

Managerial entrenchment and CEO compensation in Australia

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Abstract

In this paper, we explore the effects of managerial entrenchment on CEO compensation through a sample of corporate acquisitions in Australia. We find that that CEO compensation is primarily determined by the firm's internal resources; however CEO contracts exhibit convexity with relation to performance as a result of executive stock options. Amongst the governance characteristics, we find that the board of directors and remuneration committee membership by the Chief executive office also exert strong influence on the CEO compensation.

Keywords: Managerial Entrenchment, CEO compensation, Agency, Australia

1 Introduction

The issues surrounding the structure and design of an optimal compensation package that binds the interest of CEOs to that of their company's shareholders are important and controversial issues in contemporary finance. Past empirical studies advocate that the only credible managerial discipline is imparted by the presence of an active takeover market or CEO Compensation packages. The studies of Mikkelsen & Partch (1997) outlines the critical role of CEO Compensation as a means of inducing managerial behavior to acquiesce to those of shareholder interest in the absence of an active market for corporate control. As markets for corporate control are infrequent the primary instrument aligning the interests of managers to those of shareholders are the compensation packages paid to CEOs.

The importance of CEO Compensation as an instrument of managerial alignment is of paramount importance particularly in a modern corporate context. There is greater complexity in how large modern corporations function and the markets they operate in, and subsequently the informational structures¹ of these organizations more complicated. The CEO being the locus of decision making and information flow has become more than merely an agent but rather an integral part of the company's infrastructure. As such the CEO has a greater degree of human capital at stake in his role within the firm and also this added influence presents greater opportunities for divergent behaviour. The extent of a CEO's assimilation into the corporate infrastructure is in the evidence of Hoe et al (2001) which showed the reluctance of the Board of Directors in dismissing poorly performing CEOs.

The greater influence of CEOs in the corporate infrastructure has the following implications that directly relates towards the paramount importance of optimal contracting. Firstly, as they are involved in all corporate policies they have greater decision making discretion as a result of the

¹ Informational structures relates to how information is communicated throughout the organisation, there is less transparency as a result there is a hierarchy in information leading to greater agency problems.

information asymmetries that exists leading to greater monitoring difficulties. The second implication relates towards the difficulties in finding an adequate replacement as the managerial labor market may have a shortage of suitable candidates creating the disequilibrium often documented in the financial press between pay and performance². The final implication of the influence of modern CEOs on their corporate infrastructures relates towards the greater risk-averseness they would exhibit in their decisions as they have greater firm-specific human capital invested in the firm which may lead to adverse selection problems in their corporate decisions as they choose alternatives that further entrench themselves into the company's infrastructure. These are the primary arguments for the continued research into optimal contracting to study managerial behavior and the best means of aligning their motives towards the interest of shareholders through the structuring and development of incentives in CEO pay packages.

The studies in this research paper we seek to understand the issues in the links between CEO Compensation and Corporate Acquisitions for a sample of 89 Australian firms undertaking 123 corporate acquisition investments. The main hypotheses that we seek to explore are the Performance hypothesis, Managerial Entrenchment, the Contract Convexity and Investment Opportunities-Firm Resource Matching Hypothesis. The Performance hypothesis seeks to analyse the pay-performance paradigm in CEO compensation for corporate acquirers and in particular highlight the conflicts of interests that corporate acquisitions present. The Managerial Entrenchment hypothesis analyses the effectiveness of corporate governance structures in determining and monitoring managers in their corporate acquisition investments. The penultimate hypothesis seeks to study the incentive structures in CEO pay in creating a risk-seeking entrepreneurial nature in CEOs. The final investigation analyses the optimality in the setting of compensatory packages relative to the firm's specific characteristics.

² This has the effect of creating a seller's market whereby mediocre managers may receive pay packages that are artificially higher than the going rate as a result of a shortage in supply.

The main finding in our paper documents that corporate acquisitions are that corporate acquisitions are not motivating compensatory factors, however there is a robust relationship between performance with CEO Compensation. In relation towards optimal contracting relationships, it was found that CEO compensation is primarily determined by the firm's resources, however convexity in CEO contracts are the result of executive stock options though these are at a cost to the firm as they are not related in value to share performances thus they are issued to managers at a cost to shareholders.

Section 2 undertakes a literature review into past theoretical arguments in these finance issues. Section 3 will develop the hypotheses that are empirically tested in this research paper. Section 4 presents the data and methodologies of empirical testing in our research. Section 5 will be the summation of the results and a discussion of their implications. The final section will conclude our studies into the links between CEO Compensation and Corporate Acquisitions and includes final thoughts on the research methodology and future developments.

2 Literature Review

Jensen & Meckling (1976) defines an agency relationship as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform a stewardship function on their behalf. As a result of this arrangement there is a separation between ownership and control, and decision-making authority is delegated to the agent. It is also recognised that both parties to this arrangement are utility-maximizers, as such the agent will not always act in the best interest of the principal, however the principal recognises this fact and would limit the extent of this divergent behaviour by establishing appropriate incentives and by incurring monitoring costs designed to restrain this behaviour.

The real cost of an agent's divergent behaviour is defined as agency costs which is the sum of three components. Firstly, the monitoring expenditures by the principals and an example of this would

be the remuneration of non-executive directors on the Board which scrutinises the manager's actions. Secondly, the bonding expenditures by the agent can be seen as the compensation package that is given to an agent for their managerial expertise and for their firm-specific human capital, it is generally assumed that these packages should be a composition of insured and incentive components in order to recognise for the idiosyncratic risk that managers bear, whilst to some degree they are exposed to the wealth effects of their decisions and thus would act in the interest of shareholders. Finally the residual loss is recognised as being the cost of full enforcement of contracts exceeding its benefits. The next section discusses the implications of CEO Compensation which is an extension of Agency Theory as it revolves around the underlying information asymmetry between the CEO and shareholders of the firm.

Compensation packages are primarily utilised as a means of attracting and retaining managerial talent by a firm. Whilst the incentive structures of compensation packages is aimed at aligning the interests of agents to those of the principals by providing an objective benchmark to a subjective measure such as managerial effort and abilities. It is also assumed that effective compensation packages should only account for factors that are within the controls of the manager. There has been a wide body of research that seeks to explain the effectiveness of compensation packages and their relation towards the organisational structure of an open corporation.

The focus of much research towards the area of CEO compensation has revolved around the principles of pay for performance. There are numerous examples in the media and academic research of a negative relation between managerial pay and performance at the detriment of shareholders; however Murphy (1985) found that in his cross-sectional time-series regressions of compensation data as a function of performance, there was a positive relation between managerial compensation and firm performance which were proxied by shareholder performance. This theoretical paper also demonstrated that different compensatory items had different effects and degrees of explanation to managerial

performance and it gave an impetus towards the extension into studies between CEO Compensation and managerial motives.

Managers face a diverse set of idiosyncratic risks which are both firm-specific and external to the organisation. The endogenous risks that are faced by managers relate towards the firm-specific nature of their human capital, managers are compensated for their abilities to make operating, financing, investment and firm policy decisions. Whilst the external risk factors faced by managers include the premise of efficiency in product and labour markets. It is often described that managerial compensation structures should also compensate managers for the job security risks that are external to their influences, such as the organisation's size relative to an active takeover period.

As a result managerial pay structures have a risk-insurance trade-off and managers are risk-averse by nature given the difficulties in attaining and retaining their influential positions. Equity based compensation components seek to encourage risk-taking by management and induce alignment of shareholder interests because the manager would feel the wealth effect of their decisions and be residual claimants in the firm. The presence of equity components in their compensation may also alter their utility functions they derive by adding greater convexity or risk-taking in their decision making. The implications of the theoretical assumptions of managers being risk-averse and this being detrimental to shareholder is explored in the conflict of interest between managers and shareholders for reasons being that managers would tend to under-invest, and would tend to reject investments that are risky but have a positive NPVs.

In this paper, corporate acquisitions are defined as investments by a firm in another domestic corporate entity or its business segment whereby corporate control is sought and attained; this is defined as at least half of the equity interests in the firm. Corporate acquisitions are deliberate calculated investments undertaken for a myriad of reasons under the guise of there being an existing

synergy between the acquired business entity and that of the parent entity, however corporate acquisitions are an interesting class of investments for the reason that unlike capital investments they are more difficult to integrate into a company's existing infrastructure and organisational framework. As a result, the financial costs of these investments are immediately felt by the firm whilst the benefits derived are not easily measured and observed, or may not come to fruition immediately³.

It has been observed in academic research that there has been a discount in the market value of firms which are diversified and those that are single business line firms, and declines in a bidding firm's share price following a firm's announcement of an acquisition decision. The consensus may be that corporate acquisitions are often viewed in a negative light, though the shareholder returns derived to successful bidders are often ambiguous, for reasons that it decreases the transparency between shareholders and managers as there are greater adverse decision opportunities in a complex organisation, also for the reason that the firm would be under greater financial risk given the large scales of these transactions.

The difficulty in observing an acquisition investment's success is investigated by Rau & Vermaelen (1998) analysed a sample comprising of 3169 mergers and 348 tender offers between January 1980 and December 1991. This sample was segmented and adjusted for firm size into samples of "glamour" and "value" firms, where "glamour" firms being defined as those with low book to market ratios. Their findings concluded that on average, glamour firms pay higher takeover premiums, have a greater tendency of using equity as a means of payment and had a greater emphasis on acquisitions for a means of bolstering Earnings per share (EPS). These statistical findings in general supports the notion that in general, for glamour firms, the market and the firm's internal governance

³ A prime example is the HP-Compaq merger undertaken by HP CEO Carly Fiorina, at the time she had a bitter proxy battle with founding members of the firm and there was negative media in relation to the deal. Almost 2 years later the deal is applauded as a success despite previous analyst and expert commentaries over the likelihood of failure and over valuation of Compaq by HP.

structures tend to over extrapolate the abilities of the manager and his confidence in his investment decisions. These give the impression that though there is ample time for planning such an investment given the various endogenous and external monitoring mechanisms⁴, corporate acquisition are still complex transactions to value because of the broad set of factors that govern its economic feasibility.

There has also been academic research that have yielded examples whereby positive abnormal returns were attributed to corporate acquirers, Casey et al (1987) examined using a traditional event-study methodology the wealth effects from takeovers for a sample of 53 firms over the period spanning January 1981 to June 1986 made by corporate raiders. Corporate raiders are often envisioned as being “economic vandals” who often take up significant stakes with the intention of making a profitable position by either greenmail, or acquisitions with the intention of asset stripping their successful targets. It was found in comparisons between corporate raiders and non-raiding acquirers they tend to capture a greater portion of the wealth effects attributed to bidders, as a result it can be implied that they make better investment judgement in their acquisition decisions. The research of Guo et al (1995) also document positive abnormal returns to Japanese cross-border acquisitions of U.S. firms which are even more complex as the is greater monitoring and integrating costs to these foreign investments. The research of Casey et al (1987) and Guo et al (1995) demonstrate that corporate acquisitions can be rational investments made which can be beneficial to the interests of shareholders and yield positive abnormal returns. The research explaining corporate acquisition performance lead to the conclusion that, on average these types of investments often lead to a decline in shareholder wealth. The primary reasons include the financial resources expended in consummating such a deal whilst at its most detrimental level to shareholder interests is that these transactions change the nature of the corporate structure and gives managers ample opportunities to behave in an adverse manner.

⁴ The resources available to the predatory managers include the Board of Directors, the counsel of analyst following the stock of the target, and various financial institutions on the financial impacts on the firm of such an investment.

The general consensus view in academic research tends towards corporate acquisitions by managers being on average an unattractive investment alternative to other investments within the firm's opportunity set. It has led to many explanations of corporate acquisitions as a function of agency theory and the most prevalent theory relates to the work of Roll (1986) and Jensen (1986). These theoretical papers seek to analyse the motives and incentives for managers to pursue corporate acquisition investments.

Consistent with the Free Cash Flow Theory is that acquirers will tend to have exceptional past performance in order to generate such cash flow under managerial control and that takeover targets tend to be firms with poor management who have done poorly prior to the merger, and firms that have done exceptionally well and have large free cash flow which they refuse to pay out to shareholders. The theory also views favourably upon investments financed by cash and debt in comparison to those of stock as stock acquisitions signal to the market the firm's growth prospects for the future and equity financing implies that the firm has a shortage of free cash flow, and the stock may be overvalued.

3 Hypothesis development

The research undertaken in this paper seeks to study the concepts underlying optimal contracting in a sample of highly remunerated CEO in relation to their investment decision policies in particular corporate acquisitions. There are 4 main hypotheses that seek to understand and explain CEO contracting and incentives in this paper namely the performance, managerial entrenchment, contract convexity and investment opportunity - firm resource matching hypothesis. The predicted coefficient signs on our control variables are documented in Appendix 1.

Khorana and Zenner (1998) compared the top 46 executives of 27 firms that undertake large acquisitions over the time period of 1982-1986 with a controlled sample comprising 53 executives of 27 size and industry matched non-acquiring firms. They tested their sample for the relations between

executive compensation and performance given the events of a promotion of executive rank and corporate acquisition investment, in the next stage the sample was segregated into good and bad acquiring firms given their immediate share price reaction to the corporate acquisition announcement. The results of the regression analyses further documents executive compensation of acquirors are positively related to changes in firm size. It was also noted that there was a greater increase in cash incentives relative to equity incentives ex-post of an acquisition suggesting that these managers are rewarded for the increased complexities in managing a larger firm.

The hypothesis that this paper seeks to ascertain the ties between CEO compensation and corporate acquisition relates to the contract convexity hypothesis. The binding theoretical assumption entwined in this paper regards the increasing of firm risk as being an important outcome in investment decisions of a risk-averse manager who may seek diversification as a means of entrenchment, and as a result opt to under-invest by rejecting risky positive NPV projects to the detriment of risk-neutral shareholders who are able to diversify their portfolios. It would be beneficial to these shareholders if managers were to accept risky positive NPV projects; however the absence of the ability of managers to hedge their idiosyncratic risks due to their portfolio of firm-specific financial and human capital assets whilst having the bulk of their financial fortunes tied to the firm's prospects they tend to be risk-averse.

In measuring the ex-post firm risk, the role of leverage in the changing financial nature of the firm should also be recognised and this is included as a control variable in this paper in the form of debt to equity ratio of these firms. Datta et al (2001) recognises the use of leverage as an important control factor for reasons that changes in firm risk after corporate acquisitions may simply be resultant from financing decisions associated with these large investment decisions.

Hypothesis: CEO Compensation and Incentives are a function of past performance, changes in firm risk ex-post of corporate acquisitions, leverage and subsequent corporate acquisitions.

CEO Compensation = f(past performance, changes in firm risk, ex-post leverage and acquisitions)

The multivariate structural equations that model this hypothesis are depicted as:

$$\begin{aligned} \text{CEO Compensation}_{i,t} = & c1 + \beta1*\text{PAST_PERF}_{i,t} + \beta2*\text{ACQUI}_{i,t} + \beta3*\text{LEVERAGE}_{i,t} \\ & +\beta4*\text{CHANGEFRISK}_{i,t} + e_{i,t} \end{aligned} \quad (3.1)$$

Where $\text{LEVERAGE}_{i,t}$ = The leverage ratio of company i at time period t

$\text{CHANGEFRISK}_{i,t}$ = The change in the risk of share returns for company i in for time period t relative to time period t-1.

The second hypothesis in this paper is the investment opportunities-firm resource matching hypothesis is drawn from Barber et al (1996). It is difficult to gauge whether an investment is economically feasible given forecasts are made under conditions of uncertainty in the future, particularly corporate acquisitions even though these are deliberate and informed investments as the benefits may not be immediately apparent. As such this paper does not explicitly state that any of the corporate acquisitions are good or bad but rather this hypothesis seeks to explore whether the timing of these investments were taken relative to the growth opportunities and resources available to the firm.

Barber et al (1996) models compensatory packages as being determined by a firm's past performance, and investment opportunities however we differ in our approach by extending their analysis to include subsequent corporate acquisitions and factors relating towards firm resources namely free cash flow. It is often regarded in works such as Smith and Watts (1992) that firms offer managers compensation

packages based upon performance and fundamental indicators of firm resources and opportunities in order to improve the monitoring ability of managerial actions.

This hypothesis examines how managerial compensation packages motivate subsequent managerial actions as the presence of firm resource and investment opportunity variables allows us to explain whether these managerial compensatory packages are set at an optimal level in terms of its risk-return trade off such that we may imply whether on average are the subsequent corporate acquisitions made in the interest of shareholders. It is generally regarded that a young firm would tend to reward its managers with greater equity incentives as young firms tend to have greater investment opportunities however they lack the financial resources to pay fixed salaries, on the contrary larger more established firms have a greater ability to pay cash salaries there may be a greater prevalence in the use of cash bonuses instead of equity incentives in managerial compensatory packages as managers prefer cash based payments as there is less idiosyncratic risks.

Hypothesis 2: CEO Compensation and Incentives are a function of past performance, firm resources, investment opportunities and subsequent corporate acquisitions.

CEO Compensation = f(past performance, firm resources, investment opportunities and acquisitions)

The multivariate structural equations that model this hypothesis are depicted as:

$$\text{CEO Compensation}_{i,t} = c_1 + \beta_1 * \text{PAST_PERF}_{i,t} + \beta_2 * \text{ACQUI}_{i,t} + \beta_3 * \text{FIRMRES}_{i,t} + \beta_4 * \text{INVOPP}_{i,t} + e_{i,t} \quad (3.1)$$

Where $\text{FIRMRES}_{i,t}$ = The variable for firm resources of company i at time period t

$\text{INVOPP}_{i,t}$ = The investment opportunities available to company i in for time period t.

The next section will describe the sample data and methodologies utilised in the empirical tests and describe the proxies for the variables in our structural equations.

4 Data & Methodology

In this section of the paper, we describe our sample selection process, empirical model variable measurement and present descriptive statistics. The data utilized in these investigations were sourced from the three primary databases. These included the Connect4, Datastream, and finally the Thomson Financial SDC Platinum Mergers and Acquisitions database. The database was also supplemented with information from the Yahoo! Finance website and Connect4 annual reports if there were missing values in the primary sources of information. The next section describes the data collating process in greater detail followed by the sample selection criteria and variables utilized for our regressions and finally we conclude with the descriptive statistics of our sample.

The sample of companies and the compensation valuations utilized in this research is based upon a list of the top 177 highest remunerated executives compiled within the Australian Financial Review Executive Review Database. This database had information that was gathered from annual reports relating to the Managing Director's or Chief Executive Officer's remuneration package. However this database was only reliable for the year of 2001 and in using the Connect4 database of Annual Reports information relating to remuneration sums were reported from 1999 onwards⁵, and as a resultant sample size decreased to 65 companies spanning a diverse range of industries.

The next step in our database compilation involved the identification of corporate acquirers amongst our list of companies. In order to achieve this task, a list of corporate acquirers and acquisition investment information for Australian firms was gathered from the SDC Platinum database. This

⁵ Section 300A Corporations Law which states that the disclosure of the compensation amounts and values of executive stock option grants was introduced in 1998 as a result our studies are from 1999 onwards. It was also found that the valuation procedures made for stock options were inconsistent across firms as a wide variety of stock option valuation models were utilised.

database contains comprehensive information related towards corporate acquisitions and includes brief synopsis of information on corporate acquisition investments and payment methods. When matched with our initial sample of firms, it yielded 123 corporate acquisitions over 1999-2001 for the 65 firms. This was the foundations of our database.

The supplementary information which related towards our various hypotheses focused primarily upon corporate governance mechanisms, market data and firm fundamental information. The corporate governance mechanisms scrutinized in this paper included the Managerial Equity, Executive Stock Option Grants, Board of Directors, Remuneration Committee, and Substantial Shareholders, relevant variables based upon these factors were collected from the Connect4 Database. The next important components in our hypotheses include market information which included time-series data and static company financial data.

The time-series data and static company financial data utilized in our regressions were daily market prices which were collected from Datastream however in the event of missing values or information, ingenuity was required and missing adjusted time-series of closing prices were obtained from Yahoo! Finance and static company information such as share prices and various financial ratios were obtained from tables published in Shares Magazine. The next section explains the criteria utilized to define our sample.

The primary selection criteria enforced in relation to the sample of matched firms related towards the definition of a corporate acquisition. In the context of this paper, a corporate acquisition involved a situation whereby a firm seeks and attains corporate control of another parent or subsidiary company. This involved the purchase of subsidiary stake such that at least 50% or more is the resultant holdings of the corporate acquirer after the transaction has been completed in the purchased entity. The

event time of scrutiny for these corporate acquisitions were that they be announced between January 1st 1999 and December 31st 2002. This was the basis of retaining a firm within the regression sample from the original list of matched firms between the AFR Executive Salary Review Database and the SDC Database.

Incorporating specific hypotheses control variables, an extended time period of 1-year prior and subsequent to the corporate acquisition investment is analysed for the firm specific variables required in the regression tests. These included variables that proxy for past performance, and changes in firm risk which were based upon daily market adjusted share returns that correspond to the financial year from the 29th of June in the prior year to the corporate acquisition to the 30th of June in the subsequent year, as these variable were explanatory variables to managerial compensation packages which are valued according to 30th of June to reflect the performance of these managerial packages during the fiscal year. The next selection criteria related towards the various definitions utilized in measuring managerial remuneration packages. These were based upon those used in the AFR Executive Salary Review Database, which collected the reported values as they appear in annual reports, however this database was reliable only for the 2001 fiscal year, as such the previous years' data points being 1999 and 2000 were recreated utilizing the same variable definitions of the database for the 2001 fiscal year.

The most important point of caution relating to this database is its treatment of the executive stock options, it simply calculates the gross value of the total holdings of the manager as the number of options multiplied by the prevailing market price at the end of the fiscal year, this rudimentary standard is consistently applied throughout our database towards the valuation of executive stock options. The database also described the accrued option holdings of managers without considering the different layers in these holdings, as stock options issued in different time periods tend to have differing

contractual terms and conditions. Though the treatment of stock options is primitive in this research, it is a controversial topic in itself as executive stock options are different from standard options traded on financial exchanges and may be more complex in that some options may incorporate both American and European components in their contract structure.

For instance the research of Noreen & Wolfson (1981) empirically tested a sample of 52 executive stock options utilising both the Black-Scholes option pricing model and the risk-neutral valuation model. They found difficulties in properly addressing an appropriate valuation model for Executive Stock Options for reasons such as unreliable data pertaining to the proper valuation of equity-based incentive components in executive compensation packages. As a result researchers instead may choose to omit these variables and hence understate or overstate their resultant cross-sectional regression findings as a result of the unreliability of their valuations of executive stock options.

The Contract Convexity hypothesis in our studies seeks to analyse the ability of compensation packages in our sample to induce greater risk-seeking behaviour in our sample of managers. The effects of the risk characteristics of the company ex-post acquisition investment was analysed in terms of two controlling factors the resultant increase in leverage required to finance and sustain the company and its acquisition and also those resultant from the inherent change in the risk of the firm and cash flows resultant from this managerial decision. The variables analysed in our data set included:

LEVERAGE_{i,t} = The Debt-to-Equity Ratio for company *i* at time period *t*.

CHANGEFRISK_{i,t} = The change in the subsequent standard deviations of daily market adjusted returns of the firm in the year *t* relative to the previous year's measure.

The final component of our research analyses the company's characteristics on its compensation policies for CEOs and Managing Directors. It is generally regarded that firms are a balance between assets-in-place and investment opportunities and as such managers should be compensated based upon the ability of the firm to pay compensatory packages corresponding to the lifecycle phase that it is undergoing. In this paper we examine the firm's characteristics in terms of 2 variables to proxy for the firm's resources or assets-in-place, and its investment opportunities:

$FIRMRES_{i,t}$ = A measure of the firm's resources in particular free cash flows of the firm measured by the ratio of Operating Income to Total Assets for company i at year t .

$INVOPP_{i,t}$ = This variable represents the investment opportunities available to a firm, and it is proxied by the Market to Book Ratio of the firm.

The research method that will be utilized is that of cross-sectional regressions on our dependent variables being Total Compensation, and its various components in order to test for their sensitivities to our independent control variables measured by the coefficients of regressions and their significance levels. An F-test is then done on variables which are consolidated to represent certain mechanisms or factors in our tests, for instance the Board of Directors is represented by the consolidation of the $BOARDSIZE_{i,t}$ and $NUMNONEXDIR_{i,t}$ variables, in order to determine their significance upon the regression model as an explanatory factor in our results.

The second hypothesis analyses the effects of monitoring mechanisms within the firm's infrastructure in particular the role of internal governance structures such as the Board of Directors, and Remuneration Committee, and finally the influence of external monitoring of independent substantial shareholders in the setting of managerial compensation policies. The work of Hoe et al (2001), Suchard

et al (2001) and Mikkelsen & Partch (1997) created the interest in the scrutiny of the effectiveness of the Board of Directors, whilst the work of Anderson & Bizjak (2001) is the source of stimulus in our examination of the Remuneration Committee. These research papers often stress the lagged reaction of the internal governance infrastructures in enacting managerial change after long periods of poor firm performance under the incumbent CEO's tenure. The final examination into corporate governance structures analyses the influence of independent substantial shareholders in the sample of firms.

5 Results

The sample size, distribution and composition in our empirical testing are documented in Tables 1 and 2. This list of companies was obtained by matching the firms from the AFR Executive Salary Review database with the SDC Platinum Mergers and Acquisition database from the period of 1999 to 2001. The sample of 89 matched corporate acquirers was found to yield 123 corporate acquisitions which were the basis of our observations in our cross-sectional regressions. The distribution of the sample firm sizes are documented in Table 1 which shows a generally even spread of events over the three year period, and firm sizes. The average market capitalization over the period from 1999 to 2001 was \$ 5.418 billion AUD with the standard deviation being \$9.887 billion AUD. These figures when analysed in yearly segmentations generally show a trend that firm sizes in our sample have been increasing; this may be reflective of the buoyant share market at the time. It could also be possible to reason the large standard deviation may be resultant from the inclusion of outliers in our sample of firms such as Telstra Corporation in our sample of firms as it has the largest market capitalization on the ASX at \$34.42 billion AUD with the smallest market capitalized firm being United Group Limited at \$149 million AUD.

The AFR Executive Databases only considers the most highly remunerated executives and often these are from large market capitalization firms, and this is evident in our resultant sample as a large

proportion of our observations consist of corporate acquisitions made by firms from the Finance and Banking industry. This industry sector may dominate the resultant sample statistics as their average market capitalization over the 3 year period was \$14.41 billion AUD and the standard deviation between firms in this industry was \$18.20 billion AUD. As a result from an analysis of our sample of firms it could be reasoned a possible size effect bias involved as the firms derived from the AFR Executive Salary databases reflect only the 177 highest remunerated CEOs or Managing Directors and often these executives are employed by highly recognizable firms with large market capitalizations such as those from the Finance and Banking industry.

Table 3 documents the remuneration policies of the sample firms it shows that incentives contribute towards a significant proportion of the annual compensation packages paid to CEOs in our sample. The average total package paid out in the sample time period was \$1,504,376, of which incentive components of cash bonus and equity based compensation contributed 44.17% of these values. Over the 3 year period of scrutiny, compensation packages were found to have been increasing, in particular salaried portions relative to incentive components. A possible reason for these findings may be that as these managers are from large firms, in order to induce managers to undertake the position they may require to pay a larger aggregate package if the company chose a policy that emphasized a greater proportion of compensation paid on merits of performance⁶.

An important point in relation towards the greater proportion of pay packages being insured components relates towards the scale of the firm, in a large firm there is a greater degree of complexity and amount of company-specific trade secrets. Since the manager has a large proportion of human capital tied towards the firm, in the event of a dismissal and he has to search for another job he may

⁶ It may be more costly to utilize incentive based components for reasons being that in order for managers to hold a greater degree of idiosyncratic risks of the firm they may require a larger proportion paid to them in options and these entitlements in comparison to the values paid in salary.

have non-compete clauses that disallows him seeking a position at a competing firm. This additional risk may be an important factor in the compensation packages created by firms to attract and retain managerial talent⁷. The final alternative reasoning to these values are that it is a reflection of the current economic market for managerial talent, it has been documented in recent press of a shortage in managerial talent and an excess in demand from firms following recent high profile corporate collapses, and these compensation packages are a means of enticing and retaining managerial talent.

The usage of executive stock options is documented in Table 3, from our sample it is a relatively infrequent compensation mechanism in our sample. The vast majority of firms in the sample did not utilize executive stock options as a compensation item, as seen by the relatively low participation rate amongst firms of 40.65%, however the average of executive stock option grant during the time period of 1999 to 2001 was \$767,230,000 which was significant relative to the average total compensation paid. These stock options paid out though infrequent substantially contributed towards the consolidated pay packages of managers in our sample firms. The reason for the relatively low participation rates of the large companies in our sample in executive stock option plans may relate towards the incentives they provide to managers, as stock options are highly levered they are found to only provide incentives to management when the stock option is in the money however if they are too far out of the money there is no residual value, and as a result managers may not have any further incentive to maximize shareholder wealth unless the contractual terms are reset and they lack any downside risk to managers. This flaw in executive stock options have led to the popularity in the usage of cash based rewards, performance rights and shares as an alternative means of aligning managers towards the interests of shareholders. Performance rights are share allotments which are entitled to

⁷ The former Managing Director of Lend Lease David Higgins had a total severance package of \$5.07m of which \$1.61m was for agreeing not to join a rival with confidential information or clients in tow for a year after leaving the firm. Former Southcorp chief executive Keith Lambert was given \$1.4m for signing a 12-month non-compete agreement on top of his severance of \$2.95m. *Hepworth, A., 5th November 2003. Non-compete deals: making sure lips are sealed. The Australian Financial Review.*

managers on the contingency of being able to meet benchmark returns such as Total Share Returns (TSRs) or Economic Value Added (EVA) over a period of time, and the vesting of their benefits may not come into effect until after a period of time. As a result there is a constant incentive for managers to perform and their downside risks are greater when there are adverse share price movements as the vesting of their benefits occurs if their performance is in the top quartile of their industry.

The final analysis of factors that affect CEO wealth is related towards the holdings of indirect and direct equity in the firm which is illustrated in Table 4. The holdings of the top CEOs and Managing Directors in Australia suggests that on average they do not hold a large proportion of equity within their firm, however in dollar amounts their holdings constitute a large portion of their wealth. There has been an increasing usage of stock equity as a means of aligning managers and this is seen in the growth of the average value of equity holdings of managers during the 3 year sample period from \$9.519m in 1999 to \$28.793m in 2001 this is further emphasized by the fact that 95.51% of managers have direct and indirect stockholdings in their own company. Though the participation rate of firms issuing stock to managers is high as almost all companies provide their managers with company stock as incentives, their relative proportional ownerships are low as the average total shareholdings of a manager in our sample constitutes only 1.96% of the firm. The issue with such small relative shareholdings is whether it is sufficient to make these managers residual claimants of the firm in that they share the wealth effects of their decisions.

In summary, the compensation packages of CEOs and Managing Directors of the sample of corporate acquirers seem to be relatively high in incentive based pay. The data suggests a growing trend of utilizing cash based bonuses, performance rights and common stock as means of aligning interests and creating incentive benefits for managers. The sample also documents additional information that the CEOs in our sample do not hold large stakes in the companies they manage.

However this may be reflective of the size of the firms in our sample as they show large ranges in shareholding values and each manager's shareholdings may form a large proportion of their wealth.

The managerial entrenchment hypothesis aims to examine the effectiveness of corporate governance structures and their role in the setting of managerial compensation packages. This is modeled by 3 predominant influences being the Board of Directors, the Remuneration Committee and the presence of external independent substantial shareholders. The following section documents and discusses the empirical findings in the regression tests.

The Board of Directors was collectively modeled by 2 variables being $BOARDSIZE_{i,t}$ and $NUMNONEXDIR_{i,t}$ which represents the size of the board and the number of non executive directors who preside on this governance structure. It was found that in the first regression, the primary determinants of the total remuneration received by managers were past performance, and in relation to the board, the number of non-executive directors. These variables were positively related and significant at the 5% level, particularly interesting is that total remuneration packages being positively related to number of non-executive directors.

The interesting result was the sensitivity findings of executive stock option grants which had significant explanations from corporate acquisitions, and in addition a positive and negative relationship the size of the board and the number of non-executive directors on the board. This may be reflective of the averseness of independent directors towards executive stock option grants, and may demonstrate the conflicts of interest in the setting of remuneration policies on a board structure which has both insider and outsider parties. It may also reflect the changing preference from stock options to other innovations in managerial compensatory instruments such as performance rights and cash based incentives, as the coefficient on the influence of non-executive directors on the board is positive in regressions explaining total incentives paid to managers in our sample.

The conclusion that may be drawn from this finding may be that a company that requires a larger number of non-executive directors may imply that it has a greater requirement for advice and counsel and as a result there is greater complexity in the management of these firms, and managers should consequently be rewarded to a larger degree. It may also be perceived that there is a changing trend in how managers are being paid and a focus towards industry-benchmarked performance rights, and in the future there may be options with greater performance vested benefits.

The remuneration committee is responsible for the setting and implementation of the company's remuneration policies which include those of the CEO and Board members. These committees in our sample are predominantly presided over by the senior non-executive directors from the Board of Directors, and is modeled in our empirical testing by 2 variables being a dummy variable, $RCPRES_{i,t}$ and the $RCSIZE_{i,t}$ variable. These respectively signify the presence of a remuneration committee in the corporate governance structure of the company and the size of these committees. It was found that these variables were not statistically significant in any of the multivariate regressions undertaken on Total Remuneration Amounts and in the ancillary tests on compensation components.

This may be indication that the Remuneration Committee may lack independence in the setting of pay packages and is a subset governance structure of the Board. It may be recommended that in order to establish committee independence it should be an exogenous structure of industry experts that do not have any additional role in the Board of Directors or company. This may yield a statistical and intuitive relationship between the managerial pay packages and the Remuneration Committee in companies.

The role of substantial shareholders in the determination of CEO compensation packages was examined in the final extension of the Managerial Entrenchment Hypothesis. The presence and influence of substantial shareholders was modeled by the variables $NUMSUBHOLDER_{i,t}$ and

SUBHOLDERMKTCAP_{i,t}. These are representative of the number of substantial shareholders and their total equity holdings in the company. It was found that in all the subsequent regressions, the presence and influence of substantial shareholders did not play a role in the setting of managerial compensation packages as there was no significant statistical relationship found in our empirical tests. This is an interesting finding as the institutional investors on average in our sample of companies control a greater proportion and concentration of issued stock in the company. This lack of institutional participation in the remuneration policy of a company may change in the future with the implementation of the 9th stage in the government's Corporate Law Economic Reform Policy (CLERP 9) which promotes greater corporate disclosure and shareholder activism⁸.

The Contract Convexity Hypothesis seeks to analyse the effects of the nature of the compensation packages on the risk-averseness of the manager. In theory it is generally associated that managers are risk-averse for reasons being that they have a significant proportion of their wealth and firm-specific human capital invested in the company. As a result compensation packages of insured salaried and incentive components are a means of creating convexity in their utility functions and making them more risk seeking in their investment decisions. This is analysed in our studies in the context of a manager's corporate acquisition decisions and the subsequent changes in firm risk, which is modeled by the CHANGEFRISK_{i,t} variable, controlled for the effects of firm leverage with the LEVERAGE_{i,t} variable if the investment was financed by debt.

The results yielded no significant statistical relationships between the subsequent changes in firm risk after the company has undertaken the corporate acquisition, as an explanatory variable for total remuneration, base salary and incentives. In relation to the value of executive stock option grants,

⁸ CLERP 9 requires that the emoluments of the 10 most highly remunerated directors in an ASX listed firm to be disclosed. In relation to CEO Compensation, it also allows for a non-binding protest vote on CEO Compensation policy at annual general meetings for shareholders. This initiative will be active in the 2004 financial year.

it was found that these equity incentives had a positive statistical relationship with corporate acquisition decisions; however there was a negative significant statistical relationship with the variable that proxies for the change in firm risk which is significant at the 5% level. This may be interpreted as stock option grants though they are have a positive attribute in motivating managers to pursue corporate acquisitions, as the values of their stock option grants increase, these investments though may not be done with a risk-seeking frame of mind that these incentives are meant to encourage or induce. The explanatory influence of the Contract Convexity hypothesis is further supported by robustness checks utilizing F-tests.

These results may be ambiguous as we expected a positive coefficient on the change in firm risk variable, it could be argued that there is greater risk-seeking behaviour as a result of utilizing executive stock options to CEOs however these investments as they do not significantly increase the volatility in the company's stock returns may reflect corporate acquisitions being long-term investments that are undertaken with careful consideration. An alternative reasoning could be that these corporate acquisitions were made to increase the scale of the firm, this allows for a greater justification of executive stock option grants paid to managers, and the negative coefficient of the change in firm risk variable represents the actions of a risk-averse and possibly entrenched manager. This reasoning may not be likely as our sample have relatively young CEOs at the helm of these companies with short tenures.

The final hypothesis that is analysed in our research is that of the investment opportunities- firm resource matching hypothesis. It is often thought of as being a composition of assets-in-place and investment opportunities or growth options, firms with high growth opportunities derive a larger portion of their value from future investments than from existing asset. The investment opportunities- firm resource matching hypothesis proposes that total remuneration packages, incentives and stock

options should be positively related to our proxy for investment opportunities as they are meant to encourage the managers to be less risk averse and to accept risky positive NPV projects. The proxies for firm resources is the $FIRMRES_{i,t}$ variable whilst the $INVOPP_{i,t}$ depicts the investment opportunity set of the company⁹.

The multivariate regression results demonstrate that in relation to CEO Compensation policies of companies, they are generally determined by the firm's resources. The $FIRMRES_{i,t}$ variable is a significant explanatory variable for total remuneration, base salary and incentives. It was found that negative statistical relationships existed for the firm resource variable with the total compensation packages paid to managers; this was significant at the 5% level. This relationship is primarily explained by the amounts of salary paid, as this component of compensation was more sensitive to firm resources. It was shown that a negative statistically significant relationship existed which was significant at the 5% level for base salary being explained by firm resources whilst the level of incentives paid to managers was negatively related at the 10% level of significance.

The results derived may be reflective of our sample of firms being skewed towards those that are of larger firm capitalizations. These firms may derive a large portion of their value from their assets in place and resources and may not have a significant amount of investment opportunities. As a result the compensation policies are reflective of this, however the negative relationships with firm resources in particular base salary amounts may show that the compensation policies of these companies conflicts with the general theory which may be suggestive that compensation packages may be optimal. The sample period may indicate there to be little investment opportunities with the companies involved in

⁹ The proxy for Firm Resources depicts the level of free cash flow in the company which is defined as the ratio of Operating Income to Total Assets as prescribed in the work of Opler & Titman (1993), whilst the investment opportunities in a company is proxied by the book to market ratio. This was chosen as an alternative to Tobin's Q which is harder to approximate as the Replacement Costs of assets is required and this information is not always disclosed in annual reports.

our empirical tests and as a result they seek corporate acquisitions as a means of consolidating their industry position rather than as a growth strategy.

6 Conclusions

The optimal contracting of CEO Compensation is still an unresolved issue in finance. In these studies we sought to understand the implications of CEO Compensation on corporate acquisition decisions with 4 underlying hypotheses the Performance, Managerial Entrenchment, Contract Convexity and Investment Opportunity-Firm Resource Matching hypothesis. In our multivariate regressions we found that there were statistically significant positive relationships between total compensation, base salary and total incentives paid to managers and share returns. This supports the performance hypothesis however it was shown that corporate acquisition investments did not play a significant role in the wealth effects of the consolidated compensation package, base salary and total incentives. However it was found that stock options provided the greatest impetus for managers to pursue a corporate acquisition investment.

This hypothesis was developed further with the introduction of CEO specific influences which controlled for possible CEO Horizon problems and their motivations as residual claimants in the firm. The findings support the notion that there is little evidence of CEO horizon problems in our sample as these factors did not have adverse relationships relative to our variables for compensation. Whilst the effect of managerial equity holdings suggests that these holdings in common stock had the effect of creating greater managerial acquiescence to shareholder interests.

The Managerial Entrenchment Hypothesis sought to analyze the influences of the corporate governance structures in a company. It was found that the structure that contributed the greatest impact towards the compensation policies of a firm was the non-executive directors that preside over the Board of Directors, and the Remuneration Committee was lacking independence in their involvement

in setting their remuneration policies. The influence of institutional shareholders was found to be absent in their participation on the CEO Compensation policies of the companies. The secondary regressions yielded interesting insights in particular the relationships between incentives and stock option grants demonstrated the trends towards alternative incentives in lieu of executive stock options which is characteristic of the time frame of investigation following recent financial scandals and the relatively low usage of stock options in our sample.

The second hypothesis that was analysed the contract convexity hypothesis which was specifically explored the entrepreneurial risk taking incentives of managers based upon their contractual obligations, in particular their investment decision making impulses. It was found that on average the consolidated compensation packages did not motivate risk-seeking behavior, and neither did the structure of incentives in their compensation. The primary source of entrepreneurship and risk-seeking was satisfied by executive stock options and the relationship with acquisitions was still robust. This would imply that executive stock options do have a relevant context in the construction of optimal contractual relations in our sample.

The final hypothesis that was analysed was the Investment Opportunity-Firm Resource Matching hypothesis, which recognizes that companies are a composition of assets-in-place and investment opportunities or growth options. It should be prescribed that CEO pay packages be structured to reflect firm characteristics, as a firm with a large growth potential should skew its managerial compensation packages towards incentive based obligations whereas a large established firm such a strategy may not be optimal as it is not cost efficient. It was found that the compensatory packages, and its various components of base salary and total incentives were related towards the firm's resources however not its investment opportunities. This may be largely the result of our sample of companies as they are all relatively established large market capitalization stocks which derive their

value from their assets in place, another important factor could be the corporate acquisition market that is analysed, it shows that there is greater industry consolidation and as a result there is little growth opportunities available to firms. The exception of executive stock option grants being insignificantly explained by both firm resources and investment opportunities is a cause for concern as they are issued apparently without a theoretical argument in our sample.

In our view, the results in this study yields significant insights into the agency problem, corporate governance, CEO behavior and motivations. It is our belief that the CEO compensation packages in the sample are dynamic, fair and do encourage CEO entrepreneurship. It raises concerns in terms of the internal corporate governance structures, in particular the lacking influence of the Remuneration Committee. The findings also further demonstrate the lacking influence of institutional shareholders in participating in debates over CEO Compensation however this will change with the implementation of CLERP 9 which encourages greater shareholder activism. The final important point relates to the findings of contemporary findings into the misappropriate usage of executive stock option grants, our evidence does seem to support and contradict these notions but they are an important instrument in aligning managerial interests as they are the primary stimulant of managerial risk-taking and corporate acquisitions with possibly shareholder interests in mind. As a result their role in optimal contracting to attract and retain the upper echelon of managerial talent is still of significance¹⁰.

The research studies undertaken in this paper does have many avenues of improvements and modifications to yield more substantial results. The data utilized in this sample though comprehensive could be improved to incorporate a larger sample of firms to include a more diverse industry distribution and small firms and incorporate a longer time frame of investigation. In some companies there was lacking financial disclosure though this would change in the future with the greater emphasis

¹⁰ This may change as a result of proposed ASIC regulations that require the disclosure and expensing of stock options from accounting profits and losses in the future in accordance with international accounting standards.

on corporate disclosure in Australia. An important gripe is the treatment of executive stock options in our data, it was rudimentary and as such there was no consistent means of valuing executive stock options other than to treat them in a similar manner to indirect shareholdings. The modeling of the firm's investment opportunity set also could be done with the factoring of the variables as prescribed in Gaver & Gaver (1993) where they amalgamated different variables that proxy for the investment opportunity set into a solitary variable, such a technique may help to find a statistically significant relationship in our model. The next point of contention in this research could be the possibility of utilizing a matching sample of firms as a benchmark comparison. These are all possible modifications to the research design that may help to uncover new results.



ABER

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Table 1**Sample Distribution and Market Capitalisations by Industry Segments**

1999-2001 Market Capitalisation					
Industry Category	Number	Mean (\$000s)	Median (\$000s)	Standard Deviation (\$000s)	%Composition
Alcohol and Tobacco	6	\$2,673,575.00	\$1,236,675.00	\$3,967,761.44	6.74%
Banking and Finance	13	\$14,410,493.08	\$5,190,540.00	\$18,196,149.60	14.61%
Building Materials	4	\$727,257.50	\$542,015.00	\$651,865.11	4.49%
Developers and Contractors	5	\$3,561,364.00	\$1,412,210.00	\$4,379,181.50	5.62%
Diversified Industrials	8	\$3,521,950.00	\$2,315,475.00	\$3,543,413.81	8.99%
Diversified Resources	2	\$14,325,295.00	\$14,325,295.00	\$862,493.50	2.25%
Energy	2	\$2,081,855.00	\$2,081,855.00	\$2,682,063.09	2.25%
Food and Household Goods	1	\$636,120.00	\$636,120.00	\$0.00	1.12%
Gold	3	\$1,002,146.67	\$1,103,360.00	\$630,552.08	3.37%
Healthcare and Biotechnology	5	\$904,764.60	\$665,720.00	\$578,672.13	5.62%
Infrastructure and Utilities	3	\$1,754,930.00	\$1,712,470.00	\$1,627,065.57	3.37%
Insurance	3	\$8,484,320.00	\$5,415,670.00	\$8,229,528.48	3.37%
Investment and Financial Services	3	\$2,196,366.67	\$956,060.00	\$2,221,032.24	3.37%
Media	5	\$2,101,424.00	\$971,080.00	\$2,506,102.80	5.62%
Misc Industrials	6	\$652,211.83	\$402,665.50	\$569,089.28	6.74%
Retail	11	\$3,173,790.00	\$1,048,570.00	\$3,762,574.30	12.36%
Telecommunications	3	\$30,155,431.10	\$34,542,854.00	\$9,923,255.13	3.37%
Tourism and Leisure	4	\$1,670,877.50	\$1,372,500.00	\$992,206.99	4.49%
Transport	2	\$2,588,260.00	\$2,588,260.00	\$2,816,943.71	2.25%
Total	89	\$5,418,148.85	\$1,556,250.00	\$9,887,711.44	100.00%

Table 2**CEO Compensation Composition and Amounts**

	Mean (\$000s)	Median (\$000s)	Standard Deviation (\$000s)	Range(\$000s)	%Total Compensation
1999-2001					
Base Salary	\$839.84	\$678.90	\$659.18	\$3,559.86	55.83%
Incentives	\$664.54	\$427.23	\$865.10	\$4,900.00	44.17%
Total Compensation	\$1,504.38	\$1,119.00	\$1,412.57	\$8,296.48	100.00%
1999					
Base Salary	\$638.18	\$554.46	\$357.00	\$1,424.76	56.14%
Incentives	\$498.60	\$289.76	\$585.37	\$3,163.11	43.86%
Total Compensation	\$1,136.77	\$864.86	\$757.31	\$3,406.95	100.00%
2000					
Base Salary	\$712.98	\$608.50	\$434.82	\$1,584.88	57.63%
Incentives	\$524.21	\$403.00	\$573.58	\$3,178.50	42.37%
Total Compensation	\$1,237.19	\$937.54	\$841.16	\$3,433.54	100.00%
2001					
Base Salary	\$1,055.38	\$894.00	\$852.19	\$3,506.07	54.92%
Incentives	\$866.31	\$546.20	\$1,115.27	\$4,900.00	45.08%
Total Compensation	\$1,921.68	\$1,287.35	\$1,877.74	\$8,295.11	100.00%

Table 3**Corporate Governance & CEO Characteristics**

	1999-2000			
	Mean	Median	Standard Deviation	%Non-executive
Internal Governance				
<i>Board of Directors</i>				
Board Size	8.162601626	8	2.593731358	
Number of Non-Executive Directors	5.837398374	6	2.558732985	70.78%
<i>Remuneration Committee</i>				
Committee Size	3.398373984	3	1.406890755	100.00%
External Governance				
<i>Substantial Shareholders</i>				
Number of Shareholders	2.674796748	3	1.479343757	
Ownership Amounts(\$000s)	\$1,394,003,957.42	\$335,795,302.00	\$3,307,236,353.97	67.63%
CEO Characteristics & Influence				
CEO Age	51.95934959	52	4.333246188	
CEO Tenure	6.211382114	5	5.429506563	
%Outsider	17.07%			
Board Duality	100%			
Remuneration Committee Duality	29.27%			

Table 4**Firm Characteristics**

	1999-2001		
	Mean	Median	Standard Deviation
Firm Characteristics			
<i>Past Performance</i>	1.27%	1.31%	1.32%
<i>Firm Resources</i>	0.071582474	0.06271628	0.072764146
<i>Investment Opportunities</i>	0.326107451	0.24875622	0.437615201
<i>Firm Leverage</i>	4.000526045	0.56	19.56074407
<i>Change in Firm Risk</i>	21.38%	3.75%	40.60%



Table 5

Managerial Entrenchment Hypothesis – Board of Directors Parameter estimates for regression equation of compensatory variables of Total Remuneration, Base Salary, Total Incentives, and Gross Executive Stock Option Grant during the year with past performance proxied by BHARs and Corporate Acquisition Investments which is modeled by the logarithm of the total value of corporate acquisition, BOARDSIZE which is the logarithm of the number of members who preside on the Board and NUMNONEXDIR is the log of the number of non-executive directors who preside on the Board. The results include the coefficient parameter estimates, the standard deviation in the parentheses and the t-statistics in italics. *signifies significant at the 5% level and ** is significance at the 10% level.

Dependent Variable	Base Salary	Total Incentives	Options Gross Value	Total Pay
	a	b	c	[(a)+(b)]
c1	-540344.9	-537870.8	-10866358	-1078216
Intercept	(648877.5)	(8943368)	(5342185)	1400339)
	<i>-0.832738</i>	<i>-0.601419</i>	<i>*-2.034066</i>	<i>-0.769968</i>
β_1	16359134	20528318	-18333305	36887453
Past Performance	(4369379)	(6022240)	(35972934)	9429531)
	<i>*3.744041</i>	<i>*3.408761</i>	<i>-0.509642</i>	<i>*3.911907</i>
β_2	8664.832	-20473.33	507417.1	-11808.77
Acquisition Amounts	(31585.67)	(43533.99)	(260043.7)	68164.85)
	<i>0.274329</i>	<i>-0.470291</i>	<i>**1.951277</i>	<i>-0.173238</i>
β_3	-1016.336	172990.3	4318138	171973.9
Board Size	(229243.8)	(315962.8)	(1887356)	494729.7)
	<i>-0.004434</i>	<i>0.547502</i>	<i>*2.28793</i>	<i>0.347612</i>
β_4	615628.8	575492.7	-2915070	1191122
#of Non-Exc. Directors	(147350.9)	(203091.3)	(1213135)	(317997.2)
	<i>*4.177977</i>	<i>*2.833665</i>	<i>*-2.402923</i>	<i>*3.745698</i>
Adjusted R ²	0.240406	0.162215	0.048098	0.229607

Table 6

Managerial Entrenchment Hypothesis – Remuneration Committee Parameter estimates for regression equation of compensatory variables of Total Remuneration, Base Salary, Total Incentives, and Gross Executive Stock Option Grant during the year with past performance proxied by BHARs and Corporate Acquisition Investments which is modeled by the logarithm of the total value of corporate acquisition, and RCSIZE which is the logarithm of the number of chairpersons on the Remuneration Committee. The results include the coefficient parameter estimates, the standard deviation in the parentheses and the t-statistics in italics. *signifies significant at the 5% level and ** is significance at the 10%level.

Dependent Variable (Compi)	Base Salary	Total Incentives	Options Gross Value	Total Pay
	a	b	c	[(a)+(b)]
c1	76106.81	326115.4	-7781757	402222.2
Intercept	(655952.4)	(864215.7)	(4896339)	(1402567)
	<i>0.116025</i>	<i>0.377354</i>	<i>-1.589301</i>	<i>0.286776</i>
$\beta 1$	11566821	1548001.1	-3232422	27046832
Past Performance	(4822756)	(6353970)	(35999335)	(10322087)
	<i>*2.398382</i>	<i>*2.436274</i>	<i>-0.228662</i>	<i>*2.622828</i>
$\beta 2$	19854.46	-3220.19	486726.6	11634.27
Acquisition Amounts	(35470.58)	(46732.41)	(264769.2)	(75843.71)
	<i>0.559744</i>	<i>-0.175899</i>	<i>**1.838305</i>	<i>0.153398</i>
$\beta 3$	223236.6	246529.8	1028427	469766.4
Remuneration Committee Size	(166557)	(219438.5)	(1243261)	(356134.6)
	<i>1.340302</i>	<i>1.123467</i>	<i>0.827202</i>	<i>1.31907</i>
Adjusted R ²	0.039011	0.031516	0.010045	0.043222

Table 7**Managerial Entrenchment Hypothesis – Substantial Shareholders** Parameter

estimates for regression equation of compensatory variables of Total Remuneration, Base Salary, Total Incentives, and Gross Executive Stock Option Grant during the year with past performance proxied by BHARs and Corporate Acquisition Investments which is modeled by the logarithm of the total value of corporate acquisition, NUMSUBSHOLDER which is the log of the number of substantial shareholders on the company registry and SUBMKT CAP is the log of the market capitalization of total substantial shareholder equity. The results include the coefficient parameter estimates, the standard deviation in the parentheses and the t-statistics in italics. *signifies significant at the 5% level and ** is significance at the 10% level.

Dependent Variable (Compi)	Base Salary	Total Incentives	Options Gross Value	Total Pay
	a	b	c	[(a)+(b)]
c1	220173.3	412896.3	-9998858	633069.6
Intercept	(732579.1)	(963817.3)	(5415100)	(1566455)
	<i>0.300545</i>	<i>0.428397</i>	<i>** -1.846477</i>	<i>0.404142</i>
β_1	11048276	14872753	-13520429	25921029
Past Performance	(4882023)	(6423031)	(36087080)	(10439103)
	<i>*2.263003</i>	<i>*2.315535</i>	<i>-0.374661</i>	<i>*2.483071</i>
β_2	25143.47	-164.6222	585207.4	24378.55
Acquisition Amounts	(36929.62)	(48586.43)	(272977.4)	(78965.64)
	<i>0.680846</i>	<i>-0.015737</i>	<i>*2.143794</i>	<i>0.308727</i>
β_3	-92676.55	-870032.4	-690953.9	-179708.9
Number of Subst. Shareholders	(131893.8)	(173526)	(974936.2)	(282025)
	<i>-0.702601</i>	<i>-0.501553</i>	<i>-0.708715</i>	<i>-0.637209</i>
β_4	5909.64	8183.814	12673.5	14093.45
Subst. Shareholder Market Capitalisation	(13057.33)	(17178.87)	(96517.59)	(27920.16)
	<i>0.452592</i>	<i>0.476388</i>	<i>1.312833</i>	<i>0.504777</i>
Adjusted R ²	0.020359	0.015497	0.010359	0.024608

Table 8

Contract Convexity Hypothesis Parameter estimates for regression equation of compensatory variables of Total Remuneration, Base Salary, Total Incentives, and Gross Executive Stock Option Grant during the year with past performance proxied by BHARs and Corporate Acquisition Investments which is modeled by the logarithm of the total value of corporate acquisition, LEVERAGE which is the firm leverage at the time this is modeled by the debt to equity ratio and CHANGEFRISK is the subsequent change in the volatility of stock returns as a result of the corporate acquisition, this is modeled by the percentage change in standard deviation of stock returns. The results include the coefficient parameter estimates, the standard deviation in the parentheses and the t-statistics in italics. *signifies significant at the 5% level and ** is significance at the 10% level.

Dependent Variable (Compi)	Base Salary	Total Incentives	Options Gross Value	Total Pay
	a	b	c	[(a)+(b)]
c1	195781.2	519553.4	-4508465	715334.7
Intercept	(659929.4)	(868728.4)	(4765598)	(1412119)
	<i>0.299667</i>	<i>0.598062</i>	<i>-0.946044</i>	<i>0.506568</i>
β_1	12304293	16472113	-57630897	28776411
Past Performance	(5696350)	(7498652)	(41135484)	(12189067)
	<i>*2.160031</i>	<i>*2.196677</i>	<i>-1.644101</i>	<i>*2.360838</i>
β_2	26084.43	-1624.256	451245.2	21460.15
Acquisition Amounts	(36264.92)	(47738.99)	(261882.6)	(77599.78)
	<i>0.719275</i>	<i>-0.096866</i>	<i>**1.723062</i>	<i>0.276549</i>
β_3	2108.95	164.3152	-9314.645	2273.268
Leverage	(3565.768)	(4693.963)	(25749.75)	(7630.042)
	<i>0.591443</i>	<i>0.035006</i>	<i>-0.361797</i>	<i>0.297937</i>
β_4	62536.07	78806.93	-3478387	141343
Change in Firm Risk	(177436.1)	(233576.2)	(1281333)	(379678.4)
	<i>0.352443</i>	<i>0.337393</i>	<i>*-2.714663</i>	<i>0.37227</i>
Adjusted R ²	0.019893	0.013901	0.055044	0.022733

Table 9

Investment Opportunity-Firm Resource Matching Hypothesis Parameter estimates for regression equation of compensatory variables of Total Remuneration, Base Salary, Total Incentives, and Gross Executive Stock Option Grant during the year with past performance proxied by BHARs and Corporate Acquisition Investments which is modeled by the logarithm of the total value of corporate acquisition, INVOPP which is the investment opportunities of the firm which is proxied by book to market ratio and FCASHFLOW which is the proxy for the firm's free cash flow or resources this is measured by the ratio of operating income to total assets. The results include the coefficient parameter estimates, the standard deviation in the parentheses and the t-statistics in italics. *signifies significant at the 5% level and ** is significance at the 10% level.

Dependent Variable (Compi)	Base Salary	Total Incentives	Options Gross Value	Total Pay
	a	b	c	[(a)+(b)]
c1	828037.9	689546.2	1732563	1517584
Intercept	(118496.5)	(159098.4)	(816985.7)	(255894.1)
	<i>6.987866</i>	<i>4.334087</i>	<i>*2.120678</i>	<i>*5.930516</i>
$\beta 1$	11403016	12529398	-5284892	23932414
Past Performance	(4714842)	(6330343)	(32506931)	(10181735)
	<i>*2.418536</i>	<i>**1.97926</i>	<i>-0.162577</i>	<i>*2.350524</i>
$\beta 2$	0.0000461	-0.00000197	0.002146	0.0000441
Acquisition Amounts	(0.0000557)	(0.0000748)	(0.000384)	(0.00012)
	<i>0.827963</i>	<i>-0.026355</i>	<i>*5.587916</i>	<i>0.367018</i>
$\beta 3$	-2173159	-2247713	-2324325	-4420872
Firm Resources	(847667.2)	(1138113)	(5844323)	(1830543)
	<i>*-2.563693</i>	<i>** -1.974946</i>	<i>-0.397707</i>	<i>*-2.41506</i>
$\beta 4$	35733.65	-77331.4	-416847.5	-41597.76
Investment Opportunities	(149885.4)	(201242.4)	(1033399)	(323678.6)
	<i>0.238406</i>	<i>-0.38427</i>	<i>-0.403375</i>	<i>-0.128516</i>
Adjusted R ²	0.075375	0.032257	0.187391	0.061002