Managerial Motives in the Market for Corporate Control

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DEDICATION

To my husband, *Khalil* and my daughter *Reem*.
The two whom I *love* the most.

Abstract

The study examines the impact of corporate takeover activities upon managerial and non-managerial remuneration in the acquiring companies. A regression model is empirically tested on a large panel data from LSE FT-All Share Index list for the period 1980 through 1992. The data is collected through DATASTREAM (361 companies) and also supplemented by a survey conducted by the researcher on Executive Share Options in a sample of organisations size 79 companies. The remuneration measures are regressed separately onto a common set of exogenous variables which measure corporate acquisition activities, size, performance and governance. The model thus is also employed to provide an explanation of the impact of corporate size, performance and governance upon managerial and non-managerial remuneration. The relationship is examined using Arellano and Bond's Generalised Method of Moments estimators after accounting for some of the statistical problems encountered when modelling the data.

The findings of this study reveal that corporate size and acquisition activities are significantly related to managerial remuneration. The results also suggest that non-managerial remuneration is not significantly related to corporate acquisition but instead to corporate size, performance and governance.

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CHAPTER 1: Managerial Motives in the Market for Corporate Control

There are a number of market mechanisms that are, theoretically, supposed to prevent corporate decision-makers from undertaking investment decisions that do not lead to added returns to corporate shareholders. Such arguments are proposed by Jensen (1988) along with others. They view takeovers and their threats as disciplinary mechanisms for settling the agency problem between the capital owners and the management of the target company in the market for corporate control. Yet, many scholars remain sceptical about the disciplinary role of corporate takeovers. Hughes (1989) argues that in a perfectly effective market for corporate control, all companies must operate efficiently and produce maximum potential profit and thus avoid being taken-over. He, therefore, suggests that corporate takeover, occurs for non-disciplinary motives. One possible non-disciplinary motive would be the increase in the managerial remuneration of the acquiring company managers.

Theoretically, both arguments are sound, but, it is an empirical issue as to whether managers can personally benefit from engaging in corporate acquisition activities. Based on a survey of UK empirical studies, pursuit of rapid corporate growth is argued by Hughes (1989) as the non-disciplinary motive for corporate takeover activities. Indeed, Hughes suggests that with their internal discretion, managers of the acquiring company, will favour pursuing corporate growth rather than enhancing corporate profitability as their financial rewards, status and prestige are more tied to corporate size than profitability.

The data used in this research does not include information on the target companies' pre-takeovers profitability and hence we are unable to test if takeovers are driven by an effective disciplinary mechanism in the market for corporate control. Nonetheless, the data can explore the theory that takeovers are motivated by non-disciplinary motives through examining the relationship between managerial monetary rewards in the acquiring company and corporate acquisition activities. This study attempts to develop a better understanding of managerial motives in the market for corporate control, with respect to managerial remuneration.

The primary hypothesis in this research, is that managers might use corporate acquisition as a means to obtain rapid growth in corporate size and the consequent increase in their own economic self-interest. Taking a review of the economic and management literature, there is a universal agreement that executive compensation is related to corporate size. Indeed Baumol (1959), Marris (1964) and Mueller (1969) found that managerial compensation, as well as power and prestige increase as corporate size increases. Since acquisition represents a fast and easy means to increase corporate size (Lambert and Larcker, 1987), it is then plausible that the acquiring company managers use acquisition to obtain rapid increase in corporate size and consequently in their remuneration.

These views are empirically examined in this study, by statistically measuring the impact of corporate acquisition activities upon the monetary rewards received by the managers and non-managers in the acquiring company, while controlling for corporate size, performance and

governance. This study would also attempt to provide an explanation of the relationship that various studies have found, between remuneration and corporate size, performance and governance.

A large sample of companies is derived form the London Stock Exchange FT-ALL Share list during the period 1980 through 1992. There are important innovations in the data type, research methodology and statistical techniques used in this study. Consequently, the real contribution of this research lies in its ability to offer a comprehensive view and a statistically sound explanation of how the financial reward systems for the highest paid director, all directors and employees are influenced by corporate acquisition activities, controlling for the other variables. One aspect of highest paid director reward to which we draw particular attention, is the gain from executive share option schemes.

To obtain perspective for the current analysis, this study is organised into eight chapters. The three starting chapters are essentially preparatory in that they prepare the way for the analysis of the results in later chapters; following this brief introduction, chapter two is essentially a survey of the literature on the efficiency of corporate takeover activities and a review of the previous research findings on the 'determinants' of executive remuneration. The next chapter, number three, is concerned with explaining the research concepts, data and methodology. The analysis of the regression results and the propositions derived for each of the research samples are presented in chapters four to seven; starting with the regression results for *basic* remuneration of the highest paid director, then the results for the *total* remuneration of the highest paid director, followed

by the average paid director and employee results respectively. Finally, chapter nine discusses the overall conclusions, limitations of the study and the implications of the research findings for shareholders and policy-makers.

CHAPTER 2: Corporate Takeovers Efficiency Argument and a Review of the 'Determinants' of Managerial Remuneration

Corporate acquisitions and restructuring activities have increased since the beginning of the last decade. During this period, the purposes, motives, contributions, and impact of acquisition have been at the centre of controversy amongst managers, public policy-makers and scholars. Yet, despite this attention, no clear conclusions have been reached. This study contributes to developing a better understanding of the corporate acquisition activities by examining the impact of corporate acquisition upon senior management financial rewards in the acquiring company. The discussion in this chapter revolves around two interrelated topics, the efficiency of corporate takeover activities and the 'determinants' of managerial remuneration. Therefore, the chapter is divided into two sections. The first covers the debate on the efficiency of takeover activities which revolves around six themes: 'synergy', increase in share price, increase in productivity, breach of explicit and implicit contracts, takeover as arbitrage and disciplinary mechanisms. The second section reviews the findings of previous research on the relationship between remuneration and corporate acquisition, size, performance and governance.

2.1 Corporate Takeovers: Efficiency Argument

The theme of this section revolves around a discussion of whether or not takeovers enhance efficiency, or are merely a redistribution mechanism with high social costs. At one extreme takeover is seen as an innovative type of economic activity and a valuable contributor to productive efficiency. At the other extreme takeover is seen as a means of capturing

and redistributing 'economic rents' with little or no social value. These two views are explored below.

2.1.1 The 'Synergy' Argument

'Synergy' assumptions underpin some motives to combine companies, whether via acquisition or merger. It simply proposes that the coalition of the companies is worth more than the two companies standing as separate entities. The presumed gain could stem from different sources like realisation of economies of scope and scale[1], tax reduction[2], increase monopoly power[3]. While the synergy concept is a useful one, companies may fail to reap the full benefits. Peacock et al (1991) argue that despite the rational consistency of the 'synergy' argument it does not offer an explanation of the motives for takeovers and does not benefit the overall performance of the country. Indeed, Ravenscraft and Scherer (1987) claim that corporate acquisitions are 'wasteful' activities for the economy as a whole.

2.1.2 Movements in Share Price

'Event studies' measure changes in stock prices during a period surrounding the announcement of the takeover bid[4], the period ranges from few days to few weeks. The findings of 'event studies', by both the financial analysts and academic researchers, commonly agree that target

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[1] Williamson (1968)

[2] Kaplan (1987), Lehn and Poulsen (1987), Jerrell et al (1988), Shleifer and Vishny (1988),Shleifer and Summers (1991).

[3] Jensen and Ruback (1983), Eckbo (1985) and Ravenscraft et al (1987).

[4] 'Event studies' treat the announcement of a merger as an event in the history of stock price of the merging firms. "Using a method derived from the capital assets pricing model, each company's stock prices is normalised to take into account the price movements of all traded stocks bearing comparable risks. Cumulative deviations from the normal pattern are computed for the acquired and acquiring enterprises" (Ravenscraft et al, 1987, pp. 5).

company share prices experience a positive abnormal return around the announcement of the takeover bid (Rosen, 1992)[5]. This increase could be seen as a 'newly' created wealth and hence takeover is then viewed as a value-enhancing mechanism[6]. However, the picture is not so uniform for the raider company stock, but the most common finding has been that mergers are on average net zero present value investment for the acquiring firm (Jensen and Ruback, 1983 and Rosen, 1992 for a review on the literature). Takeover therefore is not a 'value-enhancing' mechanism for the acquiring company shareholders. Furthermore, a sceptical view is taken by some scholars on the validity of the results of 'event studies'.

The techniques used in the event studies can be criticised from three perspectives. First, share price can be inappropriately assumed to be a good indicator of productive performance (Baumol, 1993). Shleifer and Summers (1991) argue that share price is a biased measure of productive performance, while Baumol (1993) argues that some studies[7] have shown that takeover targets are usually undervalued and hence movements in share price is not a good indicator of post-takeover efficiency. Therefore, the effectiveness of using the movements in share price as a productivity indicator is open for debate. Second, 'event studies' are based on the assumption that markets are 'efficient' while Brealy and Mayers (1988), Helm (1989) and Fairburn and Kay (1989) argue that markets are riddled with imperfections. Third, the length of many 'event studies' is viewed as too short and hence their findings are weak (Scherer, 1988). Indeed, studies that extended the research period found that target share prices decreased in the long term. Magenheim and Mueller (1988) extended the

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[5] Rosen (1992) provides an excellent review of the studies on movements in share price around the takeover bid period.

[6] Refer to Scherer (1988) for the full argument.

[7] Ravenscraft et al (1987); Morck et al (1989) also found that target companies are under-valued.

'event' period to three years and found that by the most conservative measures, target share prices decreased by an average of 16 percent. Jensen and Ruback (1983), also measured the post-merger return for a period of seven years and found that the average annual reduction in target share price is around 5.5 percent. The reduction in target firm share prices is further proven by studies that report the extensive divestitures of the 1968 conglomerate mergers (Scherer, 1988). Taken together, these critiques weaken the findings of the typical 'event studies' and suggests that the increase in post-takeover target share price is not necessarily value-enhancing.

2.1.3 Movements in Corporate Productivity

A few studies focused on observing the effect of takeover on the productivity of the acquiring company. These studies seem to agree that takeovers do contribute positively to corporate productivity.

Lichtenberg and Siegel (1990) and Lichtenberg (1992) found[8] that plants involved in leverage buyouts (LBOs) and management buyouts (MBOs), had a significant post-takeover productivity above otherwise comparable plants, not involved in LBOs or MBOs. Baumol (1993), found that it is difficult not to accept Lichtenberg and Siegel's findings because of the competence of their research methodology. Nonetheless, he argues that productivity is expected to increase considerably in managerial buyouts, because management being owners minimise the conflict of interest between managers and owners. So, the post-takeover increase in productivity cannot be generalised to all types of takeovers. Studies only show that increase in productivity is likely, if management is the buyer.

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[8] These two studies used the same US Census Bureau data of several thousands companies which are involved in buyout during 1981 -1986.

Lack of research in this area hinders a comprehensive view for other types of takeovers.

2.1.4 Takeovers and Breach of Implicit & Explicit Contacting

Some scholars base their argument that takeovers could be seen as a 'redistribution' rather than a 'value creation' mechanism on the view that takeovers capture rents by expropriation from workers, suppliers, and other corporate stakeholders (Shleifer and Summers, 1991). By using case studies, Shleifer and Summers (1991, 1987) found support for the view that increase in target share price is financed by (i) breach of external contracts i.e. with suppliers; and/or (ii) breach of internal contracts with employees as a result of laying off employees. They do not suggest that breach of implicit and explicit contracts is the only merger motive; rather they argue that, even if takeover is motivated by other reasons, most of the shareholder's gain comes as a result of transfer from the stakeholders who have not considered changes in corporate operation when signing such contracts. Also, Lichtenberg and Siegel (1990) found that subsequent to a change in corporate ownership, there is around 4 percent reduction in the relative wages of labour. Brown and Medoff[9] (1991) also measured the post-takeover changes in wages and the level of employment after classifying corporate takeover activities in three types. They found that all the types of takeover activities have simultaneous and opposite effects on wages and employment. For instance their results suggest that if companies only purchase the assets of another without observing its workforce, the post-takeover wage bill increases by 5

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[9] The data in the study has three limitations: (i) Limited to Michigan and not representative of the entire nation; (ii)The data contain only a few number of the mega-acquisitions which dominate public attention; (iii) No distinction between friendly and hostile takeover. Hence, the findings do not apply to all types of corporate takeovers.

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percentage while the employment decreases by the same percentage. To sum, there is substantial support for the view that takeovers allow for a redistribution or a transfer of 'rents' from stakeholders to target shareholders.

What is more striking is that some scholars argue that the threat of takeover can cause inefficiency. Shleifer and Summer (1991) argue that the threat of takeovers affects current implicit contracting with both internal and external bodies. Externally, potential suppliers will not be willing to invest in 'relationship-specific capital' and hence the opportunities for long term contacting will be limited along with a reduction in possible efficiency. Internally, the hostile takeover threat might reduce the corporate investment in company-specific skills, which reduces corporate efficiency. Hence, just the threat of takeover could lead to an *ex ante* inefficiency. However, other scholars argue that the threat of takeover could lead to enhancing corporate performance. For instance, according to Fairburn and Kay (1989), the threat of takeover, encouraged P&O (shipping company) substantial management re-organisation and improvement in corporate performance.

Summing up, there is substantial support for the view that 'rent' expropriation from workers, suppliers and other corporate stakeholders are the sources of at least some of the 'takeover premium'. This suggests that the benefits obtained from breach of internal and/or external implicit contracts are redistributed rather than newly created values. This argument prompts a close look at sources of the alleged takeovers' gains.

2.1.5 Takeovers as Arbitrage Mechanism

Proponents of the notion that takeovers enhance efficiency, claim that takeovers act as an arbitrage mechanism. They argue that target

companies are usually under-valued (Ravenscraft and Scherer, 1987; Morck et al, 1989; Baumol, 1993). Hence, an outright purchase of an under-valued company prevents the economy and the public interest from experiencing a substantial resource mis-allocation. However, there is inconsistency in the findings of the empirical research.

Some scholars found that target companies are undervalued (Ravenscraft and Scherer, 1987; Morck et al, 1989); while other rejected the view (Lowenstein and Herman, 1988; Franks and Mayer, 1992). The rejection of the under-valuation theory is based on three grounds.

First, if under-valuation is indeed present, then being a takeover target with the accompanying close scrutiny should cause a correction in the share price even after a takeover defeat. Ravenscraft and Scherer[10] (1987) empirically found that in the event of failure of a tender offer, and while no second takeover is attempted, stock values tend to retreat towards their pre-takeover price. They therefore conclude that target firms cannot be depicted generally as being 'under-valued' by the stock market.

Second, other scholars' criticism of 'under-valuation theory' is based on the substantial increase in the value of the target company returns. By using option pricing theory, Bhagat et al (1987) showed that the returns during the announcement period of cash tender offers are 'too large' to be explained by incorrect valuation, hence, they rejected the 'under valuation' hypothesis.

Third, some argue that target firms cannot be depicted generally as being 'undervalued' by the stock market but rather that the under-valuation is related to the so-called 'random-walk' movement[11] which suggest that

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[10] They conducted a study on 6,000 acquisitions that occurred between 1950 & 1976 in the American manufacturing sector.
[11] The random-walk hypothesis imply that non-random patterns price behaviour could only arise from the imperfection of the pricing mechanism of the market.

movements in stock price do no follow any pattern, changes are rather random (Keane, 1983). Scherer (1988) argues that share price of the target firm could be randomly so low, that it motivates others to hunt it[12]. Lowenstein (1988) called this phenomenon, speculative 'bubbles', which he defined as the price movements of target firm having little relation to any reasonable expectations for the earning prospect of the firm. To conclude, some scholars argue that there are no under-valued shares, but rather the price of some shares are *randomly* low and hence takeovers do not necessarily act as an arbitrage mechanism.

2.1.6 Takeovers as Market Disciplinary Mechanism

Some scholars argue that takeovers and the threat of their occurrences are efficiency-enhancing mechanisms as they facilitate the replacement of inefficient management (Shleifer and Vishny, 1988). Indeed, Lichtenberg and Siegel (1987) found that firms that undergo change in ownership had a 4 percent lower productivity growth (total factor productivity) than the remaining firms in the same industries. However, in a survey of more than two hundred directors, Lowenstein (1988) found that 91 percent of directors believe that poor management is not a takeover motive[13].

A sceptical view is also taken by Shleifer and Summers (1991) who as we had the occasion to note, argue that the need to replace the original management is not because of their inefficiency but rather to facilitate breach of implicit contracts. Moreover, Baumol (1993) argues that managerial efficiency can not be measured as there is no exclusive measure of managerial performance that separates other influences which

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[12] The validity of this argument is based on the rejection of Efficient Stock Market Hypothesis (EMH).

[13] Also, 84 percent of directors attributed good management as one of the main attraction in assessing potential targets (Lowenstein, 1988).

effect productivity and the profitability of the firm. While, Kaplan (1987) argues that even if the takeover's disciplinary role is accepted, there is no means of assuring that the new management is more efficient than the old one (Cowling et al, 1986) or that their strategies will purely focus on maximisation of the 'absentee owners'[14]. In sum, these results weaken the arguments for takeover's disciplinary role.

Taken together, there are conflicting views about the efficiency of takeover. These views must be accurately weighted before reaching a clear conclusion. However, some scholars argue that corporate takeover will always result in some inefficiency and, thus, the question is not whether takeover mechanism enhances efficiency, but rather how much inefficiency it induces. Fairburn and Key (1989) argue that it is almost surely true that if one carefully investigates a large enough sample of mergers, all of these consequences will be found in varying proportions, and often simultaneously across different companies. The point is that parties involved in takeovers will not be equally affected. Being a winner or loser is essentially contingent upon takeover's real motive and the extent of the conflict of interest between the different parties. In the research reported in this thesis, we will examine takeover motives for the decision-makers. We will attempt to find if the highest paid director and all directors gain from increases in corporate acquisitive activities. We will also examine whether or not employees (non-managerial) benefit from increase in corporate acquisitive activities. The 'determinants'[15] of remuneration are discussed below.

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[14] Lowenstein (1988)

[15] Despite the use of the word remuneration 'determinants', no cause or effect relationship is implied. This point will be explicitly discussed in the next chapter.

2.2 Some 'Determinants' of the Managerial Remuneration

The economic literature does not yet converge on a unique set of factors that effect managerial remuneration. However, the commonly used quantitative factors can be classified into four categories, (1) acquisition, (2) corporate size, (3) corporate performance and (4) corporate governance. It is important to note that this is not a comprehensive set of the 'determinants' of senior management remuneration, as it does not account for non-quantitative, behavioural, individual or macro economic variables.

2.2.1 Corporate Acquisition

The essence of corporate acquisition is traditionally discussed in terms of enhancing the shareholder returns and assumes that managers will engage in takeovers only if it will maximise shareholder returns. Empirical research, however, found that while on average corporate takeover is a net zero present value investment for the acquiring firm shareholders[16], it enhances its senior management's financial returns (Firth, 1991). These findings imply that corporate acquisition could be used as a means to advance the private interests of managers over the interest of their shareholders[17]. The importance of studying the relationship between managerial remuneration and corporate acquisition could be made on three grounds. The first is that such a study would reflect the extent to which corporate takeovers maybe driven by optimising managerial self-

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[16] Jensen and Ruback (1983); Rosen (1992) for a review on the literature

[17] Gordon (1961), Marshall et al (1980), Amihud and Lev (1981), Smith and Watts (1982), Larcker and Balkcom (1983), Lev (1983), Lewellen et al (1985), Ravenscraft et al (1987), Shleifer and Vishny (1988), Morck et al (1990).

interest rather than maximising the welfare of the shareholders (Mikkelson and Ruback, 1985). The second is that it would provide empirical evidence of the extent to which current managerial remuneration schemes align the interest of shareholders and managers. Lastly, the study would provide a yardstick for measuring the effectiveness of managerial compensation plans in narrowing the conflicts of interests between the shareholders and managers in other investment decisions (Mikkelson and Ruback, 1985). A review of the literature findings on the relationship between corporate acquisition activities and directors remuneration is presented below.

There are a limited number of empirical studies on the relationship between managerial remuneration and acquisition. Using data of 160 companies, for the period 1985 and 1990, Conyon and Gregg (1994), found that the *basic* remuneration (salary plus cash bonus) of the highest paid director increases substantially if firms are engaged in takeover activities. Their results suggest that if firms were engaged in two or more takeovers in the previous three years, then the highest paid director's remuneration increased by approximately 8 percent per annum for three years. Other scholars used a broader measure of senior management remuneration, *total* remuneration, which is the sum of their *basic* remuneration and actual and potential gains from managerial share options, salary and cash bonus. Seward and Welsh (1995) conducted a study on 152 firms and found that CEO *total* remuneration is strongly related to both friendly and hostile acquisitions. This is in line with Abell et al (1994) findings, who conducted a study on 25 British companies in the period of 1986 through 1990 and found that corporate acquisition is an

important determinant of the top director's *total* remuneration. Furthermore, some scholars examined whether the impact of acquisition upon remuneration could be dependent on acquisition's impact upon corporate performance.

Firth (1991, 1980) extended his research to test whether the positive impact of acquisition upon senior management remuneration is related to the subsequent changes in the acquiring company's share price. The study (Firth, 1991) reports that senior management seems to benefit from acquisition activities irrespective of changes in the acquiring company's share price. Firth reports that the change[18] in remuneration for the highest paid director following a takeover bid is around £4832 for companies experiencing positive abnormal returns and £3917 for companies experiencing negative abnormal returns. However, the findings of an earlier study by Lambert and Larcker (1987) are not consistent with Firth's. They found that the impact of acquisition upon growth in managerial compensation and wealth[19], is dependent on the movements in the stock price of the acquiring firm. Their results suggest that there is no significant increase in senior management's[20] remuneration growth if the acquisition results in negative returns to the shareholders of the acquiring company. The inconsistency between Firth (1991, 1980) and Lambert and Larcker's (1987) findings could be attributed to the fact that the latter restricted their study to *large* acquisitions in the USA, while the former used a moderate measure of acquisitions in the UK. In summary the findings of the empirical research suggest that senior management's

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[18] The median.
[19] Measured as changes in executive compensation and changes in his/her stock holdings of the company.
[20] The top three executives

post-acquisition *basic* and *total* remuneration increases, but the effect of corporate performance upon this relationship is unclear.

The findings of these studies suggest that corporate acquisition activities may be driven by managerial self-interest, which does not necessarily imply that takeover activities are harmful to shareholders. However, there is a large number of scholars who suggest that the acquiring company profitability and share price decrease after acquisition[21]. Hence, the overall findings of the literature support the view that corporate takeovers decisions might be driven by managerial welfare and casts some doubts on the benefits of takeovers to the acquiring company shareholders.

In general, the empirical findings indicate that senior managers may pursue acquisition activities as a means to maximise their remuneration. The number of studies on this topic, however remains limited. The research reported in this thesis is an attempt to empirically examine the relationship between corporate acquisition activities and managerial remuneration.

2.2.2 Corporate Size

Corporate size has been found by many scholars as a primary 'determinant' of senior managerial remuneration[22]. Gregg et al (1993a),

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[21] Research based on UK data found that subsequent to takeovers, acquiring company profitability decreased (Utton, 1974; Meeks, 1977). Moreover, UK studies found that at best acquiring firm share price decreased at the announcement of takeover and this loss was not recovered in the subsequent months (Firth, 1976,1979,1980). Although American scholars found that some acquiring companies experienced stock price increase while other suffered a decrease (Dodd, 1980; Malatesta, 1983), Firth (1991) concluded that their evidence casts doubts on the profitability of takeover for the acquiring firm.

[22] The following empirical studies have found a positive and significant relationship between corporate size and senior executive remuneration: McGuire et al (1962), Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Hogan and McPheters (1980), Hirschey and Pappas (1981), Belkaoui (1990), Gregg et al (1993),Conyon and Leech (1994), Main et al (1994), Abell et al (1994). However,

found that the estimated elasticity of sales growth upon growth of the remuneration of the highest paid director is in the region of 0.14 to 0.20. Baker et al (1988) also found that a 10 percent growth in sales is statistically related to a 3 percent increase in managerial remuneration. While Cosh (1975) found that sales alone explain, on average, up to 49 percent of the variance in highest paid director's pay. These studies, along with others[23], concluded that corporate size is an indicator of managerial preference for absolute growth which in turn determines managerial remuneration.

Some scholars hypothesised that managers use corporate acquisitive activities as a rapid growth mechanism to increase their remuneration, irrespective of the impact of acquisition upon corporate performance. Indeed Reid (1968) empirically found that merger contributes more to corporate size than profitability which prompted him to conclude that takeover decisions might be driven by the mere reason of exploiting the advantages of a large organisation, specifically the subsequent increase in managerial remuneration. The research reported in this thesis examines this proposition by empirically regressing remuneration against corporate size, acquisition, performance and governance.

2.2.3 Corporate Performance

Economic theories of efficient pay suggest positively linking managerial remuneration with corporate performance (Baker et al, 1988) as a means to align managers' with shareholders' interests (Smith and Watts, 1982). There are two types of corporate performance measures, market and

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some researchers found no relationship between corporate size and managerial remuneration: Masson (1971)and Main (1991).

[23] Ibid.

accounting measures[24] and there is no consistent conclusion regarding their impact upon managerial remuneration[25].

Some studies measured corporate market performance by share price while others by shareholder returns. Abell et al (1994) employed the former measure and found that there is no relationship between the remuneration of both the first and second highest paid directors and the post-takeover share price of the acquiring company. However, Lewellen and Huntsman (1970) found that the market value of a firm's outstanding common stock is a major factor in the determination of executive remuneration level. Moreover, the evidence for the other measure of market performance, shareholder returns, are also inconsistent. Some scholars found that the acquiring shareholder returns are positively related to remuneration[26] while others found no grounds for such a relationship[27]. However, even where a link has been identified its magnitude seems to be extremely small. A UK study by Gregg et al[28] (1993) reports that, *ceteris paribus*, a 10 percent increase in shareholder returns predicts less than 1 pence (£0.0027) rise in managers' *basic* compensation[29] (salary and cash bonus excluding stock options). Also in

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[24] Corporate performance could also be measured by *relative* accounting or market performance measures. Refer to Antle and Smith (1986).

[25] The following studies found a positive relationship between executive remuneration and corporate performance: Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Firth (1980), Hirschey and Pappas (1981), Murphy (1985), Lambert and Larcker (1987), Deckop (1988), Belkaoui (1990), Gibbons and Murphy (1990), Ely (1991), Main (1991), Gregg et al (1993, in the main sample), Conyon and Leech (1994), Main et al (1994). The following studies found either a negative or a neutral relationship between executive remuneration and corporate performance: McGuire et al (1962), Hogan McPheters (1980), Kerr and Bettis (1987), Leonard (1990), Gregg et al (1993, in their 1983-88 sub-sample), Abell at al (1994).

[26] Lewellen and Huntsman (1970), Masson (1971), Murphy (1985), Abowed (1990), Main (1991), Gregg et al (1993 in their 1983-88 sub-sample), Conyon and Leech (1994), Main et al (1994).

[27] Lambert and Larcker (1987), Kerr and Bettis (1987), Gregg et al (1993 in their 1989-91 sub-sample), Abell et al (1994).

[28] The study included 300 large UK companies over the 1980's and early 1990's.

[29] Furthermore, the study found that for the period 1983-91 there is no relationship between directors' remuneration (excluding options) and corporate performance, whether measured using shareholder returns or earning per share. However, in the 1983-88 period, they found a positive and significant relationship.

the USA, Jensen and Murphy[30] (1990) found that for every $1,000 increase in shareholder returns, CEO *basic* compensation increases by $0.30 while CEO *total* compensation (salary and cash bonus including stock options) increases by $0.40; when allowance is made for managerial wealth holdings in the form of corporate shares, the overall lifetime impact raises to a modest $3.25. Previous studies therefore found that at best market performance is related to management remuneration but the magnitude of the effect is extremely small.

Profit is the most widely used accounting corporate performance measure. The empirical findings of the relationship between profit and managerial remuneration in the acquiring company are also inconsistent. O'Reilly et al (1988) found that there is a positive relationship between corporate profit and managerial remuneration. Hirschey et al (1981) also found that the profit has a significantly positive influence on managers remuneration in large organisation[31] . Hogan et al (1980) and Leonard (1990) however, found that profit is negatively related to managerial remuneration. One plausible cause for the difference in the findings of these studies is that each study measured corporate profitability differently.

In sum there is no clear conclusion on the relationship between managerial remuneration and accounting or market performance measures. There is a further disagreement between scholars on the appropriateness of the two measures. Opponents of market measures

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[30] Jensen and Murphy's (1990) study included 2213 CEOs listed in the 'Executive Compensation Survey' published in *Forbes* from 1974 to 1986. Their sample included 7750 observations.

[31] The following studies found a positive relationship between profit and managerial remuneration: McGuire et al (1962), Lewellen and Huntsman (1970), Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Hirschey and Pappas (1981), Lambert and Larcker (1987), Belkaoui (1990).

argue that they are imperfect proxies for the true managerial efforts as managers are unable to hedge the unsystematic risk associated with such measures (Murphy, 1985). While opponents of accounting measures argue that they could be manipulated to suit certain purposes (Jameson, 1990). To overcome these criticisms, some studies employed the two measures together[32]. In this study this practice is followed; accounting performance is measured by profit, while market performance is measured by annual average corporate share price or shareholder returns. The two alternative market performance measures are used in separate regression equations.

2.2.4 Corporate Governance

Some scholars argue that the formulation of managerial pay is ultimately a governance question (Conyon and Leech, 1994). Tricker (1984) argues that management is about running the business, and governance is about ensuring that it is run properly (Tricker, 1984). The existence of a governance body is therefore important for shareholders as the body monitors, evaluates and controls organisational agents, to insure that they act in the interests of the owners (Keasy and Wright, 1993). There is no consistency in the findings of the empirical research in this area, however, they seem to suggest that the relationship between governance and remuneration is dependent on the governance measure. The following section identifies the types of measurable governance factors and provides a review of the empirical findings for each type.

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[32] The following are some of the studies that employed both market and accounting corporate performance: Lewellen and Huntsman (1970), Masson (1971) , Lambert and Larcker (1987), Abowed (1990), Conyon and Leech (1994), Conyon and Gregg (1994).

The findings for the most commonly used measures of corporate governance are as follows,

* Studies suggest that there is no relationship between managerial remuneration and concentration of managerial stock ownership[33] ;

* Existence of executive option share plan seems not to have any impact on managerial remuneration[34] ;

* Managerial remuneration is depressed if the primary shareholders are insurance or pension fund companies[35] ;

* There is no compelling evidence regarding the relationship between managerial remuneration and the presence of a remuneration committee[36], number of non-executive directors on the board of directors[37], or whether or not the CEO is the chairperson[38].

Different measures of corporate governance therefore appear to have different relationship with managerial remuneration.

In this study we employed one measure of corporate governance, the ratio of non-executive directors to total directors on the board. As mentioned above, there is no conclusive evidence regarding the significance of the non-executive directors on shaping managerial remuneration. Conyon and Leech (1994) found that non-executives have a depressing effect on top director pay, while Main[39] (1991) found that each extra non-executive director on the board increases top executive pay by £4000.

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[33] (Conyon and Leech, 1994)
[34] (Conyon and Leech, 1994).
[35] (Conyon and Leech, 1994)
[36] (Main and Johnston, 1993)
[37] (Conyon and Leech, 1994; Main 1991)
[38] (Conyon and Leech, 1994; Main, 1991)
[39] Conyon and Leech (1994) employed basic remuneration of highest paid director ('hpd') while Main et al (1994) employed total remuneration of the 'hpd'. Unlike the former study, the latter one included

2.3 Conclusion

A discussion of the efficiency of takeover reveals that there are conflicting views regarding the impact of corporate acquisition activities upon shareholders and society at large. The debate revolves around six main themes. First, the difficulty in grasping and measuring 'synergetic' benefits. Second, the weaknesses of the methodology of the 'event studies'. Third, studies that found increases in post-takeover productivity were limited to takeovers where management is the buyer, and hence the reported increase in productivity cannot be generalised to all types of takeovers. Fourth, takeover is seen as a means of capturing private value by breaching implicit and explicit contracts with suppliers, workers and stakeholders. Fifth, although the role of takeovers as a market disciplinary mechanism cannot be unequivocally rejected, it is weakened by the presumption that an incumbent management is more efficient than the old one and that their strategies will focus on maximisation of shareholders' interests.

Indeed, there is substantial support for the view that takeovers are re-distribution rather than efficiency enhancing mechanisms. These arguments lead to questioning the motives for managers involvement in corporate acquisition activities. The hypothesis in this study is that managers are driven by maximisation of their own utilities when taking acquisition decisions as acquirers. As an attempt to examine this

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executive share options in the measure of remuneration. Lack of research in this area forces us to compare these two studies.

hypothesis in the study reported here, we examine the impact of corporate acquisition activities upon managerial remuneration, while controlling for other factors. The variables included in this study are measures of corporate acquisition, size, performance and governance. The majority of the literature points to the view that both increases in acquisition and corporate size enhance managerial remuneration. While increases in corporate performance has at best a positive but a small impact upon managerial remuneration. Finally, the findings on the impact of governance upon remuneration are conflicting and are largely dependent on the governance measure.

CHAPTER 3: <u>Research Concepts, Data, and Methodology</u>

The aim of this chapter is to outline the research concepts and describe the research methodology. The chapter is divided into two sections. The first contains a detailed description of the research objectives, hypothesis, variables, estimation strategy and transformation test. The second is concerned with two interrelated topics; the first is to solve the statistical problems encountered when modelling the regression equation and the second is to outline the modelling and analytical strategies used throughout the study.

3.1 <u>Research Objectives, Hypothesises, Period and Variables</u>

3.1.1 Research Objectives

The main aim of this research is to examine management motives behind merger and acquisition, with respect to their remuneration. Through understanding remuneration schemes and their motivational effect, the research reported in this thesis seeks to rationalise the decision to engage in corporate takeover activities. The doctrine is that motives behind merger and acquisition activities in public companies can be explained by the knowledge of changes and effects in remuneration and share option schemes received by the decision-maker(s). The research attempts to prove the existence (if any) and the size of remuneration premium to the highest paid director and the average paid directors from corporate acquisition activities. One aspect of highest paid director reward to which we draw particular attention, is the gain from executive share option schemes.

The study also aims to determine the impact of the corporate acquisition activities upon the work-force. The relationship between acquisition and the non-managerial (employees) remuneration, is therefore examined. The study would also examine the impact of the control variables - these are corporate size, performance and governance - upon both managerial and non-managerial remuneration. The following section defines the research hypothesis.

3.1.2 Research Hypothesises

The hypothesises of the research reported in this thesis are centred on the relationship between remuneration (managerial and non-managerial) and corporate acquisition activities, size, performance and governance. Accordingly, there are four hypothesises, each of which is described below, starting with the acquisition hypothesis.

Acquisition Hypothesis; controlling for other factors[40], there is a positive relationship between corporate acquisition activities and managerial remuneration (basic and total remuneration of the highest paid director, and average remuneration per director)[41]. If the hypothesis is accepted, then it could be inferred that managers might be driven by maximising managerial utilities when making acquisition decisions and that separation of ownership and control might have created the potential for management to pursue their self-interest.

Concerning the relationship between corporate acquisition and employee remuneration, the hypothesis is that, holding other factors constant[42],

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[40] These are measures of corporate size, performance and governance.
[41] The definitions of these variables will be discussed shortly.
[42] These are measures of corporate size, performance and governance.

there is a positive relationship between corporate acquisition activities and non-managerial remuneration. An acceptance of the hypothesis would provide empirical evidence that employees do benefit from corporate acquisition activities.

Corporate Size Hypothesis; controlling for other factors[43], there is a positive relationship between corporate size and managerial and non-managerial remuneration. An acceptance of the hypothesis would provide empirical evidence for sales maximisation managerial model by Baumol (1959) and Galbraith (1967) which suggests that managers are not necessarily constrained to act in the owners interest, but rather their self-interest. The tendency is to take actions that maximise corporate size, subject to attaining a survival profit level.

Corporate Performance & Governance Hypotheses; As a consequence of the conflicting views on the impact of corporate performance and governance upon remuneration[44], we do not have a precise hypothesis. Nevertheless, it would be interesting to look at the research results.

The results of the impact of corporate performance upon remuneration would indicate whether or not, managers and employees are rewarded or punished for changes in corporate performance. The results of the impact of governance on remuneration would highlight the capability of the governance measure in shaping managerial and non-managerial remuneration.

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[43] These are measures of corporate acquisition, performance and governance.
[44] As explained in the previous chapter.

The remaining part of this chapter outlines the boundaries of the investigation by defining the research variables and specifying the data period and sources.

3.1.3 Definition of The Research Variables

The full definitions of all the variables used in this study are presented in Appendix 3. 1. The following section, though, provides brief definitions. The research variables can be grouped into two categories, exogenous and endogenous.

The Endogenous Variables category consists of four measures of remuneration[45], these are

- Basic remuneration of the highest paid director;
- Total remuneration of the highest paid director;
- Average basic remuneration per director;
- Average basic remuneration per employee.

Basic Remuneration of the Highest Paid Director is the sum of the salary and cash bonus for the highest paid director as disclosed in the company accounts.

Total Remuneration of the Highest Paid Director is the sum of the basic remuneration and the actual and potential executive share option (ESO) gain[46] of the highest paid director, distributed over the exercisable holding period.

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[45] Used in different regression equations.

[46] Actual gain for shares granted and exercised during the research period is calculated as the difference between the exercise price and the market price on the exercising date. If options are granted but not exercised during the research period, and are 'in the money', then they are treated as potential gains.

Average Basic Remuneration Per Director, is the total directors' fees, emoluments for management services and pensions or pension fund contributions paid to, or on behalf of, directors, divided by the number of directors.

Average Basic Remuneration Per Employee, is the total wages and salaries of employees excluding directors, divided by the total number of employees.

The Exogenous Variables category consists of measures of corporate acquisition, size, performance and governance.

Corporate Acquisition Measures, This study employs two measures of corporate acquisition activities, total acquisition expenditure and acquisition rate[47]. *Acquisition expenditure* is the total amount spent on acquiring other companies excluding any cash received from the sale of subsidiaries[48]. If the cash received from the sale of a subsidiary is more than the total consolidation payment then companies where classified as 'assets stripping companies' and separated from the data. The rationale of the exclusion is that current returns could be attributed to financial management considerations, and not solely to the growth policies. *Acquisition rate* is the proportion of growth expenditure, used in acquiring

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The potential gain is calculated as the difference between the exercise price of the option and the market price of the share at the end of the research period, that is on 31 December 1992. This evaluation is used by Clinch (1991), Main and Johnston (1993) and Abell et al (1994).
[Refer to Appendix 3. 2 for explanation for not using the Black-Scholes model in valuing executive share options].
[47] These measures are employed in separate regression equations.
[48] This is the method that Datastream reports the 'Acquisition' measure.

other companies. It is calculated as the acquisition expenditure divided by the total growth expenditure[49]. The reason for using two measures of acquisition is to examine the sensitivity of acquisition's statistical significance to the measures of corporate acquisitiveness. It is important to recognise that the data contained companies that were both acquisitive and non-acquisitive.

Corporate Size Measures, Three measures of corporate size were employed in this study, these are

- Total sales;
- Number of employees; and
- Capital employed.

Total sales, is defined as the amount of sales of goods and services to third parties, relating to the normal activities of the company. *Number of employees,* is the number of domestic and overseas employees. *Capital employed,* reflects the full value of resources available for management during the year (Warren, 1990) and is defined as the sum of all non-current liabilities.

The reason for incorporating three measures rather than one is to enable us to compare our findings and to test whether the results are invariant to alternative corporate size measures.

Corporate Performance Measures, Both accounting and market performance measures are employed in this study. *Pre-tax profit,* is the accounting performance measure and according to Warren (1990) is the

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[49] Total growth expenditure is the sum of acquisition expenditure and the total expenditure on the purchase of new assets excluding the assets acquired from the subsidiaries.

most appropriate indicator of the overall business performance as it shows the amount of profit generated from the trading activities regardless of any exceptional items or tax changes (Warren, 1990). Market performance is measured by the annual *average share price* and *shareholder returns*[50]. The former is defined as the average of the annual aggregate daily closing share price; the latter is the sum of the current year's average share price and dividends, divided by previous year's share price. Market performance measures are used in separate regression equations.

The Governance Measure is the ratio of non-executive directors to total directors on the board of directors.

The relationship between the exogenous and endogenous variables is examined by employing multivariate regression equations. The variables were collected for a thirteen years period. The data period and sources are explained below.

3.1.4 Research Period and Data Sources

The main data included all the UK FT-ALL Share Index companies listed on the London Stock Exchange between 1980 and 1992, excluding UK banks, insurance companies, or UK property/hire purchase/insurance/ brokers, due to the different nature of their operations and hence probably different relations between the variables.

The data has been divided into four samples corresponding to the four types of endogenous variables explained above. Deletion of incomplete

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[50] To calculate shareholder returns for the period 1980 up to 1992, share price and dividend data were collected for the period 1979 up to 1992.

entries coupled with estimation of some of the missing data[51] resulted in the following number of companies and observations in each sample:

Table 3. 1: Number of Companies and Observations in Each Data Sample

Sample	Number of Companies	Number of Observation
Basic Remuneration for the Highest Paid Director	361	2831
Total Remuneration for the Highest Paid Director	79	600
Average Basic Remuneration Per Director	336	2761
Average Basic Remuneration Per Employee	266	1837

Table 3. 1 shows the number of companies and observations in each sample. As can be seen the total number of companies in the main sample is 361, all of which are included in the basic remuneration of the highest paid director sample, 79 are included in the total remuneration of the highest paid director sample, 336 and 226 are included in the average remuneration per director and per employee respectively. The table clearly shows that the total remuneration of the highest paid director sample contains a relatively small number of companies and observations; this is due to the limited data on executive share options[52]. The data was collected from four main sources, Datastream, company accounts, register of highest paid director share interest and a survey conducted by the researcher.

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[51] Refer to Appendix 3.3 for explanation of the deletion and estimation strategies. It is important to note that approximately only 1 percent of the data has been estimated.

[52] A questionnaire was sent to 545 companies requesting information on executive share options, only 79 (15 %) companies replied with completed forms or with a copy of the register of the highest paid director share interest.

It is important to note that the data is unbalanced in the sense of having a variable number of time-series observations per individual companies[53]. This allowed a much larger sample to be examined than would be the case if only balanced data is used. Furthermore, Box and Cox tests were applied to examine if there is a need to transform the data. The following section explores the transformation test.

3.1.5 Box-Cox Data Transformation Test

Box and Cox (1964) introduce a formal method of finding the most appropriate transformation of the endogenous variables to satisfy the normality assumption in regression. This method involves systematically computing the log-likelihood of a number of transformations to determine the transformation with residuals that would most likely come from a normal distribution (Kirby, 1993). Transformations are expressed as powers of the endogenous variable and for ease of interpretation, the powers between -2 and +2 are examined (Kirby, 1993). The data in each of the four samples is tested. [Refer to **Appendix 3. 4** for further explanation of the method].

The findings of the test suggest that there is no statistical need to transform the highest paid director remuneration (basic and total) and average remuneration per director and per employee. As a result no transformation is used on the research data[54]. The variables are used in a regression equation which manifests the relationship between remuneration and corporate acquisition, size, performance and governance.

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[53] The regression package used in this study allows estimates from unbalanced data.

[54] Refer to Appendix 3. 4 for graphical representation of the results.

3.2 The Untreated Regression Equation

The untreated regression equation is dynamic in nature, and is as follows

$$y_{it} = \alpha + \delta\, y_{i,t-1} + \beta\, [x]_{it} + \psi_t + u_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 3. 1}$$

where,

y_{it} Endogenous Variable for company i at time t

$[x]_{it}$ Vector of Exogenous Variables for company i at time t

ψ_t Year Dummies for each time period

u_{it} Error Term, ~IID

Thus,   t   Time Subscript, where t = 1 to 13

        i   Firm Subscript, where i = 1 to the

                        total number of companies in each

                        sample (Refer to Table 3.1 in this chapter)

where,

$$u_{it} = \mu_i + v_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 3. 2}$$

     μ_i Fixed firm-specific Effects; μ_i ~IID

     v_{it} 'Remaining' Random Disturbance; v_{it} ~IID; both v_{it} and μ_i are

           independent of each other and of themselves

The dynamic relationship is characterised by the presence of the lagged value of the endogenous variable, $y_{i,t-1}$ among the exogenous variables (Baltagi, 1995). Throughout the study, Arellano and Bond's (1988) Dynamic Panel Data regression package (DPD)[55] is used to estimate the regression parameters[56]. The package also provides solutions for some of

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[55] The package is written by in Gauss Language by Arellano and Bond in their 1988 paper and has been updated recently. To obtain the package, contact Dr. Steven Bond at either Nuffield College at University of Oxford or Institute of Fiscal Studies in London.

[56] 'DPD' package reports three types of results: One-step estimates with consistent t-statistic, one-step with robust heteroskedasticity and consistent t-statistics and two-steps estimates with robust heteroskedasticity and consistent t-statistics. The difference between the last two lies in that the two-steps estimates reports the most 'optimal' estimates proposed by Arellano and Bond (1991). However Arellano and Bond state that the estimates of the standard errors obtained with two step estimates could be biased downwards, so that t-statistic tends to be biased upwards. Therefore, when presenting the results, they suggest using the one-step estimates, which have heteroskedasticity consistent t-statistics.

the statistical problems encountered when modelling the regression equation. The following section defines the statistical problems and their remedies.

3.3 Statistical Problems and Solutions

Three statistical problems are associated with the use of the above proposed regression equation:

- Existence of fixed firm-specific effects, μ_i;

- Correlation between lagged endogenous variable entering as an exogenous variable, $y_{i,t-1}$, and the 'remaining' random disturbance, v_{it};

- Multi-collinearity between some of the exogenous variables.

The combinations of these problems make OLS estimators biased, inconsistent and inefficient[57] (Ostrom, 1990; Baltagi, 1995).

3.3.1 Fixed Firm-Specific Effects

Studies that use cross-sections of firms and hence treat firms as homogeneous, run the risk of obtaining biased results[58]. Murphy (1985) found striking differences in the sign and magnitude between the regression estimates using time-series and cross-section data. He argues that this indicates that it is important to control for fixed firm-specific effects when assessing remuneration 'determinants'. This prompted him to conclude that "previous cross-sectional estimates of the compensation-

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This method is followed by Nickell (1993) and was recommended by Dr. Bond for the data in this research.

[57] Refer to Appendix 3.5 for definitions of the statistical terms.

[58] Refer to Murphy (1985); Moulton (1986, 1987); Hajivassiliou (1987); Baltagi and Levin (1992) for empirical illustration of this point.

performance relationship are biased and misleading" (Murphy 1985, p.41). In this study we employed a first difference technique which is widely used[59] to eliminate fixed firm-specific effects. The following equation is an algebraic illustration of the regression equation after applying this treatment

$$\Delta y_{it} = \alpha + \delta\Delta \ y_{i,t-1} + \beta \ \Delta \ [x]_{it} + \psi_t + \Delta v_{it} \ ....$$ **Equation 3. 3**

Where,

Δ Indicates first difference

Therefore, the first difference technique eliminates fixed firm-specific effects. Moreover, using first differences is also a partial remedy for correlation between lagged endogenous variable and the 'remaining' differenced disturbance term, Δv_{it}.

3.3.2 Correlation between Lagged Endogenous Variable Entering as Exogenous variable and the 'Remaining' Disturbance Term

The inclusion of the lagged endogenous variable on the right-hand side of the regression equation suggests possible correlation between it ($\Delta y_{i,t-1}$) and Δv_{it}; as $y_{i,t-1}$ is obviously correlated with $v_{i,t-1}$. This correlation leads to biased estimates and does not disappear as sample size increases (Ostrom, 1990; Baltagi, 1995). This problem can be solved by using an instrumental variables technique[60] (henceforth IV) as $\Delta y_{i,t-1}$ can be instrumented by a variable that is strongly correlated[61] with $\Delta y_{i,t-1}$ and not correlated with Δv_{it} (Arellano and Bond, 1991, 1988; Baltagi, 1995). Early in the eighties Anderson and Hsiao (1981) suggested using $\Delta y_{i,t-2}$ or

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[59] Refer to Anderson and Hsiao (1981, 1982), Arellano and Bond (1988,1991), Gibbons and Murphy (1990), Nickell (1993), Gregg et al (1993), Curcio (1994), Baltagi (1995).

[60] Also called 'Covariance Technique'

[61] But not perfectly correlated otherwise the same problem will occur again,

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simply (levels) $y_{i,t-2}$ as instruments for $\Delta y_{i,t-1}$ as these instruments will not be correlated with Δv_{it}. However, recent studies have found that Anderson and Hsiao's IV estimation leads to consistent but not necessarily efficient estimates of the parameters in the model[62]. In fact a series of studies by Arellano and Bond (1988, 1991) and Arellano (1989) established a more efficient and consistent IV estimation. They found that as long as there is no second-order serial correlation for the disturbance term (Δv_{it}) of the first differenced equation [Equation 3.3], then all instruments beyond (t-2) are valid and lead to consistent, efficient and unbiased estimators. They suggested first differencing the model to eliminate μ_i and then to use different instrument sets at each time period. IV estimators based on this fact are essentially Arellano and Bond's Generalised Method of Moments (GMM) which could be employed through the DPD programme.

In this study all the reported results are tested for absence of second-order serial correlation by a test built in DPD regression package. All the reported results are free from this specific aspect. The results for the second-order test are reported for each regression in the regression results in appendices 4.1 to 7.8.

In sum, the estimated results are unbiased, efficient and consistent. However we are still faced with multi-collinearity between some of the exogenous variables.

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[62] Due to the following reasons: (1) The method does not make use of all the moment conditions (see Ahn and Schmidt, 1995); (2) the method does not account for the differenced structure of the residual disturbance Δv_{it}; (3) the method has a singularity point and very large variance over a significant range of parameters values (Arellano, 1989, 1990). These reasons are cited in Baltagi (1995).

3.3.3 Multi-collinearity

By definition corporate total sales is related to profit, while profit is related to both shareholder returns and share price. Refer to Appendix 3. 6 for a diagrammatic illustration of the relationship.

Profit and sales are both on the right hand side in the regression equation [Equation 3.3], therefore multi-collinearity is expected. This makes it difficult to properly interpret the statistical significance and signs of regression parameter estimates. The same argument is true for profit, shareholder returns and share price.

Correcting for correlation between these exogenous variables can be through instrumenting these variables (Arellano and Bond, 1988, 1991). We measured the effectiveness of this instrumentation by two methods,

- Examining the pair-wise correlation between the variables (before and after instrumentation).

- Using a test built in the DPD regression package.

Consequently, all the reported findings in this study are treated for the pair-wise correlation between these exogenous variables.

By providing solutions to these statistical problems, our estimated parameters are expected to be unbiased, efficient and consistent and free from multi-collinearity between the exogenous variables. The regression equation employed in this study measures the impact of growth of corporate acquisition upon growth of remuneration while controlling for growth of corporate size, performance and governance.

3.4 Treated Regression Equation

The regression relationship between remuneration and exogenous variables is explicitly represented by the following regression equation.

$$\Delta \text{Remuneration}_{it} = \alpha + \beta_1 \Delta \text{Remuneration}_{i,t\text{-}1} + \beta_2 \Delta \text{Acquisition Measure}_{it}$$
$$+ \beta_3 \Delta \text{Sales}_{it} + \beta_4 \Delta \text{Capital Employed}_{it}$$
$$+ \beta_5 \Delta \text{Number of Employees}_{it}$$
$$+ \beta_6 \Delta \text{Shareholders Interest Measure}_{it}$$
$$+ \beta_7 \Delta \text{Profit}_{it} + \beta_8 \Delta \text{Governance}$$
$$+ \psi_t + \Delta v_{it} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \textbf{Equation 3. 4}$$

v_{it} 'Remaining' Disturbance Error Term, ~IID

ψ_t Year Dummies, t = 1 to 13

Δ First Difference, where Δt= (t) - (t-1) and Δt-1= (t-1) - (t-2)

t   Suffix for time, t = 1 to 13

i   suffix for company, where i = 1 to the number of companies in each data sample (refer to Table 3.1 in this chapter)

This regression equation[63] (Equation 3.4) is used in the four data samples. In each sample the appropriate measure of remuneration is employed as the endogenous variable along with measures of corporate acquisition, size, performance and governance as the exogenous variables.

It is important to note that although the phrase 'remuneration determinants' is used throughout the study, in examining the impact of corporate acquisition, size, performance and governance upon remuneration, no cause and effect relationship is assumed or implied.

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[63] In the regression equation the word 'measure' is used to indicate that there is more than one measure for the variable. The measures are used in separate regression equations.

Rather the regression coefficient is used as an index of the degree of the statistical association between the endogenous and exogenous variables[64].

3.5 The Modelling Strategy

The main regression equation employed in this study [Equation 3.4] has been formulated with alternative modelling strategies in variables measures, time lag and 'stacking'.

Alternative Variables Measures, As we already had the occasion to note, in this study we employed alternative measures for corporate acquisitiveness and market performance (in separate regression equations). Corporate acquisitiveness is measured by 'acquisition expenditure' or 'acquisition rate'; while market performance by 'shareholder returns' or 'share price'. Refer to Appendix 3. 7 for an illustration of the versions of regression equations reflecting these aspects.

The Lag Effect, We have also explored various lagged structures with the view of getting a better understanding of the effects of time. Acquisition measures have been lagged by up to three periods while the 'remaining' exogenous variables are lagged by one period. The lags employed in this study are explicitly described in Appendix 3. 8.

Alternative 'Stacking' Techniques, 'Stacking' identifies the number of instruments used in the Arellano and Bond's GMM estimation technique.

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[64] It is conceivable to assume that, *ceteris paribus,* remuneration at time (t) is partly dependent on acquisition (or any other factor) at time (t-1). It is also not inconceivable to assume that, *ceteris paribus,* acquisition (or any other factor) at time (t+1) is partly dependent on remuneration at time (t). Theoretically, both arguments are sound, however, this simultaneous relationship is not examined in this study. Rather, this study examines the impact of the current and past acquisition upon current remuneration.

The exact instruments used in each type of stacking are explicitly described in Appendix 3. 9. We employed four types of stacking, 'full', 'partial 4', 'partial 3' and 'partial 2'. All of them employ all the moments' restrictions implied by the lack of second-order serial correlation in the differenced equation and are required for asymptotic efficiency. The difference lies in the number of instruments employed. In 'full stacking' we employed all[65] the moments' restrictions implied by the lags from 2 to 13 periods. While in partial 4, 3 and 2 we employed all the available moment restrictions implied by lags from 2 to 5, 2 to 4 and 2 to 3 periods respectively.

3.6 Analytical Strategy[66]

To ensure clarity, a uniform analytical strategy has been used in interpreting the results. The results for all variables are reported, whether found statistically significant or not, in Appendices 4.1 to 7.8. However, in analysing the results we will naturally discuss the findings for the statistically significant variables only. For simplicity we will follow one format in analysing the findings for these variables. The following is an algebraic representation of the analytical steps.

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[65] Our data has 13 time periods (1980-92).
[66] A brief description of the analysis strategy is included in all the results chapters.

Average Contribution of X_1 $= (\beta_1)$ (Average Growth of X_1) .... **Equation 3.5**

Average Contribution of X_1 $= ((\text{Contribution of } X_1) / $ .... **Equation 3.6**
as a Percentage of the (Average Remuneration
Average Remuneration Growth)) * 100
Growth

Average Contribution of X_1 $= ((\text{Contribution of } X_1) / $ .... **Equation 3.7**
as a Percentage of the (Average Remuneration Level))
Average Remuneration Level * 100

where, X_1 One of the Exogenous variables

Assumption: When exploring the relationship between two variable, a *ceteris paribus* holds for all the 'remaining' exogenous variables

We will start the analysis by presenting 'Partial' stacking regression coefficients and (t-statistics) for the variable under investigation, while holding other variables constant. This is followed by translating these numbers to actual effects, i.e. in sterling pounds. In addition, we employed three methods to aid in assessing the substantive significance of the contribution of the exogenous variable on remuneration. First, we report the 'average contribution of the exogenous variable' which is obtained by multiplying the average growth in the exogenous variable by its' regression coefficient (Equation 3.5). Second, we compute the 'the average contribution of the exogenous variable as a percentage of the average remuneration *growth*' (Equation 3.6). Third, we find the 'the

average contribution of the exogenous variable as a percentage of the average *level* of remuneration (Equation 3.7). The robustness of these findings are examined using 'full' stacking.

3.7 Summary of Research Concepts and Methodology

The main purpose of this study is to determine the extent and direction of the statistical association between corporate acquisition activities and remuneration (for the highest paid director, directors and employees), while controlling for corporate size, performance and governance. Furthermore, the study also incidentally attempts to establish the impact of corporate size, performance and governance upon remuneration.

The companies in this sample are extracted from LSE FT-All Share Index companies. These firms provide a reasonably good sample over a fairly long period of time (1980 through 1992). The research data is classified into four samples, corresponding to the four types of remuneration. The first sample is the *basic* remuneration of the highest paid director. The second sample is an extension of the first, and is the *total* remuneration of the highest paid director. The third and fourth samples are concerned with the average remuneration per director and per employee respectively. The untreated regression equation, however, is riddled with statistical problems which could invalidate conventional hypothesis testing. Arellano and Bond's Generalised Method of Moments coupled with the first differencing technique are used as a regression method and as a means to solve the statistical problems. Furthermore, the regression equation is formulated using alternative modelling strategies in variables measures, lags and in 'stacking'.

The next four chapters present the analysis of the four samples, starting with analysis of the basic remuneration of the highest paid director.

CHAPTER 4: 'Determinants' Of The Basic Remuneration Of The Highest Paid Director

The aim of this chapter is to develop an understanding of the acquisition motives and pay 'determinants' for the highest paid director (henceforth, 'hpd'). This entails examining the relationship between growth of basic remuneration of the 'hpd' as the endogenous variable, and growth of measures of corporate acquisition, size, performance and governance as the exogenous variables. In general, the multivariate regression findings indicate that growth of basic remuneration of the 'hpd' is significantly related to growth of acquisition and shareholder returns and is insignificantly related to growth of sales, number of employees, capital employed, profit, share price and governance.

In this chapter we will present and discuss these findings, starting with the impact of acquisition growth upon growth of the basic remuneration of the 'hpd'. The remaining variables will be discussed together as 'the other determinants'. These findings will be discussed after outlining the analytical strategy.

4.1 Analytical Strategy

The general regression results for this chapter are presented in appendices 4.1 to 4.4. Furthermore, in this chapter all regression equations are specified in 'first differences'. Consequently, variable coefficients indicate the effect of change in the 'first difference' of a given exogenous variable on the 'first difference' of an endogenous variable. However, throughout the chapter we will refer to 'the change in the first

difference' by the phrase 'growth'. This will assist in presenting the results. Furthermore, as all the findings in this chapter are related to growth of 'the basic remuneration of the 'hpd'', throughout the chapter we will refer to it as the 'remuneration'. We will start the analysis by exploring the relationship between acquisition and remuneration, while holding other factors constant.

4. 2 Corporate Acquisition and Basic Remuneration of the Highest Paid Director

As has been explained in the previous chapter, there are two measures of corporate acquisitive activities, 'acquisition expenditure' and 'acquisition rate'. In order to analyse the relationship between acquisition and remuneration we have divided this section into two parts. The first part, examines acquisition expenditure in relationship to remuneration. The second part presents the findings for 'acquisition rate'.

4.2.1 Acquisition Expenditure

Results suggest that, holding other factors constant, there is a positive but insignificant relationship between current acquisition expenditure growth and *current* remuneration growth (Appendix 4.1). However, when acquisition growth was pushed back in time, we found that there is a positive and significant relationship (Appendix 4.1). Next, we will manifest the significant findings.

'Partial stacking' results give 36.37453 (3.7983) as the acquisition growth coefficient and (t-statistic) respectively (Appendix 4.1). This implies that for every additional £1 million spent on acquisition expenditure growth in

the past one year, current remuneration growth increases by £36,375. Considering that the average acquisition expenditure growth at (t-1) is £206,440, (Table 4.2), then remuneration growth at (t) increases by £7,509 in relation to the average acquisition expenditure growth. This increase represents 32 percent of the average increase in remuneration growth and 5 percent of the average remuneration level (Table 4.3). The robustness of these findings has been tested using 'full' stacking (Appendix 4.1). The result is consistent with UK findings by Conyon and Gregg (1994), who reported that two or more corporate involvement in takeovers results in higher 'hpd' basic remuneration.

The acquisition expenditure and remuneration relationship is investigated further, by pushing data back in time by two years. This results in 30.22764 (3.1212) as the acquisition expenditure growth coefficient and (t-statistic) respectively (Appendix 4.1). This implies that for every £1 million spent on acquisition expenditure growth two years ago, current remuneration growth increases by £30,228. Considering that the average acquisition expenditure growth at (t-2) is £270,410, (Table 4.2). The remuneration growth at (t) increases by £8,174 in relation to the average acquisition expenditure growth at (t-2) (Table 4.3). This increase represents 34 percent of the average increase in current remuneration growth and 6 percent of the average remuneration level (Table 4.3). The robustness of these findings has been tested using 'full stacking' (Appendix 4.1).

Therefore, we could infer that there is one and two years lag acquisition effect on remuneration. Average acquisition expenditure growth

contributes just above 30 percent of the average increase in remuneration growth and at least 5 percent of the average remuneration level. These findings prompt a need for a fundamental re-think about directors' motives behind acquisition decisions. This directs us to carry more investigation and examine if the results are invariant to alternative measures of acquisition.

4.2.2 Acquisition Rate

Acquisition rate is the ratio between acquisition expenditure and total investment. It indicates the ratio of 'acquisitive growth' to 'total growth'. We ran the same regression equation replacing the 'acquisition expenditure' variable by 'acquisition rate'. Results indicate that one year lagged acquisition rate growth is positively and significantly related to current remuneration growth[67]. Next we explore these findings.

We find 45.81538 and (3.223899) as the acquisition rate growth coefficient and (t-statistic) respectively (Appendix 4.3). This indicates that for a one percent increase in previous year's acquisition rate growth, current remuneration growth increases by £46,815. Considering that the average acquisition rate growth at time (t-1) is 0.21 percent, (Table 4.2), then remuneration growth at (t) increases by £9,735 in relation to the average acquisition rate growth. This increase represents 42 percent of the average remuneration growth and 8.5 percent of the average remuneration

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[67] 'Partial' stacking results indicated that the *current* acquisition rate is negatively and significantly related to *current* remuneration; however, the 'Full' stacking results indicate an insignificant relationship.

level (Table 4.4). The robustness of the findings has been tested by using 'full' stacking (Appendix 4.3)[68].

Using UK data for the period 1974 through 1980, Firth (1991, 1980) found that change in senior management remuneration[69] of the acquiring company increases substantially after an acquisition. Interestingly, the senior managers seem to gain whether the acquiring firm experienced positive or negative abnormal returns subsequent to the takeover announcement. Firth (1991) found that the change[70] in remuneration of the highest paid director following a takeover bid is around £4832 for firms experiencing positive abnormal returns and £3917 for firms experiencing negative abnormal returns. In addition, using data of 160 companies, for the period 1985 and 1990, Conyon and Gregg (1994), found that 'hpd' *basic* remuneration increases substantially if firms are engaged in takeover activity. The results suggest that if firms are engaged in two or more takeovers in the past three years, then the remuneration of the 'hpd' increases by approximately 8 percentage per annum for three years. To conclude, the findings in this research are in line with UK empirical research.

In summary, results indicate that the one year lagged acquisition rate growth is positively and significantly related to current remuneration growth. Acquisition rate contributes around 42 percent of the average increase in remuneration growth and 8.5 percent of the average

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[68] Furthermore, the inconsistency in the statistical significance of the current and two years lagged acquisition rate growth in 'partial' and 'full' stacking results imposes a restriction on using the results.
[69] For the highest paid director remuneration and chairman.
[70] The median.

remuneration level. The findings here confirm that managers obtain lucrative enough rewards to pursue acquisition activities.

The findings indicate that both growth in acquisition expenditure and rate are related to growth in remuneration. This implies that the statistical significance of acquisition is not sensitive to the acquisition measure.

To conclude, there is enough evidence to support the view that there is a positive relationship between acquisition growth and remuneration growth. However, acquisition growth is not the only determinant of remuneration growth. We shall present the findings for some of the 'remaining remuneration determinants' next.

4.3 Other 'Determinants' of Basic Remuneration Of the Highest Paid Director

The aim of this section is to build on the acquisition results and to search for the significance of some additional remuneration 'determinants'. As explained in the previous chapter, along with the acquisition variable on the right-hand side of the main regression equation [Equation 3.4 in chapter 3], the 'remaining' exogenous variables can be classified into four categories. The first consists of one variable, lagged remuneration. The second is corporate size and consists of three variables; sales, number of employees and capital employed. The third is corporate performance and consists of accounting and market performance variables. The fourth is governance which consists of one 'governance' variable.

In discussing the findings, we will follow the same analytical strategy as in the above section. The main analysis will be based on 'partial' stacking; while 'full' stacking results will be used as robustness tests. We

start by examining the relationship between previous year's remuneration and current remuneration, while holding other factors constant.

4.3.1 Previous Year's Remuneration

We followed Conyon's (1994) and Main's (1992) unique remuneration formula, in that we included previous year's remuneration as one of the 'determinants' of the current year remuneration, β_1 $_{i,t-1}$ [Equation 3.4 in chapter 3]. Most previous studies have omitted this factor so implicitly imposing the restriction that β_1 $_{i,t-1}= 0$. This study tests the validity of such restriction in the data set. Results indicate that β_1 $_{i,t-1}> 0$ and that approximately 50 percent of the current remuneration is dependent on previous year's remuneration (Appendix 4.1). Robustness tests using 'partial' stacking confirm this finding (Appendix 4.1).

4.3.2 Corporate Size

Corporate size has been found by many scholars as a primary 'determinant' of senior managerial remuneration[71]. Cosh (1975) maintained that size alone could explain up to 49 percent of the variance in executive remuneration. While Gregg et al (1993) found that a 50 percent increase in corporate sales[72] leads to a 10 percent increase in 'hpd' remuneration. As we had the occasion to note, in this study corporate size is measured by three variables, total sales, total number of employees and capital employed. The reason for incorporating three

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[71] Refer to Roberts (1956), Baumol (1962,1967), McGuire et al (1962), Cosh (1975), Hirschey and Pappas (1981), Benston (1985), Gomez-Mejia et al (1987), Jensen and Murphy (1990), Gregg et al (1993).

[72] Sales are found to be statistically significant in the following studies: McGuire et al (1962), Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Hogan and McPheters (1980), Hirschey and Pappas (1981), Lewellen et al (1987), Belkaoui (1990), Gregg et al (1993), Conyon and Leech (1994), Main et al (1994).

measures rather than one is to enable us to compare our findings and also to test whether different corporate size measures have different effects on remuneration.

Results suggest that none of the growth of corporate size variables is statistically related to remuneration growth (Appendix 4.1). To examine the relationship further, we used different time lags and different stacking techniques. The results of all these tests confirmed the robustness of our original findings that there is no statistically significant relationship between current or one year lagged corporate size growth measures and current remuneration growth (Appendix 4.1-2.4).

This result is surprising as it is inconsistent with the findings[73] of the majority of studies in this area. However, there are two potential reasons for this difference. The first reason results as a consequence of not treating the firm-specific effects. Most of the previous researchers used a cross- section of firms and consequently treated firms as homogeneous. While, in our research we used panel data and controlled for firm specific effects. As we had the occasion to note, Murphy (1985) found striking differences in the sign and magnitude between the time-series and cross-sectional regression estimates. He argues that this indicates that it is important to control for firm and individual-specific effects when assessing remuneration 'determinants'. This prompted him to conclude that "previous cross sectional estimates of compensation-performance relationship are biased and misleading" (Murphy 1985, p.41). The second reason could be a consequence of exclusion of a relevant variable,

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[73] However, sales are found to be positively and statistically related to *total* remuneration of the 'hpd'. These findings will be discussed in the next chapter.

acquisition. Most of the previous research in this area did not include acquisition as one of the 'determinants' of directors' remuneration. This might have lead to biased results (Lewis-Beck, 1993, pp. 49). Since the previous research in this area does not allow corrections for the methodological failures just indicated, as opposed to the methods in this research, it is justifiable to conclude that the differences in the findings should be in favour of this study. Indeed, our findings are in line with two recent UK studies that relate 'hpd' remuneration to sales. Conyon (1994), who used panel data, controlled for firm-specific effects and included acquisition in the remuneration determinant equation, could not find any statistically significant relationship between 'hpd' remuneration and sales between 1988 and 1993. Also, Main (1991) conducted a study on 241 UK companies listed in Time 1000 in 1985. He found that corporate size, measured by both sales and total assets employed are insignificantly related to 'hpd' remuneration[74]. Also the insignificance of sales is in-line with US evidence by Boyd (1994) and Masson (1971).

Finally, the insignificance of corporate size measures avoids us from having to assess whether different corporate size measures have different effects on remuneration. In conclusion, results strongly suggest that current and one year lagged corporate size - measured by sales, number of employees and capital - is not statistically related to current remuneration.

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[74] His measure of 'hpd' remuneration excluded executive share options.

4.3.4 Corporate Performance

Economic theories have typically indicated that corporate performance plays at best a minor role in determining executive remuneration[75]. Corporate performance measures can be divided into two categories, market and accounting measures. In this study, accounting performance is measured by profit; while market performance is measured by annual average corporate share price or shareholder returns. Market performance measures are used in separate regression equations.

The regression results indicate that growth in profit and share price are positively[76] but insignificantly related to growth in remuneration (Appendix 4.1). To examine the relationship further, we used different time lags and different stacking techniques (Appendix 4.1). All findings are in line with the original one, in that accounting and market performance measures, represented by growth in profit[77] and share price, have no effect on remuneration growth (Appendix 4.1). Robustness tests confirm these findings. However, adding appreciation in share price to dividends, that is 'shareholder returns', reveals a statistically significant

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[75] The following studies found either a negative or no relationship between executive remuneration and corporate performance: McGuire et al (1962), Hogan McPheters (1980), Kerr and Bettis (1987), Leonard (1990), Main (1991), Gregg et al (1993), Conyon and Leech (1994), Main et al (1994). Although, Gregg et al (1993); Jensen and Murphy (1990) found that shareholders returns have a positive impact upon managerial remuneration, the magnitude is small.
Refer to Ciscel and Carroll (1980) and Rosen (1992) for a comprehensive review of the literature.
[76] Except in a few cases, the relationship is negative.
[77] Boyd (1994) found profit to be insignificantly related to CEO basic remuneration.

relationship. Results indicate that growth of shareholder returns is significantly related to growth of remuneration (Appendix 4.2).

'Partial stacking' results give 13.96116 (2.048549) as 'shareholders return' growth coefficient and (t-statistic) respectively (Appendix 4.2). This suggests that, *ceteris paribus*, a 100 percentage rise in current shareholder returns growth, results in £13,961 rise in current remuneration growth. Interestingly, in this sample the average shareholder returns growth has been decreasing by 0.02487 (Table 4.2). This implies that in this sample current remuneration growth decreased by £347 in relation to the average current shareholder returns growth. This decrease represents 1.5 percent of the average remuneration growth (Table 4.5) and 0.3 percent of the average remuneration level (Table 4.5). The robustness of this finding has been tested by using 'full' stacking. (Appendix 4.2). To investigate this relationship further, we pushed back all exogenous variables by one year. We found that inconsistency between the 'partial' and 'full' stacking results which imposed a restriction on using the results.

The market performance results are consistent with both British and American studies in this area. The majority of studies suggest that the impact of market performance on top executives basic pay is small[78]. In the UK Conyon and Gregg's[79] (1994) study who found that shareholder returns have a small but significant impact on top director remuneration. Their results showed that a doubling of shareholder returns raises

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[78] Refer to Jensen and Murphy (1990), Gregg et al (1993), Main and Johnston (1993), Conyon (1994), Conyon and Gregg (1994), Conyon and Leech (1994).

[79] Conyon and Gregg (1994) conducted a study on 160 UK companies between 1985 and 1990.

directors pay by 6%. Also, these findings[80] are in line with Main's (1991) study[81] who concluded that 'abnormal' and 'normal' shareholder returns are positively and significantly related to 'hpd' basic remuneration. Also in the USA, Jensen and Murphy[82] (1990) found that for every $1,000 increase in shareholder returns, CEO *basic* compensation increases by $0.30. Conyon and Leech[83] (1994) found that although 'hpd' remuneration is positively related to corporate performance, the estimated elasticity is very small, 0.018 (refer to footnote [84]).

In summary, there is enough evidence to support the view that growth of current remuneration is positively related to growth of current shareholder returns. However, the magnitude of contribution of shareholder returns to remuneration is small. Moreover, growth in both profit and share price are insignificantly related to remuneration growth.

4.3.5 Corporate Governance

Governance is measured by the ratio of non-executive directors to total directors on the board. 'Partial' stacking results suggests that there is no significant relationship between growth of current remuneration and current governance[85] (Appendix 4.1). The robustness of these findings is confirmed by the 'full' stacking results. The relationship is further investigated by pushing growth of governance back one year. The results

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[80] Also the following recent UK studies found a positive and a significant relationship between shareholder returns and 'hpd' basic remuneration: Gregg et al (1993), Conyon and Leech (1994)

[81] Main conducted a study on 241 UK companies listed in Times 1000.

[82] Jensen and Murphy's (1990) study included 2213 CEOs listed in the Executive Compensation Survey published in *Forbes* from 1974 to 1986. Their sample included 7750 observations.

[83] Conyon and Leech's study (1994) conducted a study on 294 UK companies between 1983 and 1986.

[84] Evaluated at the mean return on capital

[85] In 'partial' stacking, we found a statistical and positive relationship between one year lagged governance and current remuneration but only in the equation containing 'acquisition rate' as an exogenous variable.

of the 'partial' and 'full' stacking are inconsistent which imposes a restriction on using the results.

In this study the overall evidence suggests that current changes in the remuneration of the board do not influence current remuneration growth. It is difficult to compare these results with previous UK research mainly because there is no compelling conclusion from previous research. Conyon and Leech (1994) found that 'hpd' remuneration   is approximately 8 percent lower in companies which reported the existence of non-executive directors in their final accounts. While Main (1991) found that each extra non-executive director increases 'hpd' remuneration by £4,000.

The contrast between Conyon and Leech's, and results reported here could be attributed to the fact that each study defined non-executive differently. Furthermore, the disparity between the results reported here and Main's could perhaps be attributed to two inter-related reasons. The first is the different types of data used in the two studies. In this study we used panel data while in Main's study he used cross-section data. The second reason could be a consequence of not treating firm-specific effects in Main's study[86]. This study attempted to solve these problems and as a result found that growth of corporate governance plays no role in shaping the growth of the 'hpd' remuneration.

4. Conclusion

No doubt, these results and findings, like virtually all other statistical results in this area, will be the subject of some controversy. Nevertheless,

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[86] As explained earlier.

the methods of the study are sufficiently sophisticated and the results seem sufficiently strong to make it difficult to maintain that acquisition activities generate no monetary benefits to the 'hpd'; or that 'determinants' of basic remuneration of the 'hpd' are aligned with the propositions suggested by profit maximisation theory. Results indicate that growth in profit, average share price, sales, number of employees, capital employed and governance do not have any effect on growth in basic remuneration of the 'hpd'.

However, the findings strongly suggest that 'hpd' unambiguously and invariably benefit from corporate acquisition activities and current shareholder returns. Growth in last year's remuneration, lagged acquisition and current shareholder returns are positively related to growth in current 'hpd' remuneration. These findings suggest a need for more investigation of the 'determinants' of 'hpd' remuneration and prompt a fundamental re-thinking of directors' motives behind acquisition decisions. Towards this goal we examined the effect of acquisition and pay 'determinants' on a wider definition of 'hpd' remuneration. This is the subject of the next chapter.

CHAPTER 5: 'Determinants' Of The Total Remuneration Of The Highest Paid Director

The aim of this chapter is to broaden our understanding of the acquisition motives and pay 'determinants' for the highest paid director (henceforth 'hpd'). Towards this goal, we examined the effect of growth of acquisition and growth of pay 'determinants' on a wider definition of 'hpd' remuneration. Total remuneration is the sum of basic remuneration of the 'hpd' and the actual and potential gains from executive share options (henceforth 'ESO'). In this chapter the growth of total remuneration of the 'hpd' is regressed against growth of measures of corporate acquisition, size, performance and governance. In general, the multivariate regression findings suggest that growth of the total remuneration of the 'hpd' is significantly related to growth of acquisition and sales and is insignificantly related to growth of corporate performance and governance.

In this chapter we will present and discuss these findings, starting with the impact of acquisition growth upon growth of total remuneration of the 'hpd'. The remaining variables will be discussed together as 'the other determinants'.

5.1 Analytical Strategy

The regression results for this chapter are presented in appendices 5.1 to 5.4. Furthermore, in this chapter all regression equations are specified in 'first differences'. Consequently, variable coefficients indicate the effect of change in the 'first difference' of a given exogenous variable on the 'first difference' of an endogenous variable. However, throughout the chapter we will refer to 'the change in the first difference' by the phrase

'growth'. This will assist in presenting the results.Furthermore, as all the findings in this chapter are related to growth of the total remuneration of the 'hpd', throughout the chapter we will refer to it as the 'remuneration'. We will start the analysis by exploring the relationship between acquisition and remuneration, while holding other factors constant.

5.2   Corporate Acquisition and Total Remuneration Of the Highest Paid Director

In this study acquisition is measured by two variables 'acquisition expenditure' and 'acquisition rate'[87]. The reason for incorporating two measures is to examine whether the results are invariant to the alternative acquisition measure. Results suggest that, *ceteris paribus*, current and one year lagged acquisition expenditure growth are statistically related to total current remuneration growth; while current and one year lagged acquisition rate growth are insignificantly related to total remuneration growth.

5.2.1 Acquisition Expenditure

For the period 1982 to 92 results give -0.24707 (-3.71548) as the acquisition expenditure growth coefficients and (t-statistic) respectively (Appendix 5.1). This suggests that, *ceteris paribus*, for every £1 million increase in acquisition expenditure growth, remuneration growth decreases by £247. Considering that the average acquisition expenditure growth at time (t) is £3,698,900 (Table 5.2), then remuneration growth at (t) decreases by £914 in relation to the average acquisition expenditure growth. This decrease represents a 3 percent of the average growth of

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[87]Note that the two measures of acquisition are used in separate equations.

remuneration and 0.5 percent of the average remuneration level (Table 5.3). The robustness tests confirm these findings (Appendix 5.1).

To investigate the relationship between growth of both remuneration and acquisition expenditure, we pushed back acquisition expenditure growth by one year, while all the 'remaining' exogenous variables remained at time (t). The results suggest a positive and statistically significant relationship between last year's acquisition expenditure growth and current remuneration growth. *Holding other variables constant*, the test gives 0.511709 (3.150685) as the acquisition coefficient and (t-statistic) respectively (Appendix 5.1). This implies that a £1 million increase in acquisition expenditure growth is related to a £512 increase in total remuneration growth (Table 5.3). Considering that the average acquisition expenditure growth at time (t-1) is £15,674,680 then remuneration growth at (t) increases by £8,021 in relation to the average acquisition expenditure growth. This increase represents a 26 percent of the average growth of remuneration and 4 percent of the average remuneration level (Table 5.3). The robustness tests confirm these findings (Appendix 5.1). Furthermore, when acquisition expenditure and all the 'remaining' exogenous variables were pushed back by one year, the positive and significant relationship between acquisition expenditure and current remuneration remained positive and statistically significant (Table 5.3).

These results are in line with a UK study conducted by Abell et al (1994). The distinctive feature of this study is that it is the first UK study that examined the relationship between corporate acquisition activities and executive total remuneration where the latter includes executive share

options[88]. They found that the level of acquisition is a statistically significant determinant of the total remuneration of the 'hpd'. The findings are also in line with Seward and Welsh's (1995) who conducted a study on 152 firms and found that CEO wealth in the forms of executive share options is strongly related to both friendly and hostile acquisitions.

Therefore, we could conclude that current and one year lagged acquisition expenditure growth are statistically related to changes in current remuneration growth. These findings, along with previous chapter's, emphasise the need to re-think managers' motives behind acquisition decisions. The next section is our attempt to examine if the results are invariant to alternate measures of acquisition.

5.2.2 Acquisition Rate

We ran the same regression equations replacing the 'acquisition expenditure' variable by 'acquisition rate' [Equation 3.4 in Chapter 3]. Results suggest that current and one year lagged acquisition rate growth are insignificantly related to current total remuneration growth (Appendix 5.3). The robustness tests confirm these findings. (Appendix 5.3). This indicates that the statistical significance of the impact of acquisitions is sensitive to the measure of acquisitiveness used. These findings, however, do not weaken the acquisition expenditure results as the robustness tests confirm the statistical significance of the relationship between acquisition expenditure growth and total remuneration growth.

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[88] Their sample included 25 UK-based companies who were active in acquisition during 1986-90 period. The study could be criticised for using a small sample.

In summary, results indicate that there is a statistically significant relationship between growth of acquisition expenditure and growth of the total remuneration of the 'hpd'. Results suggest that current remuneration decreases by just below £250 for every £1 million increase in acquisition expenditure growth. However, during the second acquisition year (t-1) 'hpd' start benefiting from increase in acquisition expenditure growth as for every £1 million increase in growth of acquisition expenditure, growth of total remuneration of the 'hpd' increases by just above £500. Furthermore, we found that the statistical significance of acquisition is sensitive to the acquisitiveness measure. When acquisition rate rather than acquisition expenditure is used, the results reveal that growth of acquisition rate and total remuneration are insignificantly related. However, acquisition is not the only determinant of remuneration. Next, we explore some of the 'remaining determinants' of remuneration growth.

5.3 'Other Determinants' of Total Remuneration of the Highest Paid Director

The aim of this section is to build on the acquisition results and to search for the significance of some additional 'determinants' of the remuneration. Along with the acquisition variable on the right-hand side of the main regression equation [Equation 3.4 in chapter 3], the 'remaining' exogenous variables can be classified into four categories. The first consists of one variable, lagged remuneration. The second is corporate size and consists of three variables; sales, number of employees and capital employed. The third is corporate performance and consists of accounting and market performance variables. The fourth is governance which consists of one 'governance' variable.

In discussing the findings, we will follow the same analytical strategy as in the above section. So the main analysis will be based on 'partial 3' stacking; while 'partial 2' stacking results will be used as robustness tests. We start by examining the relationship between previous year's remuneration and current remuneration.

5.3.1 Previous Year's Remuneration

Results indicate that current remuneration growth is not statistically dependent on previous year's remuneration growth (Appendix 5.1). Robustness tests confirm this finding (Appendix 5.1). This is perhaps expected, considering that there is no set pattern in exercising the executive share option. The interpretation is supported by the finding that the fixed part of remuneration, basic remuneration, is statistically dependent on the previous year's basic remuneration (Appendix 4.1).

5.3.2 Corporate Size

Corporate size has been found by many scholars as a primary determinant of senior managerial remuneration[89]. In this study corporate size is measured by three variables, total sales, total number of employees and capital employed. Incorporating different measures will enable us to compare our findings and to test whether different corporate size measures have different effects on remuneration of the 'hpd'. Results suggest that, *ceteris paribus*, current and one year lagged sales growth are significantly related to current remuneration growth. While current and

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[89] Refer to Roberts (1956), Baumol (1962,1967), McGuire et al (1962), Cosh (1975), Hirschey and Pappas (1981), Benston (1985), Gomez-Mejia et al (1987), Jensen and Murphy (1990), Gregg et al (1993). Note that most of these studies examined *basic* rather than *total* managerial remuneration. The studies, however, could be used as a surrogate to *total* remuneration due to the limited number of studies on the impact of corporate size upon total remuneration.

one year lagged growth of both 'number of employees' and 'capital employed' are insignificantly related to current remuneration growth.

Sales The main results give 0.178979 (3.147312) as the current sales growth coefficients and (t-statistic) respectively (Appendix 5.1). This suggests that, *ceteris paribus*, a £1 million increase in current sales growth is related to £179 increase in current remuneration growth. Considering that the average sales growth at time (t) is approximately £114 million (Table 5.2), then remuneration growth at (t) increases by £20,471 in relation to the average sales. This increase represents a 59 percent of the average growth of remuneration and 11 percent of the average remuneration level (Table 5.4). The robustness tests confirm these findings (Appendix 5.1).

To investigate the total remuneration growth and sales growth relationship further, we pushed back sales and all the remaining exogenous variables by one year while acquisition was pushed by two years. The result suggests a positive and statistically significant relationship between last year's sales growth and current remuneration growth. *Holding other variables constant,* the test gives 0.120179 (2.310032) as the sales growth coefficient and (t-statistic) respectively (Appendix 5.1). This implies that a £1 million increase in previous year's sales growth is related to a £120 increase in current total remuneration growth (Table 5.4). Considering that the average sales growth at time (t-1) is approximately £124 million, then remuneration growth at (t) increases by £14,876 in relation to the average sales growth. This increase represents 38 percent of the average growth of remuneration and 8 percent of the average remuneration level (Table 5.4). The robustness tests confirm these findings (Appendix 5.1).

Comparing the impact of acquisition growth upon remuneration growth with the impact of growth of sales upon growth of remuneration, reveals that the increase in remuneration growth generated from acquisition growth is approximately 300 percent more than increase generated from sales growth. Results suggest that for every £1 million increase in acquisition expenditure growth, remuneration growth increases by £512 (section 5.2.1 above), while a £1 million increase in sales growth, increases remuneration growth by £179 (section 5.3.2).

These findings are in line with US evidence relating senior executive remuneration to sales. Murphy (1985) included gains in executive share options in the executive remuneration measure. He conducted a study on 500 executives from 73 manufacturing industries and found that sales is an important determinant of executive remuneration[90]. Also, the findings are in line with a recent UK study by Main et al (1994). Their measure of 'hpd' remuneration included gains from executive share options. They found that sales are statistically and positively related to 'hpd' remuneration. Furthermore, reviewing the literature on takeover motives, Lev (1983) found that most conglomerates engage in takeover activities, solely, for growth; he called this phenomenon 'growth for growth'[91]. Nordhaus (1982) also compared managers who initiate takeovers activities to politicians as both "like to build empires" (1982, pp.3).

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[90] Murphy's study is not directly related to this study for two reasons (1) Murphy's study concentrated on manufacturing industry only while this study is concerned with a wider selection of industries; (2) Murphy's study examines the executives remuneration while ours is concerned with 'hpd' remuneration.
[91] This finding, however, did not lead him to specify decisively that managerial motives drive takeovers decisions, rather he concluded that he holds more support for the managerial utility than the profit maximisation hypothesis.

In summary there is enough evidence to support the hypothesis that sales play an important role in determining remuneration. The next section explores the relationship between remuneration and the other measures of corporate size.

Number of Employees and Capital Employed Along with all the above mentioned exogenous variables, growth of both 'number of employees' and 'capital employed' are regressed against remuneration growth. The main findings suggest that current and one year lagged growth in number of employees and capital employed are insignificantly related to current remuneration growth (Appendix 5.1). The robustness tests confirm this result (Appendix 5.1).

To examine if the three measures of corporate size have different effects on remuneration we looked at their statistical significance and sign. The overall results indicate that sales growth is the only corporate size measure that has a statistically significant relationship with remuneration growth. This implies that studies must be specific when reporting their findings. Scholars must limit their conclusion to the corporate size proxy used in their study and not generalise their conclusion to all corporate size proxies. Concerning their signs, the insignificance of 'capital employed' and 'number of employees' imposes a restriction on using the result.

To conclude, results indicate that the current and one year lagged 'sales' growth have positive and significant relationship with remuneration growth. While growth of 'number of employees' and 'capital employed'

have a negatively and insignificant relationship with remuneration growth.

5.3.3 Corporate Performance,

As we had the occasion to note, economic theories of efficient remuneration predict a positive relationship between executive pay and corporate performance. There are two types of corporate performance measure, accounting and market measures. In this study, growth of profit is used as the accounting measure while growth of share price or shareholder returns are used as the market performance measures. Market performance measures are used in separate equations.

The main results suggest that there is no statistical relationship between any of the current or lagged growth of the corporate performance measures and growth of remuneration (Appendix 5.1). The robustness tests confirm these findings (Appendix 5.1).

These results are in contrast with Murphy's (1985), who conducted a study on 73 American manufacturing industry and found that shareholder returns are an important determinant in executive compensation. It is difficult to reject Murphy's findings because of the statistical competence of his method, however, the inconsistency between the findings of this study and Murphy's could be attributed to the fact that the data in the latter study is from the American manufacturing sector during the mid sixties up to the beginning of the eighties, while the former study is concerned with the a wide range of British industries from the beginning of the eighties up to the beginning of the nineties. However, Main et al (1994) used UK data from a wide base of industries for the second half of the eighties period, and the results showed a statistically significant

relationship between changes in total remuneration of the 'hpd' and changes in shareholder returns (Main et al, 1994). The inconsistency between the results in this study and Main et al's could be a consequence of not treating firm-specific effects in the latter. Most of the previous scholars used a cross-section of firms and consequently treated firms as homogeneous. In our research we used panel data and controlled for firm-specific effects. As has been explained in the previous chapter, Murphy (1985) found striking differences in the sign and magnitude between the time-series and cross-sectional regression estimates. He argues that this indicates that it is important to control for firm and individual-specific effects when assessing remuneration 'determinants'. It is justifiable, therefore, to conclude that the differences in the findings should be in favour of this study. Indeed, our findings are in line with a UK study by Abell at al (1994) who controlled for fixed-firm-specific effects and found that for the period 1986 through 1990, the percentage change in the first and second 'hpd' remuneration plus option gain is not significantly related to percentage changes in share price or profitability. Furthermore, even the economic research that reports a statistically significant relationship between the 'hpd' remuneration and shareholder returns, universally found that the estimated elasticity is quantitatively very small (Murphy, 1985; Main et al, 1994; Conyon and Gregg, 1994).

In sum, the findings in this research are in line with some of the UK empirical research which found that there is no statistical relationship between any of the current or lagged growth of the corporate performance measures and growth of remuneration. These findings prompt us to reject the view that executive share options are used as a tool to align directors and shareholders' interests. Taken together these findings implicitly

question the substance of executive share options and performance pay-related schemes.

Furthermore, these findings provide empirical evidence of Egginton et al's (1993) claim of the inadequate level of disclosure of information regarding share options in the UK. Our research supports proponents of the view that there is a need to provide more comprehensive and regular information about executive share options schemes.

5.3.4 Corporate Governance

Governance is measured by the ratio of non-executive directors to total directors on the board. The inclusion of governance in the regression equations is aimed at examining whether the institutional design of the board of directors has a significant effect on executive remuneration. The main findings suggest that there is no statistical relationship between remuneration growth and current or one year lagged governance growth (Appendix 5.1). The robustness tests confirm these findings (Appendix 5.1). Therefore, the evidence suggests that non-executives do not play a role in shaping remuneration.

Lack of research on the impact of non-executive directors upon total remuneration of the 'hpd' (which includes executive share options) forces us to use the findings based upon the nearest surrogate which is the basic remuneration of the top executive. From a survey of the limited literature, it was found that there is yet no compelling evidence regarding the significance of the non-executive directors on shaping senior

remuneration. Conyon and Leech[92] (1994) found that non-executives have a depressing effect on top director pay, while Main (1991) found that each extra non-executive director on the board increases top executive pay by £4000. The inconsistency between the results could be attributed to the fact that each of the studies, including this one, have measured the non-executive role differently and consequently different results were obtained.

To summarise, the empirical finding in this study supports the view that non-executives might be the chairman's 'buddies' over time (Cadbury, 1992), as the results suggest that they do not play any significant role in shaping remuneration of the 'hpd'. These findings stress a need to sharply define the role of the non-executive directors and improve the management's accountability.

5.4   Conclusion

This chapter has attempted to determine whether the sum of cash salary, bonuses and options gains received by the 'hpd' are related to corporate acquisition, size, performance and governance. Results suggest that growth of current acquisition expenditure is negatively related to growth of current remuneration, while growth of last year's acquisition expenditure is positively related to growth of current remuneration. However, the positive acquisition contribution in the second acquisition year is double the decrease in the first acquisition year. Furthermore, we found that the statistical significance of acquisition is sensitive to the acquisitiveness measure. When acquisition rate rather than acquisition expenditure is used, the results reveal that acquisition rate and total

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[92] Conyon and Leech employed salary and bonus as 'hpd' remuneration while Main (1991) employed total remuneration of the 'hpd' which consisted of salary, bonus and share option. Lack of research in

remuneration are insignificantly related. This implies that it is important to define the acquisition measure but does not weaken the acquisition expenditure findings. Therefore, the robustness of the relationship between acquisition expenditure and remuneration implies that 'hpd' might be driven by maximising managerial utilities when making acquisition decisions.

Furthermore, the findings suggest that corporate size, measured by sales growth, has a positive effect on growth of remuneration. However, the increase in remuneration generated from acquisition growth is over and above (approximately 300 percent more) the increase generated from sales growth. Also, results reveal that growth in 'number of employees 'and 'capital employed' are insignificantly related to remuneration growth. This provides empirical evidence that sales growth is an important determinant of remuneration growth. Once again we need to point to the fact that scholars must be careful when reporting their conclusions regarding the statistical significance of corporate size proxies.

Our results support the view that it is difficult for shareholders and other investors to link the financial gains made by directors from share option scheme to corporate performance. As the findings in this study suggest that accounting and market corporate performance, measured by growth of profit, share price and shareholder returns, are insignificantly related to remuneration growth. These findings question the effectiveness of executive share options and performance-related pay schemes.

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this area forces us to compare these two studies.

The findings suggest that non-executive directors do not play a role in determining managerial remuneration. This provides empirical support for the need to implement one of the Cadbury Report (1992) recommendations that the composition of the board of directors must be directed towards improving management's accountability.

Taken together, these findings implicitly point to a need to regulate the relationship between corporate takeover activities and executive share option schemes. Also the findings question the effectiveness of application of performance-related-pay schemes for executives. Furthermore, there is a need to sharply define the non-executive role. These recommendations and queries are hoped to be the first step in solving the agency problems that exist between shareholders and managers.

CHAPTER 6: 'Determinants' Of Average Remuneration Per Director

The aim of this chapter is to develop an understanding of the acquisition motives and pay 'determinants' for an average paid director in a public corporation. This entails examining the relationship between growth of average remuneration per director as the endogenous variable, and growth of measures of corporate acquisition, size, performance and governance as the exogenous variables. The multivariate regression findings suggest that growth of average remuneration per director is positively and significantly related to growth of acquisition rate and sales and is insignificantly related to growth of corporate performance and governance.

In this chapter we will present and discuss these findings, startingwith the relationship between acquisition growth and growth of average remuneration per director, the 'remaining' variables will be discussed together as 'the other determinants'. Before presenting the results, however, we will outline the analytical strategy.

6.1 Analytical Strategy

The general regression results are presented in appendices 6.1 to 6.4. In this chapter all regression equations are specified in 'first differences', consequently, variable coefficients indicate the effect of change in the 'first difference' of a given exogenous variable on the 'first difference' of an endogenous variable. However, throughout the chapter we will refer to 'the change in the first difference' by the phrase 'growth'. This will assist in presenting the results. Furthermore, as all the findings in this chapter

are related to growth of the 'average remuneration per director', throughout the chapter we will refer to it as the 'remuneration'[93]. We will start the analysis by exploring the impact of the acquisition growth upon remuneration growth, while holding other factors constant.

6.2 Corporate Acquisition and Average Remuneration Per Director

As we had the occasion to note, in this study we employed two measures of corporate acquisitive activities, 'acquisition expenditure' and 'acquisition rate'. To analyse the relationship between acquisition and remuneration we have divided this section into two parts. The first part, examines the impact of growth of acquisition expenditure upon growth of remuneration. The second part explores the findings for 'acquisition rate'.

6.2.1 Acquisition Expenditure

This section examines the relationship between growth of remuneration and growth of acquisition expenditure. The main results using 'partial' stacking suggest that, *holding other factors constant*, current remuneration growth is positively and significantly related to current acquisition expenditure growth but is insignificantly related to one year or two years lagged acquisition expenditure growth (Appendix 6.1). The robustness tests, using 'full' stacking suggest that both current and one year lagged acquisition expenditure growth are insignificantly related to current remuneration growth (Appendix 6.1). The inconsistency of the statistical significance of acquisition expenditure growth in 'partial' and 'full' stacking results imposes a restriction on using the result and on

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[93] Unless otherwise stated

reaching a clear conclusion of the impact of acquisition growth expenditure upon remuneration growth[94]. In an attempt to reach a conclusion of acquisition impact on remuneration, a different measure of corporate acquisition is employed which is acquisition rate. In the next section we explore the impact of the growth of acquisition rate upon growth of remuneration.

6.2.2 Acquisition Rate

Acquisition rate is the ratio between acquisition expenditure and total investment. It indicates the ratio of 'acquisitive growth' to 'total growth'. Results indicate that, *ceteris paribus*, current remuneration growth is insignificantly related to current or one year lagged 'acquisition rate' growth but significantly related to *two years lagged* 'acquisition rate' growth (Appendix 6.3). Next, we explore these statistically significant findings.

'Partial stacking' results give 5.302643 and (2.51) as the two years lagged acquisition rate growth coefficients and (t-statistic) respectively (Appendix 6.3). This suggests that,*ceteris paribus*, a one percent increase in acquisition rate growth at (t-2) is statistically associated with £5,303 increase in remuneration growth at (t). Considering that the average acquisition rate growth is 3.87536 percent, (Appendix 6.2), then the current remuneration growth increases by £2,055 in relation to the average acquisition rate growth in this sample. This increase represents 18 percent of the average remuneration growth and 3 percent of the average

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[94] However, when *average* remuneration per director is replaced by *total* of basic remuneration for *all* directors, the findings reveal a statistically significant relationship of acquisition expenditure in both 'partial' and 'full' stacking (Table 6.5).

remuneration level (Table 6.3). The robustness of these findings has been tested by using 'full' stacking (Table 6.3).

In summary, results indicate that two years lagged acquisition rate growth is positively and significantly associated with current remuneration growth. While current and lagged acquisition expenditures growths are insignificantly related to remuneration growth.

The finding that growth of acquisition rate, and not necessarily acquisition expenditure growth is an important determinant of remuneration growth, could suggest that the statistical significance of corporate acquisitive activities is sensitive to the measure of acquisition. However, in the main findings, 'partial' stacking, suggest that both acquisition rate growth and expenditure growth are statistically significantly related to remuneration growth. Robustness tests, using 'full' stacking', confirm the statistical significance for 'acquisition rate' growth only. So the inconsistency of the statistical significance of the two measures of acquisition is associated with the robustness tests and not the main tests. Therefore, the inconsistency in the statistical significance of the two acquisition measures does not stem from the sensitivity of the acquisition measure but rather from the strict restrictions imposed in this study. Therefore, in this sample the significance of acquisition is not necessarily sensitive to the measure of corporate acquisitiveness. The statistical relation between growth of acquisition rate and growth of remuneration is clearly significant.

Lack of research on the 'determinants' of average remuneration per director (particularly with respect to corporate acquisition activities) forces us to use the findings based upon the nearest surrogate which is the remuneration of the top executive. Using UK data for the period 1974 through 1980, Firth (1991, 1980) found that change in senior management remuneration of the acquiring company increases substantially after an acquisition. Interestingly, the senior managers seem to gain whether the acquiring firm experienced positive or negative abnormal returns subsequent to the takeover announcement. Firth (1991) found that the change[95] in remuneration for the highest paid director and chairman following a takeover bid is around £4,832 and £4,169 respectively for firms experiencing positive abnormal returns and £3,917 and £3,263 respectively for firms experiencing negative abnormal returns.

Firth's findings are in contrast with Lambert and Larcker's (1987) study who examined 35 large corporate acquisitions in the USA for the period 1976 through 1980. They found that in the acquiring company, the growth of managerial compensation and wealth[96], subsequent to corporate acquisition, is dependent on the acquisition's effect on the stock price of the acquiring firm. Results suggest that there is no significant increase in senior management's remuneration (the top three executives) if the acquisition resulted in negative returns to the acquiring shareholders. The inconsistency between Firth (1980, 1991) and Lambert and Larcker's (1987) findings could be attributed to the fact the latter restricted their study to *large* acquisitions in the USA, while the former used a moderate measure of acquisitions in the UK. In sum, the findings in this research are in line with UK empirical research.

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[95] Measured at the median.
[96] Measured as changes in executive compensation and changes in the stock holdings.

To conclude, the findings suggest that directors may well pursue acquisition activities as a means to maximise their remuneration. Results suggest that growth of acquisition rate is positively and significantly associated with growth of remuneration with two years lag between completion of acquisition and the increase in remuneration growth. Furthermore, acquisition growth is not the only determinant of remuneration growth. The next section explores the findings for some of the 'remaining pay determinants'.

6.3 'Other Determinants' of Average Remuneration Per Director

The aim of this section is to build on the acquisition results and to search for the statistical significance for some of the 'remaining remuneration determinants'. Along with the acquisition variable on the right-hand side of the regression equation (Equation 3.4 in chapter 3), the 'remaining' exogenous variables can be classified into four categories. The first consists of one variable, lagged remuneration. The second is corporate size and consists of three variables; sales, number of employees and capital employed. The third is corporate performance and consists of accounting and market performance variables. The fourth is governance which consists of one 'governance' variable.

In discussing the findings, we will follow the same analytical strategy as in the above section. So the main analysis will be based on 'partial' stacking; while 'full' stacking results will be used as robustness tests. We start by examining the relationship between previous year's remuneration and current remuneration, while holding other factors constant.

6.3.1 Previous Year's Remuneration

Studies that omitted this factor implicitly impose a restriction that growth of previous year remuneration has no effect on current remuneration. This study tested the validity of such restriction and found that,*ceteris paribus,* approximately 63 percent of current remuneration growth is dependent on previous year's remuneration growth (Appendix 6.1). Robustness tests using 'partial' stacking confirm these findings. Therefore, current remuneration growth is largely dependent on previous year's remuneration growth.

6.3.2 Corporate Size

Corporate size has been found by many as a primary determinant of senior managerial remuneration[97]. Cosh (1975) maintained that size alone could explain up to 49 percent of the variance in executive remuneration. In this study corporate size is measured by three variables, total sales, total number of employees and capital employed. The reason for incorporating three measures rather than one is to enable us to compare our findings and to test whether different corporate size measures have different effects on remuneration. The results suggest that sales growth is significantly related to remuneration growth while growth in 'number of employees' and 'capital employed' are insignificantly

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[97] Refer to Roberts (1956), Baumol (1962,1967), McGuire et al (1962), Cosh (1975), Hirschey and Pappas (1981), Benston (1985), Gomez-Mejia et al (1987), Jensen and Murphy (1990), Gregg et al (1993).

related to remuneration growth. The next section explores the findings for each corporate size measure.

Sales A survey of the economic and management literature suggest that there is a strong link between sales and remuneration[98]. The findings of this study suggest that, *ceteris paribus*, current remuneration growth is insignificantly related to *current* sales growth but is significantly related to *one year lagged* sales growth. The following section explores the significant findings.

'Partial stacking' results give 0.196706 and (2.153954) as the one year lagged sales growth coefficient and (t-statistic) respectively (Appendix 6.1). This suggests that, *ceteris paribus*, a £1 million increase in last year's sales growth is statistically associated with just under £200 increase in current remuneration growth. Considering that the average sales growth is approximately £83 million (Appendix 6.2), then current remuneration growth increases by £1,626 in relation to the average sales growth. This increase represents 15 percent of the average remuneration growth and 2 percent of the average remuneration level (Table 6.4). The robustness of the findings[99] is tested by using 'full' stacking (Table 6.4).

These findings are in line with previous studies in this field. Recent UK studies by Main et al and Gregg et al confirm these findings. Main et al

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[98] McGuire et al (1962), Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Hogan and McPheters (1980), Hirschey and Pappas (1981), Lewellen et al (1987), Belkaoui (1990), Gregg et al (1993), Conyon and Leech (1994), Main et al (1994). Note that these studies do not necessarily test the average remuneration per director, most of them use the top director remuneration. Nonetheless, the results could be used as a surrogate for average remuneration per director. Lack of research in average payment per director forces us to use these surrogate studies.

[99] Also, when *average* remuneration per director is replaced by *total* of basic remuneration for all directors, the findings revealed that sales are the only corporate size measure that is significantly related to growth in directors' *total* remuneration (Table 6.6 and Appendix 6.5).

(1994) conducted a study on 59 UK companies and found that changes in aggregate board remuneration are positively and significantly related to corporate sales. Gregg et al (1993) also found that a 50 percent growth of firm sales is statistically associated with a 10 percent growth of executive remuneration[100].

Comparing the impact of acquisition growth upon remuneration growth with the impact of growth of sales upon growth of remuneration, reveals that the acquisition growth has a higher impact upon growth of remuneration. Indeed, growth of acquisition rate is related to 18 percent of the growth of remuneration, while growth of sales is related to 15 percent of the growth of remuneration (Table 6.3 and 6.4). Clearly, the significant impact of growth of acquisition and sales upon the growth of the average remuneration per director suggests that directors may well pursue corporate acquisition activities because of the inherent premiums in their reward system.

In sum there is enough evidence to support the hypothesis that sales play an important role in determining remuneration.

Number of Employees & Capital Employed Along with all the above mentioned exogenous variables (Equation 3.4 in chapter 3), growth in number of employees and capital employed are regressed against remuneration growth. Results indicate that growth of current and one year lagged capital employed and number of employees are insignificantly

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[100] Although Gregg at al (1993) examined the top director remuneration, the results here are used as a surrogate for average remuneration per director. This is due to the limited research on the average remuneration per director.

related to growth of current remuneration (Appendix 6.1). The robustness tests confirm these findings (Appendices 6.1).

Abell et al[101] (1994) found that growth of average number of employees is insignificantly related to growth of the first and second highest paid directors basic remuneration. Furthermore, their study is the only one that used capital employed as a proxy of corporate size, and their findings are consistent with this study. They found that growth of capital employed has insignificant impact upon the growth of the first and second highest paid directors basic remuneration. Two plausible explanations can be attributed for this difference. In comparison with Abell et al's OLS regression equation, the statistical tests in this study were conducted within the framework of a more completely developed multivariate model designed to cope with serious statistical problems. The second factor is the relatively small sample used by Abell et al, 25 companies, in comparison with the relatively large sample in this study, 336 companies.

The finding that sales growth is the only corporate size measure that is significantly related to remuneration growth indicates that different corporate size measures have a different relationship with remuneration. These findings are in line with the previous chapter. This confirms our recommendation in the previous chapter; that scholars must be specific in reporting their findings. They must limit their conclusion to the corporate size proxy used in their study and not generalise their conclusion to all corporate size proxies. Concerning comparison of the corporate size

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[101] Abell et al (1994) examined the 'determinants' of the first and second highest paid directors remuneration. Their results, however, are used as a surrogate for the average remuneration per director as there is a very limited research on the average remuneration per director.

signs, the insignificance of capital employed and number of employees imposes a restriction on implementing a comparison.

To conclude, the findings suggest that corporate size, measured by sales growth, is significantly related to remuneration growth while corporate size, measured by growth of capital employed and number of employees, is insignificantly related to remuneration growth. This underscores the need to limit the generalisation of sales findings. Next, we will explore the relationship between growth of corporate performance and growth of remuneration.

6.3.4 Corporate Performance

The managerial economic literature hypothesises that managers' pay should be structured in a way that aligns the interests of shareholders and managers to solve the principal-agent dilemma (Holmstrom, 1979, Jensen and Murphy, 1990). It is also well established that to design such a contract, managers' remuneration should be partially dependent on corporate performance. Corporate performance measures can be divided into two categories, market and accounting measures. In this study the former is measured by profit and the latter by share price or shareholder returns. Market performance measures are used in separate equations.

The main regression results suggest that, *ceteris paribus*, growth of current and one year lagged profit, share price and shareholder returns are

positively[102] but insignificantly related to remuneration growth[103] (Appendix 6.1). Robustness tests confirm these findings (Appendix 6.1) which are consistent with Leonard[104] (1990) who reports that corporate accounting performance, measured by returns on equity, is insignificantly related to managers' basic remuneration. Abell et al (1994) and Kerr and Bettis (1987) also found that growth of shareholder returns are insignificantly related to changes in senior managerial basic remuneration. Other studies, however, found that shareholder returns have a significant and a positive impact upon senior managerial remuneration. Main, Bruce and Buck (1994) found that changes in shareholder returns are significantly related to changes in the aggregate board emolument; however the study states that the impact is small. Gregg et al (1993) found that during the period 1983 to 1991 the annual growth of directors' remuneration is 'very weakly' linked to corporate performance; indeed, the study reports that this relationship disappeared during the recession period 1988 to 1991. The empirical findings, therefore, suggest that at best shareholder returns have a weak impact upon remuneration.

To conclude, the findings in this study suggest that current remuneration growth is not related to current or lagged growth of accounting or market performance measures. These findings highlight the inconsistency between the theory and the practice of the structure of managerial remuneration. These results, therefore, along with previous chapter's, provide empirical evidence that the current system of managerial pay

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[102] Except in a few cases, the relationship is negative.

[103] However, when *average* remuneration per director was replaced by growth of *total* of basic remuneration of all the directors, the findings revealed a statistically significant relationship between share price and remuneration. Results indicate that current growth in share price is significantly related to current growth of total remuneration of the directors (Table 6.7).

[104] Leonard (1990) conducted a study on 439 managers' cash salary and bonus between 1981 and 1985.

'determinants' does not align the shareholders' and managers' interests. This finding strongly calls into question the effectiveness of the current system of pay 'determinants' for the managerial team. The next section explores the findings for 'governance'.

3.5 Corporate Governance

Governance is measured by the ratio of non-executive directors to total directors on the board. 'Partial' stacking results suggest that, *ceteris paribus*, there is no relationship between remuneration growth and governance growth[105] (Appendix 6.1) Also, the robustness tests, using 'full' stacking, confirm the insignificance of governance growth upon remuneration growth (Appendix 6.1). There is no previous study that links directors' remuneration growth and governance growth. It is also, difficult to compare these results with research that examined the top director remuneration, because there is no conclusive evidence from previous research. As we had the occasion to note, Conyon and Leech (1994) found that non-executives have a depressing effect on top executive pay, while Main (1991) found that each extra non-executive director on the board increases top executive pay by £4000. The inconsistency between the findings of this study and previous empirical findings could be attributed to the fact that each of the studies cited above employed different measure of the 'non-executive governance', and hence reached different conclusions.

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[105] 'Partial stacking' results reveal that one year lagged governance is significantly related to remuneration in Version IV regression equation only (Appendix 6.4). However, this significance disappears in the main findings, that is in Version I regression equation (Appendix 6.1).

In summary, the evidence in this study suggests that the growth of the non-executives directors, is not an important factor in shaping remuneration growth.

6.4 Conclusion

This chapter provided empirical tests of the relationship between the growth of the average remuneration of all the senior policy-makers in a company and the growth of corporate acquisition activities, performance, size and governance. Clear conclusions regarding the 'determinants' of remuneration emerge from this analysis. The findings establish that directors benefit from an increase in two year's lagged acquisition rate growth and one year lagged sales growth. While growth of current and one year lagged capital employed, number of employees, profit, share price, shareholder returns and governance have insignificant relationships with current remuneration growth.

Growth of sales showed up as a variable that has a strong influence on the growth of average remuneration per director. The findings of a succession of previous empirical studies also concluded that it is in the directors' personal financial interest to pursue corporate growth. In this study, therefore, we examined the hypothesis that directors use the most rapid growth mechanism, acquisition, to optimise their own financial returns. The results suggests that the impact of average acquisition growth is higher than the impact of average sales growth upon the growth of the average remuneration per director.

Clearly, the significant impact of growth of acquisition and sales upon the growth of the average remuneration per director suggests that directors may well pursue corporate acquisition activities because of the inherent premiums in their reward system. The results, however, do not suggest that acquisition activities are not in the shareholders interests, but rather that the directors' financial rewards are highly related to acquisition activities even after controlling for the inherent increase in post-acquisition corporate size. These findings suggest a need for a fundamental re-thinking of directors' motives behind acquisition decisions.

Furthermore, the findings suggest that different corporate size measures have different relationship with growth of remuneration. Remuneration is significantly related to sales growth and is insignificantly related to growth of number of employees and capital employed. This provides empirical evidence that studies must be specific about variables when reporting their conclusions.

The findings also, reveal a discrepancy between the theory and the application of performance-related-pay. Although theories suggest positively linking senior management pay and corporate performance, empirical results in this study revealed that in fact directors are not rewarded nor punished for changes in corporate performance. These results suggest that the owners cannot effectively monitor the rewards received by their agents and hence there is no alignment of interest between the shareholders and managers.

The results also, suggest the failure of another control mechanism, the non-executive directors. Empirical findings suggest that the growth of the ratio between non-executive and total directors on the board is insignificantly related to growth of average remuneration per director. This finding reveals a need to question the non-executives' role and points to a need to have a regulatory system that improves management's accountability.

Taken together, the findings, queries and recommendations of this chapter are in line with the previous one. The findings implicitly point to a need to investigate the relationship between corporate takeover activities and remuneration. There is a need to account for the lack of a significant impact of corporate performance and governance ratio upon directors' remuneration. These recommendations and queries prompt a need for a mandatory framework aiming at improving management's accountability and narrowing the gulf between shareholders' and managers' interests.

CHAPTER 7: 'Determinants' Of Average Remuneration Per Employee

Corporate acquisitions and restructuring activities have increased since the beginning of the last decade. During this period, acquisitions' purposes, motives, contributions, and impact have been at the centre of controversy among managers, public policy-makers and scholars. There is, however, limited knowledge of the impact of acquisition on employees. The aim of this chapter is twofold. The first is to develop an understanding of the impact of acquisition on employee remuneration; the second is to search for the significance of additional organisational factors that effect of employee remuneration. This is achieved by examining the relationship between growth of average remuneration per employee as the endogenous variable, and growth of corporate acquisition, size, performance and governance as the exogenous variables. Generally, the multivariate regression findings reveal that sales growth is advantageous to employees while the growth in number of employees, shareholder returns and governance are detrimental. Furthermore, growth of acquisition, profit, share price and capital employed seem not to have any significant monetary effects on employees average remuneration growth.

In this chapter we will present and discuss these findings, starting with the impact of acquisition upon average remuneration per employee, the remaining variables will be discussed together as 'the other determinants'. Before presenting the results, however, we will outline the analytical strategy.

7.1 Analytical Strategy

The general regression results are presented in appendices 7.1 to 7.4. Furthermore, in this chapter all regression equations are specified in 'first differences'. Consequently, variable coefficients indicate the effect of change in the 'first difference' of a given exogenous variable on the 'first difference' of an endogenous variable. However, throughout the chapter we will refer to 'the change in the first difference' as 'growth'. This will assist in presenting the results. Furthermore, as all the findings in this chapter are related to growth of 'average remuneration per employee'[106], throughout the chapter we will refer to it as the 'remuneration'. We will start the analysis by exploring the relationship between acquisition and remuneration, while holding other factors constant.

7.2 Corporate Acquisition & Average Remuneration Per Employee

As we had the occasion to note, in this study there are two measures of corporate acquisitive activities, 'acquisition expenditure' and 'acquisition rate'[107]. To analyse the relationship between acquisition and remuneration we have divided this section into three parts. The first part examines the relationship between growth of acquisition expenditure and remuneration. The second part explores the findings for 'acquisition rate'. The third part relates the findings of this study to the findings of previous studies. As in the previous analysis chapters, the main findings are based on 'partial' stacking while 'full' stacking results are used as robustness tests.

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[106] Unless otherwise stated.
[107] Note that the two measures of acquisition are used in separate regression equations.

7.2.1 Acquisition Expenditure

This section examines the relationship between remuneration and acquisition expenditure. Results suggest that, *holding other factors constant*, there is an insignificant relationship between *current* acquisition expenditure growth and *current* remuneration growth (Appendix 7.1). To investigate the relationship further, acquisition growth is pushed back in time by one, two and three years[108]. Results are in line with the above findings that, *ceteris paribus*, there is an insignificant relationship between current remuneration growth and lagged acquisition expenditure growth (Appendix 7.1). The robustness tests confirm these findings[109] (Appendix 7.1). The next section examines whether these results are invariant to alternative measures of acquisition.

7.2.2 Acquisition Rate

Acquisition rate is the ratio between acquisition expenditure and total investment. It indicates the ratio of 'acquisitive growth' to 'total growth'. We ran the same regression equations (Equation 3.4 in chapter 3), as above, replacing the 'acquisition expenditure' variable by 'acquisition rate'. Results suggest that, *ceteris paribus*, current and one, two and three years lagged acquisition rate growth are insignificantly related to current remuneration growth (Appendix 7.3). The robustness tests confirm these findings (Appendix 7.3).

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[108] In separate regression equations.

[109] Furthermore, we examined the relationship between *total* of basic remuneration for all employees and acquisition expenditure. The main results using 'partial' stacking suggest that there is a negative and a statistically significant relationship between the remuneration' and 'acquisition expenditure'. However, the robustness tests, 'full' stacking', shows an insignificant relationship (Appendix 7.5).

In summary, results suggest that both acquisition expenditure growth and acquisition rate growth are insignificantly related to current remuneration growth. We could infer that acquisition growth has no effect on remuneration growth and that the statistical significance of corporate acquisitiveness is not sensitive to the two measures of acquisition used in the study.

These findings are inconsistent with a US study; Brown and Medoff (1991) found that mergers and acquisition are associated with employee wage decline of about 4 percent[110]. The inconsistency between our results and Brown and Medoff's could be attributed to two factors. The first is that their data deals exclusively with employment in only one state, Michigan, while our data is based on UK-FT All Share Index companies. The second is that approximately two thirds of their data is based on small and service companies while our data represents large companies and is spread over a broad spectrum of industry categories. This implies that their results are not comparable to ours and that their results might give a misleading picture of the distribution of employment in acquisitive companies and hence the effect of acquisition on wages and employment (Farber, 1988).

On the other hand, our findings are in line with a UK study conducted by Morgan et al (1990). The study is based on a survey in which investment managers were asked to indicate the importance of various factors that influence acquisition decision-making on a four point scale[111].

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[110] Along with employment growth of about 2 percent
[111] The four scale points are 'very', 'moderate', little' or 'none'

Interestingly, their results revealed that about 75 percent of the respondents regarded acquisition impact on employment in the region of 'little' or 'no' importance. Only one percent of the respondents regarded this impact as 'very' important. The scales used in the study can be criticised for being too broadly inclusive and hence subjective. Also, the study does not specify the type of impact, monetary or non-monetary. However, this 'broadness' of the terms used in the study could be seen as a strength. It established that none of the impact of acquisition on employment is considered by decision makers when taking acquisition decision. Indeed, our empirical findings are in line with Morgan's findings. Our results however, only indicate that acquisition does not necessarily lower the employees' average financial rewards, but there could be other non-monetary impact on labour and society.

Based on an in-depth field study of 300 interviews[112], Haspeslagh and Jameson (1991) found that acquisition causes destruction of 'psychic' values for the employees like job satisfaction, career opportunities, status, and pride of association. These consequences de-motivate employees[113] and hence reduce the prospect of creating economic value for the acquiring firm's shareholders. Furthermore, de-motivation could result in a reduction in post-ownership productivity. Indeed, Lichtenberg and Siegel (1987) showed that most of the firms whose ownership changed were performing poorly in terms of (total factor) productivity. The post-takeover change in productivity of these firms was at least 4 percent lower than that of other plants in the same industries. Although, the study did not specifically isolate the non-monetary acquisition impact on employees

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[112] In acquisitive companies.
[113] Along with reduction in economic rewards (Haspeslagh and Jameson, 1991).

and productivity[114], their findings could be viewed as starting evidence that acquisition could contribute to lowering productivity[115]. Acquisition, therefore, may have impending consequences to employees beyond the financial rewards. It also could result in high unemployment and thus negative effects in labour market.

The results in this research suggest that there is no monetary impact of acquisition growth on employees remuneration growth. While this issue is clearly important, there are other acquisition consequences that should be considered alongside the monetary impact. Acquisition could cause 'psychic' changes, de-motivation for the employee consequently lower productivity. Understanding non-monetary acquisition impact on employees and society, therefore, is as important as understanding the monetary impact. However, acquisition is not the only factor that could effect remuneration. In the next section we will explore some of the organisational factors that affect remuneration.

7.3 Other Organisational Factors that Effect Average Remuneration Per Employee

The aim of this section is to build on the acquisition results and to find the significance of some additional organisational factors that effect remuneration[116]. Along with the acquisition variable on the right-hand side of the regression equation [Equation 3.4 in chapter 3], the 'remaining' exogenous variables can be classified into four categories.

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[114] Which is very difficult to quantify

[115] This opens a new research niche: studying the non-monetary impact of acquisition on employees.

[116] We do not claim that the factors discussed in this chapter are exhaustive of the organisational factors that effect employee remuneration but rather it is an attempt to find the relationship between the growth of specific organisational factors and the growth of the average remuneration per employee.

The first consists of one variable, lagged remuneration. The second is corporate size and consists of three variables; sales, number of employees and capital employed. The third is corporate performance and consists of accounting and market performance variables. The fourth is governance which consists of one 'governance' variable.

In discussing the findings, we will follow the same analytical strategy as in the above section. The main analysis will be based on 'partial' stacking while 'full' stacking results will be used as robustness tests[117]. We start by examining the relationship between previous year's remuneration and current remuneration, while holding other factors constant.

7.3.1 Previous Year's Remuneration

Results suggest that there is no statistical relationship between growth of current remuneration and growth of last year's remuneration (Appendix 7.1). The robustness tests confirm this result (Appendix 7.1). This implies that there are other factors that determine remuneration growth. The next section examines the impact of growth of corporate size measures upon the growth of remuneration.

7.3.2 Corporate Size

Corporate size is represented by three measures, total sales, total number of employees and capital employed. The reason for incorporating the three measures rather than one, is to enable us to compare our findings and to test whether different corporate size measures have different impact on remuneration. The following section is our attempt to analyse

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[117] Refer to Appendix 3.9 for explanation of the stacking techniques.

the relationship between corporate size measures and remuneration, starting with sales.

Sales The sales variable is the most commonly used measure of corporate size[118] . Our results indicate that current remuneration growth is positively and significantly related to current sales growth and is insignificantly related to lagged sales growth[119] (Appendix 7.1).

'Partial stacking' results give 0.003639 and (2.358689) as the current sales growth coefficient and (t-statistic) respectively (Appendix 7.1). This implies that, *ceteris paribus*, a £1 million increase in current sales growth is related to £3.6 increase in current remuneration growth. Considering that the average sales growth at time (t) is £93,721,160 (Table 7.2) then current remuneration grows by £337 in relation to the average sales growth in the same period. This increase represents 34 percent of the average growth of remuneration and 3 percent of the average remuneration level (Table 7.3). The robustness tests using 'full' stacking are in line with these findings (Appendix 7.1).

In summary, the results suggest a statistically significant link between current remuneration growth and current sales growth and an insignificant relationship with lagged sales growth. Although the impact of sales on remuneration growth is small, the average sales growth contribution is

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[118] Sales is used as a measure of corporate size in the following studies: McGuire et al (1962), Cosh (1975), Meeks and Wittington (1975), Ciscel and Carroll (1980), Hogan and McPheters (1980), Hirschey and Pappas (1981), Lewellen et al (1987), Belkaoui (1990), Gregg et al (1993), Conyon and Leech (1994), Main et al (1994).

[119] We run further tests using total of basic remuneration for all employees as the endogenous variable. Results indicate that the current remuneration is positively and significantly related to current sales and insignificantly related to one year lagged sales (Table 7.5).

large; it represents 34 percent of average remuneration growth (Table 7.3).

Number of Employees This variable is defined as the total number of domestic and overseas employees, including part-time employees, when available. Kaufman (1992) and Abell et al[120] (1994) used the number of employees as a proxy of corporate size. Our results suggest that, *holding other factors constant*, current remuneration growth is negatively and significantly related to current number of employees growth and is insignificantly related to *lagged* number of employees growth (Appendix 7.1). Next we will explore the significant results.

'Partial' stacking results give -0.541 (-2.44726) as the growth in current number of employees coefficient and (t-statistic) respectively (Appendix 7.1). This suggests that, *ceteris paribus*, a 1000 increase in current number of employees growth is related to a £541 decrease in current remuneration growth. Considering that the average number of employees growth is 381 (Table 7.2), then remuneration growth decreases by £206 in relation to the average number of employees growth. This decrease represents 20 percent of the average growth of remuneration and 2 percent of the average remuneration level (Table 7.4). The robustness of these findings has been tested by using 'full' stacking (Table 7.4).

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[120] The Abell et al (1994) results will not be discussed in this chapter as they examined directors' rather than employees' remuneration

In summary, results indicate that an increase in current number of employees[121] growth has detrimental effect on current remuneration growth. Interestingly, Kaufman (1992) found that firm size measured by number of workers is inversely related to productivity gains. His results suggests that, *ceteris paribus*, a 10 percent increase in firm size, evaluated at the median employment level, is statistically related to a 0.5 percent reduction in productivity[122] gain. By combining our findings with Kaufman's we can infer that the increase in number of employees is inversely related to growth of average remuneration per employee and productivity.

The overall findings suggest that labour tends to benefit from an increase in sales growth and lose from growth in the number of employees.

Capital Employed This variable reflects the full value of resources available for management throughout the year and is an indicator of corporate size. Abell et al (1994) used capital employed as a measure of corporate size[123]. Our main findings indicate that there is an insignificant relationship between growth of current remuneration and growth of current capital employed growth (Appendix 7.1). To investigate the relationship further, capital employed growth is pushed back by one year. The results confirm the insignificant relationship between current remuneration and lagged capital employed (Appendix 7.1). The robustness of the findings has been tested by using 'full' stacking (Appendix 7.1)

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[121] When we regressed growth of *total* of basic remuneration for all employees against growth of number of employees, *while holding other factors constant*, growth of number of employees remained statistically significant (Table 7.8).

[122] Measured by multi-factors.

[123] Main (1991) used assets employed and Cosh (1975) used net assets as measures of corporate size.

The findings for the three corporate size measures can be compared by their statistical significance and sign. The findings that sales and capital employed growth are the only corporate size measures that are related to remuneration growth indicates that different corporate size measures have different relationship with remuneration growth[124]. This confirms our recommendation in the previous two chapters; that studies must be specific when reporting their findings regarding corporate size measures. Scholars must limit their conclusion to the corporate size proxy used in their study and not generalise their conclusion to all corporate size proxies. Concerning comparison of the corporate size signs, the insignificance of 'capital employed' imposes a restriction on using the results. However, the other measures of corporate size are significantly related to growth of remuneration. The growth of sales is positively related while the growth of the number of employees is negatively related to remuneration growth. Furthermore, the results suggest that growth of capital employed is insignificantly related to growth of remuneration.

7.3.3 Corporate Performance

Corporate performance measures can be divided into two categories, market and accounting measures. In this study the former is measured by profit and the latter by share price or shareholder returns. Market performance measures are used in separate equations.

The main regression results suggest that current and one year lagged profit and share price growth are insignificantly related to remuneration

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[124] This is in line with the findings of the relationship between average director remuneration and the three measures of corporate size.

growth (Appendix 7.1). Robustness tests confirm these findings (Appendix 7.1). However, results indicate that growth of shareholder returns are significantly related to remuneration growth (Appendix 7.2). The following section explores shareholder returns growth relationship to remuneration growth, while holding other factors constant.

'Partial stacking' result gives -0.12871 (-2.8175) as the current shareholder returns growth coefficient and (t-statistic) respectively (Appendix 7.2). This implies that, *ceteris paribus*, a 100 percentage increase in current shareholder returns growth is related to £129 decrease in current remuneration growth. To assess this contribution we can relate it to average shareholder returns growth in this sample. The average shareholder returns growth is -0.03066 (Appendix 1.4). This implies that, *ceteris paribus*, current remuneration growth decreases by £4 in relation to the average current shareholders return growth. This decrease represents 0.4 percent of the average remuneration growth and 0.04 percent of the average remuneration level (Table 7.5). The robustness of this finding has been tested by using 'full' stacking' (Appendix 7.2).

To investigate this relationship further, we pushed back all exogenous variables by one year. We found that this negative and significant relationship between lagged shareholder returns growth and current remuneration growth persists (Appendix 7.2). Results suggest that, *ceteris paribus*, a 100 percentage increase in one year lagged shareholder returns growth is related to a decrease of £938 current remuneration growth. To assess this contribution we can relate it to average shareholder returns growth in this sample. Considering that the average shareholder returns

are (-0.04216), then current remuneration growth decreases by £40 in relation to the average one year lagged shareholders return growth. This decrease represents 4 percent of the average remuneration growth and 0.4 percent of the average remuneration level (Table 7.5). The robustness of this finding has been tested by using 'full' stacking' (Appendix 7.2).

To conclude, the results suggest that current and one year lagged shareholder returns growth have a negative impact upon growth of average remuneration per employee. However, the magnitude of shareholder returns growth contribution to remuneration growth is small. Moreover, results suggest that both current and one year lagged profit and share price growth are insignificantly related to remuneration growth. These findings could indicates the non-existence of (non-managerial) performance-related-pay. Indeed, there are two opposite views regarding using performance-related pay schemes for employees. Proponents of such plans argue that these plans lead to diminished agency costs in the same way as managerial incentive plans do (Conte, 1992). Opponents argue that the performance of an employee does not effect corporate performance because an individual's stake in a company is too small (Alchian and Demsetz, 1962; Jensen and Meckling, 1979). Indeed our empirical results suggest that the latter argument applies, as the results in this research suggest that employees' average remuneration is either[125] negatively or insignificantly related to corporate performance. Also, Conte[126] found that generally the contingent[127] parts of employee pay do not improve the relationship between employee pay and company

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[125] Depending on the measure of corporate performance.

[126] Conte (1992) examined 5500 non-managerial (employee) pay in the USA.

[127] The contingent component of non-managerial pay is measured by the employee stock ownership and profit-sharing plans.

performance[128]. However, Conte (1992) also found that the earnings of companies with a high degree of performance related pay do seem to outperform companies with less of such pay. Furthermore, Kaufman (1992) found a strong relationship between corporate productivity and a specific type of incentive, IMPROSHARE[129]. He found that productivity increased in companies that implemented this plan. During the first year the median productivity increase was about 8 percent and during the third year the cumulative productivity gain increased to 17.5 percent. This positive view is confirmed by Mitchell et al (1990) who found that profit sharing and employee sharing ownership plans (ESOPs) are positively related to corporate productivity, even after controlling for economic and non-economic participating factors. Also, a UK study conducted by Carruth and Oswald (1989) found that during the period 1954 to 1983, changes in employee remuneration are associated with changes in profitability. These empirical findings suggest that companies could benefit from strengthening the link between employee remuneration and organisational performance.

7.3.4 Corporate Governance

Governance is measured by the ratio of non-executive directors to total directors. 'Partial' stacking results suggests that there is a statistically significant relationship between remuneration growth and governance growth (Appendix 7.1). Results indicate that current and one year lagged governance growth have curtailing effects on current remuneration

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[128] Measured by corporate earnings.

[129] IMPROSHARE is a group incentive plan in which employee compensation is linked via an explicit formula to some measure of corporate performance. The study was conducted on 122 companies via a questionnaire.

growth (Appendix 7.1). The significant findings are explored in the next section..

'Partial' stacking results give -0.21076 (-3.11072) as the current governance growth coefficient and (t-statistic) respectively (Appendix 7.1). This implies that, *holding other factors constant*, a 1 percent increase in governance growth is related to £211 decrease in remuneration growth. Considering that the average governance growth is 0.98074 percent, then current remuneration decreases by £207 in relation to the average current governance. This decrease represents 21 percent of the average remuneration growth and 2 percent of the average remuneration level (Table 7.6). The robustness of this finding has been tested by using 'full' stacking' (Appendix 7.1).

Furthermore, when governance growth was pushed back by one year, this significant and negative relationship persisted. 'Partial' stacking results give -0.30762 and (-3.70759) as the one year lagged governance growth coefficient and (t-statistic) respectively (Appendix 7.1). This implies that, *holding other factors constant*, a 1 percent increase in governance growth is related to £308 decrease in remuneration growth. Considering that the average governance growth is 0.37159 percent, current remuneration decreases by £144 in relation to the average current governance. This decrease represents 11 percent of the average remuneration growth and 1 percent of the average remuneration level (Table 7.6). The robustness of this finding has been tested by using 'full' stacking' (Appendix 7.1).

To conclude, results indicate that current and one year lagged governance growth have significant and negative impact on employees remuneration growth. By contrast, in the previous three analysis chapters, results suggested that governance growth has no effect on the growth of both highest paid director and directors remuneration. The results of this research, therefore, support the view that governance growth has a curtailing effect on employee remuneration growth only.

7.4 Conclusion

This chapter examined the relationship between growth of remuneration and growth in corporate acquisition activities, size, performance and governance. Clear conclusions regarding the organisational factors that effect employees average remuneration emerge from this analysis. The findings strongly suggest that growth of average paid employee unambiguously and invariably benefits from growth of corporate sales and suffers from growth in number of employees, shareholder returns and governance. Our results also suggest that growth of last year's average remuneration, capital employed, profit and corporate acquisition activities have insignificant effects on growth of average remuneration per employee.

The findings discredit the view that acquisition implies impending consequences for employees' monetary rewards. Both acquisition expenditure and rate have no impact on the growth of employees monetary rewards. However, there are other non-monetary acquisition consequences that should be considered alongside the monetary impact.

Acquisition could cause 'psychic' changes, de-motivation and lower productivity for the people who are expected to implement the management strategies that supposedly aim to create the maximum possible value for the shareholders. Understanding the non-monetary impact of acquisition on employees and society, therefore, is as important as understanding the monetary impact. This requires managers and policy-makers to start considering the monetary and non-monetary impact of corporate acquisition activities on the employees.

The striking difference in the sign and the statistical significance among the three measures of corporate size and growth of average remuneration per employee indicate that it is important to specifying the measure of corporate size when reporting the findings regarding corporate size. Empirical findings in this study revealed that growth of sales and number of employees are both significantly related to growth of employees average remuneration per employee, but in different directions. The former is positively and the latter is negatively related to growth of average remuneration per employees. Our results also suggest that capital employed is not related to growth of average remuneration per employee. Furthermore, the conclusion that increases in number of employees, which is usually associated with acquisition activities, has a curtailing effect on growth of average remuneration per employee suggests that acquisition might have an indirect effect the remuneration. These findings suggest the need for a study that compares employee remuneration before and after acquisition, while controlling for number of employees and other organisational factors.

This study reveals a discrepancy between the theory and the application of economic theories of efficient employee pay. Although management and economic theories suggest positively linking pay and corporate performance, empirical results in this study suggest that in reality the employees are either punished or not rewarded for improvement in corporate performance. Our findings established that growth of average remuneration per employee is significantly but negatively linked to market corporate performance, measured by growth of shareholder returns; and is insignificantly related to market and accounting performance measured by growth of share price or profit. These findings clearly expose the inconsistency between the theory and application of employee efficient pay and hence implicitly question the current method of determining employee remuneration.

Our research also provides empirical evidence on a contemporary issue, corporate governance. Our results established that increase in corporate governance growth has a detrimental effect on employees' average remuneration growth. Interestingly results in the previous chapters suggest that governance growth is insignificantly related to growth of the remuneration of the highest paid director and the average paid director. The contrast in these findings reveals a need to question the non-executives' role. The findings suggest that they control the growth of employees' remuneration but not directors'.

CHAPTER 8: <u>Conclusion and Recommendations</u>

The research reported in this thesis attempts to develop a comprehensive understanding of managerial motives in the market for corporate control by statistically measuring the impact of corporate acquisition activities upon the managerial monetary rewards in the acquiring company, while controlling for corporate size, performance and the number of non-executive directors on the board of directors (BOD). The study also explores the impact of corporate involvement in takeover activities upon the non-managerial remuneration. In addition, the study attempts to develop a deeper understanding of the relationship that various studies have found, between remuneration - managerial and non-managerial - and corporate size, performance and the number of non-executive directors on the BOD.

The research data is based on public companies listed on the London Stock Exchange in the FT-ALL Share Index list, for the period 1980 through 1992. The statistical analysis is conducted using first-differences and Arellano and Bond's Generalised Method of Moments estimators, after accounting for some of the statistical problems encountered when modelling the data. Growth of managerial and non-managerial remuneration measures are regressed separately onto a common set of exogenous variables. The present study attempts to put the controversy concerning top managerial remuneration in the economic theory of the firm in a balanced perspective.

The primary and indisputable conclusion of the study is that corporate acquisition activities, as measured by either total acquisition expenditure or acquisition rate, is strongly and positively related to managerial remuneration. The analysis isolates a robust positive and significant relationship between growth of corporate acquisition and growth of the highest paid director's basic and total remuneration and growth of average remuneration per director. Furthermore, the findings suggest that there is no significant relationship between growth of corporate acquisition activities and growth of average remuneration per employee. The clear inference is that there is a financial incentive for the management of the acquiring companies to be involved in corporate acquisition activities. Although the legitimate aim of the market for corporate control is to alleviate the agency problems, created by the increasing separation of ownership and control in today's organisations, it seems that it has also provided corporate decision-makers with a mechanism which they exploit by pursuing their own economic self-interest. It could, therefore, be argued that although corporate takeovers aim to prevent managers from taking investment decisions that do not lead to an increase in shareholder welfare, they have been 'manipulated' to serve managerial self-interest. The findings of the study reported in this thesis could therefore suggest that value maximisation goals of corporate takeovers such as synergy, increasing shareholder returns, improving corporate productivity and replacing inefficient management are not necessarily the only merger motives. Variation in managerial monetary rewards can provide adequate explanation of takeovers motives. Indeed, the results of this study show that corporate takeovers are indeed one of the mechanisms used to fulfil managerial desire for increase in their pecuniary rewards. The evidence,

therefore, provides empirical support for the managerial utility theory which states that corporate involvement in acquisition activities, as an acquiring company, is driven by managerial motive. This argument is further supported by a second finding of the study.

Our findings suggest that growth of corporate size, measured by growth of sales, is positively and significantly related to the growth of the highest paid director's total remuneration and the average remuneration per director and employee. These results are in line with the findings of the majority of the research in this area and hence provide support for the sales maximisation hypothesis which states that managers are concerned with increasing corporate size, subject to attaining at least a survival profit[130].

Indeed, the findings that both growth of acquisition and sales have a positive impact upon the growth of managerial remuneration, could indicate that corporate involvement in acquisition, might be driven by advantages of corporate size and the consequent higher growth of managerial remuneration. The evidence presented in this study, therefore, could be interpreted as support for the view that there is a greater incentive for management to shape their decisions in a manner consistent with the sales maximisation rather than the profit maximisation theories. These results prompt a need for a fundamental re-thinking of managers' motives in corporate acquisitions.

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[130] Although this study did not specifically examine the notion that organisations obtain 'survival' profit, intuitively, we could assume so, as otherwise the organisation would have gone into solvency or if we assume a perfectly effective market for corporate control, the company would have been taken-over.

The empirical results also suggest that the growth of non-managerial remuneration is positively related to the growth of corporate sales and negatively related to the growth in number of employees while growth of capital employed has no significant impact upon growth of non-managerial remuneration.

As we already had the occasion to observe, there is a striking difference in the sign and the statistical significance of the three measures of corporate size upon remuneration which implies that scholars must be careful in reporting their conclusions on the significance of the 'corporate size' used in their studies and not generalise their conclusions to all corporate size measures.

The third conclusion of this study revolves around the impact of corporate performance on managerial and non-managerial remuneration. Although, the results clearly suggest that growth of shareholder returns are positively related to growth of the basic remuneration received by the highest paid director and of non-managerial remuneration, the magnitude of the coefficient is small. These findings are in line with a large number of studies in this area. In addition, the findings suggest that there is no statistical relationship between the other two measures of corporate performance - growth of aggregate annual share price and growth of pre-tax profit - and the growth of managerial remuneration, including the highest paid director's total remuneration. The results clearly imply that managers' financial interests are not aligned with shareholders' interest and hence are not in line with the propositions of the profit maximisation hypothesis. What is more striking is that the results clearly imply that there is no link between the financial gains made by the highest paid

director from share option schemes and corporate performance. This is an indication that managerial performance-related-pay through executive share options is not working or is mis-used.

The fourth conclusion revolves around the impact of the growth in the number of non-executive directors on the board and the managerial and the non-managerial remuneration. The results suggest that the growth in the number of non-executive directors has a significantly detrimental effect upon the growth of non-managerial remuneration but has no significant effect on the growth of managerial remuneration. Non-executive directors should ensure an alignment between the growth of managerial remuneration, particularly the gains from executive share options and the growth of corporate performance. It is alarming therefore, to find no significant link between the financial gains made by the highest paid director - including executive share options - and corporate performance.

Taken together the findings of the study reported in this thesis is consistent with the maximisation of senior management's utility being an important motive in corporate acquisition decisions. There is therefore a clear need for a proper institutional arrangement that ensures that the growth and the structure of managerial remuneration are in line with corporate performance.

Shareholders and policy-makers should be concerned about these findings. The results highlight the conflict of interest between shareholders and managers and imply that shareholders might be

receiving lower returns than the maximum possible on their investment. From a public policy perspective the result invites a public debate upon the social costs of the market for corporate control. We do not argue that takeovers are necessarily harmful to shareholders but rather that managerial incentives should take account of the changes in shareholders' wealth against the propensity to seek rapid growth. At the very least, the results reported in this thesis strongly suggest a need for greater control over the decision-making, concerning acquisition, and for tighter regulations of managerial remuneration. The following section summarises some recommendations that could be considered by policy-makers and shareholders.

Shareholders must first clearly define the purpose of remuneration and accordingly formulate a remuneration policy. Remuneration can be used as (1) a motivator, (2) a reward for performance, (3) a form of recognition (Ackley, 1993), (4) a means of aligning shareholder and executive interests or (5) a combination of these purposes. The purpose of remuneration is not necessarily uniform for all companies, rather corporate strategies, should dictate the role of remuneration. It is perhaps important nonetheless to ensure that the formulation of a remuneration policy by each company is in line with a broad common framework. In my opinion, the least action that should be taken in the UK, is to follow the practice in the US where non-managerial directors are elected by shareholders rather than, as it is customary in the UK, by executive directors.

Shareholders could request a complete and detailed disclosure of the components of all the remuneration of all directors in the annual financial statement. Also, they could request a disclosure of whether or not the stock-based remuneration component is linked to current or future performance targets. In moving to a pay-for-performance approach, companies should define the exact performance measures, the amount of pay and the proper delivery system (Thakarar, 1993). The system should filter out factors beyond the directors and employee control. Also, shareholders must be advised before the completion of corporate acquisition of the anticipated changes in corporate performance, and in directors' and employees' remuneration.

In addition, shareholders of UK public companies could follow the USA practice where the Financial Accounting Standard Board has issued a statement[131] that encourages, but does not enforce, companies to value and show compensation, grants of stock, stock options and other equity instruments as expenses at the end of each financial year. (Harrison et al, 1996). These steps would enable shareholders and policy-makers to more accurately assess the relationship between remuneration and corporate acquisition.

The present study puts the controversy concerning top managerial remuneration in a balanced perspective. Nonetheless, the study like most others, has several limitations that whilst not weakening the validity of the results, restricts their applicability. The limitations are as follows :

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[131] Statement of Financial Accounting Standard (SFAC) 123, Accounting for a Stock-Based Compensation.

- The study included as exogenous variables measures only of corporate acquisition, size, performance and governance, but other exogenous variables may be investigated;

- The sample is drawn from the FT-ALL Share Index companies and as such, the empirical findings can only be generalised to large public companies;

- Also, despite the inclusion of sample companies belonging to widely different industries, the research modelling in this study does not account for a possible 'industry effect' on managerial remuneration;

- The possible impact of past remuneration on current acquisition is also not explicitly modelled.

The results and the implications of the research reported in this thesis, like virtually all other statistical results in this area, will be the subject of some controversy. Nevertheless, the results seem sufficiently strong to make it difficult to maintain that corporate acquisitive activities generate no monetary benefits to the corporate directors; or that the 'determinants' of managerial remuneration are aligned with shareholders' interest. Taken together, the results provide strong support for the central hypothesis of this study that corporate acquisition decisions are driven by managerial motives.

TABLES

Table 4.1:	Descriptive Statistics for All Variables in Basic Remuneration of the Highest Paid Director Sample: *Levels* Data		

VARIABLES	AVERAGE	SD	COUNT
HPD-B	£144,442	£138,991	2831
ACQEXP	£27,824,929	3120,048,145	2831
ACQRAT	24 %	33%	2831
SALES	£743,795,847	£2,039,677,749	2831
PBT	£63,661,359	-£5,352,289	2831
NOEMP	13,000	26,000	2831
SHRPRC	£1.83	£1.69	2831
SHHRTN	2 Times	7 Times	2831
GOV	37%	14%	2831

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Table 4.2: Average for All Variables in Basic Remuneration of the Highest Paid Director Sample: *Growth* Data

VARIABLES/LAG	(0,0)	(1,0)	(1,1)	(2,1)	(3,1)
ΔHPD-B(t)	£23,745	£23,745	£23,745	£24,255	£25,495
ΔHPD-B(t-1)	£23,158	£23,158	£23,1587	£25,230	£26,259
ΔACQEXP	£117,160	£206,440	£206,440	£270,410	£339,290
ΔACQRAT	0.2%	0.2%	0.2%	0.3%	0.4%
ΔSALES	£153,900	£153,900	£172,960	£168,410	£155,870
ΔPBT	£15,420	£15,420	£21,570	£21,710	£22160
ΔSHRPRC	£0.11	£0.11	£0.14745	£0.13	£0.11
ΔSHHRTN	-0.03	-0.03	-0.03	-0.05	-£0.04
ΔNOEMP	79	79	87	90	80
ΔCAPEMP	£169,430	£169,430	£187,190	£186,760	£177,330
ΔGOV	0.02%	0.02%	0.01%	0.01%	0.01%

Notes
1. Refer to Appendix 3.8 for explanation of the lags

TABLE 4.3 <u>Relationship Between Growth of Basic Remuneration of the Highest Paid Director and Growth of Acquisition Expenditure</u>

Lags	Coefficient & (t-statistic)	Growth of HPD-B in Relation to a £1m Increase in ACQEXP	Average Growth of ACQEXP	Average ACQEXP Contribution	Average ACQEXP Contribution as a % of Average HPD-B Growth	Average ACQEXP Contribution as a % of Average HPD-B Level
(1,0)	36.374533 (3.798333)	£ 36,375	£206,440	£7,509	32 %	5%
(1,1)	37.714168 (3.28573)	£ 37,714	£206,440	£7,785	33%	5%
(2,1)	30.227643 (3.121236)	£ 30,228	£270,410	£8,174	34%	6%

Notes:

1. ACQEXP and HPD-B refer to Acquisition Expenditure and Basic Remuneration for the Highest Paid Director respectively.
2. In the Coefficients column ACQEXP is expressed in £1m, and HPD-B in £1k.
3. Average ACQEXP Contribution = (ACQEXP Regression Coefficient * Average ACQEXP Growth)
4. The regression results reported in this table are extracted from [Appendices 4.1]. The 'Average' data is extracted from [Tables 4.1 and 4.2]

TABLE 4.4 Relationship Between Growth of Basic Remuneration of the Highest Paid Director and Growth of Acquisition Rate

Lags	Coefficient & (t-statistic)	Growth of HPD-B in Relation to 1% Increase in Growth of Average ACQRAT	Average Growth of ACQRAT (%)	Average ACQRAT Contribution	Average ACQRAT Contribution as a % of Average HPD-B Growth	Average ACQRAT Contribution as a % of Average HPD-B Level
(1,0)	45.81538 (3.2239)	£46,815	0.21249	£ 9,735	42%	8.5 %
(1,1)	44.67447 (2.8359)	£44,674	0.21249	£9,493	41%	8.29%
(2,1)	25.22076 (2.1153)	£25,221	0.29197	£5,528	24%	4.8 %

Notes
1. ACQRAT and HPD-B refer to Acquisition Rate and Basic Remuneration for the Highest Paid Director respectively.
2. In the coefficient column ACQRAT is expressed %, and HPD-B in £1k.
3. Average ACQRAT Contribution = (ACQRAT Regression Coefficient * Average ACQRAT Growth)
4. The regression results reported in this table are extracted from [Appendices 4.3]. The averages data is extracted from [Tables 4.1 and 4.2]

TABLE 4.5 <u>Relationship Between Highest Paid Director Basic Remuneration Growth and Shareholder Returns</u>

Lags	Coefficient & (t-statistic)	Growth of HPD-B in Relation to 100 % Increase in SHHRTN Growth	Average Growth SHHRTN	Average SHHRTN Contribution	Average SHHRTN Contribution as a % of Average HPD-B Growth	Average SHHRTN Contribution as a % of Average HPD-B Level
(0,0)	13.9612 (2.049)	£13,961	-0.02487	£347	1.5%	0.3 %
(1,0)	25.0202 (2.864)	£25,020	-0.02487	£622	2.7 %	0.54 %

Notes

1. SHHRTN and HPD-B refer to Shareholder Returns and Basic Remuneration for the Highest Paid Director respectively.

2. In the coefficient column SHHRTN is expressed in % and HPD-B in £1k.

3. Average SHHRTN Contribution = (SHHRTN Regression Coefficient * Average SHHRTN Growth)

4. The regression results reported in this table are extracted from [Appendices 4.2]. The 'Average' data is extracted from [Tables 4.1 and 4.2]

Table 5.1: Descriptive Statistics for All Variables in Total Remuneration of the Highest Paid Director Sample: *Levels* Data

VARIABLES	AVERAGE	SD	COUNT
HPD-B	£150,095	£159,095	600
HPD-T	£183,000	£252,243	600
ACQEXP	£39,507,490	£182,867,065	600
ACQRAT	26%	29%	600
SALES	£1,030,717,007	£1,904,554,259	600
PBT	£110,130,498	£99,869,085	600
NOEMP	19,455	39,734	600
CAPEMP	£735,877	£2,064,126	600
SHRPRC	£1.91	£1.21	600
SHHRTN	6 Times	0.5 Times	600
GOV	36%	16%	600

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Table 5.2 Average for All Variables in Total Remuneration of the Highest Paid Director Sample: *Growth* Data

Variables/Lag	(0,0)	(1,0)	(1,1)	(2,1)	(3,1)
ΔHPD-T(t)	£34714	£34714	£34714	£38753	£41031
ΔHPD-T(t-1)	£31569	£31569	£31569	£34622	£39758
ΔACQEXP	£3,698,900	£15,674,680	£15,674,680	£9,789,480	£16,053,070
ΔACQRAT	7%	3 %	3%	4%	4%
ΔSALES	£114376540	£114,376,540	£119,470,220	£123,779,300	£130,536,750
ΔPBT	£10680190	£10680190	£14890320	£15779760	£16555950
ΔSHRPRC	£0.16	£16	£18	£14	£15
ΔSHHRTN	-0.03	-0.03	-0.05	-0.07	-0.05
ΔNOEMP	-164	-164	185	-64	333
ΔCAPEMP	£108,668,030	£108,668,030	£124,886,530	£138,882,790	£159,879,770
ΔGOV	0.92%	0.92%	0.67%	0.71%	0.71%

Notes

1. Refer to Appendix 3.8 for explanation of the lags

TABLE 5.3: Relationship Between Growth of Total Remuneration of the Highest Paid Director and Growth of Acquisition

Lags	Coefficient & (t-statistics)	Growth of HPD-T in Relation to £1 m Increase in ACQEXP	Average Growth of ACQEXP	Average ACQEXP Contribution	Average ACQEXP Contribution as a % of Average HPD-T Growth	Average Contribution as a % of HPD-T Level
(0,0)	-0.24707 (-3.71548)	-£247	£3,698,900	-£914	3%	0.5%
(1,0)	0.511709 (3.150685)	£512	£15,674,680	£8,021	26%	4%
(1,1)	0.472721 (2.111261)	£473	£15,674,680	£7,410	21%	4%

Notes:

1. ACQEXP and HPD-T refer to Acquisition Expenditure and Total Remuneration for the Highest Paid Director respectively.
2. In the coefficient column ACQEXP is expressed in £1m and HPD-T is £1K.
3. Average ACQEXP contribution = (ACQEXP Regression Coefficient * Average ACQEXP Growth).
4. The regression results reported in this table are extracted from [Appendices 5.1]. The 'Averages' data is extracted from [Tables 5.1 and 5.2].

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TABLE 5.4   Relationship Between Growth of Total Remuneration of the Highest Paid Director and Growth of Sales

Lags	Coefficient & (t-statistics)	Growth of HPD-T in Relation to £1 m Increase in SALES	Average Growth of SALES	Average SALES Contribution	Average SALES Contribution as a % of Growth of HPD-T	Average SALES Contribution as a % of HPD-T Level
(0,0)	0.178979 (3.147312)	£179	£114,376,540	£20,470.999	59%	11%
(2,1)	0.120179 (2.310032)	£120	£123,779,300	£14,875.672	38%	8%

Notes:
1. SALES and HPD-T refer to Sales and Total Remuneration for the Highest Paid Director respectively.
2. In the coefficient column SALES is expressed in £1m and HPD-T is £1k
3. Average Contribution = (SALES Regression Coefficient * Average SALES Growth)
4. The regression results reported in this table are extracted from [Appendices 5.1]. The 'Averages' data is extracted from [Tables 4.1 & 4.2]

Table 6.1: Descriptive Statistics for All Variables in Average Remuneration Per Director Sample: *Levels* Data

VARIABLE	Average	SD	COUNT
HPD-B	£140,969	£132,514	2761
TOTL-DIR	£718,399	£769,414	2761
AVG-DIR	£76,649	£61,610	2761
ACQEXP	£28,407,157	£122,491,820	2761
ACQRAT	25%	33%	2761
SALES	£779,357,870	£2,110,931,085	2761
PBT	£66,438,790	£1,044,582	2761
NOEMP	13,636	27,100	2761
CAPEMP	£462,538	£1,464,241	2761
SHRPRC	£1.76	£1.31	2761
SHHRTN	2 Times	7 Times	2761
GOV	37%	15%	2761

Table 6.2   Average for All Variables in Average Remuneration Per Director
Remuneration Sample: *Growth* Data

Variables/Lag	(0,0)	(1,0)	(1,1)	(2,1)	(3,1)
ΔTOTL-DIR(t)	£108,229	£108,229	£108,229	£113,135	£124,373
ΔTOTL-DIR(t-1)	£101,861	£101,861	£101,861	£108,840	£115,054
ΔAVG-DIR(t)	£11,175	£11,175	£11,175	£11,686	£12,569
ΔAVG-DIR(t-1)	£10,696	£10,696	£10,696	£11,428	£12,120
ΔACQEXP	£3,667,350	£7,017,330	£7,017,330	£5,487,850	£9,396,550
ΔACQRAT	5%	3%	3%	4%	5%
ΔSALES	£77,006,650	£77,006,650	£82,648,470	£79,733,410	£92,897,040
ΔPBT	£6,151,030	£6,151,030	£9,178,360	£9,044,550	£11,029,500
ΔSHRPRC	£0.18	£0.18	£0.19	£0.19	£0.18
ΔSHHRTN	-0.02	-0.02	-0.03	-0.04	-0.05
ΔNOEMP	276	277	304	350	486
ΔCAPEMP	£64,026	£64,026	£65,091	£68,564	£75,676
ΔGOV	0.55%	0.55%	0.28%	0.27%	0.29%

Notes
1. Refer to Appendix 3.8 for explanation of the lags

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Table 6.3   Relationship Between Growth of Average Remuneration Per at (t) and Growth of Acquisition Rate at (t-2)

Stacking Type	Coefficient & (t-statistic)	Growth of AVG-DIR in Relation to a 1% Increase in ACQRAT	Average Growth of ACQRAT	Average ACQRAT Contribution	Average ACQRAT Contribution as a % of AVG-DIR Growth	Average ACQRAT Contribution as a % of AVG-DIR Level (%)
Partial 4	5.302643 (2.510)	£5,303	3.87536	£2,055	18%	3%
Full	4.160298 (2.387164)	£4,160	3.87536	£1,612	14%	2%

Notes:
1. ACQRAT and AVG-DIR refer to Acquisition Rate and Average Remuneration Per Director respectively.
2. In the coefficients column ACQRAT is expressed in % and AVG-DIR in £1k.
3. Average ACQRAT Contribution = (ACQRAT Regression Coefficient * Average ACQRAT Growth)
4. The regression results reported in this table are extracted from [Appendices 6.1]. The 'Average' data is extracted from [Tables 6.1 and 6.2]

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TABLE 6.4 Relationship Between Growth of Average Remuneration Per Director at (t) and Growth of Sales at (t-1)

Stacking	Coefficient & (t-statistic)	Growth of AVG-DIR in Relation to £1m Increase in Growth of Average SALES	Average in Growth SALES	Average SALES Contribution	Average Sales Contribution as a % of Average AVG-DIR Growth	Average SALES Contribution as a % of Average AVG-DIR Level
Partial 4	0.196703 (2.153954)	£196.703	£82,648,470	£1,625.7	15%	2%
Full	0.188156 (3.133812)	£188.156	£82,648,470	£1,555.4	14%	2%

Notes

1. SALES And AVG-DIR refer to Sales and Average Remuneration Per Director respectively.
2. In the coefficients column SALES is expressed £1m and AVG-DIR in £1k.
3. Average SALES Contribution = (SALES Regression Coefficient * Average SALES Growth)
4. The regression results reported in this table are extracted from [Appendices 6.1]. The 'Average' data is extracted from [Tables 6.1 and 6.2]

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TABLE 6.5 Relationship Between Growth of Total of Basic Remuneration for All Directors at (t) and Growth of Acquisition Expenditure at (t)

Stacking	Coefficient & (t-statistic)	Growth of Total TOTL-DIR in Relation to a £1m Increase in ACQEXP	Average Growth of ACQEXP	Average ACQEXP Contribution	Average ACQEXP Contribution as a % of TOTL-DIR Growth	Average ACQEXP Contribution as a % of TOTL-DIR Level
Partial 4	0.92477 (3.129697)	£924.77	£108,229	£3391.46	3%	0.5%
Full	0.62797 (2.416036)	£627.97	£108,229	£2302.99	2%	0.3%

Notes:
1. TOTL-DIR refer to the Total of the Basic Remuneration for All Directors.
2. In the coefficients column ACQEXP is expressed in £1m and TOTL-DIR in £1k.
3. Average ACQEXP Contribution = (ACQEXP Regression Coefficient * Average ACQEXP Growth)
4. The regression results reported in this table is extracted from [Appendix 6.5]. The 'Average' data is extracted from [Tables 6.1 and 6.2]

TABLE 6.6 <u>Relationship Between Growth of Total of Basic Remuneration for All Directors at (t) and Growth of Sales at (t-3)</u>

Stacking	Coefficient & (t-statistic)	Growth of TOTL-DIR in Relation to a £1m Increase in SALES	Average Growth of SALES	Average SALES Contribution	Average SALES Contribution as a Proportion of TOTL-DIR Growth(%)	Average SALES Contribution as a Proportion of TOTL-DIR Level (%)
Partial 4	0.473933 (2.478686)	£473.933	£92,897,040	£44,026.97	35%	6%
Full	0.479668 (2.83939)	£479.668	£92,897,040	£44,559.74	36%	6%

Notes:
1. SALES and TOTL-DIR refer to Sales and Total of Basic Remuneration for All Directors respectively.
2. In the coefficients column SALES is expressed in £1m and TOTL-DIR in £1k.
3. Average SALES Contribution = (SALES Regression Coefficient * Average SALES Growth)
4. This regression results reported in this table are extracted from [Appendix 6.5]. The 'Average' data is extracted from [Tables 6.1 and 6.2]

TABLE 6.7 Relationship Between Growth of Total of Basic Remuneration for All Directors at (t) and Growth Share Price at (t)

Stacking	Coefficient & (t-statistic)	Growth of TOTL-DIR in Relation to a £0.01 Increase in SHRPRC	Average Growth of SHRPRC (£)	Average SHRPRC Contribution	Average SHRPRC Contribution as a % of TOTL-DIR Growth	Average SHRPRC Contribution as a % of TOTL-DIR Level
Partial 4	0.481411 (2.021037)	0.4814	0.18	£8,831	8%	1%
Full	0.611548 (3.211972)	0.6115	0.18	£11,217	10%	2%

Notes:
1. SHRPRC and TOTL-DIR refer to Share Price and Total of Basic Remuneration for All Directors respectively.
2. In the coefficients column SHRPRC is expressed in £0.01 and TOTL-DIR in £1k.
3. Average SHRPRC Contribution = (SHRPRC Regression Coefficient * Average SHRPRC Growth)
4. The regression results reported in this table are extracted from [Appendix 6.5]. The 'Average' data is extracted from [Tables 6.1 and 6.2]

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Table 7.1   Descriptive Statistics for All Variables in
                  Average Remuneration Per Employee Sample:
                  Levels Data

VARIABLE	AVERAGE	SD	COUNT
TOTL-EMP	£129,668,228	282,905,575	1837
AVG-EMP	£10,895	527	1837
ACQEXP	£27,944,965	99,534,002	1837
ACQRAT	24%	32	1837
SALES	£750,131,004	1,486,275,796	1837
PBT	£67,720,844	-6,732,620	1837
NOEMP	13000	21000	1837
CAPEMP	£442,037	£1,300,111	1837
SHRPRC	£1.87	£1.31	1837
SHHRTN	7 Times	9 Times	1837
GOV	37%	14%	1837

Table 7.2: Average for All Variables in Average Remuneration Per Employee Remuneration Sample: *Growth* Data

Variables/Lag	(0,0)	(1,0)	(1,1)	(2,1)	(3,1)
ΔTOTL-EMP(t)	£16,341,907	£16,341,907	£16,341,907	£16,853,099	£17,769,754
ΔTOTL-EMP(t-1)	£13,981,614	£13,981,615	£13,981,615	£16,182,042	£16,814,132
ΔAVG-EMP(t)	£1,008	£1,008	£1,008	£1,084	£1,101
ΔAVG-EMP(t-1)	£931	£931	£931	£1,004	£1,105
ΔACQEXP	£3,130,990	£7,240,690	£7,240,690	£7,455,050	£13,532,670
ΔACQRAT	5%	3%	3%	5%	6%
ΔSALES	£93,721,160	£93,721,160	£88,087,280	£96,077,710	£95,814,740
ΔPBT	£7,299,500	£7,299,500	£10,582,220	£10,859,430	£10,218,070
ΔSHRPRC	1.97	1.97	2.24	2.06	1.83
ΔSHHRTN	-0.03	-0.03	-0.04	-0.05	-0.07
ΔNOEMP	381	381	388	452	408
ΔCAPEMP	£71,672,150	£71,672,150	£71,574,950	£81,364,360	£89,807,590
ΔGOV	0.98%	0.98%	0.37%	0.48%	0.35%

Notes

1. Refer to Appendix 3.8 for explanation of the lags

TABLE 7.3   Relationship Between Growth of the Average Remuneration Per Employees at (t) and Growth of Sales at (t)

Lag	Coefficient & (t-statistic)	Growth of AVG-EMP in Relation to a £1m Increase in SALES	Average Growth of SALES	Average SALES Contribution	Average SALES Contribution as a % of Growth of AVG-EMP	Average SALES Contribution as a % of AVG-EMP Level
(0,0)	0.003639 (2.358689)	3.639	£93,721,160	£337	34%	3%
(1,0)	0.003472 (2.367866	3.472	£93,721,160	£328	33%	3%

Notes:
1. SALES and AVG-EMP refer to Sales and Average Remuneration Per Employee respectively.
2. In the coefficients column SALES is expressed in £1 million and AVG-EMP in £1k.
3. Average SALES Contribution = SALES Regression Coefficient * Average SALES Growth.
4. The regression results reported in this table are extracted from [Appendices 7.1]. The 'Average' data is extracted from [Tables 7.1 and 7.2]

TABLE 7.4   Relationship Between Growth of the Average Remuneration Per Employees and Growth in Number of Employees

Lags	Coefficient & (t-statistic)	Growth of AVG-EMP in Relation to a 1000 Increase in NOEMP	Average Growth of NOEMP	Average NOEMP Contribution	Average NOEMP Contribution as a % of AVG-EMP Growth	Average NOEMP Contribution as a % of AVG-EMP Level
(0,0)	-0.541 (-2.44726)	-£541	381	-£206	20%	2%
(1,0)	-0.51986 (-2.45969)	-£520	381	-£198	20%	2%

Notes:
1. NOEMP and AVG-EMP refer to Number of Employees and Average Remuneration Per Employee respectively.
2. In the coefficients column NOEMP is expressed in £1 million and AVG-EMP in £1k.
3. Average NOEMP Contribution = NOEMP Regression Coefficient * Average NOEMP Growth.
4. The regression results reported in this table are extracted from [Appendices 7.1]. The 'Average' data is extracted from [Tables 7.1 and 7.2]

TABLE 7.5 Relationship Between Growth of the Average Remuneration Per Employees and Growth of Shareholder Returns

Lags	Coefficient & (t-statistic)	Growth of AVG-EMP in Relation to a 1 fold Increase in SHHRTN	Average Growth of SHHRTN	Average SHHRTN Contribution	Average AVG-EMP Contribution as a % of Growth of Average SHHRTN	Average AVG-EMP Contribution as a % of Growth of AVG-EMP
(0,0)	-0.12871 (-2.8175)	-£129	-0.03066	-£4	0.4%	0.04%
(1,0)	-0.13228 (-2.8084)	-£132	-0.03066	-£4	0.4%	0.04%
(1,1)	-0.93852 (-11.5799)	-£938	-0.04216	-£40	4%	0.4%
(2,1)	-0.9444 (-8.44327)	-£945	-0.05421	-£51	5%	0.5%
(3,1)	-1.04216 (-18.2613)	-£1042	-0.06554	-£68	6%	0.6%

Notes:

1. SHHRTN and AVG-EMP refer to Shareholders returns and Average Remuneration Per Employee respectively.
2. In the coefficients column SHHRTN is expressed in times factors and AVG-EMP in £1k.
3. Average SHHRTN Contribution = SHHRTN Regression Coefficient * Average SHHRTN Growth.
4. The regression results reported in this table are extracted from [Appendices 7.1]. The 'Average' data is extracted from [Tables 7.1 and 7.2]

TABLE 7.6 **Relationship Between Growth of the Average Remuneration Per Employees and Growth of Governance**

Lags	Coefficient & (t-statistic)	Growth of AVG-EMP in Relation to a 1% Increase in GOV	Average Growth of GOV (%)	Average Contribution of GOV	Average GOV Contribution as a % of AVG-EMP Growth	Average GOV Contribution as a % of AVG-EMP Level
(0,0)	-0.21076 (-3.11072)	-£211	0.98074	-£207	21%	2%
(1,0)	-0.21655 (-2.96918)	-£212	0.98074	-£212	21%	2%
(1,1)	-0.30762 (-3.70759)	-£308	0.37159	-£144	11%	1%
(2,1)	-0.30096 (-4.18602)	-£301	0.48482	-£146	13%	1%
(3,1)	-0.13757 (-1.861)	-£138	0.35462	-£49	4%	0.4%

Notes:
1. GOV and AVG-EMP refer to Governance and Average Remuneration Per Employee respectively.
2. GOV is expressed in % and AVG-EMP in £1K.
3. Average GOV Contribution = GOV Regression Coefficient * Average GOV Growth.
4. The regression results reported in this table are extracted from [Appendices 7.5]. The 'Average' data is extracted from [Appendix 7.1 and 7.2].

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TABLE 7.7   <u>Relationship Between Growth of the Total of Basic Remuneration for All</u>
<u>Employees at (t) and Growth of Sales at (t)</u>

Lag	Coefficient & (t-statistic)	Growth of TOTL-EMP in Relation to a £1m Increase in SALES	Average SALES Growth	Average SALES Contribution	Average SALES Contribution as a % of Growth of TOTL-EMP	Average SALES Contribution as a % of TOTL-EMP Level
(0,0)	76.46144 (4.573551)	£76,461	£93,721,160	£7,166,055	44%	6%
(1,0)	73.28507 (5.222804)	£73,286	£93,721,160	£6,868,362	42%	5%

Notes:
1. SALES and TOTL-EMP refer to Sales and Total of Basic Remuneration for All Employee respectively.
2. In the coefficients column SALES expressed in £1 million and TOTL-EMP in £1K
3. Average SALES Contribution = SALES Regression Coefficient * Average SALES Growth.
4. The regression results reported in this table are extracted from [Appendices 7.5]. The 'Average' data is extracted from [Tables 7.1 and 7.2]

TABLE 7.8 Relationship Between Growth of the Total of Basic Remuneration For all Employees and Growth in Number of Employees

Lag	Coefficient & (t-statistic)	Growth of TOTL-EMP in Relation to a £1 Million Increase in NOEMP	Average Growth of NOEMP	Growth of TOTL-EMP in Relation to Growth of Average NOEMP	Average NOEMP Contribution as a % of Growth of TOTL-EMP (%)	Average NOEMP Contribution as a % of TOTL-EMP Level (%)
(1,1)	-6647.07 (-3.08466)	-£6,647,700	388	-£2,532,774	16%	2%
(2,1)	-5449.89 (-3.15603)	-£5,449,890	451	-£2,076,408	15%	2%

Notes:
1. NOEMP and TOTL-EMP refer to Number of Employees and Total of Basic Remuneration for All Employee respectively.
2. In the coefficients column NOEMP expressed in £1 million and TOTL-EMP in £1k.
3. Average NOEMP Contribution = NOEMP Regression Coefficient * Average NOEMP Growth.
4. The regression results reported in this table are extracted from [Appendices 7.5]. The 'Average' data is extracted form [Tables 7.1 and 7.2].

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APPENDICES

Appendix 1 NOTATIONS

NOTATION	DESCRIPTION
VARIABLES	
HPD-B	Highest Paid Director Basic Remuneration
HPD-B(t)	Highest Paid Director Basic Remuneration at time (t)
HPD-B(t-1)	Highest Paid Director Basic Remuneration at time (t-1)
HPD-T	Highest Paid Director Total Remuneration
HPD-T(t)	Highest Paid Director Total Remuneration at time (t)
HPD-T(t-1)	Highest Paid Director Total Remuneration at time (t-1)
AVG-DIR	Average Remuneration Per Director
AVG-DIR(t)	Average Remuneration Per Director at time (t)
AVG-DIR(t-1)	Average Remuneration Per Director at time (t-1)
TOTL-DIR	Total of Basic Remuneration for All Directors
TOTL-DIR(t)	Total of Basic Remuneration for All Directors at time (t)
TOTL-DIR(t-1)	Total of Basic Remuneration for All Directors at time (t-1)
AVG-EMP	Average Remuneration Per Employee
AVG-EMP(t)	Average Remuneration Per Employee at time (t)
AVG-EMP(t-1)	Average Remuneration Per Employee at time (t-1)
TOTL-EMP	Total of Basic Remuneration for All Employees
TOTL-EMP(t)	Total of Basic Remuneration for All Employees at time (t)
TOTL-EMP(t-1)	Total of Basic Remuneration for All Employees at time (t-1)
ACQEXP	Acquisition Expenditure
ACQRAT	Acquisition Rate
SALES	Sales
NOEMP	Number of Employees
CAPEMP	Capital Employed
PBT	Profit Before Tax
SHRPRC	Share Price
SHHRTN	Shareholders Returns
GOV	Governance

OTHERS	
CONST	Constant
OBN	Number of Observations
N	Number of Companies
YR	Year Dummies
FROM	Starting Year
TO	Ending Year
SARGAN	Sargan Test to examine validity of the instruments
2SC	Second - Order Serial Correlation
DF	Degrees of Freedom
nss	Not Statistically Significant
LAG (0,0), (1,0), (1,1), (2,1), (3,1)	Refer to Appendix 8.3 for full explanation
Version I to IV Regression Equations	Refer to Appendix 3.7 for full explanation
SD	Standard Deviation
DPD	Dynamic Panel Data
GMM	Generalised Methods of Moment

APPENDIX 2: NOTES

These notes apply to the regression results reported in appendices 4.1 to 7.8

1. Each cell in the variables columns contains two figures; the top one is the regression coefficient, while the bottom one is t-statistic value
2. Each cell in Sargan column contains two figures; the top one is the Sargan value, while the bottom one is the degrees of freedom. The test examines the instruments validity and is asymptotically distributed as a chi-square.
3. Each cell in 2SC column contains two figures; the top one is the second-order serial correlation value and the bottom one is the t-statistic value.
4. Refer to Appendix 7.3 for full explanation of Versions I to IV regression equations.

This appendix provides detailed definitions of all the variables in the research and indicates their sources. The variables are grouped into two categories, endogenous and exogenous variables. The endogenous variables category consists of all the remuneration measures, while the endogenous one consists of measures of corporate acquisition, size, performance and governance. 'Datastream' code is in brackets.

Endogenous Variables
This category consists of four remuneration measures.

- *Highest Paid Director Basic Remuneration - (224)*

This is the sum of cash payment and bonus for the highest paid director remuneration as disclosed in the published accounts. As Conyon (1994) and Conyon and Leech (1994) highlighted, the definition of highest paid director does not necessarily coincide with the chief executive officer. This variable is collected through 'Datastream' and 'company accounts'.

- *Highest Paid Director Total Remuneration*

This is the sum of the highest paid director basic remuneration and actual or potential gains from executive share option scheme (ESO). As explained above, highest paid director basic remuneration is collected from 'Datastream' and company final accounts. While 'ESO' data is collected from company accounts, register of directors shares interest and a survey conducted by the researcher. A questionnaire was sent to 545 companies. It requested the details of the highest paid director ESO scheme, for the period 1980 up to and including 1992. One hundred and ten (110) companies replied while the remaining rejected participation. Out of 110 (20%) responses 79 (15 %) were fully completed replies.

To evaluate ESO gain we classified them into *Types 1* and *2*, based on if they have been exercised during the research period. *Type 1*, are ESO granted and exercised during the research period (1980-92). *Type 2*, are ESO granted during the research period but not exercised up to the end of 1992. The following section explores the evaluation method for each type.

TYPE 1, If the option is granted and exercised during the research period then actual gain is the difference between the market price on the exercising date and the exercise price. The total actual gain is obtained by multiplying the actual gain by the number of options exercised.

TYPE 2, If options granted but not exercised during the research period, and are 'in the money' then they are treated as potential gains. The potential gain is taken to be the difference between the exercise price of the option and the market price of the share at the end of the research period, that is on 31

December 1992. This evaluation[132] is used by Abell et al (1994), Main and Johnston (1993) and Clinch (1991).

The two types of gains are distributed across the exercisable holding period which is defined as the total holding period excluding the first three years closed period. This treatment is based on the fact the directors are not able to exercise their options in the first three years.

In short, highest paid director total remuneration is the sum of the basic remuneration and the actual and potential ESO gain distributed on the exercisable holding period.

- **Average Basic Remuneration Per Directors (Items 125/242)**

Calculated as the sum of the basic remuneration for all the directors divided by total number of directors. *Basic remuneration for all the directors (125)* is the total directors fees, emoluments for management services and pensions or pension fund contributions paid to, or on behalf of, directors. Compensations for loss of office and *ex gratia* payments are excluded. *Number of directors (242)* is the number of both executives and non-executives excluding alternate directors. These variables are collected through 'Datastream'.

- **Average Basic Remuneration Per Employees (Items 215/219)**

Calculated as the sum of basic remuneration for all employees, excluding directors' remuneration, divided by total number of employees. The *basic remuneration for all employees (215)*, is total wages and salaries of non-managerial employees. While *total number of employees (219)* is total number of domestic and overseas employees, including part-time, when available.

Exogenous Variables

Corporate Acquisition Measures

Two measures of corporate acquisition activities are employed in this study, total acquisition expenditure and acquisition rate. The two measures are used in separate regression equations. The reason for using two measures of acquisition is to examine the sensitivity of the acquisition statistical significance to the measure of corporate acquisitiveness. These variables are collected through 'Datastream'. The following section defines each variable.

- **Total Acquisition Expenditure (Item 455)**

Acquisition variable is defined as total consideration of acquisition, this is the sum of:

> Equity issued for acquisition
> Loan issued for acquisition
> Preference issued for acquisition
> Cash issued for acquisition

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[132] Refer to Appendix 3.2 for explanations of the reasons for not using Black and Scholes valuation Model.

Any cash received from the sale of subsidiaries is deducted from this sum[133]. The exclusion is based on the grounds that current returns could be attributed to financial management considerations, and not solely to growth policies.

- **Acquisition Rate - [455/(455+431)]**
This shows acquisition expenditure as a proportion of total growth expenditure. Total growth expenditure is the sum of total acquisition expenditure, (455), and fixed assets purchased (431). *Fixed assets purchased* is defined as fixed assets purchased by the company excluding assets acquired from new subsidiaries.

It is important to note that companies in this research do not necessarily form a representative sample of only *acquisitive* companies, and no attempt was made to get such a sample as that would have been difficult without a compromise in the research design, and because the purpose of the research is not to examine remuneration of acquisitive companies but to find the relationship, if any, for a representative sample of the population parameters whether acquisitive or not. In retrospect the sample includes companies that had no acquisition activities during the research period.

Corporate Size Measures
In this study we employed three measures of corporate size - total sales, number of employee and capital employed - to enable us to compare our findings and to test whether the results are invariant to alternative measures. These variables are collected through 'Datastream'.

- **Total Sales (Item 104)**
The amount of sales of goods and services to third parties, relating to the normal activities of the company. This amount usually does not include Value Added Tax or any other taxes relating directly to turnover, and is net of trade discounts. For brewing and tobacco companies where excise duties are not separately disclosed, the values entered here are gross.

- **Total Capital Employed (Item 322)**
This is the sum of all non-current liabilities[134] which includes all the long-term resources of capital. These are loans, equity and funds available as a result of retaining profit within the business. Capital employed reflects the full value of resources available for management during the year (Warren, 1990).

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[133] If the cash received from the sale of a subsidiary, is more than the total consolidation payment then companies where classified as "Assets Stripping Companies" and separated from the main model.

[134] Current liabilities are excluded as they represent a short-term resources of finance

- *Total Number of Employees (219)*

This is the total number of domestic and overseas employees, including part-time, when available.

Corporate Performance Measures

Corporate performance measures can be divided into two categories, market and accounting measures. In this study, accounting performance is measured by profit; while market performance is measured by annual average corporate share price and shareholder returns. These variables are collected through 'Datastream'.

- *Pre-tax Profit (including Associates) - adjusted (Item 157)*

This the pre-tax profit adjusted for exceptional/extraordinary items, non-operating provisions and exchange profits/losses according to Warren (1990). Operating profit before tax is the most appropriate indicator of overall business performance. In particular it is appropriate in assessing the corporate relative performance year by year, as it shows the amount of profit generated from the trading activities regardless of any exceptional items or of tax changes (Warren, 1990).

- *Share Price*

The average of the aggregate daily closing share price for the operating year.

- *Shareholder Returns*

Shareholder returns are the sum of the current share price and current dividends divided by previous year's share price, represented by

$$[\text{Share Price}_{(t)} + \text{Dividend}_{(t)} / \text{Share Price}_{(t-1)}]$$

where, 't' is indicates of time period

Governance Measure

This category consist of one measure.
- *Governance (Items 243/ 242)*

Calculated as the ratio between non-executives (243) and total number of directors on the board of directors (242). Total number of directors includes executive and non-executive directors but excludes alternate directors.

Appendix 3. 2 Criticism of Using Black-Scholes Model In Valuing ESO

The aim of this appendix is to define executive share options and to explore the reasons for the inappropriateness of valuing ESO using the Black and Scholes pricing model.

Executive share options (ESO) are contracts granted to executives allowing the purchase of corporate common stock at favourable prices (Samuels et al, 1990). In the UK, ESO are usually exercisable after three years from the granting date and lapse ten years from the granting date. ESO are introduced to obtain goal congruence between managers and shareholders (Samuels et al, 1990; Lewellen et al, 1985).

There is no market for executive share options, which complicates the pricing of these options. However, scholars and practitioners have been using versions of call options valuations to price ESO. Option valuation models are based on an arbitrage strategy, that is hedging against the underlying asset and re-balancing continuously until expiration. The Black and Scholes (1973) valuation method (henceforth B-S) is one of the most popular methods used in valuing ESO. However, some scholars argue that there are fundamental differences between ESO and Options and therefore B-S is an inappropriate model for ESO's valuation. These differences are discussed next.

On the one hand, ESO's realistic value could be higher than the value imputed by B-S model, because managers as insiders, naturally, have a good knowledge of the best exercising time. On the other hand ESO's realistic value could be lower than the B-S valuation because of the restrictions imposed on exercising executive options which implies a severe departure from the option-pricing theory. These restrictions are embedded in ESO characteristics like, non-transferability, short selling prohibition, absence of the ability to diversify risk associated with options pay off and restrictions on exercising the options after leaving the firm's employment[135] . These restrictions introduce a serious complication in valuing executive stock option that is not present in the valuation of market options. Indeed concern about the inappropriateness of using B-S in valuing ESO has increased greatly in recent years. Clinch (1991) and Abell et al (1994) used different methods in valuing ESOs. In the study reported in this thesis, we have followed Clinch and Abell et al pricing of ESO by using the actual company share price on a date related to the research period. The valuation method is explained in the body of the thesis (Section 3.1.3 and in Appendix 3.1)

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[135] Noreen and Wolfson (1981), Murphy (1985), Lambert and Larcker (1986).

Appendix 3. 3 Deletion and Estimation Technique for the Missing Entries

The main data set consisted of data on 545 companies for thirteen years period, starting 1980 and ending 1992. However, after deleting the cases with less than five entries and after estimating the missing values for variables with a maximum of two missing entries, the number of companies in the main sample decreased to 361 companies with 2109 entries. The two strategies used to estimate the missing values are explained below.

Estimation technique of The Highest Paid Director and Average Basic Remuneration per Director, The ratio between highest director and total directors' remuneration in $t+1$, in conjunction with the available variable in year t were used to estimate the missing variable in year t. The following formulas were used:

Formula for finding the highest paid director basic remuneration (hpd_t),	$hpd_t = (hpd_{t+1} * dir_t) / dir_{t+1}$
Formula for finding the average remuneration per director (dir_t),	$dir_t = (dir_{t+1} * hpd_t) / hpd_{t+1}$
Where, hpd_t 'hpd' basic remuneration, at time (t) hpd_{t+1} 'hpd' remuneration at time (t+1) dir_t Remuneration for all directors at time (t) dir_{t+1} Remuneration for all directors at time (t +1)	

Estimation for the Variables Sales, Capital Employed, Number of Employees and Profit

The missing variable at (t) has been estimated by taking the average of the variable at the year before (t-1) and the year after (t+1), using the following formula:

Missing value$_t$ = (Value $_{t+1}$ + Value $_{t-1}$) / 2, where, t current year $t+1$ previous year $t-1$ the following year

Approximately 1% of the data were estimated by applying these two estimation strategies

Appendix 3. 4 Box-Cox Transformation Method & Results

As we had the occasion to note Box-Cox is a formal method of finding the most appropriate transformation of the endogenous variable to satisfy the normality assumption in regression. The method involves systematically computing the log-likelihood of a number of transformations to determine the one with residuals that would have most likely come from a normal distribution. Transformations are expressed as powers of the endogenous variable (y). It is conventional to examine transformation to the powers of -2 to +2.

The Box-Cox method involves three steps, *first*, computing the log-likelihood of the transformation powers, *second*, plotting the graphs and *third*, interpreting results and graphs. Each of these steps is discussed below.

First, The following equations are used to compute the log-likelihood of the transformation powers:

If $P <> 0$ then the log-likelihood equals

$L(P) = N \ln (|P|) + N (P-1)\ln (GM) - F(N,2) \ln (SS_{residuals})$;

If $P = 0$, then

$L(P) = - N (GM) - F(N,2) \ln (SS_{residuals})$

Where,	
P	Power of Transformation of $y = \{-2, -1.5, -1, -0.5, 0, 0.5, 1, 1.5, 2\}$
N	Number of Cases
GM	Geometric Mean of the endogenous variable
F	F Distribution function which converts points into probabilities
$SS_{residuals}$	Sum of Squared Residuals

Second, Plot the Log-likelihood of the transformation powers against the powers themselves [Refer to Figures 3.1 to 3.4 in next page]. The power with the maximum log-likelihood represents the optimal power of transformation of the endogenous variable.

Third, Analysis of The Results

The data and charts in Figures 3.1 - 3.4 show that the log-likelihood increases with powers of 'y' up to about the power 1 and then starts to decrease. This implies that the best transformation is 'no transformation' for all the data samples.

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Figure 3.1: The Log-Likelihood of the Transformation Powers against the Powers Themselves for the Basic Remuneration of the 'hpd' Sample

Power	Log-Likelihood of Powers
-2	-27889.328
-1.5	-25487.586
-1	-23193.784
-0.5	-20524.879
0	-18597.696
0.5	-17264.461
1	-16907.475
1.5	-17681.921
2	-18145.358
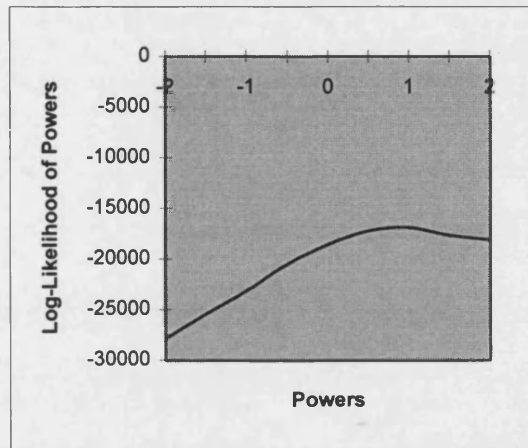
Figure 3.2: The Log-Likelihood of the Transformation Powers against the Powers Themselves for the Total Remuneration of the 'hpd' Sample

Power	Log-Likelihood of Powers
-2	-5212.432
-1.5	-4820.123
-1	-4512.821
-0.5	-4149.556
0	-3845.362
0.5	-3653.896
1	-3594.400
1.5	-3744.215
2	-3878.919
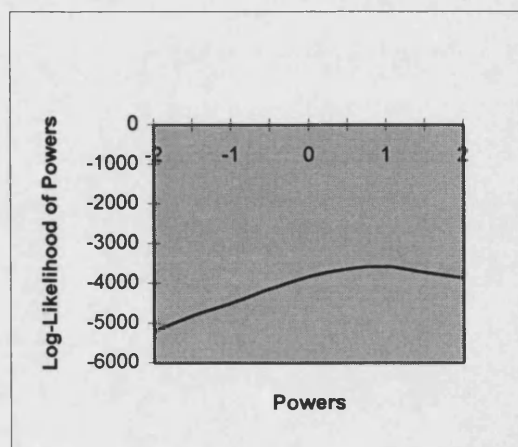
Con. Appendix 3.4: Cox-Box Transformation Data and Graphs

Figure 3.3: The Log-Likelihood of the Transformation Powers against the Powers Themselves for the Average Remuneration Per Director Sample

Power	Log-Likelihood of Powers
-2	-31251.587
-1.5	-29584.359
-1	-27925.832
-0.5	-26292.442
0	-24303.251
0.5	-22323.830
1	-21323.830
1.5	-22145.632
2	-23944.956
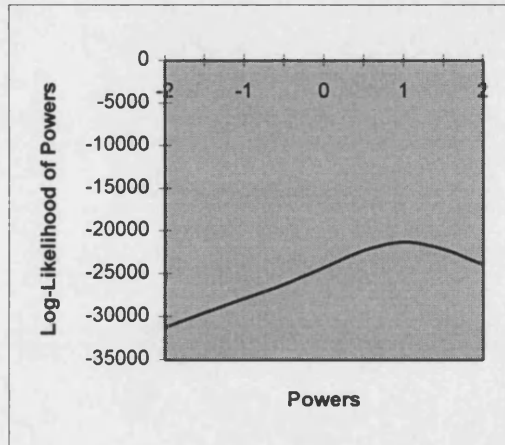
Figure 3.4: The Log-Likelihood of the Transformation Powers against the Powers Themselves for the Average Remuneration Per Employee Sample

Power	Log-Likelihood of Powers
-2	-9821.543
-1.5	-9152.546
-1	-8203.389
-0.5	-7441.390
0	-6966.983
0.5	-6731.652
1	-6612.062
1.5	-6836.475
2	-7056.351
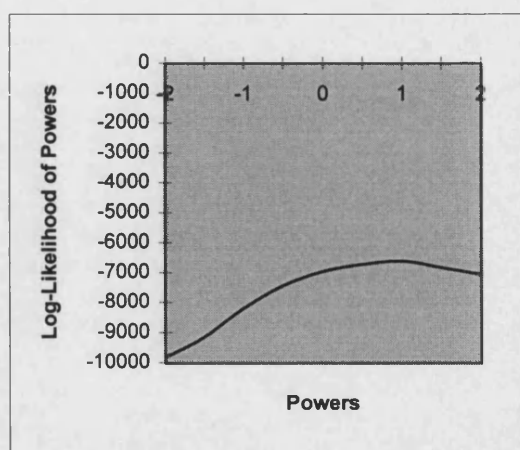
Appendix 3. 5 <u>Glossary of Some of the Statistical Terms</u>

TERM	DESCRIPTION
Unbiased Estimators	The expected value of the estimators, say $\hat{\beta}$, is equal to the true value, β.
Efficient Estimator	If it has smaller variance than any other estimator of β.
Consistent Estimator	If both its bias and variance approach zero as sample size approaches infinity

Source: Ostrom , 1990.

Appendix 3. 6 <u>Relationship Between Sales, Profit, Share Price</u>

<u>And Shareholder Returns</u>

←——→ Direct Relationship

◄····► Indirect Relationship

Share Price

Sales   **Profit**

Shareholder Returns
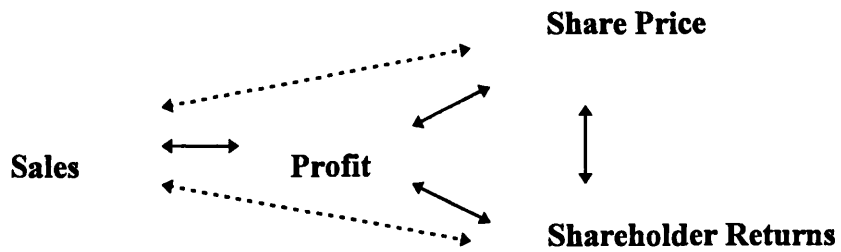
Appendix 3. 7 Versions I to IV Regression Equations

Corporate acquisitiveness and shareholder interests have been measured by more than one variable (used in separate regression equations, obviously) to test if the results are invariant to alternative measures. Consequently, we have formulated four versions of the main regression equation (Equation 3.4) suing different measures of the variables. The four versions are titled equations I to IV and are described allegorically as follows:

Versions to IV of Regression Equation

Versions of Regression Equation	Variables
Version I	Δ Remuneration$_t$ = α + β_1 Δ Remuneration $_{i,t-1}$ +β_2 Δ **Acquisition Expenditure**$_{it}$ + β_3 Δ Sales$_{it}$+ β_4 Δ Capital Employed $_{it}$ +β_5 Δ Number of Employees$_{it}$+β_6 Δ **Share Price** $_{it}$ + β_7 Δ Profit$_{it}$ + β_8 Δ Governance+ ψ_t + Δv_{it}
Version II	Δ Remuneration$_t$ = α + β_1 Δ Remuneration $_{i,t-1}$ +β_2 Δ **Acquisition Expenditure**$_{it}$ + β_3 Δ Sales$_{it}$+ β_4 Δ Capital Employed $_{it}$ +β_5 Δ Number of Employees$_{it}$+β_6 Δ **Shareholders Returns**$_{it}$ + β_7 Δ Profit$_{it}$ + β_8 Δ Governance+ ψ_t + Δv_{it}
Version III	Δ Remuneration$_t$ = α + β_1 Δ Remuneration $_{i,t-1}$ +β_2 Δ **Acquisition Rate**$_{it}$ + β_3 Δ Sales$_{it}$+ β_4 Δ Capital Employed $_{it}$ +β_5 Δ Number of Employees$_{it}$+β_6 Δ **Share Price**$_{it}$ + β_7 Δ Profit$_{it}$ + β_8 Δ Governance+ ψ_t + Δv_{it}
Version IV	Δ Remuneration$_t$ = α + β_1 Δ Remuneration $_{i,t-1}$ +β_2 Δ **Acquisition Rate**$_{it}$ + β_3 Δ Sales$_{it}$+ β_4 Δ Capital Employed $_{it}$ +β_5 Δ Number of Employees$_{it}$+β_6 Δ **Shareholders Returns**$_{it}$ + β_7 Δ Profit$_{it}$ + β_8 Δ Governance+ ψ_t + Δv_{it}

All regression equations include the three measures of corporate size, governance and profit, however as mentioned above, they differ in the market performance and acquisition measures.

- Equations I and II employ the same acquisition measure, that is acquisition expenditure, but differ in the market performance measures. The former employs share price and the latter employs shareholder returns.
- Equations III and IV employ the same acquisition measure, that is acquisition rate, but differ in the market performance measures. The former employs share price and the latter employs shareholder returns

Appendix 3. 8 Alternative Time Lag

The main regression equation (Equation [3.4]) has been designed with five time lags in the acquisition variable and the 'remaining'[136] exogenous variables. The following table is an algebraic representation of the time lag equations.

$$\Delta y_{i,t} = \alpha + \delta \Delta y_{i,t-1} + \Delta ACQ_{i,t} + \beta\Delta [x]_{i,t} + \Delta v_{i,t} + \psi_t \quad \text{.......................} \quad [LAG (0,0)]$$

$$\Delta y_{i,t} = \alpha + \delta \Delta y_{i,t-1} + \Delta ACQ_{i,t-1} + \beta\Delta [x]_{i,t} + \Delta v_{i,t} + \psi_t \quad \text{.......................} \quad [LAG (1,0)]$$

$$\Delta y_{i,t} = \alpha + \delta \Delta y_{i,t-1} + \Delta ACQ_{i,t-1} + \beta \Delta [x]_{i,t-1} + \Delta v_{i,t} + \psi_t \quad \text{.......................} \quad [LAG (1,1)]$$

$$\Delta y_{i,t} = \alpha + \delta \Delta y_{i,t-1} + \Delta ACQ_{i,t-2} + \beta \Delta [x]_{i,t-1} + \Delta v_{i,t} + \psi_t \quad \text{.......................} \quad [LAG (2,1)]$$

$$\Delta y_{i,t} = \alpha + \delta \Delta y_{i,t-1} + \Delta ACQ_{i,t-3} + \beta \Delta [x]_{i,t-1} + \Delta u_{i,t} + \psi_t \quad \text{.......................} \quad [LAG (3,1)]$$

where,	ACQ	Acquisition measure
	[x]	All the remaining endogenous
	t	Suffix for time
	Δ	First Difference
	u	Error Term
	v	The 'remaining' Disturbance term

In all lag equations, $\Delta y_{i,t-1}$, on the right hand side of the regression equation, is always lagged by one period. However in

- *'No Lag' equation* [LAG (0,0)] acquisition and all the remaining exogenous variables are at time (t). This reflects the notion that individual's current rewards may correspond to current efforts, performance and activities.

- *In one-year lag'* equations, there are two versions of this type. In the first version, [LAG (1,0)], acquisition is lagged by one period, $(t-1)$, while the 'remaining' exogenous variables are at (t). In the second version, [LAG (1,1)], acquisition and all the 'remaining' exogenous variables are lagged by $(t-1)$.

In *'two' and 'three- years lag equations* [LAG (2,1) and (3,1) respectively], acquisition is lagged by $(t-2)$ and $(t-3)$, respectively, and the 'remaining' exogenous variables are at $(t-1)$. This modelling strategy, where the endogenous variables pre-date the exogenous one, has recently been used in management remuneration studies by Gregg et al (1993), Main (1993) Conyon and Leech (1994), Conyon (1994) and Abell et al (1994). The reflects the view that current remuneration may correspond to past performance and effort levels. Hence, we must consider the time required for company performance, strategies and activities to have an impact on remuneration.

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[136] The 'remaining' exogenous variables are: sale, capital employed, number of employees, share price, shareholder returns and governance.

Appendix 3. 9 Explanation of 'Full' and 'Partial' Stacking

The following table specifies the instruments used in each type of stacking:

Number of Time Periods in the research sample = 13

Stacking Type	Technical Notation	Instruments Used
Full	GMM(99)	Used all the optimal efficient instruments from (t-2) and earlier. These are, [t-2, t-3, t-4, t-5, t-6, t-7, t-8, t-9, t-10, t-11, t-12]
Partial (4)	GMM(4)	Used the first four instruments starting from the (t-2). These are [t-2, t-3, t-4, t-5]
Partial (3)	GMM(3)	The first three instruments were used: [t-2, t-3, t-4]
Partial (2)	GMM(2)	The first two instruments were used: [t-2, t-3]

The main results for all samples, except 'total highest paid director remuneration' are based on 'partial 4' stacking results; while 'full' stacking results are used as robustness tests. In the highest paid director's total remuneration' sample the number of companies was relatively small, 79, and hence we were unable to use 'full' or 'partial 4' stacking. Instead we used 'partial 3' results in the main analysis and 'partial 2' stacking as the robustness tests.

Appendix 4.1 **Regression Results for Basic Remuneration of the Highest Paid Director Sample: Verion I**

STACKING	LAG	CONST	HPD-B	ACQEXP	SALES	NOEMP	CAPEMP	PBT	SHRPRC	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	2.5165	0.5565	0.0501	41.4161	10.0729	-57.0681	102.4388	17.6085	-6.7864	nss	2109	361	1982	1992	135.6092	1.083
		0.2363	4.5082	0.0045	0.6107	0.0966	-0.6639	1.7499	0.9251	-0.0728						33	
	(1,0)	13.2097	0.5364	36.3745	-71.9143	76.7012	11.7544	59.0845	17.2532	51.7759	nss	2109	361	1982	1992	58.0887	-0.544
		0.8737	3.2659	3.7983	-0.8741	0.6757	0.1078	0.9491	0.7273	0.5544						33	
	(1,1)	29.5563	0.5494	37.7142	-112.2179	64.2677	60.2632	-5.7661	-29.1897	-148.3791	nss	2109	361	1982	1992	42.2851	-0.544
		1.7446	4.5766	3.2857	-1.3679	0.9421	0.5684	-0.1406	-1.3288	-1.6758						33	
	(2,1)	28.2982	0.1723	30.2276	-64.5716	61.2014	-22.5780	56.6832	13.2483	-60.3731	nss	1748	361	1983	1992	80.4679	0.097
		2.2099	1.3920	3.1212	-0.9916	0.8360	-0.2049	0.9729	0.6528	-0.7598						32	
	(3,1)	40.9178	0.0834	14.6040	-46.2119	55.4755	-7.8448	87.6193	4.2361	-88.0240	nss	1387	361	1984	1992	110.3693	-0.351
		2.4817	0.5072	1.0228	-0.6346	0.7004	-0.0796	1.3419	0.2575	-1.0002						30	
Full Stacking	(0,0)	-6.7699	0.5325	3.1693	67.5171	-18.9661	-60.9984	101.4266	16.4909	-4.0525	nss	2109	361	1982	1992	172.9274	1.145
		-0.6233	5.1946	0.4168	1.3866	-0.2981	-1.1420	1.9800	1.2899	-0.1189						61	
	(1,0)	-1.8338	0.5016	20.4878	25.5425	-5.6922	-25.4829	81.7551	13.8645	-20.6552	nss	2109	361	1982	1992	137.8088	0.266
		-0.1954	4.6682	3.5553	0.5857	-0.0965	-0.4649	1.5077	1.0889	-0.5478						61	
	(1,1)	15.9740	0.4834	22.3974	-39.7202	40.5633	-23.2293	34.0123	-9.0911	-125.1778	nss	2109	361	1982	1992	104.6275	0.032
		1.3786	5.6895	3.4729	-0.9338	0.9200	-0.4222	1.1440	-0.7394	-3.1656						61	
	(2,1)	15.7894	0.2742	18.2077	-33.9619	22.1128	-9.5516	55.7181	5.1429	-92.9944	nss	1748	361	1983	1992	129.8547	0.334
		1.0053	2.6115	2.0221	-0.7657	0.3911	-0.1496	1.0574	0.3884	-2.2989						60	
	(3,1)	26.3816	0.1285	12.1566	-26.1718	42.9336	-22.7470	89.2433	3.5471	-77.9843	nss	1387	361	1984	1992	143.3596	-0.17
		1.3343	1.1104	1.5182	-0.4906	0.7429	-0.3765	1.3868	0.2524	-2.0948						58	

Appendix 4.2   **Regression Results for Basic Remuneration of the Highest Paid Director Sample: Verion II**

STACKING	LAG	CONST	HPD-B	ACQEXP	SALES	NOEMP	CAPEMP	PBT	SHHRTN	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	4.2901	0.5842	0.6736	35.0649	-3.5185	-22.6467	92.2146	13.9612	-28.0617	nss	2109	361	1982	1992	136.8896	1.052
		0.3318	4.4217	0.0598	0.4830	-0.0308	-0.2657	1.5486	2.0485	-0.3297						33	
	(1,0)	16.6712	0.5569	37.3184	-82.5770	87.9106	20.0481	54.0286	25.0202	48.0548	nss	2109	361	1982	1992	55.6152	-0.559
		0.9828	3.2449	3.7528	-0.9728	0.6989	0.1781	0.8113	2.8641	0.5535						33	
	(1,1)	24.2715	0.5368	35.3340	-116.3950	46.2921	79.7819	-10.8545	-24.1860	-151.4391	nss	2109	361	1982	1992	41.2704	-0.513
		1.3709	4.3628	3.3667	-1.5289	0.6364	0.7919	-0.2522	-1.8891	-1.8090						33	
	(2,1)	30.5740	0.1794	29.4562	-65.5873	64.7031	-20.8396	60.7966	-3.3568	-73.0445	nss	1748	361	1983	1992	79.1812	0.063
		2.1986	1.3553	2.9472	-1.0374	0.8633	-0.2048	0.9938	-0.3331	-0.9768						32	
	(3,1)	41.9239	0.0754	14.4164	-35.6573	37.1877	-1.4710	89.4576	-12.2494	-97.5161	nss	1387	361	1984	1992	108.0015	-0.379
		2.4414	0.4575	0.9976	-0.4870	0.4544	-0.0156	1.3675	-1.0789	-1.1162						30	
Full Stacking	(0,0)	-4.7451	0.5415	4.3455	64.3451	-23.1881	-44.8194	97.4813	13.7598	-11.4454	nss	2109	361	1982	1992	175.9819	1.177
		-0.4400	5.1152	0.5725	1.3247	-0.3500	-0.8375	1.8961	2.0223	-0.3333						61	
	(1,0)	0.1481	0.5096	21.0667	23.1681	-3.3034	-20.1511	78.8193	18.9579	-23.9255	nss	2109	361	1982	1992	136.9983	0.243
		0.0154	4.6471	3.6114	0.5233	-0.0525	-0.3538	1.4390	2.8590	-0.6286						61	
	(1,1)	15.3933	0.4718	21.9592	-46.2467	36.3988	-11.2168	34.1382	-19.6999	-130.6459	nss	2109	361	1982	1992	100.8502	-0.002
		1.2998	5.2542	3.5011	-1.1471	0.8025	-0.2041	1.0972	-2.0400	-3.3714						61	
	(2,1)	16.7655	0.2747	17.3754	-33.5253	23.7948	-10.4959	59.9810	-10.3106	-98.1907	nss	1748	361	1983	1992	127.3384	0.323
		1.0264	2.5555	1.9766	-0.7836	0.4091	-0.1676	1.0961	-1.2026	-2.5075						60	
	(3,1)	28.8410	0.1205	11.6647	-18.1985	31.3437	-20.8271	92.5310	-13.8293	-83.5086	nss	1387	361	1984	1992	141.1516	-0.198
		1.4266	1.0362	1.4381	-0.3414	0.5168	-0.3552	1.4170	-1.2436	-2.2505						58	

Appendix 4.3 **Regression Results for Basic Remuneration of the Highest Paid Director Sample: Verion III**

STACKING	LAG	CONST	HPD-B	ACQRAT	SALES	NOEMP	CAPEMP	PBT	SHRPRC	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	3.5257	0.5570	-22.0011	40.8639	8.9565	-51.7760	104.1653	25.8030	-12.8290	nss	2109	361	1982	1992	95.5285	1.012
		0.3374	4.1711	-2.0765	0.5707	0.0871	-0.5634	1.5511	1.2798	-0.1416						33	
	(1,0)	12.1333	0.6696	45.8154	-40.7447	41.2453	-4.2886	72.3285	14.4649	22.5466	84,8	2109	361	1982	1992	40.9177	0.628
		0.7483	3.8931	3.2239	-0.4824	0.3677	-0.0393	1.1158	0.5978	0.2397						33	
	(1,1)	29.5761	0.6756	44.6745	-57.5324	52.1485	-9.9658	23.2709	-27.1315	-147.4545	nss	2109	361	1982	1992	34.3607	0.469
		1.6734	5.1774	2.8359	-0.6966	0.7280	-0.0949	0.6613	-1.1492	-1.7248						33	
	(2,1)	28.2025	0.2340	25.2208	-45.5060	29.8118	-14.8383	71.4777	6.4009	-90.4121	nss	1748	361	1983	1992	90.2218	0.152
		1.8865	2.0232	2.1153	-0.6979	0.4292	-0.1378	1.2010	0.3258	-1.1608						32	
	(3,1)	38.9481	0.1112	19.4672	-31.4308	31.8673	-10.0732	86.9118	4.5135	-65.6079	nss	1387	361	1984	1992	99.8665	-0.25
		2.5164	0.8333	1.4363	-0.4411	0.3940	-0.1185	1.3753	0.2774	-0.9170						30	
Full Stacking	(0,0)	-6.3602	0.5290	-8.5374	75.0862	-26.5991	-60.5242	105.6378	21.1940	-7.0953	nss	2109	361	1982	1992	161.9050	1.05
		-0.5807	4.8784	-1.2336	1.5415	-0.4150	-1.0971	1.8986	1.6196	-0.1973						61	
	(1,0)	-1.9178	0.5624	23.5615	42.7596	-13.8715	-47.5403	95.1318	15.4490	-20.3029	nss	2109	361	1982	1992	114.7843	0.82
		-0.1877	5.0336	2.7023	0.9182	-0.2258	-0.8523	1.6740	1.1682	-0.5461						61	
	(1,1)	13.9009	0.5371	22.6127	-3.0255	24.7980	-57.9330	53.1784	-6.1039	-113.9574	nss	2109	361	1982	1992	99.7371	0.817
		1.1852	6.3987	2.5575	-0.0691	0.5262	-1.0873	1.6525	-0.5136	-3.0227						61	
	(2,1)	15.4642	0.2828	14.8239	-8.6785	15.9098	-41.3814	74.5450	7.0503	-91.2575	nss	1748	361	1983	1992	140.7170	0.312
		0.9450	2.7567	1.3496	-0.1939	0.2674	-0.6912	1.3232	0.5294	-2.3164						60	
	(3,1)	28.2513	0.1382	19.1873	-26.2549	36.2445	-23.7405	92.0427	4.1318	-71.1999	nss	1387	361	1984	1992	121.4133	-0.222
		1.4535	1.1777	2.2984	-0.5336	0.6301	-0.4219	1.4098	0.2862	-1.7686						58	

Appendix 4.4   **Regression Results for Basic Remuneration of the Highest Paid Director Sample: Verion IV**

STACKING	LAG	CONST	HPD-B	ACQRAT	SALES	NOEMP	CAPEMP	PBT	SHHRTN	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	6.9318	0.5845	-20.2235	33.1243	1.8336	-20.7763	97.0319	19.2897	-38.6802	nss	2109	361	1982	1992	100.5844	0.982
		0.5741	4.3186	-1.8625	0.4561	0.0166	-0.2343	1.4233	2.3296	-0.4682						33	
	(1,0)	15.0721	0.6979	47.1496	-50.7022	51.1276	3.0446	64.8752	29.4399	23.4015	84,8	2109	361	1982	1992	38.6094	0.673
		0.8223	3.8707	3.1213	-0.5784	0.4138	0.0270	0.9607	2.5676	0.2619						33	
	(1,1)	24.4240	0.6584	43.0233	-69.2926	33.5650	22.3994	15.2638	-29.4211	-156.4482	nss	2109	361	1982	1992	32.5778	0.305
		1.2967	5.3515	2.9478	-0.8998	0.4280	0.2243	0.4018	-2.1047	-2.0151						33	
	(2,1)	29.4692	0.2483	23.3634	-51.4050	29.6740	-3.3754	71.4708	-7.9120	-105.2383	nss	1748	361	1983	1992	89.3820	0.138
		1.7962	1.9985	1.8882	-0.8121	0.4114	-0.0330	1.1717	-0.7642	-1.4404						32	
	(3,1)	40.1850	0.1002	19.5280	-20.0939	14.1345	-5.6321	89.3877	-12.5661	-75.6167	nss	1387	361	1984	1992	97.5953	-0.297
		2.5001	0.7453	1.3828	-0.2833	0.1689	-0.0678	1.4050	-1.0909	-1.0592						30	
Full Stacking	(0,0)	-3.2893	0.5429	-6.6557	69.7832	-27.9083	-42.7259	103.3502	15.9697	-17.3312	nss	2109	361	1982	1992	169.6495	1.054
		-0.3073	4.9580	-0.9653	1.4787	-0.4214	-0.7738	1.8484	2.1912	-0.4758						61	
	(1,0)	0.3277	0.5742	24.4777	40.3290	-11.7884	-41.4935	91.8756	21.4914	-24.1500	nss	2109	361	1982	1992	112.9499	0.832
		0.0315	5.0095	2.7317	0.8594	-0.1810	-0.7108	1.6065	2.7668	-0.6307						61	
	(1,1)	13.7796	0.5251	22.9928	-11.0549	21.2414	-43.6922	53.5716	-21.7323	-121.3883	nss	2109	361	1982	1992	95.0011	0.757
		1.1478	5.8986	2.5866	-0.2629	0.4341	-0.8102	1.6129	-2.2606	-3.2620						61	
	(2,1)	16.7211	0.2867	13.6129	-10.5899	16.6906	-36.6363	77.6266	-11.6813	-98.3839	nss	1748	361	1983	1992	138.4960	0.292
		0.9853	2.7187	1.2420	-0.2426	0.2740	-0.6053	1.3419	-1.3363	-2.5550						60	
	(3,1)	30.7498	0.1280	18.8095	-17.7461	25.6606	-23.5328	95.5617	-12.9788	-76.9379	nss	1387	361	1984	1992	119.8638	-0.26
		1.5408	1.0801	2.1823	-0.3635	0.4275	-0.4256	1.4408	-1.1241	-1.9177						58	

APPENDIX 5.1 Regression Results for Total Remuneration of the Highest Paid Director Sample: Version I

STACKING	LAG	CONST	HPD-T	ACQEXP	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial 3	(0,0)	-229.1247	-0.1211	-0.2471	0.1790	1.1822	0.0746	-7.5177	-0.0900	-5.6836	nss	442	79	1982	1992	66.4280	-1.076
		-1.0921	-1.2523	-3.7155	3.1473	1.6957	0.3682	-1.0492	-1.8221	-0.9103						25	
	(1,0)	-119.2814	0.0491	0.5117	0.0747	0.5201	0.1206	-5.0408	-0.0348	-4.8595	nss	442	79	1982	1992	36.9254	-1.077
		-1.1230	0.4131	3.1507	1.4473	1.3858	0.6509	-1.1843	-0.9536	-1.0644						25	
	(1,1)	96.6865	0.0051	0.4727	0.0131	0.2639	0.2069	-3.8551	-0.0217	-0.9041	nss	442	79	1982	1992	59.7989	-0.333
		1.4693	0.0395	2.1113	0.1655	0.6093	1.4484	-2.3545	-0.7477	-0.2801						25	
	(2,1)	-63.2337	-0.2724	0.1267	0.1202	0.6567	0.2539	-1.2111	-0.0528	1.8551	nss	363	79	1983	1992	91.9686	-1.112
		-1.1001	-1.3648	0.9157	2.3100	1.2851	1.4847	-1.0062	-1.4885	0.5310						24	
	(3,1)	19.1736	-0.1761	-0.3441	0.1485	-0.2221	0.3164	2.4883	0.0501	-2.2578	nss	284	79	1984	1992	95.9744	-1.507
		0.4439	-1.2679	-1.3290	1.3658	-0.3008	1.5472	0.4230	0.6213	-0.6011						22	
Partial 2	(0,0)	-199.7748	-0.1315	-0.2654	0.1799	1.0993	0.0893	-6.3197	-0.0812	-5.4301	nss	442	79	1982	1992	58.0094	-1.041
		-0.9468	-0.8119	-4.9699	3.0793	1.3435	0.4604	-0.8764	-1.2792	-0.7135						16	
	(1,0)	-96.3212	0.0250	0.5581	0.0722	0.5727	0.1111	-3.9056	-0.0383	-7.3358	nss	442	79	1982	1992	22.1362	-1.29
		-0.8824	0.1529	3.9332	1.3073	1.4126	0.5728	-0.9496	-0.9505	-1.2757						16	
	(1,1)	77.9409	-0.0042	0.4943	0.0012	0.1168	0.2435	-3.0210	-0.0007	-3.6854	nss	442	79	1982	1992	47.8987	-0.145
		1.2011	-0.0225	2.2586	0.0158	0.2015	1.5756	-1.6997	-0.0148	-0.7128						16	
	(2,1)	-40.5419	-0.1889	0.0879	0.1085	0.3361	0.2656	-0.6111	-0.0160	-0.5729	nss	363	79	1983	1992	84.2959	-1.021
		-0.8514	-0.6840	0.6089	2.3535	0.5728	1.6735	-0.5772	-0.3489	-0.1442						15	
	(3,1)	-59.0843	-0.1830	-0.4872	0.1848	-0.8402	0.2237	-2.5683	0.1000	3.6068	91	284	79	1984	1992	74.8345	-0.957
		-0.8234	-0.7164	-1.4409	1.1374	-1.0304	1.0650	-0.3728	1.2711	0.6535						13	

APPENDIX 5.2   Regression Results for Total Remuneration of the Highest Paid Director Sample: Version II

STACKING	LAG	CONST	HPD-T	ACQEXP	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial 3	(0,0)	-226.0918	-0.1182	-0.2513	0.1803	1.1876	14.1421	-7.5082	-0.0904	-5.8784	nss	442	79	1982	1992	65.3773	-1.106
		-1.0916	-1.2066	-3.7093	3.2220	1.7161	1.0942	-1.0523	-1.8383	-0.9286						25	
	(1,0)	-118.5022	0.0517	0.5120	0.0764	0.5338	13.4667	-5.1505	-0.0363	-4.8370	nss	442	79	1982	1992	36.9214	-1.131
		-1.1244	0.4387	3.1505	1.4879	1.4526	1.2516	-1.1986	-1.0201	-1.0642						25	
	(1,1)	103.7022	0.0074	0.4700	0.0156	0.2927	-1.1382	-4.0307	-0.0250	-0.4902	nss	442	79	1982	1992	60.1354	-0.39
		1.5030	0.0557	2.0718	0.1975	0.6652	-0.0685	-2.4170	-0.8414	-0.1586						25	
	(2,1)	-59.8031	-0.2660	0.1260	0.1224	0.6545	10.1182	-1.3172	-0.0530	2.1083	nss	363	79	1983	1992	91.9212	-1.102
		-1.0529	-1.3271	0.8983	2.3325	1.3561	0.5779	-1.0734	-1.6047	0.6085						24	
	(3,1)	16.3047	-0.1735	-0.3315	0.1502	-0.1901	31.8731	2.5498	0.0460	-1.6649	nss	284	79	1984	1992	96.3558	-1.502
		0.3486	-1.2816	-1.2864	1.4191	-0.2479	1.0521	0.4187	0.5452	-0.5126						22	
Partial 2	(0,0)	-196.3438	-0.1273	-0.2706	0.1813	1.1143	17.1990	-6.2913	-0.0822	-5.8879	nss	442	79	1982	1992	56.2765	-1.081
		-0.9461	-0.7835	-5.0453	3.1952	1.3822	1.2596	-0.8790	-1.3204	-0.7451						16	
	(1,0)	-95.2320	0.0278	0.5582	0.0735	0.5925	17.0529	-3.9698	-0.0401	-7.5884	nss	442	79	1982	1992	21.8985	-1.377
		-0.8816	0.1703	3.9499	1.3493	1.5091	1.3115	-0.9637	-1.0389	-1.3008						16	
	(1,1)	84.6151	0.0018	0.4900	0.0039	0.1351	3.4001	-3.1688	-0.0028	-3.2142	nss	442	79	1982	1992	48.8103	-0.195
		1.2465	0.0093	2.2136	0.0503	0.2328	0.2083	-1.7820	-0.0595	-0.6499						16	
	(2,1)	-36.5624	-0.1738	0.0843	0.1099	0.3039	16.1144	-0.6748	-0.0128	-0.4751	87	363	79	1983	1992	84.0337	-1.011
		-0.7762	-0.6286	0.5800	2.3715	0.5421	0.9188	-0.6256	-0.2915	-0.1165						15	
	(3,1)	-66.2772	-0.1806	-0.4748	0.1846	-0.8505	38.1809	-2.2095	0.1003	4.0102	91	284	79	1984	1992	74.0386	-0.956
		-0.9529	-0.7118	-1.4132	1.1597	-1.0142	1.2365	-0.3205	1.2312	0.7863						13	

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APPENDIX 5.3 Regression Results for Total Remuneration of the Highest Paid Director Sample: Version III

STACKING	LAG	CONST	HPD-T	ACQRAT	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial 3	(0,0)	-269.1932	-0.1147	-2.3618	0.1403	0.8858	0.2713	-9.1256	-0.0571	-5.6626	nss	442	79	1982	1992	61.5455	-1.079
		-1.1195	-1.1700	-0.7722	2.3230	1.2768	1.1281	-1.3350	-1.1767	-0.8610						25	
	(1,0)	-227.5790	-0.0155	3.2635	0.1162	0.8066	0.1434	-8.3190	-0.0537	-5.3180	nss	442	79	1982	1992	56.4122	-1.293
		-1.1683	-0.1095	0.8015	2.0867	1.2768	0.7280	-1.3910	-1.1316	-0.8922						25	
	(1,1)	69.2509	-0.0376	4.8701	0.0938	0.5060	-0.1634	-2.7055	-0.0416	3.4663	83	442	79	1982	1992	53.0434	-1.171
		2.3358	-0.2447	0.8471	2.0530	1.0364	-0.4000	-1.2629	-1.1681	0.8616						25	
	(2,1)	-37.5048	-0.2791	4.4247	0.0965	0.5249	0.1509	-1.2009	-0.0227	-1.2364	nss	363	79	1983	1992	62.9654	-1.15
		-0.5688	-1.5480	1.7456	1.8213	0.7303	0.7056	-1.0509	-0.4785	-0.1971						24	
	(3,1)	9.7683	-0.1381	-0.3653	0.0737	0.4178	0.2314	8.1561	-0.0139	-1.5515	nss	284	79	1984	1992	96.1018	-1.284
		0.2145	-1.1521	-0.2264	1.2166	1.0321	1.0649	0.9388	-0.3858	-0.5009						22	
Partial 2	(0,0)	-211.8558	-0.1238	-4.5780	0.1200	0.5638	0.4256	-7.1780	-0.0177	-5.1023	nss	442	79	1982	1992	35.5525	-1.036
		-1.0125	-0.7637	-0.9780	2.2121	0.6858	1.3395	-1.1595	-0.2641	-0.6680						16	
	(1,0)	-181.2952	0.0397	4.7029	0.0942	0.6773	0.1586	-6.4424	-0.0331	-8.7008	nss	442	79	1982	1992	35.3365	-1.276
		-1.0628	0.1592	0.8368	1.6132	0.9142	0.7049	-1.2445	-0.5759	-0.9197						16	
	(1,1)	45.3085	0.0451	6.2441	0.0793	0.2711	-0.2233	-1.9060	-0.0095	0.5177	nss	442	79	1982	1992	37.6462	-1.059
		0.9696	0.1658	0.8331	1.5388	0.4361	-0.4186	-0.7778	-0.1942	0.1091						16	
	(2,1)	-43.4541	-0.3406	4.8972	0.0948	0.5870	0.1770	-0.9665	-0.0241	-3.2699	nss	363	79	1983	1992	54.4301	-1.109
		-0.6324	-1.3831	1.6156	1.7154	0.7663	0.7348	-0.7904	-0.4176	-0.3896						15	
	(3,1)	-43.8741	-0.0226	-1.6424	0.0587	-0.2479	-0.0222	7.3553	0.0434	3.5466	91	284	79	1984	1992	71.2326	-1.125
		-0.7014	-0.0986	-0.8185	0.8507	-0.3979	-0.0608	0.7250	0.7416	0.6048						13	

APPENDIX 5.4 Regression Results for Total Remuneration of the Highest Paid Director Sample: Version IV

STACKING	LAG	CONST	HPD-T	ACQRAT	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	YR	OBN	N	FROM	TO	SARGAN	2SC
Partial 3	(0,0)	-267.5235	-0.1092	-2.4280	0.1438	0.9128	24.6665	-9.3951	-0.0596	-5.7213	nss	442	79	1982	1992	60.3435	-1.098
		-1.1132	-1.0794	-0.7951	2.3541	1.3311	1.1263	-1.3565	-1.2473	-0.8665						25	
	(1,0)	-223.7520	-0.0060	3.4558	0.1169	0.8100	31.7806	-8.3469	-0.0543	-5.3141	nss	442	79	1982	1992	54.5578	-1.283
		-1.1688	-0.0422	0.8383	2.1110	1.3256	1.0799	-1.4279	-1.1822	-0.8912						25	
	(1,1)	66.5095	-0.0424	4.7101	0.0922	0.4907	-23.8610	-2.6186	-0.0401	3.3398	83	442	79	1982	1992	54.9085	-1.129
		2.4982	-0.2763	0.8400	2.0424	0.9975	-0.5493	-1.2424	-1.1324	0.8794						25	
	(2,1)	-28.5442	-0.2878	4.9025	0.0971	0.4972	33.2599	-1.2280	-0.0185	-1.5816	nss	363	79	1983	1992	58.4213	-1.131
		-0.4019	-1.5429	1.8831	1.7530	0.6928	1.3954	-1.0926	-0.3811	-0.2371						24	
	(3,1)	3.4113	-0.1376	0.2064	0.0755	0.4086	32.9804	8.2162	-0.0133	-0.9806	nss	284	79	1984	1992	96.7898	-1.287
		0.0642	-1.1337	0.0925	1.2395	1.0301	0.8594	0.9470	-0.3676	-0.3606						22	
Partial 2	(0,0)	-208.5331	-0.1181	-4.7848	0.1242	0.6102	39.3481	-7.5035	-0.0210	-5.6635	nss	442	79	1982	1992	33.5095	-1.062
		-1.0040	-0.7117	-0.9903	2.3102	0.7579	1.2489	-1.1909	-0.3238	-0.6961						16	
	(1,0)	-170.0361	0.0692	5.4068	0.0892	0.6717	49.8713	-6.2050	-0.0314	-9.6687	nss	442	79	1982	1992	30.1470	-1.285
		-1.0576	0.2662	0.9080	1.5208	0.9613	1.1022	-1.2685	-0.5778	-0.9836						16	
	(1,1)	41.5536	0.0294	5.7248	0.0788	0.2436	-24.7036	-1.7782	-0.0071	0.4376	nss	442	79	1982	1992	41.7331	-1.036
		0.8574	0.1119	0.8271	1.5335	0.3928	-0.4938	-0.7290	-0.1475	0.0939						16	
	(2,1)	-36.1851	-0.3677	5.6112	0.0957	0.5918	38.9106	-1.0183	-0.0223	-3.8586	nss	363	79	1983	1992	48.2073	-1.112
		-0.4813	-1.4695	1.7827	1.6231	0.7886	1.2959	-0.8108	-0.3787	-0.4133						15	
	(3,1)	-49.5981	-0.0277	-1.0419	0.0583	-0.2634	27.2844	7.6546	0.0456	3.3318	91	284	79	1984	1992	73.3426	-1.132
		-0.8171	-0.1227	-0.3957	0.8590	-0.4572	0.6728	0.7737	0.8540	0.6633						13	

APPENDIX 6.1   Regression Results for Average Remuneration Per Director Sample: Version I

STACKING	LAG	CONST	AVG-DIR	ACQEXP	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-66.5019	0.6280	0.5885	0.1255	-0.5098	0.3096	-20.9699	-0.0269	4.5267	336	2089	1982	1992	81.6645	1.157
		-0.5961	3.0453	2.0062	1.7404	-0.7698	1.2003	-1.5503	-0.1957	0.3437					33	
	(1,0)	-45.0972	0.5537	0.5721	0.1149	-0.2504	0.4311	-18.5679	-0.0654	2.3435	336	2089	1982	1992	99.4177	1.874
		-0.5974	2.2731	1.0425	1.6488	-0.3796	1.7092	-1.0054	-0.6036	0.1752					33	
	(1,1)	98.2769	0.5651	0.1361	0.1967	0.1111	0.0223	-24.3163	0.1042	-37.9979	336	2089	1982	1992	42.9926	0.927
		1.1620	2.2436	0.2255	2.1540	0.2060	0.0628	-1.9487	0.5484	-1.9664					33	
	(2,1)	11.2324	0.4181	0.4440	0.1083	0.3659	0.1213	4.2672	0.0378	-23.7233	336	1753	1983	1992	67.3909	0.834
		0.1117	1.8621	0.8501	1.5013	1.2844	0.3736	0.3409	0.4297	-1.5089					32	
	(3,1)	-16.6364	0.2403	-0.2525	0.2767	0.3472	0.0808	-1.5143	0.0019	-22.2852	336	1417	1984	1992	68.7353	0.308
		-0.2166	1.2005	-0.8575	1.6653	1.6292	0.2640	-0.0693	0.0293	-1.5280					30	
Full Stacking	(0,0)	55.1911	0.4925	0.4405	0.0716	-0.4658	0.4251	-0.8999	0.0205	-0.6403	336	2089	1982	1992	183.7049	1.031
		0.9772	3.4378	1.5309	1.2213	-0.9152	1.8880	-0.1095	0.1797	-0.0599					61	
	(1,0)	63.2120	0.5051	0.1311	0.0637	-0.3353	0.4973	0.7894	0.0113	-1.1793	336	2089	1982	1992	199.5434	1.508
		1.0845	3.1939	0.3860	1.2791	-0.6353	2.2668	0.0896	0.1121	-0.1092					61	
	(1,1)	85.7048	0.4451	-0.1499	0.1882	0.1767	0.2022	-9.2587	0.0500	-29.4185	336	2089	1982	1992	102.1517	0.574
		1.5228	2.7918	-0.4344	3.1338	0.4379	0.6954	-0.9788	0.3426	-2.9892					61	
	(2,1)	29.0908	0.3266	0.3913	0.1187	0.2359	0.2228	7.7762	0.0446	-24.9586	336	1753	1983	1992	105.9977	0.551
		0.2688	2.4478	1.2061	2.2146	0.8008	0.7857	0.7393	0.3891	-3.0052					60	
	(3,1)	-35.7756	0.1471	-0.1370	0.2736	0.3111	0.1861	4.2143	0.0010	-26.9844	336	1417	1984	1992	92.3077	-0.059
		-0.3696	1.0674	-0.5204	2.5555	1.3647	0.6117	0.2935	0.0154	-3.4719					58	

APPENDIX 6.2   Regression Results for Average Remuneration Per Director Sample: Version II

STACKING	LAG	CONST	AVG-DIR	ACQEXP	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-74.5287	0.6452	0.6172	0.1319	-0.4797	3.6187	-23.0089	-0.0330	3.7730	336	2089	1982	1992	81.9928	1.17
		-0.6299	3.1053	2.1332	1.7642	-0.6993	0.4920	-1.6520	-0.2413	0.2856					33	
	(1,0)	-53.9759	0.5793	0.5786	0.1224	-0.1957	4.3244	-20.9582	-0.0748	1.3385	336	2089	1982	1992	100.2946	1.974
		-0.6708	2.3433	0.9996	1.6704	-0.2835	0.5876	-1.2411	-0.7012	0.0982					33	
	(1,1)	97.3333	0.5793	0.1501	0.1920	0.1182	-3.8873	-24.2100	0.1070	-37.8977	336	2089	1982	1992	42.6032	0.939
		1.1519	2.3805	0.2464	2.1292	0.2173	-0.5411	-1.9369	0.5643	-1.9597					33	
	(2,1)	10.3192	0.4386	0.4212	0.1048	0.3898	-0.4512	4.2954	0.0377	-23.4003	336	1753	1983	1992	67.4431	0.88
		0.1040	2.0677	0.8007	1.4726	1.4298	-0.0687	0.3464	0.4434	-1.4591					32	
	(3,1)	-15.7766	0.2484	-0.2495	0.2798	0.3540	-0.3051	-2.3132	0.0013	-21.8999	336	1417	1984	1992	69.1559	0.338
		-0.2048	1.2465	-0.8508	1.6869	1.6560	-0.0483	-0.1082	0.0210	-1.5027					30	
Full Stacking	(0,0)	54.8617	0.5133	0.4758	0.0750	-0.4272	4.4258	-2.1106	0.0174	-1.9223	336	2089	1982	1992	185.4919	1.031
		0.9947	3.5539	1.6815	1.2545	-0.8032	0.6184	-0.2580	0.1526	-0.1801					61	
	(1,0)	63.4644	0.5339	0.1149	0.0674	-0.2815	4.5165	-0.4870	0.0083	-2.7131	336	2089	1982	1992	202.1364	1.596
		1.1176	3.3648	0.3286	1.3402	-0.5042	0.6259	-0.0552	0.0827	-0.2503					61	
	(1,1)	84.7377	0.4741	-0.1182	0.1803	0.2069	-1.8178	-9.2112	0.0522	-29.0812	336	2089	1982	1992	102.5139	0.684
		1.5153	3.0466	-0.3311	3.0268	0.5125	-0.2978	-0.9971	0.3601	-2.9482					61	
	(2,1)	28.4396	0.3547	0.3734	0.1135	0.2740	1.5458	7.6732	0.0453	-24.5431	336	1753	1983	1992	106.8095	0.653
		0.2645	2.7689	1.1534	2.1407	0.9536	0.2422	0.7347	0.4025	-2.9343					60	
	(3,1)	-32.4086	0.1607	-0.1218	0.2761	0.3342	2.7279	3.4624	-0.0006	-26.7521	336	1417	1984	1992	93.1262	0
		-0.3373	1.1623	-0.4634	2.5588	1.4884	0.4502	0.2438	-0.0083	-3.4451					58	

APPENDIX 6.3 Regression Results for Average Remuneration Per Director Sample: Version III

STACKING	LAG	CONST	AVG-DIR	ACQRAT	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-45.9371	0.6601	1.0849	0.1168	-0.3522	0.3603	-16.9950	-0.0315	2.5019	336	2089	1982	1992	97.6709	1.652
		-0.5757	3.0207	0.3194	1.9904	-0.4837	1.3035	-1.7995	-0.2150	0.1711					33	
	(1,0)	-50.3947	0.6628	2.8285	0.1037	-0.3667	0.3502	-18.4421	-0.0156	3.7005	336	2089	1982	1992	94.0014	2.048
		-0.5969	3.0247	1.2619	1.9329	-0.5335	1.3369	-1.8883	-0.1096	0.2708					33	
	(1,1)	96.3379	0.5928	1.9625	0.1893	0.1603	-0.0310	-22.3969	0.1053	-37.4551	336	2089	1982	1992	42.6748	1.065
		1.1797	2.5397	0.6395	2.0127	0.3306	-0.0816	-1.9043	0.5503	-1.9527					33	
	(2,1)	13.8290	0.3900	5.3026	0.0919	0.4571	-0.0597	5.3042	0.0192	-10.7598	336	1753	1983	1992	67.6136	1.294
		0.1897	1.8638	2.5100	1.4232	1.6916	-0.1945	0.4718	0.1960	-0.8614					32	
	(3,1)	-8.9300	0.2926	5.6518	0.2115	0.3374	0.1555	2.8513	0.0191	-22.2932	336	1417	1984	1992	50.9232	-0.115
		-0.1143	1.2936	0.9376	1.1523	1.4198	0.4157	0.1334	0.3037	-1.4982					30	
Full Stacking	(0,0)	59.0531	0.5262	-1.3894	0.0643	-0.3647	0.5382	-0.1921	0.0250	-0.6864	336	2089	1982	1992	191.8572	1.706
		1.0689	3.6462	-0.6261	1.3998	-0.6513	2.3209	-0.0211	0.2006	-0.0596					61	
	(1,0)	64.4689	0.5350	1.2778	0.0576	-0.3553	0.4660	0.9049	0.0233	-0.6975	336	2089	1982	1992	193.4248	1.614
		1.1424	3.5420	0.8729	1.2774	-0.6473	2.1009	0.1042	0.1973	-0.0645					61	
	(1,1)	89.9730	0.4520	2.0001	0.1774	0.1916	0.1121	-8.0595	0.0461	-29.9352	336	2089	1982	1992	99.5781	0.858
		1.6864	2.8070	1.0270	3.1282	0.5099	0.3705	-0.9262	0.3091	-3.0867					61	
	(2,1)	24.8902	0.3179	4.1603	0.1154	0.2581	0.0857	6.5130	0.0553	-20.8083	336	1753	1983	1992	101.1981	0.782
		0.2555	2.4703	2.3872	2.1456	0.8853	0.2907	0.6154	0.5116	-2.6443					60	
	(3,1)	-32.8680	0.1651	2.8901	0.2444	0.2971	0.2163	5.8119	0.0117	-27.0087	336	1417	1984	1992	84.4444	-0.249
		-0.3405	1.0661	0.7791	1.9161	1.2160	0.6582	0.3665	0.1736	-3.3938					58	

APPENDIX 6.4 — Regression Results for Average Remuneration Per Director Sample: Version IV

STACKING	LAG	CONST	AVG-DIR	ACQRAT	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-55.7658	0.6805	1.7264	0.1261	-0.3079	2.8916	-19.3300	-0.0410	0.9866	336	2089	1982	1992	96.8426	1.668
		-0.6532	3.0644	0.5164	2.0490	-0.4064	0.4226	-2.0330	-0.2838	0.0676					33	
	(1,0)	-59.8357	0.6844	3.2992	0.1094	-0.3282	4.3276	-20.9402	-0.0196	2.6029	336	2089	1982	1992	93.5141	2.174
		-0.6662	3.0790	1.4860	1.9657	-0.4617	0.4418	-2.1716	-0.1371	0.1885					33	
	(1,1)	95.1852	0.6070	2.4278	0.1828	0.1663	-4.4696	-21.8515	0.1097	-37.3285	336	2089	1982	1992	41.8322	1.116
		1.1753	2.8188	0.7909	1.9669	0.3447	-0.5185	-1.8590	0.5755	-1.9327					33	
	(2,1)	12.6835	0.3914	5.5759	0.0884	0.4602	-4.1258	5.3219	0.0194	-9.9276	336	1753	1983	1992	66.0330	1.211
		0.1766	1.9774	2.5738	1.4082	1.7333	-0.6989	0.4716	0.1952	-0.7649					32	
	(3,1)	-7.8058	0.2986	5.5953	0.2175	0.3516	9.0366	2.0803	0.0173	-22.0287	336	1417	1984	1992	51.5934	-0.093
		-0.0989	1.3210	0.8967	1.2010	1.4888	0.7732	0.0995	0.2758	-1.4797					30	
Full Stacking	(0,0)	60.4947	0.5525	-0.9335	0.0684	-0.3021	4.9846	-1.2454	0.0189	-2.4385	336	2089	1982	1992	197.3627	1.741
		1.1243	3.8047	-0.4175	1.4703	-0.5107	0.6305	-0.1381	0.1522	-0.2138					61	
	(1,0)	65.3218	0.5644	1.6118	0.0586	-0.3044	4.6668	-0.2157	0.0213	-2.0864	336	2089	1982	1992	194.6771	1.73
		1.2012	3.7165	1.0876	1.2813	-0.5302	0.5548	-0.0248	0.1788	-0.1923					61	
	(1,1)	88.7372	0.4832	2.4966	0.1681	0.2225	-2.1396	-7.5866	0.0498	-29.6979	336	2089	1982	1992	97.5804	0.984
		1.6843	3.1511	1.3028	2.9490	0.5988	-0.2976	-0.8820	0.3355	-3.0498					61	
	(2,1)	23.4201	0.3378	4.5041	0.1080	0.2816	-0.5388	6.4084	0.0588	-20.1661	336	1753	1983	1992	99.1450	0.81
		0.2433	2.7250	2.5635	2.0042	0.9644	-0.0782	0.6112	0.5423	-2.5511					60	
	(3,1)	-29.8903	0.1765	2.7733	0.2506	0.3222	7.5636	4.9145	0.0095	-26.8632	336	1417	1984	1992	85.6180	-0.197
		-0.3104	1.1343	0.7284	1.9700	1.3435	0.8715	0.3138	0.1417	-3.3819					58	

APPENDIX 6.5 Regression Results for Total of Basic Remunearion for All Directors Sample : Version I

STACKING	LAG	CONST	TOTL-DIR	ACQEXP	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-80.0319	0.7484	0.9248	0.1760	-0.9363	0.3154	-23.5725	0.0560	-0.2052	336	2089	1982	1992	75.1239	0.287
		-0.6527	4.5687	3.2197	1.7881	-1.5815	1.4269	-1.6336	0.5452	-0.0160					33	
	(1,0)	-10.7463	0.8615	-0.1682	0.1119	-0.5489	0.4814	-7.8960	0.0046	10.2279	336	2089	1982	1992	115.1089	1.107
		-0.1662	6.6085	-0.3278	1.5344	-0.8485	2.0210	-0.7445	0.0418	0.7829					33	
	(1,1)	53.1197	0.9013	-0.6764	0.0949	0.9685	-0.0376	-9.7470	-0.0531	-16.2594	336	2089	1982	1992	72.8345	0.716
		0.9363	4.9059	-1.4297	1.3500	2.4366	-0.1263	-0.8309	-0.5580	-0.8179					33	
	(2,1)	26.3181	0.5744	0.7367	0.0432	0.6862	0.1516	6.8474	0.0352	-8.6814	336	1753	1983	1992	102.1927	0.589
		0.3644	4.0112	1.4606	0.5373	1.6115	0.6532	0.6178	0.4247	-0.6003					32	
	(3,1)	-55.5446	0.2253	0.0779	0.4739	0.5461	0.1157	-24.0292	0.0062	-18.5244	336	1417	1984	1992	86.1880	0.92
		-0.7310	0.8156	0.2312	2.4787	1.9043	0.3913	-1.5986	0.0737	-1.7976					30	
Full Stacking	(0,0)	24.0607	0.6219	0.6280	0.1418	-0.8829	0.5097	-4.4604	0.1003	1.2861	336	2089	1982	1992	237.5313	0.546
		0.4377	5.2259	2.4160	2.0141	-1.8991	2.7738	-0.5948	1.2947	0.1615					61	
	(1,0)	36.1753	0.6571	-0.0190	0.1210	-0.6677	0.6115	-0.4020	0.0782	5.6230	336	2089	1982	1992	265.8537	1.198
		0.6559	7.7513	-0.0499	2.0972	-1.3895	3.2120	-0.0557	0.9225	0.7486					61	
	(1,1)	54.5729	0.6438	-0.2731	0.1244	0.5182	0.1397	-3.7588	0.0552	-17.9955	336	2089	1982	1992	180.4294	0.856
		1.2552	5.1528	-0.7869	1.6025	1.4359	0.5645	-0.4635	0.7111	-1.6813					61	
	(2,1)	31.8714	0.4696	0.6413	0.0711	0.4099	0.2757	8.5101	0.1157	-17.4159	336	1753	1983	1992	158.1501	0.544
		0.3282	3.6814	1.9253	0.7641	0.8771	1.2132	0.8289	1.4491	-1.8200					60	
	(3,1)	-67.3330	0.0450	0.2199	0.4797	0.5019	0.3250	-12.9879	0.0349	-24.7172	336	1417	1984	1992	124.0260	0.209
		-0.7291	0.2390	0.6619	2.8394	1.8744	1.2680	-1.0536	0.4656	-3.2650					58	

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APPENDIX 6.6   Regression Results for Total of Basic Remunearion for All Directors Sample : Version II

STACKING	LAG	CONST	TOTL-DIR	ACQEXP	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-86.9712	0.7729	0.9552	0.1816	-0.9037	7.1102	-25.8462	0.0507	-2.3618	336	2089	1982	1992	76.0382	0.255
		-0.6685	4.7306	3.3419	1.7968	-1.4593	1.3619	-1.7455	0.4859	-0.1791					33	
	(1,0)	-16.4484	0.9113	-0.2108	0.1155	-0.4764	5.8759	-10.2083	-0.0062	7.4889	336	2089	1982	1992	120.2748	1.118
		-0.2453	7.1410	-0.3959	1.5178	-0.6889	1.1232	-0.9298	-0.0544	0.5629					33	
	(1,1)	52.6436	0.9100	-0.6628	0.0894	0.9735	0.5929	-9.4210	-0.0518	-16.2837	336	2089	1982	1992	71.3520	0.717
		0.9255	5.5092	-1.3852	1.3059	2.5194	0.1316	-0.7960	-0.5536	-0.8180					33	
	(2,1)	26.4706	0.6023	0.7041	0.0361	0.7283	4.6129	6.9102	0.0312	-8.3821	336	1753	1983	1992	101.6599	0.649
		0.3663	4.5036	1.4238	0.4625	1.7732	0.8457	0.6309	0.3778	-0.5716					32	
	(3,1)	-53.4028	0.2498	0.0776	0.4683	0.5654	3.3948	-24.6826	0.0024	-17.7512	336	1417	1984	1992	86.6820	0.965
		-0.7190	0.9271	0.2310	2.4260	2.0221	0.7330	-1.6898	0.0292	-1.7423					30	
Full Stacking	(0,0)	26.4421	0.6608	0.6614	0.1420	-0.8288	6.7746	-5.6024	0.0952	-1.5176	336	2089	1982	1992	240.6545	0.492
		0.4780	5.4950	2.5586	2.0310	-1.6811	1.4549	-0.7469	1.2222	-0.1888					61	
	(1,0)	39.1602	0.7140	-0.0691	0.1198	-0.5862	6.0610	-1.5893	0.0706	2.4417	336	2089	1982	1992	273.6399	1.213
		0.7390	8.1098	-0.1753	2.1444	-1.1130	1.2975	-0.2232	0.8095	0.3250					61	
	(1,1)	54.1076	0.6724	-0.2632	0.1140	0.5570	3.0297	-3.3665	0.0532	-17.7986	336	2089	1982	1992	177.9210	0.905
		1.2464	5.9150	-0.7328	1.5094	1.5432	0.6397	-0.4180	0.6782	-1.6575					61	
	(2,1)	34.5492	0.5065	0.6156	0.0604	0.4701	6.7221	8.8355	0.1114	-16.9285	336	1753	1983	1992	159.6231	0.648
		0.3563	4.1747	1.8929	0.6715	1.0301	1.1318	0.8772	1.4010	-1.7573					60	
	(3,1)	-59.4201	0.0740	0.2313	0.4753	0.5436	6.8208	-13.4520	0.0294	-24.0401	336	1417	1984	1992	128.2493	0.322
		-0.6645	0.3956	0.6975	2.8419	2.0747	1.3620	-1.1133	0.3969	-3.2397					58	

APPENDIX 6.7   **Regression Results for Total of Basic Remunearion for All Directors Sample : Version III**

STACKING	LAG	CONST	TOTL-DIR	ACQRAT	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-16.1694	0.8245	0.1204	0.1189	-0.5599	0.4962	-9.1871	0.0051	9.9325	336	2089	1982	1992	120.2693	1.179
		-0.2242	6.2811	0.0302	1.4922	-0.9233	1.9841	-0.8747	0.0466	0.7374					33	
	(1,0)	-19.8673	0.8231	0.9085	0.1176	-0.5626	0.4817	-10.1307	0.0093	9.8317	336	2089	1982	1992	120.5647	1.199
		-0.2789	5.6864	0.3374	1.4491	-0.9383	1.9958	-0.9384	0.0904	0.7722					33	
	(1,1)	61.1723	0.7672	0.1952	0.1111	0.6964	-0.0550	-13.6617	-0.0054	-16.2064	336	2089	1982	1992	93.8886	1.185
		1.0248	4.2729	0.0686	1.6015	2.0318	-0.1621	-1.3667	-0.0587	-0.8716					33	
	(2,1)	34.0595	0.6249	4.6780	0.0154	0.8014	-0.0795	9.7549	0.0313	2.2185	336	1753	1983	1992	93.6750	0.913
		0.4451	3.7757	1.9954	0.1921	1.9178	-0.2912	0.9206	0.3629	0.1570					32	
	(3,1)	-56.2096	0.2651	3.3438	0.4483	0.5198	0.1625	-23.3103	0.0226	-19.3926	336	1417	1984	1992	72.9372	0.492
		-0.7202	0.9955	0.9927	2.3680	1.6972	0.4963	-1.5764	0.2726	-1.9213					30	
Full Stacking	(0,0)	33.0986	0.6450	-1.8087	0.1224	-0.6972	0.6826	-1.6469	0.0914	6.0121	336	2089	1982	1992	254.7604	1.268
		0.6337	5.8596	-0.8198	2.0789	-1.5477	3.5927	-0.2429	1.0229	0.7673					61	
	(1,0)	37.2687	0.6576	0.5723	0.1178	-0.6648	0.6003	-0.3383	0.0795	5.5191	336	2089	1982	1992	266.6619	1.189
		0.7179	5.5973	0.2941	1.9033	-1.4255	2.8591	-0.0494	0.9452	0.7540					61	
	(1,1)	59.9331	0.6118	0.8345	0.1191	0.4749	0.1019	-2.7681	0.0624	-18.6458	336	2089	1982	1992	187.0447	1.065
		1.4317	4.0929	0.3999	1.6219	1.3936	0.3551	-0.3843	0.8683	-1.8099					61	
	(2,1)	30.2335	0.5114	2.5859	0.0706	0.4822	0.1337	8.5254	0.1103	-14.0211	336	1753	1983	1992	172.2881	0.922
		0.3227	3.4383	1.2626	0.7481	1.0743	0.5162	0.8057	1.3727	-1.5732					60	
	(3,1)	-72.7963	0.0648	2.0254	0.4910	0.4774	0.3551	-15.0777	0.0481	-25.6209	336	1417	1984	1992	115.8131	0.018
		-0.7900	0.3367	0.7377	2.9320	1.6810	1.3171	-1.3358	0.6312	-3.4407					58	

APPENDIX 6.8 Regression Results for Total of Basic Remunearion for All Directors Sample : Version IV

STACKING	LAG	CONST	TOTL-DIR	ACQRAT	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-23.3821	0.8727	1.3351	0.1238	-0.4760	5.0756	-11.2319	-0.0151	6.9626	336	2089	1982	1992	123.6993	1.16
		-0.3157	6.3825	0.3270	1.4851	-0.7140	0.8076	-1.0684	-0.1354	0.5159					33	
	(1,0)	-30.0115	0.8617	1.7001	0.1216	-0.4957	6.0668	-13.4832	0.0017	7.0490	336	2089	1982	1992	125.6722	1.304
		-0.4005	5.9438	0.6740	1.4439	-0.7808	1.1640	-1.2458	0.0161	0.5473					33	
	(1,1)	59.2176	0.7795	0.9872	0.1018	0.7189	1.0816	-12.5440	-0.0076	-15.5291	336	2089	1982	1992	92.4905	1.214
		1.0110	5.0383	0.3773	1.5559	2.2688	0.2620	-1.2442	-0.0853	-0.8344					33	
	(2,1)	35.7382	0.6355	5.1849	0.0042	0.8184	0.8537	10.3829	0.0314	3.6541	336	1753	1983	1992	86.0740	0.861
		0.4540	4.1876	2.1756	0.0533	2.0055	0.1125	0.9785	0.3711	0.2522					32	
	(3,1)	-54.3419	0.2833	3.0798	0.4490	0.5427	8.7524	-24.2149	0.0174	-18.6487	336	1417	1984	1992	74.9545	0.604
		-0.7113	1.0904	0.8877	2.3515	1.8312	1.2423	-1.6752	0.2138	-1.8680					30	
Full Stacking	(0,0)	38.1206	0.6995	-1.1896	0.1210	-0.6022	6.7470	-2.3858	0.0787	2.5842	336	2089	1982	1992	271.7948	1.257
		0.7702	6.1560	-0.5188	2.1181	-1.2019	1.2824	-0.3646	0.8679	0.3392					61	
	(1,0)	41.5663	0.7083	1.0905	0.1139	-0.5848	6.2471	-1.3871	0.0736	2.3527	336	2089	1982	1992	274.8817	1.255
		0.8476	5.9805	0.5686	1.8738	-1.1624	1.2834	-0.2063	0.8575	0.3212					61	
	(1,1)	58.7987	0.6437	1.4871	0.1055	0.5266	3.1719	-1.6175	0.0580	-18.2475	336	2089	1982	1992	182.5492	1.142
		1.4057	4.8726	0.7723	1.5194	1.6068	0.7706	-0.2252	0.8146	-1.7791					61	
	(2,1)	31.8889	0.5408	3.0936	0.0563	0.5264	4.6537	8.8851	0.1105	-13.1225	336	1753	1983	1992	166.9341	0.92
		0.3421	3.9201	1.5130	0.6104	1.1780	0.6539	0.8577	1.3772	-1.4565					60	
	(3,1)	-65.0184	0.0925	1.9314	0.4902	0.5202	10.3583	-15.7405	0.0424	-25.0021	336	1417	1984	1992	120.2317	0.147
		-0.7269	0.4809	0.6831	2.9329	1.8691	1.5382	-1.4102	0.5599	-3.4241					58	

Appendix 7.1 Regression Results for Average Remuneration Per Employees Sample: Version I

STACKING	LAG	CONST	AVG-EMP	ACQEXP	SALES	OBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	0.8383	-0.0132	-0.0049	0.0036	0.0053	-0.0030	-0.5410	0.0000	-0.2108	266	1305	1984	1992	42.7498	-0.19
		1.2393	-0.2152	-0.7648	2.3587	0.3394	-1.4752	-2.4473	0.0194	-3.1107					25	
	(1,0)	0.8431	-0.0232	-0.0009	0.0035	0.0002	-0.0038	-0.5199	0.0007	-0.2165	266	1305	1984	1992	44.2988	-0.004
		1.2505	-0.3703	-0.1123	2.3679	0.0140	-1.5527	-2.4597	0.3056	-2.9692					25	
	(1,1)	1.0132	-0.0554	-0.0060	0.0017	0.0565	-0.0029	-0.3286	-0.0080	-0.3076	266	1305	1984	1992	23.1039	-0.267
		1.0334	-0.8080	-0.6563	0.5719	1.0778	-0.7170	-1.1634	-1.0936	-3.7076					25	
	(2,1)	0.9022	0.0163	0.0205	-0.0006	0.0678	-0.0006	0.0032	-0.0099	-0.3010	266	1039	1985	1992	11.8178	-0.626
		0.9559	0.1916	1.3400	-0.1280	0.9154	-0.0925	0.0085	-1.0224	-4.1860					24	
	(3,1)	0.0711	0.0809	0.0132	0.0005	0.0746	-0.0043	-0.0526	-0.0095	-0.1376	266	773	1986	1992	17.3324	-0.372
		0.1568	0.3957	1.0626	0.1973	1.4396	-0.7655	-0.2285	-1.3552	-1.8610					22	
Full Stacking	(0,0)	0.9632	-0.0408	-0.0015	0.0025	0.0002	-0.0018	-0.3693	0.0006	-0.1430	266	1305	1984	1992	87.7781	0.087
		1.7711	-0.5077	-0.3069	2.7720	0.0169	-0.9573	-2.9799	0.3234	-2.9008					40	
	(1,0)	0.9677	-0.0437	-0.0042	0.0025	-0.0006	-0.0026	-0.3708	0.0007	-0.1352	266	1305	1984	1992	86.7253	0.127
		1.7500	-0.5286	-0.8718	2.7165	-0.0501	-1.3301	-3.0859	0.4050	-2.8087					40	
	(1,1)	0.8992	-0.0469	-0.0043	0.0010	-0.0037	0.0015	-0.1636	0.0009	-0.1836	266	1305	1984	1992	85.2999	-0.068
		1.5724	-0.8899	-0.7908	0.8721	-0.2202	0.4886	-1.0832	0.3359	-3.3828					40	
	(2,1)	0.7450	0.0013	0.0154	0.0000	0.0044	0.0028	-0.0126	-0.0010	-0.1891	266	1039	1985	1992	49.8217	-1.465
		1.3849	0.0253	1.6575	0.0258	0.2075	0.6410	-0.0631	-0.3322	-4.0959					39	
	(3,1)	0.6876	-0.0744	0.0105	-0.0010	0.0099	0.0015	0.0607	-0.0012	-0.0487	266	773	1986	1992	50.2324	1.048
		1.3350	-0.2982	0.9741	-0.4071	0.5155	0.4525	0.2677	-0.4688	-0.8708					37	

Appendix 7.2 Regression Results for Average Remuneration Per Employees Sample: Version II

STACKING	LAG	CONST	AVG-EMP	ACQEXP	SALES	OBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	0.7949	-0.0134	-0.0045	0.0036	0.0035	-0.1287	-0.5431	0.0003	-0.2110	266	1305	1984	1992	43.0718	0.48
		1.1736	-0.2101	-0.7060	2.3688	0.2137	-2.8175	-2.4677	0.1159	-3.1335					25	
	(1,0)	0.7800	-0.0227	-0.0021	0.0034	-0.0016	-0.1323	-0.5278	0.0010	-0.2113	266	1305	1984	1992	44.4543	0.614
		1.1628	-0.3551	-0.2730	2.3983	-0.1063	-2.8084	-2.5164	0.3992	-2.9437					25	
	(1,1)	0.9674	-0.0469	-0.0045	0.0016	0.0531	-0.9385	-0.3186	-0.0075	-0.3075	266	1305	1984	1992	25.2628	-0.975
		0.9935	-0.6438	-0.5009	0.5460	1.0141	-11.5799	-1.1473	-1.0130	-3.7143					25	
	(2,1)	1.0288	0.0191	0.0221	-0.0006	0.0528	-0.9444	0.0252	-0.0078	-0.3048	266	1039	1985	1992	13.7201	-1.337
		1.1486	0.2236	1.4613	-0.1588	0.7390	-8.4433	0.0722	-0.8249	-4.3225					24	
	(3,1)	-0.0137	0.1105	0.0115	0.0004	0.0683	-1.0422	-0.0433	-0.0087	-0.1344	266	773	1986	1992	18.5852	-1.178
		-0.0300	0.5170	0.9574	0.1701	1.4400	-18.2613	-0.1903	-1.3383	-1.8844					22	
Full Stacking	(0,0)	0.9357	-0.0426	-0.0010	0.0025	0.0000	-0.1153	-0.3791	0.0006	-0.1442	266	1305	1984	1992	87.5598	0.656
		1.7277	-0.5020	-0.2182	2.8126	-0.0032	-3.0727	-3.0046	0.3294	-2.9526					40	
	(1,0)	0.9298	-0.0450	-0.0054	0.0025	-0.0004	-0.1231	-0.3889	0.0007	-0.1340	266	1305	1984	1992	84.7407	0.678
		1.6697	-0.5217	-1.0654	2.7023	-0.0328	-3.4191	-3.1459	0.3867	-2.7970					40	
	(1,1)	0.9215	-0.0454	-0.0026	0.0008	-0.0077	-0.8632	-0.1366	0.0015	-0.1856	266	1305	1984	1992	91.3087	-1
		1.6174	-0.8139	-0.4786	0.6846	-0.3933	-8.8841	-0.8357	0.5005	-3.4224					40	
	(2,1)	0.9786	0.0047	0.0201	-0.0003	-0.0042	-0.9142	0.0494	0.0002	-0.1971	266	1039	1985	1992	43.4593	-1.249
		1.6189	0.0860	1.5695	-0.1393	-0.1580	-8.0854	0.1944	0.0469	-4.1612					39	
	(3,1)	0.6913	-0.0785	0.0058	-0.0008	-0.0018	-0.9974	0.0692	0.0004	-0.0572	266	773	1986	1992	60.5020	-1.292
		1.2030	-0.2817	0.8040	-0.3518	-0.0851	-9.2251	0.2925	0.1528	-0.9828					37	

Appendix 7.3   Regression Results for Average Remuneration Per Employees Sample: Version III

STACKING	LAG	CONST	AVG-EMP	ACQRAT	SALES	OBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	0.9134	-0.0179	-0.0202	0.0038	0.0030	-0.0037	-0.5639	0.0003	-0.2261	266	1305	1984	1992	39.2708	-0.27
		1.2520	-0.2929	-0.9002	2.4819	0.1793	-1.6021	-2.5765	0.1349	-2.9846					25	
	(1,0)	0.7170	-0.0155	0.0294	0.0031	-0.0050	-0.0037	-0.4912	0.0014	-0.2111	266	1305	1984	1992	41.2514	-0.019
		1.1397	-0.2461	1.2401	2.1296	-0.3519	-1.7908	-2.2815	0.6379	-3.0718					25	
	(1,1)	0.9558	-0.0425	0.0167	0.0016	0.0542	-0.0038	-0.2951	-0.0077	-0.3087	266	1305	1984	1992	24.0050	-0.562
		0.9953	-0.6115	0.6365	0.5295	1.0746	-1.0202	-1.0515	-1.0907	-3.6895					25	
	(2,1)	0.8059	-0.0289	0.0120	0.0007	0.0832	-0.0052	-0.2123	-0.0114	-0.2638	266	1039	1985	1992	16.9455	-0.633
		0.9089	-0.3376	0.4764	0.1871	1.3244	-1.0606	-0.6258	-1.3399	-3.9574					24	
	(3,1)	0.0520	0.0874	-0.0109	0.0017	0.0445	-0.0011	-0.1555	-0.0055	-0.1780	266	773	1986	1992	21.8961	0.536
		0.1052	0.4386	-0.5532	0.8983	1.1982	-0.2152	-0.7755	-1.1579	-2.5391					22	
Full Stacking	(0,0)	0.9339	-0.0437	0.0041	0.0024	-0.0007	-0.0021	-0.3620	0.0007	-0.1421	266	1305	1984	1992	88.4512	0.169
		1.6115	-0.5309	0.2966	2.8222	-0.0642	-1.2021	-2.9872	0.3678	-2.8641					40	
	(1,0)	0.9470	-0.0434	0.0003	0.0025	-0.0007	-0.0021	-0.3674	0.0007	-0.1436	266	1305	1984	1992	88.2369	0.14
		1.7270	-0.5245	0.0153	2.7648	-0.0635	-1.1622	-2.9664	0.3872	-2.9714					40	
	(1,1)	0.9405	-0.0436	-0.0047	0.0009	-0.0016	0.0006	-0.1510	0.0005	-0.1907	266	1305	1984	1992	85.4800	0.259
		1.6277	-0.8177	-0.2538	0.8351	-0.0969	0.2123	-1.0310	0.1977	-3.3295					40	
	(2,1)	0.5945	-0.0170	0.0268	0.0002	-0.0014	0.0005	-0.0541	0.0004	-0.1608	266	1039	1985	1992	65.3531	0.574
		1.2600	-0.3492	1.5920	0.1156	-0.0786	0.1463	-0.3089	0.1635	-3.6240					39	
	(3,1)	0.5700	-0.0448	-0.0114	0.0000	0.0009	0.0032	-0.0002	0.0001	-0.0964	266	773	1986	1992	52.2232	1.127
		1.2886	-0.1774	-0.8203	0.0167	0.0393	0.6663	-0.0011	0.0197	-2.2251					37	

Appendix 7.4   Regression Results for Average Remuneration Per Employees Sample: Version IV

STACKING	LAG	CONST	AVG-EMP	ACQRAT	SALES	OBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	0.8534	-0.0171	-0.0194	0.0037	0.0009	-0.1304	-0.5660	0.0006	-0.2246	266	1305	1984	1992	39.6784	0.474
		1.1670	-0.2727	-0.8796	2.4784	0.0543	-2.7745	-2.5781	0.2299	-2.9960					25	
	(1,0)	0.6679	-0.0144	0.0283	0.0031	-0.0071	-0.1437	-0.4937	0.0017	-0.2091	266	1305	1984	1992	41.6406	0.748
		1.0571	-0.2260	1.2086	2.1348	-0.4770	-3.2543	-2.3006	0.7273	-3.1213					25	
	(1,1)	0.8605	-0.0329	0.0231	0.0015	0.0491	-0.9241	-0.2852	-0.0070	-0.3037	266	1305	1984	1992	25.6930	-1.022
		0.9146	-0.4518	0.9160	0.5148	0.9956	-11.9813	-1.0644	-0.9931	-3.6364					25	
	(2,1)	0.8498	-0.0198	0.0089	0.0007	0.0725	-1.0068	-0.2091	-0.0099	-0.2657	266	1039	1985	1992	20.7553	-1.229
		1.0174	-0.2367	0.3510	0.1920	1.1914	-13.0155	-0.6718	-1.1845	-4.1764					24	
	(3,1)	0.0106	0.1093	-0.0162	0.0019	0.0466	-1.0445	-0.1699	-0.0058	-0.1782	266	773	1986	1992	21.4734	-1.136
		0.0204	0.5053	-0.8178	1.0957	1.3464	-16.8972	-0.8833	-1.2854	-2.6114					22	
Full Stacking	(0,0)	0.9039	-0.0447	0.0048	0.0025	-0.0008	-0.1176	-0.3723	0.0007	-0.1426	266	1305	1984	1992	87.9967	0.681
		1.5473	-0.5215	0.3491	2.8399	-0.0682	-3.0944	-2.9937	0.3623	-2.8930					40	
	(1,0)	0.9265	-0.0444	-0.0010	0.0025	-0.0006	-0.1161	-0.3787	0.0006	-0.1450	266	1305	1984	1992	87.6125	0.682
		1.6693	-0.5151	-0.0584	2.7891	-0.0528	-3.3046	-2.9904	0.3713	-3.0281					40	
	(1,1)	0.9111	-0.0419	0.0046	0.0008	-0.0062	-0.8617	-0.1277	0.0012	-0.1865	266	1305	1984	1992	91.9342	-0.983
		1.6169	-0.7411	0.2947	0.6627	-0.3238	-8.8518	-0.8123	0.4241	-3.3330					40	
	(2,1)	0.7772	-0.0141	0.0250	-0.0001	-0.0106	-0.9576	-0.0125	0.0018	-0.1612	266	1039	1985	1992	72.2838	-1.041
		1.5490	-0.2690	1.4413	-0.0741	-0.4395	-7.8700	-0.0585	0.5146	-3.7273					39	
	(3,1)	0.6633	-0.0451	-0.0172	-0.0001	-0.0049	-1.0086	0.0314	0.0009	-0.0926	266	773	1986	1992	55.9419	-1.298
		1.1965	-0.1562	-1.2139	-0.0751	-0.1956	-9.8859	0.1523	0.2655	-2.1238					37	

Appendix 7.5 Regressin Results for Total of Basic Remuneration for All Employees Sample: Version I

STACKING	LAG	CONST	TOTL-EMP	ACQEXP	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-3637.4197	0.7225	-97.9691	76.4614	31.8545	114.3835	1197.0185	10.1935	5921.3968	266	1305	1984	1992	25.1087	-0.05
		-0.2725	8.1452	-2.1226	4.5736	0.2867	1.8551	0.6710	0.9999	1.8623					25	
	(1,0)	-2097.5669	0.7371	13.1384	73.2851	-22.6731	88.4751	1573.2012	17.1988	4727.5099	266	1305	1984	1992	45.0076	-0
		-0.1959	8.2192	0.2114	5.2228	-0.2042	1.4647	1.4218	1.7616	1.4247					25	
	(1,1)	2352.9857	1.5215	-37.5275	-57.0948	175.8465	-81.7844	-6647.0689	-26.6191	-10168.2993	266	1305	1984	1992	43.6542	-0.73
		0.0913	7.2238	-0.6670	-1.6821	1.1794	-1.1727	-3.0847	-1.5626	-3.4224					25	
	(2,1)	116.5838	1.4429	-36.6042	-50.2151	97.3396	-60.6722	-5449.8916	-24.8531	-5724.6005	266	1039	1985	1992	116.6674	0.381
		0.0076	7.2629	-0.4942	-1.5602	0.5060	-0.9678	-3.1560	-1.3272	-1.8138					24	
	(3,1)	-34179.0373	1.2202	233.9652	-26.8723	294.5515	-99.7018	-3805.8278	-42.2207	-10911.5750	266	773	1986	1992	23.1994	0.578
		-1.1590	4.5058	1.8809	-0.4748	1.4625	-0.9946	-1.5358	-1.9747	-2.5121					22	
Full Stacking	(0,0)	2543.5710	0.7014	-38.3091	71.9307	89.9245	20.9476	867.1932	9.8120	1320.5139	266	1305	1984	1992	303.1312	0.816
		0.5044	6.8552	-0.8578	4.5313	0.8805	0.5639	0.5629	1.1772	0.7344					40	
	(1,0)	2436.3789	0.7107	-0.4350	70.8093	74.3779	14.9391	1033.0590	11.2437	1230.0422	266	1305	1984	1992	314.4176	0.765
		0.5036	7.5966	-0.0070	5.7931	0.8442	0.5043	1.2136	1.5547	0.7730					40	
	(1,1)	-5448.1266	1.3301	-75.0337	-33.1869	47.1841	15.9206	-4394.2253	-6.7841	-3765.0503	266	1305	1984	1992	270.1378	-0.57
		-0.4812	10.4906	-1.2002	-1.2055	0.2951	0.3682	-2.9852	-0.4779	-1.5503					40	
	(2,1)	-7527.3178	1.4063	65.0560	-54.5625	-118.6923	32.9432	-2664.2099	-0.5672	-1514.1889	266	1039	1985	1992	398.3885	1.081
		-0.9345	9.7390	1.0213	-2.3880	-0.5488	0.6924	-2.1747	-0.0316	-0.5501					39	
	(3,1)	-19903.0381	1.0589	158.1483	-9.7982	50.8476	-17.9432	-2496.9039	-14.7718	-3502.6906	266	773	1986	1992	175.7518	0.996
		-1.5596	7.2907	2.0397	-0.3933	0.3332	-0.4356	-2.6148	-1.1941	-1.3454					37	

Appendix 7.6   Regressin Results for Total of Basic Remuneration for All Employees Sample: Version II

STACKING	LAG	CONST	TOTL-EMP	ACQEXP	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-2531.6519 -0.1912	0.7034 8.1349	-92.2063 -2.0052	81.1729 4.8824	41.2186 0.3908	665.4975 0.6165	1049.4590 0.6362	10.1483 1.0100	5925.6584 2.0554	266	1305	1984	1992	22.6364 25	-0.05
	(1,0)	-1731.7273 -0.1314	0.7263 7.7858	40.0221 0.5743	74.7669 4.9302	-30.8400 -0.2862	805.9296 0.7095	1937.5869 1.6232	17.2651 1.6858	5951.0773 1.8452	266	1305	1984	1992	27.8376 25	-0.21
	(1,1)	1579.2068 0.0632	1.5421 7.5413	-43.3116 -0.7663	-61.7624 -1.9436	170.8900 1.1664	-822.6582 -0.7063	-6460.3226 -3.2160	-27.5168 -1.5972	-9793.6892 -3.3948	266	1305	1984	1992	46.5477 25	-0.71
	(2,1)	-152.3797 -0.0090	1.4675 7.1197	-50.0865 -0.6743	-54.9051 -1.6686	105.2386 0.5596	364.3479 0.3859	-5512.6484 -3.1530	-25.7171 -1.3307	-6469.7673 -2.1239	266	1039	1985	1992	96.9067 24	0.178
	(3,1)	-34249.4501 -1.2119	1.2497 4.5708	232.1490 1.8800	-35.6715 -0.6363	259.7821 1.2876	556.1945 0.4258	-3417.5821 -1.4321	-40.0622 -1.8915	-10413.4241 -2.4761	266	773	1986	1992	25.5808 22	0.623
Full Stacking	(0,0)	2330.1215 0.4204	0.6998 7.1265	-40.4191 -0.8862	72.2856 4.6854	85.5913 0.8820	425.5154 0.8023	1008.2483 0.6631	10.0031 1.2161	1886.0492 1.1229	266	1305	1984	1992	247.6466 40	0.753
	(1,0)	2150.8306 0.3543	0.7124 7.6274	19.8120 0.2890	69.3475 5.5321	57.5870 0.6771	495.5713 0.8834	1449.1441 1.6830	12.0611 1.6758	2196.3741 1.4186	266	1305	1984	1992	227.8277 40	0.534
	(1,1)	-5169.5886 -0.4317	1.3327 10.4571	-69.7051 -1.0875	-33.6751 -1.2228	51.8548 0.3273	-322.1778 -0.4974	-4435.7010 -2.9613	-6.8430 -0.4801	-4115.2155 -1.7096	266	1305	1984	1992	252.3441 40	-0.6
	(2,1)	-6933.6217 -0.8288	1.3994 10.0232	59.1850 0.9130	-52.7496 -2.3079	-106.2520 -0.5054	267.0586 0.3773	-2812.7742 -2.1759	-0.9745 -0.0546	-1937.4928 -0.7014	266	1039	1985	1992	378.4358 39	1.038
	(3,1)	-19855.1421 -1.5754	1.0634 7.3080	155.6851 2.0053	-10.8403 -0.4381	44.3335 0.2965	-73.6627 -0.1110	-2466.7164 -2.5959	-14.3648 -1.1801	-3401.7494 -1.2748	266	773	1986	1992	179.4590 37	1.008

Appendix 7.7   Regressin Results for Total of Basic Remuneration for All Employees Sample: Version III

STACKING	LAG	CONST	TOTL-EMP	ACQRAT	SALES	PBT	SHRPRC	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-3134.3166	0.7364	133.1220	74.1345	-15.5687	75.8255	1439.2984	17.1399	4186.8934	266	1305	1984	1992	52.4959	0.119
		-0.3100	8.1393	0.2922	4.7940	-0.1554	1.3723	1.0955	1.8821	1.4731					25	
	(1,0)	-3083.5770	0.7439	252.3915	72.7183	-24.8720	79.8932	1487.7896	18.0291	4593.1185	266	1305	1984	1992	45.6263	-0.03
		-0.2933	8.2620	0.5133	5.1810	-0.2182	1.5495	1.1668	1.6265	1.5920					25	
	(1,1)	6226.4506	1.5219	-828.0064	-58.3122	181.3300	-87.8591	-6605.3698	-28.6721	-10288.0865	266	1305	1984	1992	37.5595	-0.78
		0.2384	7.1507	-1.2796	-1.6977	1.1285	-1.1666	-3.0472	-1.5493	-3.2164					25	
	(2,1)	2015.6493	1.4277	-517.3317	-50.6661	96.9032	-37.5772	-4991.3763	-25.5114	-5317.0823	266	1039	1985	1992	121.3997	0.32
		0.1424	7.5888	-1.1609	-1.6666	0.5702	-0.6019	-2.8684	-1.4150	-1.8128					24	
	(3,1)	-37806.1316	1.2082	755.2604	6.1502	216.3972	-59.3940	-6336.3737	-32.0419	-10025.8729	266	773	1986	1992	32.3081	0.103
		-1.3899	4.2575	1.2953	0.1168	1.2029	-0.5925	-2.5444	-1.5177	-2.4724					22	
Full Stacking	(0,0)	-2416.4977	0.7245	456.9677	69.2199	77.6947	4.3263	1254.4713	10.3131	1042.7260	266	1305	1984	1992	229.2084	0.747
		-0.4105	7.6430	2.0962	4.7921	0.8420	0.1082	1.0506	1.3778	0.5968					40	
	(1,0)	4244.5704	0.6935	-377.1988	74.4055	83.1596	17.3513	805.0411	10.4307	915.1964	266	1305	1984	1992	271.8359	0.69
		0.9917	7.2970	-1.0800	4.8856	0.9589	0.4133	0.6018	1.4836	0.5435					40	
	(1,1)	-4227.3982	1.3358	22.2754	-39.0943	53.7103	4.9583	-3669.5224	-8.2075	-3723.9025	266	1305	1984	1992	287.5759	-0.78
		-0.3811	9.9744	0.0380	-1.4918	0.3537	0.1119	-2.6867	-0.6115	-1.5359					40	
	(2,1)	-4238.7038	1.3405	-741.2141	-43.8994	-40.6329	40.6046	-3047.0005	-6.0997	-2044.1656	266	1039	1985	1992	301.6013	0.119
		-0.5221	11.3868	-1.8864	-1.9624	-0.2139	0.8505	-2.6411	-0.3460	-0.8308					39	
	(3,1)	-26863.9341	1.1483	438.6230	-2.5583	-21.9228	17.5697	-3506.0088	-5.5444	-4387.8230	266	773	1986	1992	163.4097	0.69
		-1.7907	7.0328	1.0895	-0.0878	-0.1326	0.3394	-2.6741	-0.3476	-1.6325					37	

Appendix 7.8   Regressin Results for Total of Basic Remuneration for All Employees Sample: Version IV

STACKING	LAG	CONST	TOTL-EMP	ACQRAT	SALES	PBT	SHHRTN	NOEMP	CAPEMP	GOV	N	OBN	FROM	TO	SARGAN	2SC
Partial Stacking	(0,0)	-2135.3666	0.7237	64.4728	77.4718	-10.3559	607.9819	1402.4348	16.6791	4756.6212	266	1305	1984	1992	40.2405	-0.01
		-0.1903	8.3036	0.1357	4.9225	-0.1090	0.6941	1.0851	1.7876	1.8228					25	
	(1,0)	-2463.8334	0.7304	213.7829	76.1738	-18.0325	497.0874	1459.3536	17.4975	5012.4295	266	1305	1984	1992	36.7303	-0.13
		-0.2189	8.3251	0.4345	5.3608	-0.1649	0.4719	1.1987	1.5693	1.9101					25	
	(1,1)	5577.6245	1.5465	-843.6331	-64.0447	176.0521	-1216.3865	-6357.9048	-29.7188	-9937.2629	266	1305	1984	1992	39.6376	-0.76
		0.2197	7.4429	-1.3149	-1.9656	1.1117	-0.9360	-3.1378	-1.5802	-3.2470					25	
	(2,1)	1754.3137	1.4479	-508.0912	-54.4978	96.9619	804.1934	-4979.1178	-25.8228	-5795.6223	266	1039	1985	1992	108.2487	0.239
		0.1158	7.4268	-1.1596	-1.7827	0.5738	0.8208	-2.8404	-1.3977	-2.0381					24	
	(3,1)	-37763.4663	1.2295	798.0244	-0.1672	193.2632	1820.2343	-6062.3895	-30.7525	-9665.3366	266	773	1986	1992	34.3378	0.068
		-1.4356	4.3281	1.4004	-0.0033	1.1424	1.2220	-2.6727	-1.5229	-2.4564					22	
Full Stacking	(0,0)	-2474.6447	0.7254	426.4926	68.9202	70.0830	289.2638	1418.4062	10.6389	1687.8856	266	1305	1984	1992	201.8598	0.621
		-0.3962	8.0063	1.9377	4.9545	0.8064	0.6880	1.1943	1.4677	1.0871					40	
	(1,0)	4020.3538	0.6922	-398.0371	74.7240	77.3900	678.6433	957.0591	10.6775	1506.7166	266	1305	1984	1992	229.0240	0.647
		0.8354	7.6753	-1.1526	5.0910	0.9574	1.2327	0.7331	1.5697	0.9967					40	
	(1,1)	-4153.4025	1.3415	37.8501	-39.9455	57.7180	-233.5427	-3740.8502	-8.3265	-4049.6185	266	1305	1984	1992	267.7239	-0.79
		-0.3537	9.9707	0.0641	-1.5275	0.3871	-0.3480	-2.7094	-0.6173	-1.6427					40	
	(2,1)	-3790.7668	1.3375	-691.9391	-42.5819	-32.7831	663.3686	-3183.4620	-6.1149	-2493.7458	266	1039	1985	1992	291.8673	0.139
		-0.4411	11.2828	-1.7670	-1.8815	-0.1730	0.9122	-2.5901	-0.3430	-1.0022					39	
	(3,1)	-26917.9336	1.1445	430.8078	-1.3012	-17.0647	792.6822	-3546.9610	-5.7579	-4477.7962	266	773	1986	1992	161.1654	0.676
		-1.7648	6.9354	1.0528	-0.0442	-0.1063	0.7412	-2.6519	-0.3639	-1.6137					37	

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