

Additional Introduction to Essay 3: A Rent Seeking Theory on CEOs' Compensation

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1 Introduction (additional to numero3.tex)

It was realized by economists long ago about the conflicts between directors and chief executive officers of a corporation. The first one appeared was probably Adam Smith (1776):

\The directors of such [joint stock companies] companies, however, being managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company. It is upon this account that joint stock companies have seldom been able to maintain the competition against private adventurers."

Adam Smith then predicted that joint stock companies will not be competitive in the market because of this directorial moral hazard problem; he concluded that even if the joint stock companies prevail for other reasons, it does not necessarily mean

that this moral hazard will not exist, nor efficient: "With an exclusive privilege [so that joint stock companies succeed in market], they [joint stock companies] have both mismanaged and confined it." He correctly realized that the concerns of "faction trouble", extra risk other than market's and other hazard problem on the investors' side will make the joint stock companies prevail in practice compared with copartnership. The early wisdom of Adam Smith is consistent with our understanding: the existence and prevalence of joint stock companies does not automatically imply that there is no rent left for the CEOs.

Largely similar views were addressed in other classical reference nearly two centuries later, for example, in Berle and Means (1932):

"Control will tend to be in the hands of those who select the proxy committee and by whom, the election of directors for ensuing period will be made. Since the proxy committee is appointed by the existing management, the latter can virtually dictate their own successors. Where ownership is sufficiently sub-divided, the management can thus become a self-perpetuating body even though its shares in the ownership is negligible."

This quote points out that the board's control over the CEOs is limited because selection procedure of directors is somehow controlled more or less by the CEOs themselves. This is a fact that commonly perceived and empirically tested true and

also consistent with our model's presumptions.

In many of studies from early last decade up to recent, attention is directed to the issue of inside directorship and outside directorship. Not surprisingly, directors are classified as inside directors and outside directors in this literature where inside directors are employees or former employees of the firm and generally are not thought to be independent of the CEO; and outside directors are not employees of the firm and usually do not have any business ties to the firm aside from their directorship. Outside directors are typically CEOs from other firms or prominent individuals from other fields. There is another category of directors other than these two, the gray directors, attorneys or businesspeople who have a long-standing relationship with the firm.

Our first set of questions are then: whether or not the board composition matters? How are boards structured and what they do on CEO turnovers? Hermalin and Weisbach (1998) present a board-specific model, trying to answer the above questions. In their model, the board can choose to obtain a costly signal on CEO's ability other than the firm's performance in deciding whether to keep a CEO or fire him. A board's independence depends on the bargaining power allocation between the board and the CEO where the CEO's bargaining power is an increasing function of his entrepreneurial ability. Their model predicts a series of outcomes including:

CEO turnover is more sensitive to performance when the board is more independent;

The probability of independent directors being added to the board rises following poor firm performance;

Board independence declines over the course of a CEO's tenure;

However, no matter the dynamics of the relationship between CEOs and the boards would be, as predicted, board's control over a CEO is always very limited: even the authors concede that even in GM, where a strong board was imposed after a profit crisis, the CEO maintained their control over the board, in fact, after a period of good performance, the CEO of GM was appointed as the chairman. (Wall Street Journal, December 5, 1995)

Our paper does not address the already widely discussed issue of board composition and corporate governance, nevertheless, we briefly review the recently literature as the reader will find that rent seeking is a natural explanation in CEO nomination. Rosenstein and Wyatt (1990) measure the impact on firm value of changes in board composition, specifically, the stock price reaction on the day of the announcement that outside directors will be added to the board. They find that, on average, there is a statistically significant 0.2% increase in stock prices in reaction to these announcements. Borokhovich et al (1996) finds that the likelihood that an executive from outside the firm is appointed CEO increases monotonically with the percentage of outside directors. The combined implication is that a CEO appointed from outside is a good news to the shareholders in general. This yields our premise that

there must be some rent allocated to the CEO such that the incentive provided to the incumbent is not optimal. Furthermore, the result in Borokhovich et al (1996) implies that a inside director majority board is prone to nominate an inside executive, implying that rent seeking does exist.

Rosenstein and Wyatt (1997) investigate whether inside managers are added to corporate boards for efficiency or entrenchment purposes. Based on regressions using stock market reaction to the announcement for inside director appointments against the amount of shares these noncontaminated inside directors own, a conclusion was drawn that the benefits of having an inside director outweigh the entrenchment costs when the inside director's and outside shareholder's interests are congruent.

In Shivdashi and Yermack (1999), evidence gathered from stock market yield that CEO involvement in the selection of directors is harmful to the shareholders. A recent trend of companies removing CEOs from involvement in director selection was found. Baker and Gompers (2001) examined the board selection process in a sample of 1,116 IPO firms. They argue that CEO tenure and voting stake, measured by its Shapley Value, are likely to be positively related to CEO bargaining power. The bargaining power of a CEO and inside directors are substantially reduced when a venture capitalist finances the firm, especially a reputable one.

Bertrand and Mullainathan (2000) distinguish the two competing views of CEO pay and empirically examine. The two views, in their terms, are, contracting view

where CEO compensation is optimally chosen to give the CEO correct amount of incentives to maximize shareholder wealth; and the skimming view where the compensation is a result of CEOs' own entrenchment, constrained by the availability of cash and fear of drawing shareholders' attention. Their results show that CEOs in better governed firms are (indirectly) charged more for options given. The main result is that CEO pay shows on average a significant amount of rent (pay for luck²). This result itself alone, without any further comparative statics, suffice to yield the skimming view.

Almazan and Suarez (2001) offer a model to explain why entrenching the incumbent CEO can be desirable. In Agrawal et al (2001), CEO nomination is viewed as winning a lottery. Obviously there is some rent left for the CEO upfront where the reason may simply arise from career concerns. In a noteworthy recent example, the contestants for CEO position succeeding Jack Welch of GE were three division executives, Jeffrey Immelt (GE Medical), Jim McNerney (GE Aircraft) and Robert Nardelli (GE Power System). The contestants can be viewed as 3 finalists from many managers that were aspired as GE's CEO during their career in GE whom exerted extra effort in their careers to win the title. It should be noticed that 80% of the time the CEO was nominated from insiders in American firms. Therefore, the rent can be seen as a lottery and hence the existence of the rent can be welfare improving

²The authors used several measures of luck, such as changes in oil price for the oil industry.

even in terms of career concerns alone.

Stock call options, as a compensation component which improves the tradeoff between insurance and incentive in a cash-performance contingent scheme, were then introduced and experienced enormous growth in executives' compensation during the last two decades. The extensive adoption of granting large block of options in CEO compensation shuts down the criticism of the 1970s' that executive compensation was not tightly tied to shareholder wealth, but the long bull market in the 1990s nests the changed course debate: do stock options unfairly reward executive for the market's success instead of their own efforts? Yermack (1995) tests whether CEO stock option plans have significant incentive effects. Using the CEO option awards data of 792 US firms between 1984 to 1991 and estimating in a variety of econometric models, it was found that few compensation theories have the explanatory power for patterns of CEO stock awards. Among the regulated industries, utilities appear to provide lower CEO incentives through stock options; liquidity-constrained firms appear to provide a greater fraction of CEO compensation from stock options. Therefore, Yermack (1995) claims that corporations over-award CEO stock options.

This seemingly depressing answer is not surprising to us, however instead of defending the contracting view of CEO compensation, we acknowledge that there is indeed some economic rent, largely in a CEO's options awarded. A question naturally comes up is that if the options granted are more than the amount of which

optimal incentive required, then why offer so much whatsoever? We argue that this rent might be optimal for sorting concerns: corporate performance is not a function of CEO effort and noise but also CEO's talent. A talented entrepreneur with real business insights may not need stay up in office for extra hours but still beat his counterparts. However entrepreneurship is a very "rare commodity" and must be sufficiently priced. Therefore, as long as we distinguish the contributions from effort and talent in a firm's profit, the rent premise can be easily understood and a rent seeking theory can be developed.

Compared with our model, a number of recent studies concentrate on the optimality of incentive effect of CEO option plans. Johnson and Tian (2000a) examine the value and incentive effects of six nontraditional CEO stock options: premium options, performance-vested options, repriced options, purchased options, reload options and indexed options. With a premium option, the strike price is set out-of-the-money when granted; performance-vested options are not exercisable unless the firm's stock price rises to a specified level³; repriced options are usual options except the Board of Directors can reset the strike price to a lower level when the price fall of the company's stock is due to uncontrollable market depressions that not related to the company's performance; with a purchased option, the CEO pays a specified fraction of its strike price when granted and exercises the options by paying the

³Typically well above the stock price on the grant date.

remainder of the strike price; with reload options, a CEO exercises it by paying the strike price with shares he owns and then receive new options granted to replace the exercised ones; the strike price of an indexed option moves with a predefined benchmark, such as an industry or marketwide stock index. The main results are that four of the nontraditional options have lower value than a traditional option when granted, five of these six options create stronger incentives than traditional options to increase stock price, and five create strong incentives to increase risk. Subsequent empirical research is needed to test the results, more importantly, comparative study is desirable because the large differences in value across the options imply that significant adjustments in the numbers of options granted are required for different options to have equivalent value to traditional options.

Johnson and Tian (2000b) design and derive a pricing model for indexed option and investigate its valuation and incentive implications. Acharya et al (2000) argue that repriced options can be optimal even from an ex ante standpoint but also concede that the advantages diminish with entrenched CEO control on strike price resetting process, greater relative importance of external factors on stock performance, and lower costs of replacing incumbent executives. Brenner et al (2000) find that the vast majority of options are reset at-the-money, resulting, on average, in the strike price dropping 40%. Similar to Acharya et al (2000), they defend repriced options by suggesting that the resetting only has a small impact on the ex ante value of an

option award where the ex post gain can be substantial. Despite the heavy criticism on CEO option repricing, it is documented in Chance et al (2000) that repricing is somewhat an infrequent event. The Wall Street Journal (June 11, 1997) reports on a survey of 250 high-tech firms in which 21 reset exercise prices for employees and executives. Brenner et al (2000) find that only 1.3% of the executives they examine had options repriced between 1992 and 1995.

In a rent seeking model, our results are consistent with some anecdotal evidence and the main thread of the existing literature. Our model does not explain the prevalence of any of the nontraditional options. Nevertheless, our approach may illuminate the understanding of executive compensation in a different perspective, for example, repricing could be the outcome of influence activities rather than the necessity to retain the managerial talent, claimed by the firms. Moreover, we believe that our framework will yield prosperous subsequent research on managerial compensation.

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