

企业二理论丛二书

# 经理人激励 与股票期权

EXECUTIVE INCENTIVES  
AND STOCK OPTIONS

谢德仁 · 著

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中国人民大学出版社

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本书系国家自然科学基金资助项目“股票期权的激励效应分析与会计处理”(批准号为70072012)的最终成果之一

## 序 言

摆在读者面前的这本著作是我主持的一项国家自然科学基金课题的研究成果之一。我现在不能不承认，在申请该课题时我对经理人激励和股票期权这个领域其实是很陌生的，我仅读过该领域的少数经典文献，但我当时凭既有的少年气高之势申请和承接了该课题。现在的我似乎已无开拓对自己而言很陌生的领域之勇气了。我是该课题的主持人，这个课题也主要是我自己完成的。这是我求完美的个性使然，我实在不放心把一个我陌生的领域的课题完全或大部分交给课题组其他成员及学生来做。在此意义上，我或许是个失败的课题主持人。当然，我虽为此而累，却也因此而颇有所获，如对这个领域不再陌生，对其前沿有了较好的把握。

此时，四周很安静，窗外雀儿的嬉戏声和初夏的风与白杨的哗哗私语声只是使一切更显安宁和静谧。这是2004年的初夏，“五一”长假的最后一天，我告诉自己，该结束本书的写作了。回首3年多来做课题的过程，我最深刻的记忆就是“难产”，其苦其累其实比我做博士学位论文时更甚。从最初少年无知以为比较轻松，后经搜索和收集，发现文献太多，遂陷入苦闷之中，只好硬着头皮逐篇阅读和做读书笔记，不知不觉中，我已为此课题做了60多万字的读书笔记。然而，最苦闷的是，在阅读文献和思考过程中，又不断发现新



的文献,使得我截止文献阅读的日期不得不一拖再拖,“难产”至极。这一过程其实在今年2月完成课题研究报告后仍延续着,如国际会计准则委员会(IASB)在2月19日发布了其关于“基于股票的支付”的会计准则,美国的财务会计准则委员会(FASB)于3月31日发布其“基于股票的支付”会计准则的征求意见稿,3月份我又决定在第一章中补写关于“谁是企业的经理人”一节,然后又是将书中所引的有关英文图表翻译为中文,如此等等,都使得我不得不继续处于阅读和修改途中,难以终稿。记得初春3月我就与出版社和编辑老师联系好了,但却一直未能交稿,感激的是编辑老师一直未催我。写作序言也许是个合适的终稿方式,所以,在初春时本已不打算写序言的我,现在静坐窗前,既为结束本书的写作,也为回忆过去3年多来笔耕于砚的苦与乐,更为感谢诸多人士3年多来对我的帮助与支持。在前言,照例是要说说著作的研究内容,而今我且不遵,请您直接阅读第一章的第1、2节,其中已以“本书有助于回答和思考的问题”以及“主要学术贡献介绍”等方式将本书的主要内容呈现出来。故在此序言中,我们就直奔另一主题——致谢。

首先,我要感谢国家自然科学基金的资助,若无此资助,我可能不会有激励(尤其是压力)和足够的财务支持去完成此课题的研究,也就无此专著的问世。其次,我要感谢清华大学经管学院的领导和同事们,他们使我得以较快地融入清华和经管学院的文化之中,尤其是学院里诸多令人尊敬的长者的行与言使我更坚定不求闻达,只求教好书同时做一点真学问的处世之道。再次,我要感谢本课题组的其他成员(于增彪教授、瞿卫菁和陆金海博士)和我的学生们(邵家骏、刘文、冯娟、卢婧、张高菊、胡登峰、樊鹏等),他们的通力协作和技术帮助使得本课题得以取得顺利进展和结题,使本书得以顺利终稿。第四,在课题研究过程中,我曾多次直接向有关作者(如Wharton商学院的Wayne R. Guay教授等)索取文献,得到了他们的热心帮助,在此向他们表示衷心的感谢。最后,我还要感谢我的家人对我研究工作的全力支持。

当然,本书的出版还要感谢中国人民大学经济学院院长杨瑞龙教授同意将本书作为其总编的“企业理论丛书”的第一本著作而纳入其中,感谢中国人民大学出版社张冬梅老师的热情帮助,感谢责任编辑杜俊红老师的认真审阅,若无他们的真诚帮助和辛勤工作,



这本著作是难以这么快地出现在您面前的。尽管编辑老师与我都追求完美，但书中错误仍难避免，这全部是我的责任，诚盼读者予以批评指正 (xiedr@em.tsinghua.edu.cn)。

窗外，初夏的风仍在与白杨亲密地私语着，我聆听着这天籁之声，心渐如止水。

谢德仁

2004 年 5 月 7 日于清华园



企业理论丛书

## **Abstract**

### **EXECUTIVE INCENTIVES AND STOCK OPTIONS**

This book focuses mainly on executive incentives and stock options. In addition to the first chapter "Introduction", the book includes six other chapters which can be classified into a trilogy of three parts. Part One comprises Chapter 2 and 3 into a deep theoretical research on executive incentives and the choices of performance bases for executive incentives. Part Two is composed of Chapter 4, 5, 6 and discusses the design of empirical research on incentive effects of executive stock options(hereafter, ESOs), and reviews the empirical literature concerning incentive effects of ESOs and ESOs practice puzzles in America. Part Three, Chapter 7 studies accounting for ESOs. In order to help readers grasp the content of the book quickly, we summarize our main academic contributions and contents as the following.

In Chapter 1, we make a deep analysis on the question regarding who are the firms' executives. Our analysis is accompanied with rethinking the independent directors institution. We define the nature of executives as the human capital owners who enter into firm



contracts with their human capital concerning capacity in order to run a firm and own the residual rights of control. When directors and the board of directors substantively own the residual rights of control, both independent directors and inside directors are the executives of the firm in nature. The board of directors is the management, and there are substantive agency relationships and agency problems between directors (the board of directors) and shareholders. Consequently, as executives of the firm, independent directors themselves are a part of the agency problems at first. Independent directors may not be an efficient corporate governance mechanism until the agency problem between independent directors and shareholders has been sufficiently alleviated. In our view, the absence of cognition that independent directors are firm executives at first is the underlying reason which should be responsible for the insignificant or significantly negative relation between board independence and firm performance. Additionally, we believe that in a market where the bandit gang fleeing hither and thither strategy is optimal, independent directors would play no role in protecting the interests of minority shareholders.

In Chapter 2, we clearly classify executive incentives in nature, and deeply discuss their relationship with firm risk and etc. In executive incentive literatures, the definition of effort is too narrow, and often means only hard work. Researchers of the literature usually regard agency problems between shareholders and executives as solely effort, but the agency problem actually also results from executives' wasting shareholders' wealth to meet their private needs. Executives' risk aversion, and as a result, we begin this chapter by re-defining "effort" as not only hard work but also a part of right work. Following that, we presents some discussions on a comparatively static analysis conclusion which has given a testable empirical relation between executive incentives and firm risk based on the standard principal-agent model. From the standard principal-agent model with a more actual assumption that executives are able



to influence or control firm idiosyncratic risk, we try to exploit the general equilibrium relationship between them through studying the effects of executive hidden actions, effort cost and risk aversion. We clearly classify executive incentives into two types such as effort-enhancing ( $\beta_{effort}$ ) incentive and risk-seeking ( $\beta_{risk}$ ) incentive. We suggest that the standard principal-agent model can provide general equilibrium predictions concerning the relationship between  $\beta_{effort}$  incentive,  $\beta_{risk}$  incentive, firm systematic risk and firm idiosyncratic risk. Thus the comparatively static analysis conclusion of the standard principal-agent model regarding the negative relationship between executive incentives and firm risk will not be the case. We believe that the absence of the above incentive classification is a significant research deficiency of the field and one of the significant factors resulting in the existing mixed empirical evidence. We expect that future researches based on the above incentive classification and predictions will be important improvements in the field. The value of ESOs is a convex function of stock price, which means that the value of ESOs is positively sensitive to stock price and stock return volatility. That is,  $\partial \text{ESOs Value} / \partial P > 0$ ,  $\partial \text{ESOs Value} / \partial \sigma > 0$ . As a result, ESOs in principle are able to concurrently or separately provide executives with  $\beta_{effort}$  incentive and  $\beta_{risk}$  incentive. But executives are risk averse, and their utility functions are concave. Consequently, the actual incentive effects of ESOs are influenced by many factors such as risk-aversion degree, or the diversification of executives' wealth.

In Chapter 3, we develop a shareholders' value creation chain to analyze the potential performance bases for executive incentives. Then, we discuss the fundamental principle with regard to specific performance basis choices and review existing evidence concerning these choices. The shareholders' value creation chain is composed of a series of value drivers which share a cause-effect, interacting, or parallelly cooperative relationship. According to the chain, the potential performance bases for executive incentives can be classified into accounting-based performance and market-based performance



(also RPE), both of which are composed of a series of specific performance measures. Moreover, both individual performance evaluations (individual performance measures) and subjective performance evaluations (subjective performance measures) can serve as the complements to the above performance bases in executive incentive contracts. The fundamental principle of the performance basis choice is that executive incentive contracts should place higher weight on the performance of more informativeness concerning executive actions. In other words, the performance basis of higher weight should be of higher sensitivity and higher precision in reflecting executive actions. But the tradeoff between the sensitivity and precision of performance bases may be needed to some extent. The choice is also influenced by other corporate governance factors. Some empirical evidence suggests that the fundamental principle of the choice does work. In the U. S. A., the market performance basis seems to have outpaced the accounting performance basis in the last 10 years. Since this result is likely to have arisen from other factors rather than the quality of performance bases it does not imply relatively lower quality of the accounting performance basis. Thus we should explain related empirical evidence with care. In addition, researchers should incorporate other contracting roles of the accounting performance basis into researches. In Chapter 3, we also review the empirical literature on the existence of relative performance evaluation (RPE) in executive incentive practice. Up to now, the empirical evidence is mixed, but there is only a little evidence supporting the existence of RPE in executive incentive practice in total. Many hypotheses have been suggested by researchers to explain the absence of RPE, some of them have even passed the empirical test to some extent. Even given this evidence, we do still agree with the judgment that “the absence of RPE in executive incentive practice is still one of the key puzzles surrounding executive incentives”.

In Chapter 4, we present a relatively complete discussion on the



empirical research design of the incentive effects of ESOs. We differentiate four kinds of pay-performance sensitivity of ESOs, then discuss the empirical research design of ESOs' incentive effects from the agency costs (including growth opportunity, executive tenure or time horizon, industry regulation, noise of performance measures, agency costs of debt, executive stock holding, characteristics of the board of directors, the existence of large shareholders, etc.), firm specific decisions (including investment decisions, dividend policy, earnings management and information disclosure, etc.), non-incentive factors (including liquidity constraints, cost of financial reporting and tax cost, etc.), and the repricing of ESOs. We also summarize the research deficiencies and limitations in this literature.

In Chapter 5, we make a relatively complete review on the empirical literature of ESOs incentive effects (till 2003). Our review follows the order of the above research design. As a result, we conclude that the incentive effects of ESOs have gained evidential support to some extent. But just as Hall and Murphy (2003) mentioned, empirical evidence directly linking option grants to subsequent firm performance has been largely inconclusive, designing and testing the right experiment on how option grants affect firm performance remains the most important research opportunity in this area.

In Chapter 6, we makes a survey on the ESOs practice puzzles which are inconsistent with the optimal contract in America. The puzzles include the absence of indexed stock options, nearly all of ESOs being at-the-money options, the repricing of ESOs, executives' freedom to unwind the incentive of ESOs, the existence of reload options, and the prevalence of broad-based stock option plans. We begin by briefly describing the executive power view and the perceived cost view which can be used to explain the puzzles. Then, we review the explanations of these ESOs puzzles from different viewpoints such as the executive power view and the perceived cost view. Different views not only have different explanations of the



puzzles, but can also have different solutions to improve ESOs practice. For example, the executive power view focuses on corporate governance improvement such as enhancing the independence of the board of directors, but the perceived cost view focuses on educating directors and executives on the true economic cost of stock options and eliminating the asymmetries between the accounting and tax treatment of stock options and other forms of compensation. Hence, companies should make improvements on ESOs plans in the future such as appropriately lengthening the vesting period of ESOs, requiring executives to hold shares for a specific period after options exercise, effectively preventing executives from unwinding the incentives of ESOs, strengthening the education of shareholders, directors and executives on stock options, granting executives restricted stocks and indexed stock options, and improving the accounting for ESOs and related information disclosure institutions.

In Chapter 7, we study accounting for ESOs. We argue that since the economic substance of ESOs is that executives share the claim to the firm's residue with shareholders, the economic substance of ESOs granting transaction is the alienation of part of the claim to the firm's residue (in financial accounting, that is profit distribution right) from shareholders to executives. As a result, the ESOs granting transaction is not that executives exchange management service for the ESOs. In other words, the providing of executive service does not work as the necessary premise of ESO grants. Shareholders just want to and can solely use ESOs to tempt executives into creating more shareholder value. This temptation is possible to realize because executives who have been granted and held stock options become the non-shareholder owners or quasi-shareholders. The fund or value flow of the ESOs granting transaction which should be accounted for is that one part of profit distribution right (owners' equity) flows from shareholders to executives. Consequently, in accounting recognition, the



corresponding item of ESOs in the ESOs granting transaction should be recognized as profit distribution. This is why our original “profit distribution view” differentiates from FASB and IASB’s “expensing view” as a result from the cognition difference concerning the economic substance of ESOs and ESOs granting transaction between us and them. Our view will help to facilitate the implementation of the fair value measurement method. As to the measurement approach, we argue that the reporting-date measurement approach should be adopted. But based on the current context of China, we suggest that marked-to-intrinsic-value method or the minimum value method be adopted, and fair value of ESOs be encouraged or be required to be disclosed in the notes to financial statements. In the future, when the context matures, ESOs can be measured at fair value. Different than the FASB and IASB, we argue that if the vested ESOs expire without exercise, these expired ESOs should be treated in the same way as the forfeiture of ESOs before vesting. That is, we should adjust the profit distribution amount arising from ESOs. Our view is consistent with the reality that executives participate in sharing the claim to the firm’s residue with shareholders, but inconsistent with the existing financial accounting concepts and model. Hence, the existing financial accounting concepts and model should be reformed to adapt to the new business environment where executives participate in sharing the claim to the firm’s residue with shareholders.

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