

CITY UNIVERSITY OF HONG KONG
香港城市大學

**The Study on the Influence of Market
Competition and Executive Compensation
Incentive on Inefficient Investment of
Enterprises**
市場競爭、高管薪酬激勵對企業非效率投資影
響研究

Submitted to
College of Business
商學院
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Business Administration
工商管理博士學位

by

Shen Limei
申立梅

April 2025
二零二五年四月

摘要

企業非效率投資現象已成為阻礙中國經濟邁向高質量發展階段的核心障礙之一。面對新時代的挑戰，提升投資效能、精細資源配置、杜絕資源冗餘，已成為企業界亟待攻克的課題。市場競爭，作為一股強大的外部驅動力，借助破產壓力、聲譽杠杆、資訊透明度等多元手段，深度介入企業治理，對企業的投資戰略產生深遠影響。構建高效的高管薪酬激勵機制，成為緩解企業內部委託代理矛盾、遏制非效率投資行為的有效策略。鑒於不同行業間競爭態勢的差異性，高管所承受的約束強度各異，進而導致高管薪酬激勵在提升企業投資效率方面的作用效果也展現出明顯的行業特色與差異化表現。

鑒於上述背景，本文首先深度剖析了資訊不對稱、委託代理、市場競爭及最優薪酬契約等理論框架，旨在闡明市場競爭、高管薪酬激勵機制與非效率投資之間的複雜關聯，以及市場競爭如何作用於高管薪酬激勵策略，進而提出了六項核心假設。隨後，本文依託2010至2019年間滬深A股市場共計9498家上市公司的豐富資料樣本，其中國有企業1172份，非國有企業8326份，構建了嚴謹的實證模型。通過描述性統計、相關性分析及對全樣本數據、國有企業樣本數據和非國有企業樣本數據分別進行了多元線性回歸，本文不僅系統性地探討了市場競爭與高管薪酬激勵對企業非效率投資行為的綜合影響，還進一步細分市場環境，深入分析了不同競爭強度下高管薪酬激勵的差異化作用效果，成功驗證了所有研究假設。此外，最後，為確保研究結論的穩健性與可靠性，本文對各模型實施了全面的穩健性檢驗，進一步鞏固了研究成果的堅實基礎。

研究最終得到了以下6個結論：(1)我國A股上市企業中非效率投資廣泛存在，過度投資與投資不足兩種形式同時存在，並且相較於過度投資，投資不足的問題顯得更為嚴峻與普遍。(2)企業競爭地位與非效率投資（包括過度投資與投資不足）之間存在的非線性關聯，具體表現為一種典型的“U”型曲線關係。在企業行業競爭中逐步攀升的初期階段，企業競爭實力的增強顯著抑制了非效率投資行為；然而，當企業競爭地位跨越某一臨界值，即“U”型曲線的頂點後，其影響發生逆轉，較高的企業競爭地位反而促進非效率投資。(3)行業競爭的加劇與企業非效率投資、過度投資及投資不足行為均呈現出顯著的負相關趨勢。(4)高管貨幣薪酬與股權激勵機制均能有效遏制企業的

非效率投資傾向，高管貨幣薪酬激勵效果相較更為突出，兩種激勵方式在對抗過度投資方面均展現出更為顯著的約束力。(5)市場的激烈競爭對高管薪酬激勵機制抑制非效率投資具有顯著促進作用。(6)相較於國有企業，市場競爭及高管激勵機制對非效率投資的抑制效應在非國有企業中表現更為顯著。

根據以上結論，本文提出如下對策建議：(1)完善市場競爭機制，保證良性市場競爭，充分發揮市場競爭優勢。(2)構建高效且公平的高管薪酬激勵體系，適當加大薪酬激勵力度。(3)科學利用產品市場競爭與高管薪酬激勵二者的關係，高管薪酬激勵配合市場競爭機制更大程度地發揮其治理效用。(4)加強企業內部治理機制建設，提升企業實力。

本文的研究為理解企業投資行為、優化高管薪酬設計以及發揮市場競爭的治理作用提供了實證依據。以期為企業治理、薪酬制度設計和市場競爭環境的改善提供實踐指導，助力企業實現可持續發展，同時促進資本市場的健康與穩定。

關鍵字：企業非效率投資，企業競爭地位，行業競爭程度，高管貨幣薪酬激勵，高管股權激勵

Abstract

The phenomenon of inefficient investment by enterprises has become one of the core obstacles hindering China's economy to move towards the stage of high-quality development. Faced with the challenges of the new era, it has become an urgent task for enterprises to improve investment efficiency, fine resource allocation and eliminate resource redundancy. Market competition, as a powerful external driving force, deeply intervenes in corporate governance by means of multiple means such as bankruptcy pressure, reputation leverage and information transparency, and has a profound impact on the investment strategy of enterprises. The construction of efficient executive compensation incentive mechanism has become an effective strategy to alleviate the internal principal-agent contradiction and curb the inefficient investment behavior. In view of the differences in the competitive situation among different industries, the intensity of constraints on senior executives is different, which leads to the effect of executive compensation incentive on improving the investment efficiency of enterprises also shows obvious industry characteristics and differentiation.

In view of the above background, this paper first analyzes the theoretical framework of information asymmetry, principal-agent, market competition and optimal compensation contract in depth, aiming to clarify the complex relationship between market competition, executive compensation incentive mechanism and inefficient investment, as well as how market competition affects executive compensation incentive strategy, and then puts forward six core hypotheses. Then, based on the rich data samples of 9,498 listed companies in Shanghai and Shenzhen A-share markets from 2010 to 2019, including 1,172 state-owned enterprises and 8,326 non-state-owned enterprises, this paper builds a rigorous empirical model. Through descriptive statistics, correlation analysis and multiple linear regression of the full sample data, sample data of state-owned enterprises and sample data of non-state-owned enterprises, this paper not only systematically discusses the comprehensive impact of market competition and executive compensation incentives on enterprises' inefficient investment behavior, but also further subdivides the market environment. This paper deeply analyzes the differential effect of executive compensation incentive under different competitive intensity, and successfully validates all research hypotheses. In addition, finally, in order to ensure the robustness and reliability of the research conclusions, this paper carried

out a comprehensive robustness test for each model, and further consolidated the solid foundation of the research results.

Finally, the following six conclusions are obtained: (1) Inefficient investment exists widely in China's A-share listed enterprises, and two forms of over-investment and under-investment exist at the same time, and compared with over-investment, the problem of under-investment is more severe and common. (2) There is a nonlinear correlation between the competitive position of enterprises and inefficient investment (including over-investment and under-investment), which is manifested as a typical "U" -shaped curve relationship. In the initial stage of enterprise competition, the enhancement of enterprise competitive strength significantly inhibits the inefficient investment behavior; However, when the competitive position of firms crosses a certain critical value, that is, the peak of the "U" shaped curve, the effect reverses, and the higher competitive position of firms promotes the inefficient investment. (3) The intensification of industry competition has a significant negative correlation with inefficient investment, over-investment and under-investment behavior of enterprises. (4) Both executive monetary compensation and equity incentive mechanism can effectively curb the inefficient investment tendency of enterprises, and the incentive effect of executive monetary compensation is more prominent, and the two incentive methods show more significant binding force in combating excessive investment. (5) The fierce competition in the market has a significant role in promoting the executive compensation incentive mechanism to inhibit inefficient investment. (6) Compared with state-owned enterprises, the inhibiting effect of market competition and executive incentive mechanism on inefficient investment is more significant in non-state-owned enterprises.

According to the above conclusions, this paper puts forward the following countermeasures and suggestions: (1) Improve the market competition mechanism, ensure healthy market competition, and give full play to the advantages of market competition. (2) Build an efficient and fair executive compensation incentive system, and appropriately increase the compensation incentive. (3) Make scientific use of the relationship between product market competition and executive compensation incentive, so that executive compensation incentive can cooperate with market competition mechanism to exert its governance effectiveness to a

greater extent. (4) Strengthen the construction of internal governance mechanism and enhance the strength of enterprises.

The research of this paper provides empirical basis for understanding the investment behavior of enterprises, optimizing the design of executive compensation and giving play to the governance role of market competition. It is expected to provide practical guidance for corporate governance, compensation system design and market competition environment improvement, help enterprises to achieve sustainable development, and promote the health and stability of the capital market.

Keywords: enterprise inefficient investment, enterprise competitive position, industry competition degree, executive monetary compensation incentive, executive equity incentive

CITY UNIVERSITY OF HONG KONG
Qualifying Panel and Examination Panel

Surname: SHEN
First Name: Limei
Degree: Doctor of Business Administration
College/Department: College of Business

The Qualifying Panel of the above student is composed of:

Supervisor(s)

Prof. WANG Yong Department of Economics & Finance
City University of Hong Kong

Prof. LUO Pinliang Department of Industrial Economics
Fudan University

Qualifying Panel Member(s)

Prof. HUANG Qianqian Department of Economics & Finance
City University of Hong Kong

Prof. XU Jiangang Department of Finance
Fudan University

This thesis has been examined and approved by the following examiners:

Prof. QI Yaxuan Department of Economics & Finance
City University of Hong Kong

Prof. WANG Yong Department of Economics & Finance
City University of Hong Kong

Prof. LUO Yunhui Department of Applied Economics
Fudan University

Prof. LUO Pinliang Department of Industrial Economics
Fudan University

Prof. XU Xinpeng School of Accounting and Finance
The Hong Kong Polytechnic University

致謝

在回顧這段漫長而充實的博士研究旅程時，我內心充滿了無以言表的感激之情，每一份幫助與支持都如同星辰般璀璨，照亮了我的學術之路。

首先，我要向我的導師致以最崇高的敬意和最深切的感謝。在科研的浩瀚星海中，導師不僅是引領我前行的舵手，更是照亮我探索未知的明燈。您的嚴謹治學態度，體現在每一個細節之中，從選題的精妙到論文撰寫的嚴謹，都讓我受益匪淺。您的深邃學術洞察力，仿佛能夠洞察學術前沿的每一絲微光，為我指明研究方向。而您那無私的奉獻精神，更是讓我深感敬佩，您不僅傳授我知識，更教會了我做人的道理和科研的道德準則。每一次與您的深入討論，都是對我思維的啟迪和智慧的昇華，讓我更加堅定了追求真理的決心。

同時，我要對我的家人表達最深沉的感激。在我追求學術夢想的道路上，是你們用無條件的愛、理解與包容，為我構建了一個溫暖的港灣。在我遇到挫折與困難時，是你們的鼓勵與支持，成為了我最堅實的後盾。你們的每一句關懷、每一個微笑，都是我勇往直前的動力源泉。這份血濃於水的親情，讓我深刻體會到了家的溫暖與力量。

當然，我也不能忘記在我求學路上給予我幫助和支持的老師們、同學們以及朋友們。你們的每一次關心、每一份鼓勵、每一個建議，都如同春雨般滋潤著我的心田，讓我感受到了人間的溫暖與美好。這些寶貴的經歷與回憶，將成為我人生中最珍貴的財富之一。

最後，我要特別感謝參與我論文評審和答辯的各位專家和學者。您的寶貴意見和建議，如同燈塔般照亮了我前進的道路，為我指明了未來科研的方向。您的肯定與鼓勵，是對我過去努力的認可；而您的鞭策與激勵，則是我未來不斷追求卓越的動力源泉。

目錄

摘要	i
Abstract	iii
Qualifying Panel and Examination Panel	vi
致謝	vii
目錄	viii
圖目錄	x
表目錄	xi
第1章 緒論	1
1.1 研究背景	1
1.2 研究意義	2
1.2.1 理論意義	2
1.2.2 現實意義	3
1.3 研究內容	4
1.4 研究方法與技術路線	5
1.4.1 研究方法	5
1.4.2 技術路線	13
1.5 創新點	14
第2章 文獻綜述	16
2.1 企業投資效率與企業非效率投資	16
2.1.1 企業投資效率與非效率投資影響因素	16
2.1.2 企業非效率投資度量模型述評	18
2.2 市場競爭與企業非效率投資	25
2.2.1 市場競爭的相關研究	25
2.2.2 市場競爭對非效率投資影響	27
2.3 高管薪酬激勵與企業非效率投資	30
2.3.1 高管貨幣薪酬激勵與非效率投資	30
2.3.2 高管股權激勵與非效率投資	31
2.4 市場競爭對高管薪酬激勵作用的影響	33
2.5 文獻評述	34
第3章 理論假設與研究設計	37
3.1 理論分析與研究假設	37
3.1.1 市場競爭與非效率投資	37
3.1.2 高管薪酬激勵與非效率投資	38
3.1.3 市場競爭、高管薪酬激勵與非效率投資	39
3.2 樣本選擇和資料來源	40
3.3 變數選取與定義	42
3.3.1 被解釋變數	42
3.3.2 解釋變數	43
3.3.3 控制變數	45
3.3.4 調節變數	47
3.4 實證分析模型設計與構建	48
第4章 企業非效率投資影響實證研究	50
4.1 非效率投資Richardson模型存在性檢驗	50
4.1.1 Richardson模型變數描述性統計	50
4.1.2 Richardson模型變數相關性分析	51
4.1.3 企業非效率投資存在性分析	53
4.2 描述性統計分析	57
4.2.1 市場競爭實證模型變數描述性統計	57
4.2.2 高管薪酬激勵實證模型變數描述性統計	61

4.3 相關性分析	63
4.3.1 市場競爭實證模型變數相關性分析	63
4.3.1.1 企業競爭地位實證模型變數相關性	63
4.3.1.2 行業競爭程度實證模型變數相關性	64
4.3.2 高管薪酬激勵實證模型變數相關性分析	65
4.4 OLS多元回歸分析	70
4.4.1 市場競爭與企業非效率投資實證分析	70
4.4.2 高管薪酬激勵與企業非效率投資實證分析	78
4.4.3 不同市場競爭程度下高管薪酬激勵與企業非效率投資實證分析	83
4.5 市場競爭、高管薪酬激勵與不同產權性質企業非效率投資	89
4.5.1 企業競爭地位對不同產權性質企業的非效率投資影響	89
4.5.2 行業競爭程度對不同產權性質企業的非效率投資影響	90
4.5.3 高管激勵對不同產權性質企業非效率投資影響	91
4.5.4 不同市場競爭程度下高管激勵對不同產權性質企業中非效率投資的影響	93
4.6 內生性檢驗	94
4.7 穩健性檢驗	95
第5章 結論與展望	99
5.1 主要研究結論	99
5.2 對策與建議	101
5.2.1 完善市場競爭機制，保證良性市場競爭	101
5.2.2 構建高效且公平的高管薪酬激勵體系	102
5.2.3 科學利用產品市場競爭與高管薪酬激勵二者的關係	104
5.2.4 加強企業內部治理機制建設	105
5.3 研究不足與展望	106
參考文獻	109

圖目錄

圖表1-1 技術路線圖	14
圖表3-1 樣本數據分組比例	42
圖表4-1 我國 A 股上市公司企業競爭地位（LE）和非效率投資（IE）關係圖 ...	71

表目錄

表3-1 Richardson 模型變數含義.....	43
表3-2 變數定義表.....	48
表4-1 Richardson 非效率投資模型各變數描述性統計.....	50
表4-2 Richardson 模型各變數相關性分析.....	52
表4-3 Richardson 模型OLS回歸分析結果.....	53
表4-4 模型1殘差結果分析表.....	55
表4-5 過度投資、投資不足均值差異 t 檢測結果.....	56
表4-6 市場競爭實證模型變數描述性統計結果.....	57
表4-7 高管薪酬激勵實證模型變數描述性統計結果.....	62
表4-8 企業競爭地位對非效率投資影響實證模型各變數相關性分析.....	67
表4-9 行業競爭程度對非效率投資影響實證模型各變數相關性分析結果.....	68
表4-10 高管薪酬激勵對非效率投資影響實證模型變數相關性分析.....	69
表4-11 模型1的OLS回歸結果.....	70
表4-12 模型2OLS回歸分析結果.....	77
表4-13 模型3OLS回歸分析結果.....	79
表4-14 模型4OLS回歸分析結果.....	81
表4-15 不同市場競爭程度下高管貨幣薪酬激勵與非效率投資OLS回歸分析結果.....	84
表4-16 不同市場競爭程度下高管貨幣薪酬激勵與非效率投資SUR估計.....	84
表4-17 不同市場競爭程度下高管股權激勵與非效率投資OLS回歸分析結果.....	87
表4-18 不同市場競爭程度下高管股權激勵與非效率投資SUR估計.....	87
表4-19 不同產權性質企業模型1回歸係數.....	90
表4-20 不同產權性質企業模型2回歸係數.....	91
表4-21 不同產權性質企業模型3回歸係數.....	92
表4-22 不同產權性質企業模型4回歸係數.....	93
表4-23 不同產權性質企業，不同競爭程度高管激勵回歸係數.....	94
表4-24 內生性Hausman檢驗結果.....	95
表4-25 模型1穩健性檢驗.....	96
表4-26 模型2穩健性檢驗.....	96
表4-27 模型3穩健性檢驗.....	97
表4-28 模型4穩健性檢驗.....	97
表4-29 不同市場競爭程度下高管貨幣薪酬激勵與非效率投資實證模型穩健性檢驗.....	98
表4-30 不同市場競爭程度下高管股權激勵與非效率投資實證模型穩健性檢驗.....	98