not one of arm's length, impartial negotiation. Westphal et al hypothesised that CEOs manipulate institutional investors to extract rents. Their survey asked CEOs and other top executives a series of questions that measured their own persuasion and ingratiation behaviour towards institutional investors (for example one question asked: *Over the past twelve months how often have you complimented [this individual] about [his/her] insight on a corporate governance issue?*). With respect to compensation, they found that the use of top management ingratiation and persuasion behaviour does influence compensation to maximise the level and minimise the risk element of pay.

In contrast, Capezio et al (2011) offer evidence that cautions against assuming that good corporate governance is a universal panacea for the problem of over-powerful managers bent on rent extraction. While not unsympathetic to the idea that good governance can correct abuses of power, they suggest that this idea is more a matter of faith than an empirically validated truth. In contrast, to the research described above, they found no support for the proposition that having 'best practice' governance structures enhances the association between CEO compensation and firm market performance outcomes. Instead, they find that compensation committees dominated by independent directors on average receive significantly higher levels of total non-incentive cash compensation. It should be noted that one problem with this line of research is that the markers used by academics to define 'good' or 'bad' governance are relatively crude – research by Hwang and Kim (2009), discussed below, contributes some subtlety to the debate by

including social ties as a marker of board independence, with some interesting results.

In conclusion, while there does appear to be some consensus that weak corporate governance contributes to rent extraction, the principle challenge for power explanations of the increase in executive pay is that it is widely accepted that corporate governance is getting better, not worse. As Frydman and Saks (2010, p2128) argue: *'the long-run trends in pay seem inconsistent with explanations related to managerial rent seeking. According to this theory, we should observe higher levels of pay and a higher fraction of pay given in obscure forms of compensation in periods of weak corporate governance.'* In contrast, we observe the reverse – lower levels of pay and little use of stock options (which are easier to conceal) were prevalent earlier in the century, when governance was much weaker. Thus the managerial power arguments, while intuitively very appealing, do not necessarily provide a complete perspective through which to understand pay. Turning next to consider behavioural and social perspectives on pay, DiPrete et al's (2010) work, in particular, attempts to resolve this puzzle.

C. The behavioural perspective on the determinants of pay

Rather than being a straightforward economic calculation, research suggests that compensation structures are also the result of complex social forces. While some research – such as that by Edmans and Gabaix (2009) and Ruiz-Verdu (2008) discussed above – attempts to find economic explanations for seeming abnormalities, social perspectives offer an alternative standpoint. As Finkelstein et al (2009) suggest, one need go

no further than to explore how executive compensation is actually decided to see why a social explanation is relevant. Below we look first at the pervasive influence of compensation consultants and the double-edged sword of pay transparency. Next we turn to consider research that looks at social capital (that is, friends in high places and the importance of social similarity). Finally, the pressures on businesses to conform, whether due to imitation or as a response to similar environmental constraints (what DiMaggio and Powell (1983) term isomorphism), are discussed.

Social comparison processes and the double-edged sword of transparency

DiPrete et al (2010) argue that the process of compensation determination for executives is fundamentally relational in character, with social comparison one of the principle non-economic forces driving pay upward. According to Festinger (1954), we all have a drive to evaluate ourselves in relation to others who are similar in some way, and this presents obvious issues for pay. Pepper et al (2013b) showed that when offered a hypothetical choice, a large number of senior executives would prefer a smaller absolute wage in the context of this being more than their colleagues got, than a higher absolute wage, where this was less than their colleagues' pay.

While a lack of transparency is typically perceived as a negative thing, it is not without its complications. The High Pay Commission (2011) has strongly criticised companies for their lack of clarity and transparency, and Bebchuk and Fried (2004) are damning on the tendency for rent-extracting senior executives to use 'stealth compensation' to enrich themselves while arousing minimum

outrage from shareholders. However, a less desirable side effect of transparency is the 'leapfrog' or 'ratchet' effect which, it has been argued by DiPrete et al (2010), is responsible for the recent surge in executive pay. The ratchet effect describes the infectious impact that a small fraction of above-median increases can have on the market rate. In *'a "Lake Wobegon" world where no one should be below average and many above average'* (DiPrete et al 2010, p1684), there will be an inexorable upward pressure on wages.

The debate over how pay is determined is often presented as binary. In one camp are the proponents of the economic value model (discussed in the first section), who argue that the recent huge rise in senior executive pay is a response to economic forces. The main theoretical rebuff is that of the managerial power hypothesis (discussed in the second section), which highlights the numerous compensation practices that seem inconsistent with market efficiency – what Bebchuk and Fried (2004) refer to as *'pay without performance'*. The principle intellectual hurdle for the managerial power proponents is that the large increases in senior executive compensation observed from the 1990s onwards took place as corporate governance was tightening rather than loosening.

DiPrete et al's (2010) work attempts to resolve this debate by demonstrating how governance failures at individual firms can be spread through the wider market, via the normal workings of the benchmarking system, to raise executive salaries in general. They argue that governance failure must be conceptualised at the market rather than the firm level because excessive pay increases,

for even relatively few CEOs a year, spread to other (possibly well-governed) firms through the construction of compensation 'peer groups', which are used in the benchmarking process to negotiate the compensation of CEOs. Crucially, even in the case of companies with good corporate governance, there will be a feedback loop that results in rent extraction: *'the use of "legitimate" means for establishing the market wage actually can produce growing rent extraction over time'* (DiPrete et al 2010, p1708).

Gabaix and Landier (2008, p50), while writing principally from a theoretical perspective, acknowledge the role that 'contagion' plays in driving compensation increases: *'If a small fraction of firms decides to pay more than the other firms (perhaps because of bad corporate governance), the pay of all CEOs can rise by a large amount in general equilibrium.'* Their economic model shows what, theoretically, happens to general CEO compensation if a fraction of firms want to pay more than other firms. They find that if 10% of firms want to pay their CEO twice as much as their competitors, the compensation of all CEOs doubles. Drawing upon this argument, there is a substantial body of empirical evidence that examines the role that compensation consultants can have in driving an upward spiral of pay, and it can roughly be divided into three camps: those who argue that the use of compensation consultants is associated with an upward spiral of CEO pay, those who argue that there is no effect, and finally those who concede the link, but argue it is for sound economic reasons.

In the first camp, Sapp (2008), in line with ratcheting arguments, finds evidence that the explicit use of external pay comparables

in Canada leads to higher CEO pay. He also found that the use of comparables tends to increase the difference between the CEO and other top executives. Murphy and Sandino (2010), examining the issue in more detail, come to a similar conclusion. They look at the conflict of interest between compensation consultants and the impact that this has on CEO pay. If consultants want to be hired again, and are making pay recommendations for the people who have the power to hire them, they may be tempted to err on the side of generosity. They looked at two potential avenues for a conflict of interest. First, is the compensation consultant engaged by the management (on whose pay they are recommending) or, in a more arm's length manner, by the compensation committee? Second, they look at the magnitude of the other corporate-wide services provided by the compensation consultants (which can be a much more lucrative business). While they find no evidence that the former has any impact on pay, they do find that US CEOs receive about 18% more total compensation and Canadian CEOs about 33% more when their executive compensation consultants also provide other services to the firm. How this might happen is examined by Laschever (2013). He finds that after controlling for a host of firm characteristics and performance, firms with more highly compensated CEOs are more likely to be chosen as 'peers' than their less generously rewarded compatriots.

In contrast, other academics have found no evidence that compensation consultants are associated with higher pay. Those who are supporters of the idea that there is an efficient marketplace for executive pay tend to defend the use of peer groups as a way to determine competitive wages.

Holmstrom and Kaplan (2003) have argued that we need more effective benchmarking, not less of it. Cadman et al (2010) were unable to find widespread evidence of higher levels of pay, or lower pay–performance sensitivities for clients of consultants. Overall, they concluded that there is not enough evidence suggesting that potential conflicts of interest between the firm and its consultant were a primary driver of excessive CEO pay.

Finally, there are those who concede the association, but argue it is for sound economic reasons rather than self-serving bias. Albuquerque et al (2013) grant, as do Bizjak et al (2011), that after controlling for similarities between a firm and its chosen peers, firms are indeed more likely to include in their peer group those companies that have higher-paid CEOs than those with lower-paid CEOs. However, they argue that this does not necessarily reflect conflicts of interest and self-serving behaviour. The authors propose an alternative explanation: that the choice of highly paid peers represents a reward for unobserved CEO talent. They unpick the impact that talent rather than self-serving behaviour has on the ‘peer pay effect’ (the difference between the CEO pay in selected peers versus predicted peers in their sample) and find *‘in terms of economic significance, the impact of the talent component on CEO pay is from two to almost ten times larger than is the impact of the self-serving component’* (p162).

Canyon et al (2009) looked at both the UK and the US, and while they again found that the level of pay was generally greater in those firms that used compensation consultants, they cautioned that this result could be open to alternative explanations. They found that firms using consultants also paid their CEOs with more ‘at risk’ pay

such as stock options. The authors therefore argued that the positive correlation between pay and the use of compensation consultants may not be due to an inappropriate ratcheting-up of pay, but due to higher compensation for higher risk-bearing.

Bizjak et al (2008), in earlier research, argued that benchmarking is not a consequence of managerial opportunism but rather a practical and efficient mechanism used to gauge the market wage necessary to retain valuable human capital. In later research (Bizjak et al 2011), they do find that peer groups are constructed in a manner that biases compensation upward, particularly in firms outside the Standard & Poor’s (S&P) 500. Mitigating this, they find no such evidence within S&P 500 companies, and further find evidence to suggest that increased disclosure has reduced the biases in peer group choice – in other words, boards have got wise to this tendency for peer comparisons to drive pay in an upward-only spiral.

In conclusion, whether because of a ‘Lake Wobegon’ effect of always aiming to be above average, or because firms deliberately choose peer groups that are larger, more successful or just better paid, there does seem to be good evidence that compensation consultants are likely to be associated with higher pay. Compensation consultants may know not to bite the hand that feeds them. Where the jury seems more divided, despite the efforts of Albuquerque et al (2013) to unpick the puzzle, is whether this association is a consequence of self-serving managerial bias or an efficient reward for talent.

Social capital

While the section above considers relatively impersonal forces, there is research that looks at the more

elusive and potentially more pervasive influence of social capital. While some previous work has suggested that social capital (also known as friends in high places) is a source of advantage to the firm (Geletkanycz et al 2001) and consequently rightly reflected in pay, an alternative perspective takes a less optimistic view on the subject.

Hwang and Kim (2009) argue that it pays to have friends. Currently, a director is classified as independent if they have neither financial nor familial ties to the CEO or to the firm. In an intriguing piece of research, they questioned whether independent boards really are independent. They looked at Fortune 100 firms and hand-collected data on the informal ties that might connect a director and the CEO, considering mutual alma mater, military service, regional origin, academic discipline and industry as an indication of an informal tie. Under the conventional measure of independence, 87% of the boards in their sample were classified as independent; using their definition this percentage drops to 62%. Moreover, the incidence of socially linked directors increases as a new CEO’s tenure at the firm progresses, suggesting that CEOs select directors along these social dimensions. They give as an example the board of Cardinal Health. In the year 2000, this board had 13 directors, 10 of whom were conventionally independent of the CEO. However, one conventionally ‘independent’ director was not only from the same hometown, but also graduated from the same university as the CEO (and, incidentally, this director provided a job, at his own firm, for the CEO’s son). As to the effects of social ties on pay, they find that when a conventionally *and* socially independent board is monitoring, the CEO’s compensation decreased by, on average, \$3.3 million. They

found that a lack of social and conventional independence was also negatively associated with subsequent operating performance and that the absence of social ties is associated with less earnings manipulation.

Renneboog and Zhao (2011) also attempt to unpick the impact that social and professional networks can have on pay-setting. Using UK data, they examine the role of director networks on the top manager's compensation. While a director's network may offer genuine economic value to the firm and justify higher compensation it can, alternatively, be viewed as a way of accumulating (and exploiting) power. They distinguish between desirable and undesirable sides of networks (managerial influence accumulation and information collection). They find that both are connected to higher compensation: the better connected are better paid, but measures that are proxies of managerial influence result in lower pay-for-performance sensitivity. They also find evidence that interconnected boards over-pay their CEOs, and that when a CEO is a member of board committees (such as the remuneration committee), their compensation is then significantly higher. Finally, they find that remuneration consultants with large networks of clients are associated with increases in CEO compensation, especially in large firms.

In a similar vein, Brown et al (2009) also consider connections through education and social activities (golf club, charity organisations, and so on). They again find a positive relation between a CEO's social networks and his total compensation, and an inverse relation with pay-for-performance sensitivity. Cohen et al (2012) also offer evidence that suggests independent directors can be overly

sympathetic to management. They looked specifically at the appointment of analysts who previously covered the firm prior to being appointed to the board. They found that the analysts appointed were much more likely to have been optimistic about the firm that appoints them, and additionally were also poor analysts compared with their peers. The authors conclude that while they may be technically independent, boards like to appoint cheerleaders, and that this is associated with poor governance, an increase in earnings management and an increase in CEO compensation.

Institutional perspective and isomorphic pressures

Finally, an institutional perspective on pay-setting is considered. An institutional perspective considers the pressures, both formal and informal, that individual firms feel to conform to 'pay norms'. Many studies show the strong impact that industry can have on pay patterns. Gregoric et al's (2010) empirical work used the transition from a socialist to a market economy in Slovenia as a natural experiment to weigh the impact that institutional norms can have on the pay of senior executives. The study was set during a time of considerable public outrage over the growing divergence between top and average pay. Parliament was also debating the possible introduction of a pay cap. Against this backdrop, an interest group representing top Slovenian executives set pay guidelines which suggested that pay should reflect the average wage, times a multiple of between four and eight depending on firm size. This could be increased by up to 25% dependent on outperforming the industry average, and executives were also entitled to a bonus of up to 30% of the base contingent on specified performance targets.

Gregoric et al found that the higher reference point set by the new criteria led to a significant upward adjustment in actual CEO pay. This change in pay towards the new reference point could, of course, be alternatively explained by the fact that during the transition of the economy towards a more market-based model wages were adjusting upwards to a new market equilibrium. However, the authors argue that the fact that the reference values that were set in the new criteria were the result of the CEOs' aspirations, adjusted by what would be publicly acceptable, argues for the influence of a reference point. Thus, rather than being based on economic factors, political and social norms played the most important role in shaping the formulation of the criteria and thus the movement of wages. Sapp's (2008) research also shows the influence of institutional norms – they found that Canadian firms that had capital market exposure in the US were much more likely to adopt US pay patterns, paying their CEO more, and with a higher proportion of compensation in variable pay.

Compensation consultants, as well as playing a role in ratcheting pay up, have also been ascribed a role in 'legitimising' high pay. Conyon et al (2009), in their research on the role of compensation committees, cite Wade et al (1997), who found that firms, in addition to using consultants and surveys for rational information purposes, also capitalised on the taken-for-granted status of these practices and employ them to justify high executive salaries. Ogden and Watson (2008), looking at the actual pay-setting process in UK privatised water companies, again underline the importance of the search for 'legitimacy', which they described as the prime goal for the remuneration committee. The

remuneration committees were anxious to avoid 'outrage', and the process of pay determination was one of an essential balancing act between getting shareholder buy-in to the targets and managers feeling that they are achievable and thus are an incentive.

To sum up, an institutional perspective on pay-setting emphasises the wider social constraints and pressures that impact on pay. This perspective argues that it is not just economic efficiency, or even the impact of individual-level social comparison, that determines pay. Rather pressures, both formal and informal, from influential organisations and from cultural expectations in general, can have a profound impact on pay.

D. Conclusion: the determinants of pay

This first section has looked at the research that considers the forces that explain how executive pay is determined, and has arranged it according to three main theoretical positions: economic, political and behavioural. While economic research has dominated the debate, we suggest that any discussion on pay that takes a purely economic perspective will be incomplete.

Michael Sandel (2012), one of the most outspoken advocates of the limits of markets, acknowledges that in many arenas the market is the most efficient way to allocate resources. It is not hard to make the case that markets work; it is also not hard to argue that markets

should be allowed to work more freely; it is, however, harder to leap to a third conclusion, implicit in much of the debate over executive pay, that markets are the *only* important force at work in understanding pay.

In academic speak, one might argue that the popular debate over executive pay is clouded by a confusion between normative and positive arguments: the former a statement of what 'ought' to be, the latter a statement of 'what is'. In the contentious battleground that is executive pay, the two are sometimes conflated, and those who wish the world was ordered according to rational economic principles perhaps confuse their aspirations with reality.

2 The consequences of executive pay

'Although agency scholars argue that incentive pay positively influences interest alignment, interestingly, our broad-based review of the literature suggested that goal misalignment might be one of the most reliable outcomes of executive pay.' (Devers et al 2007, p1026)

This section considers the consequences of particular pay patterns. As before, the literature is grouped according to economic, political or behavioural perspectives. Finkelstein et al (2009), in their overview of the consequences of executive pay, describe the empirical work (from an economic perspective) as directed towards demonstrating that long-term incentive compensation provides executives with incentives to maximise firm performance. Perhaps as a consequence of our times, recent research seems to have taken a more negative tone, with the debate increasingly centred on the undesirable consequences of particular pay structures. In particular, since the 2008 crisis, it is in the understanding of the impact of incentives on risk where there has been the most noticeable shift in academic thought, both in terms of what is being said and the amount of attention it is being given as a topic.

Stock options in particular have had a bad press. Jensen et al (2004) and Gabaix and Landier (2008) have both argued that while companies perceived options as a cheap way of rewarding people, they should have been valued at

the opportunity cost the firm gives up by not selling the option. In practice, Jensen argues that boards regarded them as basically free and the relevant 'cost' of options was the trouble associated with obtaining shareholder approval coupled with the cost of additional dilution. Beyond the argument (that options were valued too cheaply by boards) and more relevant to this section, Jensen et al also argue that it is vital that executives should be required to have 'skin in the game' by purchasing stock options or deliberately accepting reductions in other forms of compensation: *'it is human nature to care more about something purchased through sweat or hard earned cash than something received for free'* (p57).

A. The economic perspective on the consequences of pay

While the majority of the economic research in the previous section focused on pay-performance links, here the research largely considers the impact of pay on more direct measures of behaviour (with the assumption that it will in turn affect performance). As discussed earlier, when talking about pay-performance research, generally what is considered is the reverse – to what extent is behaviour (high performance) followed by high pay. Consequently, in this section we look first at the impact of pay on risk, misconduct, managerial time perspective, and finally consider the limited research that looks at the impact of pay on firm performance (in that direction).

Risk

Since the defining economic event that separates this literature review

from earlier reports on executive pay is the financial crisis, it is unsurprising that the role that high-powered incentives (particularly stock options) had upon risk-taking has proved a particularly popular subject for research. Asymmetric risk, 'skin in the game' or what economists term moral hazard – the underlying problem is the same – the situation where one person makes the decision about how much risk to take, while someone else bears the cost if things go wrong. Risk has always been a central plank of agency theory, with the assumption that agents (managers) are likely to be more risk-averse than principals (shareholders) – who can diversify their risk – would like them to be. Consequently, from an economic perspective, there is a long history of research in this area. The traditional agency perspective argues that the appropriate incentive contract will align the interests of principal and agent by reducing managerial risk-aversion, resulting in the maximisation of long-run firm performance (Finkelstein et al 2009).

The academic debate on the exact impact of equity pay on risk-taking is, however, complex. It is an axiom of agency theory that managers tend to be more risk-averse than (risk-neutral) shareholders would like them to be, and that equity pay is an ideal tool to align the risk preferences of the principal and agent. Behavioural agency theory (BAT) – drawing upon prospect theory (Kahneman and Tversky 1979) – challenged agency theory's assumptions on risk (Larrazza-Kintana et al 2007), instead arguing that

the endowment effect² led to loss-aversion and thus risk-avoidance.

In other words, BAT argued that stock options, rather than encouraging executives to be more aggressive risk-takers, instead instilled caution, as those executives did not want to risk losing potential option wealth. Prospect theory argues that people assess risk subjectively against a reference point, and that against this reference point a loss 'hurts' more than the same amount of gain feels 'good'. Consequently people are more willing to engage in risk-seeking behaviours to limit their losses and will be more cautious and willing to settle for reasonable gains.

Later research (Martin et al 2013) revised the BAT model to argue that options are likely to have a mixed impact; while the prospect of losing future wealth will increase managerial risk-taking, the more sober possibility of losing equity wealth you have already mentally 'banked', reduces the inclination to gamble. Whatever the theoretical nuances, the central debate is whether high-powered incentives are economically efficient, helping to enhance firm value through intelligent risk-taking, or whether they instead mostly create an illusion of stimulating productive risk-taking while diverting windfalls to executives.

Deutsch et al (2011) refer to the *'well-established argument by agency theorists that CEOs who receive stock option compensation are more likely to make riskier decisions since they participate in the upside potential of these decisions but not in their downside'*

² The endowment effect describes the phenomenon that people tend to value what they own more than what they could own, and that they require much more to give it up than they would pay to acquire it (Thaler 1980).

(p215). This argument has received enthusiastic support in the empirical literature. Sanders and Hambrick (2007) examined how stock options affect CEO risk-taking, concluding that the heavy use of stock options yields more unfavourable than favourable results. They considered three aspects of risk-taking: the size of the outlay or bet involved in taking a particular risk, the variance of the potential outcomes, and the likelihood of extreme loss. They found that while stock options did stimulate investment spending, *'CEOs who derived high proportions of their pay from stock options generated more big losses than big gains [as measured both by market and accounting metrics], and their ratio of big losses to big gains was greater than the corresponding ratios for CEOs who derived less of their pay from stock options'* (Sanders et al 2007, p1073).

The authors also found that CEOs with large holdings of options spent more money on acquisitions, made more acquisitions, acquired larger (relative to their firm's size) targets and paid higher premiums for them. From a practical perspective, Sanders et al argue that although it would be an overstatement to suggest that CEO stock options are a bad thing per se, moderation is key. Moderate amounts of options (between 20% and 40%) achieved some of the risk-taking desired by risk-neutral investors, without the disproportionate losses accompanying more-aggressive stock-ownership plans.

Martin et al (2013) present a more nuanced perspective on the impact of stock options on risk. They approach the issue from the perspective of BAT, which, as discussed above, initially argued that the granting of stock options would result in loss-aversion rather than the risk-seeking behaviour predicted by agency theory. Martin et al refine

the predictions of the behavioural agency model to suggest that the fear of loss of current wealth (the endowment effect) and the prospect of future wealth will have different impacts on risk-taking. Their research demonstrates that stock options do not unequivocally increase or decrease risk-taking, and they argue that it is critical to see the impact of options as a mixed gamble. Nevertheless, they suggest that giving stock – as opposed to stock options – emerges as a safer option, as stock ownership provides endowed wealth from the outset and is likely to counterbalance the incentives to pursue prospective wealth through excessive risk-taking.

While the impact of options on risk has, as with much research, concentrated on the CEO, Deutsch et al (2011) suggest that relatively little attention has been paid to how to motivate outside directors to fulfil their monitoring and strategic advice roles. In a study using Standard & Poor's data from the period 1997–2006, they found some evidence that paying CEOs with options would increase risk. However, the effect on firm risk of paying outside directors with options was stronger than the effect of paying CEOs with options. In terms of the interaction effect between the two (paying CEOs with options *and* paying outside directors with options), they found a substitutive effect. In other words, paying both parties with options did not multiply the resulting firm risk, but rather acted to offset the impact of options on risk.

The impact of sorting and incentives on equity pay and risk-taking

Agency theory, primarily focused on the alignment of goals between principal and agent, concentrates on the incentive impact of equity pay. Other theorists have looked at

the sorting effect of performance pay. One exceptionally important study done by Lazear (2000), with the Safelite glass corporation, illustrates why there is so much focus on performance-related pay. In the appropriate context, and if you get it right, it can really work. Lazear found that, of a 44% increase in productivity that resulted from a change in pay structure, about half was attributable to the sorting effect.

Wright et al (2007) discuss both the sorting and incentive impacts of pay structure on the propensity to take risk. They argue that the sorting effect means that companies that put a higher proportion of pay at risk will tend to attract less risk-averse individuals, and the incentive impact of variable rewards will further encourage a focus on the upside of the gamble and thus again increase risk. They found that where the incentive mix (between fixed salary and stock and options) was heavy on fixed pay, corporate risk-taking was lower. They further found that option incentives were directly, and uniformly, related to more risk-taking. The relationship of executives' holdings of common stock to risk-taking was more complex. As shareholdings increased from negligible to moderate, risk-taking increased, and as shareholdings increased from moderate to substantial, risk-taking was reduced.

These results chime with the findings made by both Sanders and Hambrick (2007) and Martin et al (2013), which suggest one should not necessarily expect to find a linear relationship between equity pay and risk-taking. Cadsby et al (2007) also researched the impact of sorting in a lab-based study. Although it used students (not senior executives) as subjects, it nevertheless provides some interesting insights into the

theoretically separate effects of both sorting and incentives on performance. While writing about risk, their research looked at how the risk-tolerance of the individual impacted on responses to pay for performance, rather than at how equity pay impacts on the appetite for (firm-level) risk. The study separated out the impact of the sorting and incentive impact by allowing participants to choose, in a series of trials, whether to be paid a flat rate or according to performance.

They found that those individuals who selected pay for performance performed better than those who selected fixed salary as a result of both the sorting and incentive effect, and that performance further improved as the subjects increased their knowledge about their own performance. They found that attitudes to risk also had an important impact on the incentive scheme chosen (the sorting effect) and the incentive impact of pay for performance (PFP). High-productivity individuals were less likely to select PFP when they were highly risk-averse and the incentive effects of PFP were weaker for more risk-averse individuals. This was obviously a lab experiment in which it was relatively easy for individuals to assess their own performance and it was costless for individuals to switch between a fixed pay or PFP system – neither of which are true in real life. Nevertheless, their results support the argument that those selecting pay for performance tend to be less risk-averse than those selecting fixed salary and that this distinction may affect the culture of an organisation, leading to less risk-averse organisational decisions.

In conclusion, the recent research discussed above on the negative consequences of options can arguably be seen as validating

one of agency theory's core assumptions. Risk-averse managers, it seems, can indeed be induced, through a large dollop of upside-only equity, to pursue a more aggressive risk strategy. Theory suggests that the more pay is put at risk, the more likely you are to recruit those comfortable to take a gamble. As a result of the mistaken belief that options were free (Jensen et al 2004), this tool was used with more largesse than in retrospect seems wise.

Nevertheless, one should be cautious about entirely demonising options as the sole cause of reckless risk-taking. The research above suggests that the effects of options on risk are not linear or uniform, and that moderation is key. Post Lehman's, and blessed with hindsight, it is almost impossible not to view the generosity with which boards granted options as foolhardy, and there is some consensus (Jensen et al 2004; Wright et al 2007; Martin et al 2013) that giving stock – as opposed to stock options – is a safer option. While few now would suggest that bankers be rewarded with such risk-inducing incentives, it may be that in a different environment or economy, a large dose of upside-only equity is exactly what you want to induce a gambling entrepreneurial spirit.

Misconduct

'The root cause [of corporate scandals] was not that many executives decided to be crooks, but rather lies with the system in which they were working.'
(Jensen et al 2004, p44)

While the recent banking crisis of 2008 put the spotlight on the subject of risk, a rather longer history of corporate scandals – from the South Sea Company in 1720 to the more recent disgrace at Enron

– has stimulated research that looks at the role played by incentives in encouraging misconduct. Unifying the two is the emphasis that is placed on the impact that equity pay has upon misconduct. In contrast to agency perspectives, which suggest that stock-based incentives will align agent and principal behaviour, this section considers under which conditions stock-based incentives can result in misalignment. Declining investment growth, poor firm performance, heavy use of stock options and out-of-the-money options are all considered as variables that are associated with an increased likelihood of financial misconduct.

Benmelech et al (2010) discuss the impact that stock-based incentives have on CEOs to conceal bad news. Their analysis focuses on the, not uncommon, situation of declining investment growth. They argue that stock-based compensation implicitly punishes the CEO for truth-telling – as the stock price will sharply decline if the CEO admits that growth targets are unlikely to be met. They contend that stock-based compensation incentivises CEOs to engage in value-destroying activities to support the inflated expectations. A similar point is made by Jensen et al (2004), who describe overvalued equity as *'organizational heroin'*. CEOs, knowing that the market will hammer the stock price if it becomes clear the expected performance will not be generated, begin to take action to *'at least appear to generate the required performance'* (Jensen et al 2004, p45).

Benmelech et al develop a neoclassical economic model to test various assumptions and conclude that the optimal contract is a combined compensation package that uses both stock-based performance (to induce effort) and a 'bad news' bonus type of

compensation (to induce honesty). Thus their model *'supports the inclusion of a golden parachute or a generous severance package in the stock-based compensation package of the CEO'* (Benmelech et al 2010, p1813). They conclude that their analysis suggests that high-powered incentives encourage the continuing pretence of high growth and lead eventually to the crash of the stock price.

Laux and Laux (2009) concede that high levels of equity pay increases the direct incentive for CEOs to manipulate earnings; however, they argue that this will not necessarily lead to increased earnings management because directors will increase their level of oversight effort. This is, however, the minority view. Harris and Bromiley (2007), Zhang et al (2008) and Efendi et al (2007) all provide empirical evidence to the contrary.

Harris and Bromiley looked at the impact that compensation structures and poor organisational performance had on the likelihood of financial misrepresentation. Their data strongly supported the hypothesis that the fraction of CEO compensation in options positively influences the probability of accounting misrepresentation. This was not the case for bonuses. This relationship was, however, not linear. With respect to the impact of options on misrepresentation, the probability of misrepresentation was quite stable across most levels of option compensation, but rose rapidly as options comprised more than 76% of compensation. *'It is easy to be ethical if a small portion of one's pay is at stake; it is harder to be ethical when substantial portions of one's pay can be influenced through misrepresentation'* (Harris and Bromiley 2007, p352). These results echo the conclusions reached by Sanders et al (2007), who, when

looking at options and risk, also found a non-linear relationship and concluded that moderation was key.

Zhang et al (2008) also found evidence that suggests the need to balance the advantages of incentives with the disadvantages of excessive self-serving inclinations. Looking at over 2,000 public companies, they found that 'out-of-the-money options' were positively related to earnings manipulation, while stock ownership generally dampens the likelihood of earnings manipulation. Looking at the contextual factors, they found, as did Harris and Bromiley, an impact of poor firm performance on earnings manipulation. Specifically, Zhang et al found that poor firm performance interacted with 'out-of-the-money' options – CEOs in this group were the most likely to manipulate earnings.

Efendi et al (2007) come to similar conclusions (though looking at 'in-the-money options') and consider the additional variables of debt covenants, the raising of new debt or equity capital and having a CEO who serves as board chair. Finally, given the sophisticated financial expertise required to manage earnings, Kim et al (2011) suggest that it is not only CEOs who may succumb to temptation. They found that the chief financial officer (CFO) was more likely than the CEO to engage in short-term behaviour to inflate current share prices.

In summary, it is clear from the research discussed above that it is crucial to consider the environmental context in which incentives are operating. While it might be scaremongering to suggest that there is a definite link between options and misconduct, caution should be exercised when very high levels of options are

used in conjunction with declining investment growth, poor firm performance, and where CEOs are under heavy pressure to meet (potentially impossible) expectations.

Misalignment (acquisition behaviour)

The previous section considered misconduct, which, while not always amounting to outright fraud, comes close to it. This section considers misalignment. Eisenhardt (1989) suggests that mergers and acquisitions are a classic example of how the interests of principals and agents (in this case senior executives and shareholders) are likely to diverge. She argues that, in general, mergers are not in the interests of stockholders because, typically, stockholders can diversify directly through their stock portfolio. In contrast, mergers are often attractive to senior executives, who have fewer avenues available to diversify their own risk and (as is illustrated below) can expect ample reward for growing the firm.

Opposition to takeover bids, while often fiercely resisted by managers, are not against the interests of stockholders. Consequently, there is a significant stream of research that examines how pay influences acquisition decisions. There is plentiful evidence that acquisitions are a high-risk business (Sanders 2001), which frequently fail, leading to subsequent divestiture of the acquired firm (Porter 1987). The word hubris crops up regularly. While a number of positive motives for pursuing mergers have been discussed, including financial and resource synergy, here we concentrate primarily on agency rationales that suggest that self-serving motives may lead a CEO to engage in acquisitions.

Harford and Li (2007) find that after an acquisition or merger the total pay and overall wealth of the

CEO increases substantially. Perhaps more importantly, except in the best-governed firms, they find that a CEO's pay following a merger becomes markedly less sensitive to performance, with large new grants of options and restricted stock coming even if the merged firm underperforms. In contrast to the shareholder, a CEO's wealth increases even if he makes a poor acquisition decision. They conclude, as others have before them, that this is a situation where incentive pay designed to solve the agency problem actually exacerbates it – the new flow of incentives typical after even a poorly performing merger encourages the risky pursuit of potentially value-destroying mergers. Clearly both equity-based compensation and a manager's own career tenure considerations suggest that a long-term perspective is required to fully evaluate the success of a specific merger deal. Harford and Li cite Lehn and Zhao (2006), who conclude that CEOs who make value-destroying acquisitions are more likely to be replaced subsequently.

Zhao (2013) takes a slightly different perspective, looking not at the impact of pay, but of job security on acquisition success or failure. CEO employment contracts have been criticised for insulating inferior managers from discipline, resulting in shareholder wealth destruction (Bebchuk and Fried 2004). From an alternative perspective, they can be seen as a way to alleviate managerial risk-aversion and encourage value-enhancing decisions. Despite their unpopularity in some corners, Zhao found the percentage of Standard & Poor's (S&P) 500 CEOs with an employment contract increased from 29% in 1990 to 50% in 2005. Over this same period, in contrast to criticisms that CEO contracts reward failure, Zhao found that CEO contracts lead to value-

enhancing acquisitions. Acquirers with a CEO contract obtain better announcement returns, pay lower premiums for their targets and garner superior long-run post-acquisition operating performance. Contracts also motivate managers to undertake riskier deals than acquirers without a contract. In conclusion, she argues that *'taken together, the evidence suggests that by protecting managers against downside risk exposure, CEO contracts ex ante mitigate managerial risk aversion and motivate risky value-increasing investments'* (p 125).

In summary, evidence suggests that CEOs are well rewarded, even for value-destroying deals. While Lehn and Zhao suggest that bad acquisitions lead to an increased risk of losing your job, Zhao argues that being insulated from that possibility leads to managers taking a longer perspective and value-enhancing acquisition decisions.

Managerial time perspective

The different time perspective that might be taken by agents and principals is not one of the original core propositions of agency theory. However, many researchers, building upon the intuition that managers might be more short term in their decision-making than is ideal, have researched this issue from an agency perspective. It is commonplace to criticise corporations for providing executives with excessive incentives to focus on short-term performance, and there is general agreement that linking executive pay to long-term firm performance mitigates managerial short-termism (for example, Bebchuk and Fried 2004).

Roberts (2010) argues that the badly designed incentive systems provided in banking were dangerous in their encouragement of a short-term perspective – *'I'll*

be gone, you'll be gone' was, apparently, the catchphrase on Wall Street (p127). Bebchuk et al (2010a) have even argued that executives should be required to hold 75% of awarded shares until they retire (as is the case with Goldman Sachs).

Souder and Shaver (2010), in a study in the US cable industry, examined the effect of options on the tendency of managers to make long-term decisions. They found that when managers hold higher levels of un-exercisable options, and lower levels of exercisable options, they are more likely to take longer-term investment decisions. They find the reverse with respect to shorter-term investments. While their principle research aim was to look at the impact of options, they found that the availability of cash flow was a more powerful predictor of long-term investments. So while incentives often take the rap for unpopular consequences, they perhaps shouldn't shoulder the blame for every bit of poor decision-making.

Laux (2012) takes a slightly unusual perspective on the issue of managerial time horizons. In contrast to the usual arguments, he argues that investment in short-term projects has beneficial effects, as it provides early feedback for the board about the CEO's abilities. He further argues that an excessive focus on equity-based compensation with long vesting periods is potentially counterproductive. If a CEO is granted options with a long vesting period, they will be less inclined to leave the firm. While this is beneficial in terms of providing the CEO with strong incentives to work hard, it is less beneficial in that the threat of option forfeiture distorts the CEO's investment decision towards short-term projects: *'The CEO knows that the board will rely on short-term results to update*

beliefs about managerial talent when making the replacement decision. To reduce the probability of being fired and forfeiting unvested options, the CEO has to impress the board and boost its perception about his ability' (p514). While slightly convoluted, it is nevertheless illustrative of the complexity of the effects going on.

The impact of pay on firm-level productivity

When pay-performance links are discussed, this is nearly always taken to mean how (past or current) performance impacts pay, and this relationship is discussed in Section 1. However, from an alternative perspective, the relationship could equally be considered from the other direction – how does pay affect future performance? There is limited research in this area. As Devers et al (2007) suggest, the difficulty with much research into the pay-performance relationship is that the relationship is a rather distant one, subject to many influences outside of the control of the CEO. Consequently, most research on the consequences of pay – even from an economic perspective – considers the more immediate relationship of pay on various behaviours such as risk, misconduct and managerial time perspectives. Nevertheless, some research does explicitly consider the impact of pay on firm-level performance. Nyberg et al (2010) consider both directions of causality. They find good evidence of pay alignment (in the traditional direction); in other words, they find that high performance leads to high pay. However, they find only weak evidence that pay is *predictive* of performance, concluding that the pay-performance relationship is very weak.

Research has overwhelmingly concentrated on increasing pay and increasing disparity in pay. In

contrast, Gao et al (2012) take the rather unusual tack of looking at the impact of pay cuts on firm performance. They find that after a pay cut, CEOs make similar changes to those that new CEOs would make following a forced exit. They show that a pay cut leads to decreased investment and leverage, and improved performance (although, depending on the size of the pay cut, the effect on performance improvement is significantly larger following forced turnover). This pay cut is effected mainly through a decrease in the value of equity-based compensation. In their sample, the median CEO experiences a 60% reduction in his equity-based pay but only a 12% reduction in his salary and bonus. Further, they find that those pay-cut CEOs who do engineer a turnaround see their pay restored to normal levels through abnormally high pay-for-performance sensitivity following the pay cut. In summary, they suggest that their study provides a potential explanation for why forced turnover following poor performance is rare – boards use pay cuts in equity pay as a (largely) effective substitute.

In conclusion, while it is implicit in agency theory that pay should change behaviour and thus impact on firm performance, by and large research, even from an economic perspective, concentrates on more-immediate measures of behaviour. Much less well researched is the impact that pay has on subsequent firm-level performance – this is no doubt due to the inherent complexity of the issue and the fact that much of firm performance is out of the control of even the most talented executive.

B. Power perspective on the consequences of pay

While the managerial power perspective has tended to focus

on how managers exploit their power to extract higher pay, it also highlights the negative consequences of this rent-seeking – particularly on the impact that incentive pay has had upon risk. This viewpoint puts aside the question of whether executive pay is excessive or fair, considering instead whether pay arrangements provided excessive incentives to take risks to the ultimate cost of the shareholder. While this is the same question as considered above – does equity pay adversely impact on risk – the power perspective pays particular attention to the extent to which senior executives and CEOs are able to exploit their power over the board. As expressed by Eisenhardt (1989), while in economic theory conflicting goals are settled by the market, in a political model goal conflicts are resolved through bargaining, negotiation and coalitions. So while they may come to rather similar conclusions, the academic tradition is distinct.

Bebchuk and Fried are the best-known spokesmen for this theoretical position and they provide a combative rebuff to arguments such as those made by Kaplan (2008) – the poster child for the ‘because I’m worth it’ school of pay (*The Economist* 2013). Kaplan argues (even after the banking crisis) that the market efficiently rewards good performance and punishes bad. Bebchuk et al (2010a) attack this argument. They look in detail at the compensation of the top five senior executives at Bear Stearns and Lehman Brothers, arguing that the large incentives for short-term performance targets, which could be taken ‘off the table’, provided an undesirable incentive to ignore the growth of large risks of losses at some (uncertain) point in the future.

Kaplan argues that the CEOs who lost their jobs during the ‘recent

credit market turmoil’ were amply punished, stating that the poor performance of ‘their companies [our emphasis] cost them many hundreds of millions of dollars’ (p6). However, Bebchuk et al point out that between 2000 and 2008, the top executive teams of Bear Stearns and Lehman Brothers derived collective cash flows of about \$1.4 billion and \$1 billion, respectively, from performance-related pay of cash bonuses and equity sales (that is, not including base salary).

The key issue is that while shareholders who held their shares over the period 2000–08 would have lost most of their wealth, for the top five executives of Lehman Brothers and Bear Stearns, payoffs were significantly positive. Bebchuk et al acknowledge that it is entirely possible that the cause of poor decisions may have been solely a failure to see these risks. They nevertheless argue that one should take seriously the possibility that incentives played a role, and they conclude with the recommendation that incentives should be linked strongly to long-term share value.

More detailed empirical evidence on this link is provided by Hagendorff and Vallascas (2011), who use mergers and acquisitions (one of the most important investment strategies undertaken by CEOs) as a test for the proposition that the use of equity pay in the banking industry motivated excessive risk-taking. They examine the relationship between the incentive structure of executive compensation and the risk effects of mergers on the acquiring bank. They found that, following deregulation (in particular, the Gramm–Leach–Bliley Act (GLBA) of 1999), risk-taking incentives increased, particularly in larger banks. They suggest that this supports the ‘too big to fail’ argument, as executive

remuneration at large banks encouraged risk-shifting activities, whereby shareholders in systemically important banks encouraged CEOs to undertake risk-increasing investment choices, passing the risk to regulators and bondholders. More importantly, they find that higher pay–risk sensitivity causes CEOs to engage in risk-increasing acquisitions.

While Bebchuk et al provide the most coruscating evidence of executive excess at the expense of the shareholder, other research from a power perspective provides insights into the impact that power can have on pay and its significance for the shareholder. Malmendier and Tate (2009) look at the consequences for shareholders when CEOs achieve ‘superstar’ status, through winning prestigious business awards. They find that award-winning CEOs subsequently underperform, both relative to their prior performance and relative to a matched sample of non-winning CEOs. In addition, the increase in status is accompanied by increases in compensation, increases in time spent by CEOs outside their companies on self-promotion, and an increased incidence of earnings management. In support of the managerial power perspective, the authors interpret these results as stemming from increases in CEO power relative to the board, as overwhelmingly all these effects are found in firms with a weak measure of corporate governance.

Morse et al (2011) also present evidence that powerful CEOs manipulate their incentive compensation, and that this is negatively related to future firm performance. In essence, they suggest that incentive pay, rather than being the solution to agency problems, becomes the problem. In particular they look at the possibility that CEOs will influence their

incentive pay by manipulating which performance targets are used.

Touching on the (negative) consequences of a lack of pay transparency, they suggest that manipulation is more likely if the particular pay criteria used are not made public in advance. They cite as an example the pay of Home Depot CEO Robert Nardelli. In Home Depot's 2004 proxy statement, it was specified that Nardelli's long-term incentive pay would be based on how the total return to shareholders compared with an established peer group of retailers. By this measure, Nardelli had bombed. In the 2005 proxy, however, the footnote changed: he was to receive incentive pay if the company achieved specified levels of average diluted earnings per share, a measure by which Home Depot looked far more successful. The authors found that a firm with rigged incentive pay that is one standard deviation above the mean faces a subsequent decrease of 4.8% in firm value and 7.5% in operating return on assets.

However, these figures should be treated with some caution, as they rest upon a number of formal assumptions. Nevertheless, the model of Morse et al does imply that, on average, firms with powerful CEOs engage in rigging behaviour, and makes a plausible estimate as to its impact on subsequent firm performance.

In conclusion, the research on the consequences of pay from a power perspective suggests that excessive managerial power, unrestrained by good governance, is about more than just the ability of senior executives to extract rents. Unchecked power can lead to excessive risk-taking and other negative consequences for firm value.

C. Behavioural perspective on the consequences of pay

'Incentives do not work by magic. They work by focussing attention and by prolonging deliberation. Consequently they are more likely to prevent errors that arise from insufficient attention and effort than errors that arise from misperception and faulty intuition.'
(Kahneman 2011)

Here we turn to the social/behavioural perspective on the consequences of executive pay. When considering the relationship that pay has to management behaviours and so, ultimately, firm performance, pay is generally conceptualised as a motivational tool. Consequently, research from this outlook questions the extent to which compensation alone is the primary motivator for top managers (Finkelstein et al 2009). As the van der Veer quote earlier suggests ('*if I had been paid 50% more I would not have done it better...*'), it is perhaps simplistic to assume that executives will work better or harder simply if they are paid more.

Classical economists tend to assume a clear linear association between money and effort, but much work on motivation theory suggests a considerably more complex relationship. There have been very few studies that seek to uncover executive motivation (Pepper et al (2013a) is a notable exception), but as long ago as 1938, Chester Bernard suggested that '*the real value of differences of money reward lies in the recognition or distinction assumed to be conferred thereby*' (Bernard 1938, from Finkelstein et al 2009, p334). Returning to Baudrillard's (1981) object value system, it can be argued that 'pay' is not only about its exchange value (how much can I

buy with it) but also, fundamentally, about its 'sign value' – what does the amount I earn say about me and my level of success? Below we look at attitudes to fairness, delay, risk and uncertainty, finally turning to consider perhaps the most important variable of all – the differences among executives themselves.

Fairness: the impact of perceived inequity in pay

Not only do notions of equity affect the pay-setting process, but they also have implications for subsequent executive behaviour. In essence this strand of research looks at the impact that relative, rather than absolute, levels of pay have on behaviour. This research draws on the theoretical foundation of social comparison processes (Festinger 1954), equity theory (Adams 1965) and Akerlof's (1982) 'fair-wage' hypothesis. Festinger formalised the idea that, in the absence of objective measures of ability, individuals will seek to compare themselves against others. Adams' equity theory, which grew from this, introduced the idea that equity in the workplace is dependent on a comparison of the ratio of how much we put in to how much we get out, compared with the balance of input to output of a referent other. In a similar vein, Akerlof argued that workers have a conception of a 'fair wage', and if actual earnings fall short of this, only a corresponding fraction of normal effort will be supplied (an overheard train guard expressed this idea most succinctly as, '*they pretend to pay us, we pretend to work*'). While research into the impact of workplace fairness is not restricted to senior executives, it is perhaps particularly pertinent to this group because they are even more likely to be motivated by prestige and power. Previous research has suggested that job satisfaction and relative CEO pay

are related (Watson et al 1996) and relative underpayment leads to increased turnover (Wade et al 2006).

More recently, Fong et al (2010) looked at how CEOs who are over- or underpaid (relative to the CEO labour market) resolve their own sense of equity. They hypothesise that relatively underpaid CEOs will attempt to redress the balance, either by attempting to increase the size of the firm (as this is the most likely way to increase their pay and prestige) or by quitting. In a slightly more optimistic vein, they suggest that the dissonance induced by being overpaid is likely to result in subsequent increases in firm profits as CEOs attempt to justify their high relative pay by increasing effort.

Their results showed that CEO pay that deviates too far above or below labour market rates does have significant consequences. Not only do notions of equity affect the pay-setting process, but they have implications for subsequent CEO behaviour. Significantly greater increases in firm size were observed in firms with underpaid CEOs. There was also a significant relationship between underpayment and voluntary withdrawal. For the cynics among us, there was the slightly more surprising result that overpayment was indeed, as hypothesised, related to changes in profitability. Fong et al conclude by suggesting that, when overpaid, CEOs direct themselves to pursuing the shareholders' interest (increasing profitability), whereas when underpaid they focus on increasing firm size or quitting. They do not draw from this the conclusion that the impact of social comparison theory means you should overpay your CEO. Rather they argue that their results suggest how strong the impact of the 'ratchet effect' is on CEO pay (as discussed in Section 1).

In a similar vein, Fong et al (2010) looked at the impact of relative CEO underpayment on research and development spending (R&D). While they found no general impact of relative underpayment on R&D spending, they did find that CEO underpayment is associated with reductions in R&D spending in low R&D-intensive industries, and increases in R&D spending in high R&D-intensive industries. They suggest that for practitioners this strongly suggests that underpaying CEOs can have negative long-term effects for the firm and, possibly, shareholders, an argument which would underscore just how hard it is to escape from the contagious upward spiral of pay as described by DiPrete et al (2010).

The theme of fairness is also explored by Pepper et al (2013a), using UK data from FTSE 350 firms. Drawing upon psychological, behavioural, economic and decision-making literatures, this study looked at what motivates senior executives, arguing that agency theory has focused excessively on alignment, neglecting the related but different issue of motivation. In preliminary interviews, the authors noted that a *'significant number of interviewees talked, on an unprompted basis, about fairness. For most of the participants in the study, fairness was primarily a relative concept'* (p43).

Pepper et al argue that incentives are *'a necessary but not sufficient condition for motivating executives'* (p41) and, particularly with CEOs, are as much a means of *'keeping score'* as anything else. This research also examined the issues of risk, uncertainty and delay, discussed next. Agency theory, the dominant economic perspective for executive pay, assumes that agents (executives) are both rational and self-interested, with no non-pecuniary motivation and

a simple, linear pay–effort trade-off. Behavioural economics, in contrast, takes a more complex model of man, and the research below discusses the predictable, *'irrational'*, patterns to be found in reactions to risk, uncertainty and delay.

The impact of time, delay and risk

There has been considerable pressure to make bonuses more complex and longer term in nature. The Greenbury report (1995) advised UK companies to adopt long-term incentive plans with stringent performance hurdles, and the popular press has made a similar case. While such demands are perhaps understandable, they have some drawbacks. As Pepper et al (2013a) have pointed out, the two principle objectives of LTIPs – to align the interests of executives and shareholders and to motivate high performance – may well be in conflict. Incentive systems, designed with alignment in mind, are often highly complex, with performance benchmarked against comparator companies and subject to considerable delay. However, complexity and delay will tend to reduce the motivational impact. You can't be motivated by something you don't understand or feel you have no control over.

This tension was well illustrated by a member of the remuneration committee in Ogden and Watson's case study on the introduction of LTIP plans in five UK privatised water companies (2008): *'Whether you like it or not, the fact is if the executives feel they don't stand a cat in hell's chance of getting their relative performance to a level where it was going to pay out, then the plan's not worth the paper it's written on, you know'* (p 728). Consequently, while agency theory has focused overwhelmingly on alignment, Pepper et al (2013a) argue that

equal attention should be placed on motivation. Their research measured the (considerable) mental discounts that senior executives placed on incentives that were subject to risk, uncertainty and delay, concluding that the financial cost of LTIPs (to the firm) is almost certainly greater than the value perceived by executives. This suggests that while one can understand the call to design incentives that cannot be 'gamed' and do not pay out merely for good luck, that undue complexity may mean LTIPs are a costly way to motivate.

A contingent perspective

As already argued, the most fundamental distinction between economic theory and behavioural perspectives is the model of man used. Economic theory has focused on aggregate behaviour, treating individuals as a homogeneous group of self-interested utility maximisers. In contrast, research from a behavioural perspective is open to the idea of man as a creature of heterogeneous behaviour, despite the difficulties this causes in measuring behaviour. While economic models tend to refer to 'choice of effort', which usually comes at a 'personal cost', it could be argued at the level of senior executives that effort is not really the issue (see the Kahneman quote above).

Wowak and Hambrick (2010) build a theoretical model that develops propositions about the interaction between personal characteristics and compensation, and suggest that missing from the general debate on the reasons for the sometimes fickle outcomes from compensation arrangements

is perhaps the most important variable of all – the differences among executives themselves. They argue stock options, which stimulate aggressive risk-taking by executives, will magnify the effects of executives' skill levels – for good and for ill.

They consider the most important personal factors that moderate the effects of pay arrangements as: motives and drives, cognitive frame, self-confidence and ability. In particular they argue that if incentives prompt highly talented managers to behave more aggressively, the outcomes will tend to be more beneficial than if the same managers had acted timidly. However, if incentives encourage inferior managers to engage in bold actions, the outcomes will tend to be worse than if these untalented leaders had been paid – and had behaved – like bureaucrats.

Han Ming Chung et al (2012) extend this work, looking in particular at the interaction between self-confidence and firm performance and incentives. They find that in the context of organisational decline, executives with higher core self-evaluation (CSE) respond to incentive compensation with greater perseverance, competitive strategy, focus, ethical behaviour and strategic risk-taking compared with those with lower CSE. In contrast, in the context of organisational success, they found no association between CSE and the effectiveness of incentives. This was an experimental study, involving a management simulation (using MBA students as subjects). So while these results, as those of Wowak and

Hambrick, should be regarded as largely theoretical, they nevertheless provide an interesting insight into the role that individual differences will have in moderating the impact of incentives on behaviour.

Conclusion: the consequences of pay

'The basic fact is that designing useful incentives inside organizations is very complicated, and designing ones that are both useful and strong is often impossible.'
(Roberts 2010, p126)

In conclusion, the fundamental difference between economic and behavioural perspectives is due to the model of man they use. Economic models rely on numerous simplifying assumptions. A behavioural perspective, in contrast, is open to a more complex model of man where perceptions of fairness matter and risk, uncertainty and delay are calculated on a rather more emotional basis.

While considering man as a creature of heterogeneous behaviour does make it much harder to measure that behaviour, it adds a further layer of subtlety to the debate. As Hirsh et al (1987) put it, the one thing that economists have going for them is the premise that individuals act rationally in trying to satisfy their preferences. This is an incredibly powerful tool, because you can model it. The problem is that these assumptions are not only simple, but quite often wildly unrealistic. The choice becomes one between 'dirty hands' or 'clean models'.

3 A group-level analysis

Most research concentrates on the individual pay of the CEO or the top management team, and this is what has been discussed in the two previous sections. However, as important is the issue of pay at a group level, which we turn to here. This recognises that pay is not assigned in a social vacuum and that for executives pay can be first and foremost a measure of comparative success, or a means of keeping score (what Baudrillard would call its 'sign' value). Consequently, this section examines the determinants and consequences of pay differentials.

While public attention to the increasing pay gap is relatively recent, Frydman and Saks (2010) show that this trend is not new. They find evidence that the dispersion of pay across executives remained fairly constant for several decades after the Second World War and then began to fan out after the 1970s. The ratio of the CEO's total compensation to the average pay of the other two highest-paid officers in the firm was about 1.4 prior to 1980, and increased to 2.58 by 2005, suggesting that the return to being the main decision-maker has increased in the past 25 years.

While they offer no firm explanation for this increasing gap, their work, discussed earlier, rejects what they regard as simplistic economic or political explanations. They argue that justifications that focus solely on managerial rent-extraction, increasing firm size, compensation for increasingly risky pay or changes in skill requirements fail to explain changes in pay patterns over the longer term.

In this section, we look at the magnitude of pay differentials between CEOs and other top executives, as well as pay dispersion among the executives within a top team. As before, we consider first the determinants and then their consequences. Research is much sparser in this area, so while we follow the same conceptual map, looking at these questions from the three different theoretical perspectives (economic, power and behavioural), there are thin patches that would benefit from more research.

1 Determinants of pay differentials and dispersion A. The economic perspective on determinants of pay differentials

The most developed economic model that considers pay at a group level is tournament theory (Lazear and Rosen 1981). Tournament theory provides an economic rationale for large differentials in pay. While most research examines performance-based incentives for managers, tournament theory focuses instead on the incentive offered by promotion. This theory argues that large gaps in pay can be used to motivate effort in the 'tournament' to win the coveted prize of the top spot, and the bigger the pay gap between ranks, the bigger the prize. The winner of the tournament can even be paid more than their productivity warrants; as long as this increases the efforts of those of a lower rank, it is economically efficient.

As Roberts (2010) points out, performance-based incentives are rife with unintended consequences,

and promotion is a valuable alternative tool to motivate. While this section is dealing with the 'why' – what are the causes of this increasing dispersion – from an economic perspective this is perhaps best answered by summarising the literature that looks at the *consequences* of pay differentials. This is dealt with in more detail in the section below, but in a nutshell, from an economic perspective, pay differentials exist because tournaments are an efficient way of motivating greater effort and are associated with better firm performance and firm value.

In an unusual piece of research, Cronqvist et al's (2009) results could also be used to suggest that widening pay gaps reflect economic efficiency. While tournament theory suggests that large gaps are a way of motivating effort to win the prize, Cronqvist et al conceptualise a wide pay gap as evidence that (sufficiently incentivised) CEOs are prepared to make difficult and unpleasant decisions. Writing from an agency perspective, they theorise that several types of private benefits arise to CEOs from paying workers:

- better relationships with co-workers
- more loyalty
- reduced effort in potentially unpleasant bargaining situations.

In other words, poorly governed CEOs want to 'enjoy the quiet life' through lower-effort wage-bargaining, and only CEOs who are constrained or incentivised in some way will resist this temptation. They predict that CEOs with more control

will pay their workers more and that this relationship will be mitigated by the extent of the CEO's financial stake in the firm. The authors find that, as predicted, CEOs with more control pay their workers more.

Cronqvist et al also find a negative relationship between CEO financial incentives and employee compensation. This effect is particularly strong for those closest to the CEO in the corporate hierarchy: *'CEOs in control pay their executives on average about 18% more, all else equal. The financial incentive effect from cash flow rights ownership is also stronger when it comes to top executives' pay. We interpret this as evidence that entrenched CEOs get particularly large private benefits from paying more to those executives who are the closest to themselves in the corporate hierarchy'* (p333).

Star performers

'Since reassuming the role of Starbucks CEO in 2008, Howard Schultz has achieved a market capitalization of \$33 billion, more than \$11 billion annual sales, and net annual profits of \$1.7 billion (Starbucks, 2012). In a still struggling United States economy where the average growth of S&P 500 companies was -0.4 per cent in 2011, Starbucks' share price increased by more than 40 per cent.' (Aguinis and O'Boyle in press, p3)

The idea of a select cadre of 'star performers' whose exceptional talent demands exceptional returns is also given as an explanation for the increasing gaps in pay. Tournament theory sees large pay gaps as a motivational tool, and thus it can be economically efficient to pay the winner more than they

are actually worth. However, the star perspective argues that the winners are paid more because they are actually worth more. From an economic standpoint, the argument, as set out by Gabaix and Landier (2008), is based on the idea that a CEO should be paid based on their expected marginal product. The larger the firm, the larger the potential marginal return.

Aguinis and O'Boyle (in press) argue that changes in the nature of work in twenty-first-century organisations have led to the emergence of star performers – a few individuals who contribute a disproportionate amount of output – and that this is responsible for the widening pay gaps. They suggest that the distribution of worker productivity has changed from that of a normal distribution, to one of a power law distribution (also known as the 80–20 rule). In other words, instead of *'a massive group of average performers dominating production through sheer numbers, a small group of elite performers seem to dominate production through massive performance'* (p8).

They argue that the rise of stars necessitates a paradigm shift in most theories of compensation. Compensation systems that best retain stars will require considerably higher pay for elites, as even minor differences in performance can create dramatic differences in firm value. In other words, increased pay for elites will create pay dispersion, and if stars are compensated in ways reflective of their contribution, it is possible that top performers may not earn just a bit more than their peers, but a huge amount more.

While prior research has found mixed effects of pay dispersion (Bloom and Michel 2002; Pfeffer and Langton 1993), Aguinis and O'Boyle cite Trevor et al (2012),

who found that when pay dispersion is the result of rewarding stars, the consequences are improved overall performance and greater retention of outstanding performers. Adopting a slightly more restrained tone, Cuñat and Guadalupe (2009b) come to similar conclusions. Their study looked at the effect that increasing foreign competition had on the structure of compensation and incentives for US executives. They found that increased competition led to total compensation increases, particularly for the highest-paid executives. The wage ladder of the firm becomes steeper; that is, the highest-paid executives in the firm tend to earn proportionally more, and inequality within firms increases. This was particularly pronounced for the highest-paid executives, and consequently wage differentials between executives also increase.

B. The power perspective on determinants of pay differentials

An alternative perspective from that offered above is put forward by the managerial power hypothesis. Here widening pay gaps are not the result of rational tournaments, or rewards for increasing marginal productivity, but malign evidence of over-powerful executives insufficiently constrained by distant shareholders. This perspective focuses on weak governance as one explanation for divergent pay.

Sapp (2008), looking at Canadian evidence, finds that the gap between the pay of the CEO and the next four most senior executives has almost doubled in the relatively short time period of 2000–06. They attribute this, at least partly, to weaker governance, giving evidence that firms that have a controlling shareholder (who could be expected to pay closer attention to pay) have a smaller pay gap between the CEO and the top management team.

Malmendier and Tate (2009), who write slightly less enthusiastically about 'star' performers than Aguinis and O'Boyle, also put forward a political explanation for the widening pay gap between CEOs and other top executives. They find evidence that when the power or status of a CEO increases, the CEO exploits that power to win increased compensation for themselves. They write that *'the pattern is broadly supportive of an important role for CEO power or status: only award winners receive increased compensation following strong performance, not other CEOs with equally strong performance and not other executives in the award winners' firms'* (p1618).

C. The behavioural perspective on determinants of pay differentials

Tournament theory argues that pay dispersion arises because of its positive economic effects – it encourages healthy competition to rise to the top. In contrast, research from the social and behavioural perspective tends to argue the opposite – that pay dispersion will negatively impact decision-making and teamwork. Studies from this perspective overwhelmingly focus on the negative consequences (discussed later) and there is less research from this perspective that looks at why pay differentials or pay dispersion arise within groups.

Prior research has found that CEOs create compensation policies for subordinates that reflect the CEO's own relative pay. Wade et al (2006) found that CEO overpayment and underpayment were generally related to the overpayment and underpayment of subordinates and that underpayment relative to the CEO was at least marginally associated with managerial turnover in one-half of the reported regressions.

More recently, Fredrickson et al (2010) considered both the antecedents and the consequences of pay dispersion in the top management team, looking at 250 Standard & Poor's firms between 1992 and 2006. They found significant variation in the pay dispersion of the top teams across firms. They argued that the social-psychological factors that affect comparisons among members of the CEO's top team will impact the board's pay-setting process, which in turn affects pay dispersion and, ultimately, firm performance. The results also supported their theory that boards will attempt to reduce pay dispersion when the social context encourages comparison (through common board membership, distribution of ownership or tenure), but were more relaxed about pay dispersion when the context decreases the likelihood of comparison. Their results on the consequences for pay dispersion within the top team are discussed below.

Conclusion

The most developed arguments to date for the causes of the increasing pay gap between the CEO and those on the next rung down rely on economic tournament theory. There is some evidence that increased foreign competition has led to the rewards to the winners increasing, but a power perspective counterclaims that over-powerful executives have used their muscle to claim a larger slice of the pie.

2 Consequences of differentials and dispersion

While there is little dispute that there has been a huge increase in pay disparity, there is less consensus on the consequences. A classical economic perspective, particularly tournament theory, suggests that pay dispersion has a positive effect – encouraging healthy competition to rise to the top. In contrast,

social comparison theory tends to argue the opposite – that pay dispersion will negatively impact decision-making and teamwork and ultimately firm performance. Finally, a power perspective will emphasise that the widening differential between the CEO and the top management team is just as likely to be a function of managers exploiting their power to extract rents than a reflection of economic value.

A. The economic perspective on consequences of pay differentials

As touched on earlier, tournament theory puts forward the most positive interpretation of the consequences of wide pay differentials. Both Kini and Williams (2012) and Kale et al (2009) present empirical evidence that supports the economic efficiency of tournaments. Kale and his co-authors find that tournament incentives, as measured by the pay differential between the CEO and the next in line, relate positively to firm performance. They conceptualise the incentive impact of the 'prize' of promotion to be a function of the size of the prize (that is, the pay gap) and the likelihood or probability of winning that prize (that is, getting promoted). The relation is more positive when the CEO nears retirement (as the prize becomes more likely) and less positive when the firm has a new CEO, and weakens further when the new CEO is an outsider. They conclude that *'overall, our analysis indicates that a rank-order tournament that provides promotion incentives to managers is an important incentive mechanism for motivating corporate managers'* (p1507).

Kini and Williams (2012), with Goel and Thakor (2008), focus on the impact that tournaments have on risk-taking, noting that poorly designed incentive compensation programmes have tended to take

the blame for the inappropriate risk-taking that contributed to the financial crisis. However, in both cases, while agreeing that tournaments tend to promote risk-taking, they conclude on balance that the tournament incentives provided by the board are an efficient response to the market. Kini and Williams find that tournament incentives enhance research and development intensity, improve firm focus (that is, reduces over-diversification, which is sometimes linked to undesirable managerial risk-aversion) and increase leverage. As the authors find that tournament incentives are higher in riskier, more focused and possibly more innovative firms, they are *'inclined to conclude that the tournament incentives provided by the board are an optimal response to the opportunities and constraints facing the firm'* (p352).

Goel and Thakor's (2008) argument is grounded in theory rather than empirical research, but, like Kini and Williams, they argue that the tournament structure will on balance be good for the shareholder. They contend that, at the level below the CEO, the tournament effect is likely to produce a pool of managers who are overconfident. The board selects from this pool, and thus there is likely to be a bias for overconfidence in the ultimate winner of the tournament. While they acknowledge that excessively overconfident CEOs will overinvest in value-destroying projects, they nevertheless argue that moderate overconfidence is beneficial for the shareholder. In conclusion, they suggest that the tournament structure of the race to the top solves the apparent paradox that overconfident CEOs sometimes make value-destroying investments, and yet overconfident managers are more likely to be winners in the race to be CEO.

B. The power perspective on consequences of pay differentials

The most vocal critique of the arguments outlined above is that put forward from a managerial power perspective. Bebchuk et al (2011) consider both the determinants and the consequences of what they name the CEO pay slice (CPS) – the fraction of the aggregate compensation of the top-five executive team captured by the CEO. In contrast to the findings of research that take a (positive) tournament perspective, they find a significant and negative association between the CEO pay slice and firm value as measured by industry-adjusted Tobin's q. Tobin's q is a ratio of the value of a firm's stock (the total share capital) to the cost of replacing a firm's assets. A low q (between 0 and 1) means that the cost to replace a firm's assets is more than the value of its stock (which implies that the firm's stock price is undervalued), while a high q (anything above 1) means that the firm's stock has a higher value than the total cost of its assets (which implies that the stock is overvalued).

Interestingly, in relation to work discussed which highlights the psychological importance of relative rather than absolute values of pay, they find that the negative association between the CEO pay slice and Tobin's q exists both in firms with high or low aggregate top five compensation as compared with peer firms. In other words, it is the felt inequality among peers that has a negative impact, even if you are doing very well in the context of the wider marketplace.

Bebchuk et al also find that the CEO pay slice is associated with other dimensions of company behaviour and performance, including ones that are commonly viewed as reflecting governance problems. For example, they find

that CPS is associated with lower (industry-adjusted) accounting profitability, lower quality of acquisition decisions (as judged by the market's reaction to the acquisition announcement), higher odds of opportunistically timed option grants to the CEO, lower CEO turnover (the higher the CPS, controlling for tenure, the lower the probability of CEO turnover after bad performance) and lower stock market returns accompanying the filing of proxy statements for periods when CPS increases.

They suggest that there are two theoretical reasons why a high CPS may be associated with lower Tobin's q. Either lower-value firms have a higher optimal level of CPS, or a high CPS is a result of agency problems (that is, powerful executives are exploiting their power to extract rents). Clearly they find the latter a more persuasive explanation for their data.

C. The behavioural perspective on consequences of pay differentials

The fairness perspective (Akerlof and Yellen 1990) argues that pay differentials harm workforce productivity and organisational effectiveness. And numerous management writers have argued that differences in pay can lead to potentially damaging feelings of injustice, unfairness, competition, lack of co-operation and reduced organisational commitment.

Fredrickson et al 2010 (discussed above) looked at internal pay disparity within the top-five team and the consequences for firm performance. The results were complex. An expected level of pay dispersion had no negative effect and, in fact, in firms with high stock price volatility, pay dispersion was positively related to performance. However, when firms exceeded justifiable levels of pay dispersion,

the impact was very negative. The authors argue that their results support the conclusion that social comparison is a powerful force in setting pay and that social comparison processes affect not just pay but performance

Conclusion

Whether pay gaps result in more or less effective organisations is fiercely debated. The role played by incentives is central to most economic theory and motivation theories such as expectancy theory (Vroom 1964) are predicated on the assumption that clearly linking performance to rewards will improve organisational outcomes. Incentive pay, however, tends to widen the pay range, and this can have both positive and negative consequences.

Kepes et al (2009) suggest one perspective that might resolve at least some of the disagreement. While not specifically talking about senior executives, they take a contingent perspective that might be usefully applied to this debate. They argue that it is not simply the width of the pay range, but also the factors responsible for the width that explain the effects of the pay range on employee and organisational outcomes. They find that if a pay range is due to performance pay, the effects of a pay range are positive. However, if the pay range is perceived to be due to political reasons, they find it has a negative effect on performance. Of course, while Kepes et al's argument is intuitively appealing, in the messy real world, where cause and effect are almost impossible

to disentangle, actually ensuring incentive pay is based (or perceived to be based) on genuine superior performance rather than political manoeuvrings, is a somewhat harder task.

A note on gender

This report would be incomplete if we did not mention the relationship between gender and executive pay. There is a wealth of research on the impact of gender on pay and leadership, and we do not have the time or space within this report to give justice to this subject. Interested readers should look at the Cranfield International Centre for Women Leaders, whose focus is on research, management development and writing on gender diversity at leadership level.

Conclusion

'Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.' (Keynes 1936, p383)

A good literature review or piece of academic research should aim to tell a story. As is clear, with a subject as complex as pay, you are not telling one story but presenting a complex map of often contradictory, competing narratives – perhaps more James Joyce than Jane Austen.

If there is one message to be drawn from this literature review, it is that no single intellectual approach can fully explain the determinants and consequences of executive pay, because pay cannot be considered a singular concept. To anyone who has read this entire report, it should be clear that it is possible to find research to back up almost any argument one could care to make.

While no academic paper can give you a template that tells you how to pay and motivate senior executives, they can point to the logic and (ir)rationality of some of the underlying

economic, social and political trade-offs that constrain the choices to be made. A literature review is by design a descriptive rather than prescriptive project, but we conclude with the advice of Roberts (2010). He argues that in many cases really bad incentives are worse than none at all. If good measures of performance are not available, if you are seeking co-operation, multi-tasking or experimentation, 'weak' incentives may well be more effective. As the litany of unintended consequences presented above suggests, for good or for ill, you get what you measure and pay for.

Further reading

BEBCHUK, L. and FRIED, J. (2004) *Pay without performance: the unfulfilled promise of executive compensation*. Cambridge, MA: Harvard University Press.

This makes a compelling case, albeit from a single perspective, of the dangers of unchecked managerial power.

EISENHARDT, K.M. (1989) Agency theory: an assessment and review. *Academy of Management Review*. Vol 14, No 1. pp57–74.

Not new, but one of the clearest overviews that explains what agency theory is, and presents a balanced assessment of its strengths and weaknesses.

FINKELSTEIN, S., HAMBRICK, D.C. and CANNELLA, A.A. (2009) *Strategic leadership: theory and research on executives, top management teams, and boards*. Oxford: Oxford University Press.

Not light reading, but a very thorough overview of the structure of the field.

GOMEZ-MEJIA, L., BERRONE, P., and FRANCO-SANTOS, M. (2010) *Compensation and organizational performance – theory, research and practice*. Armonk, NY: M.E. Sharpe, Inc. A comprehensive description of the main academic theories about compensation, by a team of authors led by one of the leaders in this field.

JENSEN, M.C., MURPHY, K.J. and WRUCK, E.G. (2004) *Remuneration: where we've been, how we got to here, what are the problems, and how to fix them*. Negotiation, Organizations and Markets (NOM) research series, NOM research paper, No 04-28. Cambridge, MA: Harvard Business School.

Jensen, as one of the key architects of agency theory, nevertheless takes a far more balanced assessment of the issues than many of his more ardent admirers.

KERR, S. (1995) On the folly of rewarding A, while hoping for B. *Academy of Management Executive*. Vol 9, No 1. pp7–14. One of the most entertaining pieces on how to get it really wrong. A management classic.

PEPPER, A. (2006) *Senior executive reward – key models and practices*. Aldershot: Gower. A short summary of the most important economic and behavioural theories about executive reward and how they might apply in practice, written by one of the authors of this report.

ROBERTS, J. (2010) Designing incentives in organizations. *Journal of Institutional Economics*. Vol 6, No 1. pp125–32.

A short and lucid argument that suggests five situations where strong incentives are likely to cause more problems than they solve.

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Chartered Institute of Personnel and Development
151 The Broadway London SW19 1JQ UK
Tel: +44 (0)20 8612 6200 Fax: +44 (0)20 8612 6201
Email: cipd@cipd.co.uk Website: cipd.co.uk
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