ISCTE IUL

Instituto Universitário de Lisboa

MBOs Performance of State Owned Enterprises:

The Case of China

XU Feng

Thesis submitted as partial requirement for the conferral of the degree of

Doctor of Management

Supervisor:

Prof. José Paulo Esperança, Professor, ISCTE University Institute of Lisbon

Co-supervisor:

Prof. Li Ping, Professor, University of Electronic Science and Technology of China, School of Management and Economics

April, 2018

ISCTE IUL
Instituto Universitário de Lisboa

MBOs Performance of State Owned Enterprises:The Case of China
XU Feng

Spine-

ISCTE IUL

Instituto Universitário de Lisboa

MBOs Performance of State Owned Enterprises:

The Case of China

XU Feng

Thesis submitted as partial requirement for the conferral of the degree of

Doctor of Management

Jury:

President: Professor Nelson António, Full Professor, ISCTE-IUL

Professor Fernando Teixeira, Professor, Instituto Politécnico de Beja

Professor Xiao Wen, Associate Professor, UESTC, China

Professor Li Ping, Professor, UESTC, China

Professor Ana Gama, Assistant Professor, Universidade da Beira Interior

April, 2018

Statement of honor
Submission of master's dissertation or project work or doctoral thesis

I the undersigned state on my honor that:

- The work submitted herewith is original and of my exclusive authorship and that I have indicated all the sources used.

- I give my permission for my work to be put through Safe Assign plagiarism detection tool.

- I am familiar with the ISCTE-IUL Student Disciplinary Regulations and the ISCTE-IUL Code of Academic Conduct.

- I am aware that plagiarism, self-plagiarism or copying constitutes an academic violation.

Full name XuFeng

Course Doctor of Management

Student number 201224

Email address xufengit@126.com

Personal email address xufeng780227@163.com

Telephone number +86 18600565916

ISCTE-IUL, 25 / 7 /2018

Signed 

_____

Abstract

By reviewing and analyzing the MBO cases of 66 Chinese listed companies in the last ten years, this study draws the MBO map of Chinese enterprises and finds that the main problems in the MBOs of Chinese enterprises are the unreasonable pricing of MBOs and the lack of incentive mechanisms at the management level.

In this study, 19 state-owned enterprises that are listed companies were selected as samples and the corresponding industry pairing enterprises were also selected. 2793 sample firm financial data items of 19 firms were obtained by calculating 21 financial performance indicators 7 years before and after acquisition. The financial performance indicators of this study were analyzed through DuPont financial analysis, analysis of cash flow index, analysis of scale index, analysis of investment index and change of financial performance. The financial data was analyzed through regression analysis.

The analysis found that the MBOs of Chinese state-owned enterprises were better developed than the industry in terms of profitability, operational ability, debt paying ability, cash flow and asset scale. In terms of cash flow, the growth rate of net cash flow after MBO improved. In terms of asset size, the company's annual asset growth rate was positive after deducting industry factors before and after MBO. This indicates that the scale of assets of the sample enterprises was increasing when compared with the industry. However, the regression analysis, after controlling the sample selection bias and factors such as the company's asset management, showed that the financial indicators of the company have not significantly improved after the MBO, suggesting that the MBOs of state-owned enterprises in China exhibited a relatively low efficiency.

Key words: MBOs Performance, State-owned Enterprises, Empirical Research

JEL: M1; F014

Resumo

Através da revisão e da análise de casos de aquisição pelos quadros (MBO) de 66 empresas chinesas cotadas na última década, este estudo utiliza o mapa MBO de empresas chinesas, tendo encontrado que os principais problemas destes MBO são os seus preços injustificados e a falta de mecanismos de incentivo ao nível da administração.

Neste estudo, 19 empresas públicas e cotadas foram escolhidas para amostra, e emparelhadas com empresas correspondentes do mesmo ramo. 2973 dados financeiros das 19 empresas da amostra foram obtidos através do cálculo de 21 indicadores de desempenho financeiro, a intervalos de 7 anos anteriores e posteriores às respetivas aquisições. Os indicadores de desempenho financeiro deste estudo foram analisados com análise financeira DuPont, análise do índice de fluxo de caixa, análise do índice de escala, análise do índice de investimento e alterações no desempenho financeiro. Os dados financeiros são analisados posteriormente com base numa análise de regressão.

Concluiu-se que as MBO de empresas públicas chinesas estão mais desenvolvidas que as suas respetivas indústrias em termos de lucro, capacidade operacional, pagamento de dívidas, fluxos de caixa e escala dos ativos. No que toca ao fluxo de caixa, o índice de crescimento do fluxo de caixa líquido pós-MBO melhorou. Em termos do volume de ativos, o índice de crescimento anual das empresas é positivo após a dedução de fatores da indústria pré- e pós-MBO. Isto indica que a escala dos ativos das empresas-amostra aumenta comparativamente à sua respetiva indústria. No entanto, a análise de regressão indica que, após o controlo da polarização de seleção na amostra, assim como de fatores como a gestão dos ativos da empresa, os indicadores financeiros da empresa não melhoraram de forma significativa após o MBO, sugerindo que os MBO de empresas públicas chinesas tendem a ser pouco eficazes.

Palavras-chave: Desmpenho das MBO, empresas públicas, investigação empírica

JEL： M1；F014

摘要

关于管理层收购模式，现有研究大多以欧美国家为案例进行分析，缺乏以中国为案例的现状分析与实证研究，探寻适合中国国有企业的管理层收购模式具有重要的理论和现实意义。

本文通过对十年间 66 家中国上市企业管理层收购案例的梳理，从企业的规模、发生地域、收购模式等多个角度进行分析研究，发现收购定价不合理和管理层激励机制不健全是目前存在的主要问题。同时，在 66 家企业中选取了 19 家企业为样本进行实证研究，从杜邦财务指标、现金流量指标、规模指标、投资指标等多个角度分析管理层收购后的绩效变化，发现管理层收购企业在盈利能力、营运能力、偿债能力、现金流量和资产规模方面均有高于同行业的良好发展，但总体效率不高。在此基础上，对构建适用于中国国有企业的管理层收购定价模式提出了建议。

关键词：管理层收购；绩效评价；国有企业；实证研究

分类号：M1；F014

Acknowledgements

Confucius said: People become mentally independent when they turn 30 and without perplex when they turn 40. I repicked up books and chose to study for a doctorate degree after my thirtieth birthday. As my dissertation comes to an end, I am at the gate of my 40s. Almost all my time of the past six years outside work have been devoted to the doctoral dissertation and my focus has always been on my research questions. Such a focus allowed me to begin to consider where the state-owned enterprise should go rather than thinking from the perspective of a former employee in a state-owned enterprise who was concerned with business development.

MBO, a model that came from the western world, may be a useful exploration and experiment. There have been a sea of contentions about the MBOs of state-owned enterprises plus a huge amount of different research data and literature. I consulted almost all the data on MBOs of state-owned enterprises in recent years, drew the map of the development of China's MBOs combining the typical acquisition case and used regression analysis to analyze the changes of the companies' performance in the five years before and after the MBO based on the earnings data released by the enterprise. In that enlightening process, I saw the answers as well as the perplexities. The MBO is a double-edged sword. To make this sword most powerful, the problems in the process of MBO must be clarified and made clear, transparent and pervasive. The paper is just a beginning and many questions remain to be explored in subsequent studies.

During the six years of my doctorate study, I was so lucky to have met my tutors Professor José Paulo Esperança and Professor Li Ping! These two teachers are both noble teachers with profound learning and rigorous academic attitude. Starting from the topic selection, the two mentors helped me to focus on research questions, straighten out the research ideas and put forward many constructive suggestions for my thesis, for which I am so deeply grateful.

Thanks also go to the teachers of UESTC (University of Electronic Science and Technology of China) for their lectures, arrangements and support during the study and

thesis writing.

Thanks also to my fellow students of the year 2012, for the classes, workshops, travels, and dinners. All the time we spent together has been a wonderful and unforgetable memory.

I also would like to thank my family. I did not have much time to accompany you during my dissertation over these six years. Thank you for your understanding, support and selfless devotion!

April 2018, in Beijing

致谢

孔子云：三十而立，四十不惑。已过了而立之年的我选择了重新拿起书本，背起书包，去攻读博士学位。博士论文落下最后一个句号，我已近不惑之年。6 年的时间里，工作以外的所有时光几乎都给了博士论文。时间的累积，关注的焦点也一直聚焦在我的研究问题上。这种聚焦，让我从一个国有企业中关注业务发展的工作人员，转变为开始不断思索国有企业未来发展的研究者。

管理层收购，这种移植自西方的企业改革模式也许是一种有益的探索和尝试。然而，铺天盖地的关于国有企业管理层收购的论调争吵的不可开交，海量的研究数据和文献也各执一词。越想看清真相，眼前就越迷雾重重。在拨开迷雾的过程中，我查阅了近年来几乎所有国有企业管理层收购的资料，绘制了中国管理层收购的发展地图，梳理了那些典型的收购个案，并通过企业发布的财报数据回归分析了管理层收购前后五年企业的业绩变化。层层深入的过程中，让我有了一些明朗，又有一些困惑。管理层收购是一把双刃剑，要想让这把剑发挥最大的威力，就必须把管理层收购过程中的必须明确、透明和规避的问题都理清楚。这篇论文仅仅开了一个头，还有很多的问题需要在后续的研究中探究清楚。

在攻读博士学位的六年中，我何其幸运遇到外方导师 José Paulo Esperança 教授和中方导师李平教授！两位导师崇高的师德，渊博的学识，严谨的治学态度令人高山仰止。从论文选题开始，两位导师帮我聚焦研究问题，理顺研究思路，对我的论文提出了很多具有建设性的指导意见。至此，我对两位导师的知道表示深深地感谢！

感谢 ISCTE University Institute of Lisbon 和电子科技大学经济管理学院的老师们，为我们授课，为我们安排答辩，在论文撰写过程中给我们极大的支持，感谢你们辛勤的付出！

还有 2012 级我的同学们，一起上课，一起研讨，一起游学，一起聚餐……一起度过的时光是非常美好而难忘的回忆。

感谢我的家人，六年的时光里，为了我的博士论文，我陪伴你们的时间并不多，感谢你们给予的理解和支持，感谢你们为了家庭无私的付出！

Contents

List of Tables

List of Figures

Chapter 1: Introduction

1.1 Background of This Study

Management buyout (MBO) refers to a kind of acquisition in which a company's management purchases a large part or all of the company with the help of debt or private equity financing so as to change the asset structure, ownership structure, and control right structure of the company, and thereby the original operator management becomes the owner of the company.

Having originated in the UK in the 1970s (Gong, 2005), MBO, as a kind of acquisition, was not the product of scholars' brainstorming but the achievement of the enterprise's practice. Through observation and summary of the practice, scholars named it MBO. It was put into practice after its effectiveness was validated and then appeared in a more normative manner, and gradually become another unique method of acquisition way among a number of acquisition and merger means to improve the operating performance of a company.

Although it originated in the UK in the 1970s, MBO quickly became a global phenomenon with the split of many European and American companies, the economic transition of the former Soviet Union and the emergence of the new American new economy. Until now, MBO has become an important economic driving force after the development over many years. MBOs have rapidly become not only the most common method for privatization of the public sector but also an important method of property transformation in the UK, the USA and other European countries. According to American statistics (Linda, 1986; Barry, Muscarella, & Peavy, 1990), the percentage of MBO accounting for the assets stripping cases increased from about 5% in the late 70s to about 15% in the mid-90s (Luo, 2005). In 1988, the total turnover of MBO reached 88 billion dollars, and then grew rapidly after the mid 90s. In Europe, the total turnover of MBO had risen from less than 1 billion euros in 1983 to nearly 40 billion euros in 2003 (Burley, 2005). Since the 1990s, the volume and turnover of MBO in the western world have risen steadily; the volume of MBO in Europe was 500 pieces annually, among which the lowest turnover occurred in 2001, but also reached 31.6 billion

euros (Wu, 2005). More than 40 years since the inception of the management buy-out, Europe has seen nearly a hundredfold expansion of the overall scale leading by Germany, France, the Netherlands and other countries. The prevalence of management buy-outs in the western countries reflects the significant and far-reaching changes taking place in the corporate structure and corporate governance in western countries, which is becoming a globalization trend with the advancing of globalization.

In the late 1990s, MBO emerged in China (Lu, 2016). Since Reform and Opening-up, the Chinese government has implemented the socialist market economic system. At that time, the Chinese economy was in a transition period; the economy was accelerating the pace of the internationalization, at the same time, a series of problems were exposed, such as the high cost of principal-agent, the imperfect incentive constraint mechanism, the absence of the owner, and the unclear property rights, etc. In 1999, the Stone Group carried a bold attempt, through which they founded a new company named Beijing Stone Investment Company, and the equity structure was the following: 51 percent of shares were owned by the employee stock holding committee, with the rest owned by the Stone Group. Then the newly founded company completed its the first MBO (Liu, 2005) across China by purchase of 50.5% of shares of the HK Stone Group.

The Cantonese Midea Group was the first listed company to implement an MBO in China. In 2000, the management of Midea Group and the employee stock holding committee together founded a new company, with the new company then becoming the largest shareholder of Midea Group by purchasing the shares of Midea Group with a large premium. The management became the owner of Midea Group by means of indirectly holding the equity of the foresaid listed company, completing MBO (Ma, 2006). Since then, Yutong Bus, Shenzhen Fangda, Shandong Shengli Co., Ltd, TBEA CO.,LTD etc. have successfully achieved MBOs.

As an innovation to the system, it plays a positive role in reducing costs, motivating employees and improving the state of the enterprise’s management improving the company’s performance in many aspects. For Chinese state-owned enterprises, an MBO is not merely the way to solve the problem of managers' motivation, as it became the favored route for reform of state-owned enterprises in China, from separation of ownership and managerial authority to the return of the unity of ownership and management rights. MBOs

have become an important method of privatization, along with foreign acquisitions and private enterprise acquisitions. While implementing ownership transfer, MBOs not only improve the management incentive mechanism, and reduce the agent cost, but also can achieve the diversified property rights reform of state-owned enterprises effectively, consummate the corporate governance structure of state-owned and collective enterprises and promote the national economic structure strategic adjustment.

In addition to these advantages, the more key advantage of MBOs is that they follows the reforming direction of state-owned enterprises to establish the modern enterprise system in China, making MBO the first choice of the reform mode of state-owned enterprises. The particularity of state-owned enterprises determines that if its proportion in the whole economy is out of balance, it will cause the economy systemic imbalances. It will be the long-term goal and strategic task of the market-oriented economic reform in China to transform most of the state-owned enterprises into generally competitive enterprises. The establishment of a modern enterprise system in state-owned enterprises mainly solves two basic problems: one is the employee's enthusiasm, and the other is the choice and incentive problem of the operator. MBO solves the incentive problem of the operator (Pian & Hao, 2001; Yu, 2007; Wu, 2010).

At the same time, there are many problems in the MBOs of Chinese state-owned enterprises. From the perspective of the sound macro mechanism, there are the following issues arising in the process of the implementation of the MBOs, (1) many things like wash-sale and black-box occurs, (2) many put up the state-owned property or physical assets as their financing assurance, passing the merger risk and operation risk of the buyouts to the financial institutions and the acquired enterprises, (3) which harms the legitimate rights and interests of investors and employees of the enterprise. In 2005, the "Interim Provisions on the Transfer of State-owned Property Rights to Management" explicitly stipulated that small and medium-sized state-owned enterprises could undertake an MBO. Although MBOs have been approved in China, no explicit pricing rule has been provided by the interim regulations issued in 2005.

In fact, the development of MBO in the world is also the process of economic system constant improvement. This is an inevitable consequence of the implementation of an MBO in any country’s development. The fundamental problem is that, under the trend of global

MBOs, in European and American countries, there has formed a set of MBO theory modes which is adapted to their economic structure, while China has yet not yet formed a set of reasonable, scientific and recognized MBO operation models, which leads to a state of disorder in the process of the implementation of an MBO and weakens its value of MBO. Therefore, under the China's socialist market economic system, in order to explore a reasonable and operable MBO of a state-owned enterprises mode, the first step is to analyze, summarize and introspect the present situation of the MBO of the state-owned enterprises, including the acquisition mode, acquisition methods, acquisition effect etc. so as to put forward some corresponding policy.

1.2 A Brief Introduction to the Development of MBOs in China and the West

1.2.1 The Development of MBOs in the West

The main reasons for the spread of MBOs in the West can be attributed to the following:

First: the need to reduce agency cost. As we all know, with the increasing scale of the company, because of their respective interests, the contradiction between the owners and management increases the agent cost. Once the large shareholders of the company do not have time and enthusiasm to manage the company or are unwilling to continue to supervise the management behavior, they will agree to implement the MBO. Through MBO, the management actually owns and manages the company, makes the management bind their own interests with the interests of the company, which can greatly reduce the agency cost.

Second: a new way to allocate resources effectively. This new approach also becomes the “return to the core” strategy, which means some diversified companies concentrate on their core business by selling their non-dominant subsidiaries or branches. They can also shift the priorities of the company from the existing core business to some edged business so as to sell the remaining business of the company. Usually, the headquarters tends to sell the stripped business or companies to the management, so that they can change the company’s ownership and cash out, at the same time, the company’s management remains unchanged.

Third: the desire of the management to acquire the potential value of the company. In

order to minimize the possible loss of the potential value, management tends to acquire the potential value by acquisition.

Fourth: the need to reduce the operating costs of listed companies and defend hostile takeover. From the perspective of listed companies, the maintaining of the standard of the listed companies is usually costly, but if the company's shares are too scattered, the company is prone to malicious acquisition. As a result, some companies' management would like to buy the shares of the company so as to relist after being delisted, or to reap high returns by splitting and reselling.

The methods of MBO in the West are mainly the following:

First: acquiring the listed companies directly. This kind of acquisition is mostly applied to acquire the listed companies. According to the difference of the acquisition purpose, the MBOs are divided into several types: (1) Grass-roots managers' attempt to start a business. The purpose of managers' acquiring the shares of the company from the original shareholders with a price higher than the stock market listed is to truly become the company's owner and gain high returns. (2) Managers repurchasing the shares through an MBO. Through mangers' repurchasing, they can take it as a defense mechanism to avoid the hostile actual or potential takeover. (3) Block trading. When the largest shareholders and some institutional investors intend to withdraw from the company, selling the stock in the exchange is very unrealistic, which will affect the company's stability and bring impacts in business performance. In this case, the MBO is an ideal way to transfer shares. (4) Promotion to delist the company. The speeding up of the completion of delisting through MBO can make a new chance for the management to facilitate rapid development, and can effectively display managers' abilities and talents.

Second: acquiring the Group's subsidiaries or branches. And in the 1980s, many business-diversified companies implemented the "reverse operation" strategy by selling their unnecessary subsidiaries or branches, or shifting the priorities of the company from the existing core business to some edged business so as to sell the rest business of the company.

Third: the privatization of the public sector. The privatization shows: 1. selling state-owned enterprises as a package, 2. disassembling state-owned enterprises and privatizing independently, 3. stripping the marginal business of public enterprises and retaining the core business, 4. selling some local service agencies by quasi-government

departments or local governments.

In the west, there are mainly following steps in the process of MBO. The first step is to form a new management team, which will still focus on the existing management team and absorb excellent managers from various departments. The second one is to set up a shell company, which, as the subject of the target company, shall be registered by the independent or joint stakeholders. Its capital mainly relies on transitional loans and self-owned funds aiming to realize the legal status of the management personnel and thereby realize the acquisition. The third step is to select the intermediaries, where the law firms, investment banks, accounting firms and other professional intermediary institutions are likely to be selected based on the basic properties of the target company and the difficulty of the acquisition behavior to guarantee the success of the MBO. The fourth step is financing. Typically, the management team itself can afford only a very small percentage of the acquisition capital. So, the bridging loans become the main source of funding for buy-out firms, which are financed by co-investment banks. Step five is evaluation and pricing, where the value of the target should be determined by its profit level and book value of its assets. The sixth step is to negotiate and sign the contract. This step is the most important part of the MBO. The management must propose the voluntary purchase price and related conditions, and coordinate with these companies on these issues. Once the two parties have agreement, they can enter the substantive phase of the acquisition and sign the agreement. The seventh step is to perform the contract.

1.2.2 The Development of MBOs in China

The MBOs of listed companies in China began in the late 1990s. Before that, along with the reform of China's state-owned enterprises and township collective enterprises, MBO has gone through a long preparing, budding, growing and changing process.

The reform of China’s state-owned enterprises can be divided into two phases: before 1993, the main thought of the reform was delegating powers and benefits, contracting and leasing; after 1993, the main thought of the reform is to establish a modern enterprise system, the core of which is to reform the property right (Zhang, 2009; Wu, 2010). With the change of the main line of Chinese enterprises’ reform, in the late 1980s, the joint-stock mode in the reform of the local township collective enterprises occurred, characterized with

joint work and joint capital, average holding and one person one vote. In the early 1990s, there was the phenomenon of selling property rights to employees spontaneously in the reform of the state-owned small and medium enterprises and the township collective enterprises, like in the state and township enterprises in Zhucheng, Shandong Province, Haicheng, Liaoning Province, Xingcheng Liaoning and other places. Even more, there was also a phenomenon of helping the fake collective enterprises and the fake state-owned enterprises to remove their "red hats". This was the budding phenomenon of MBO in China. In 1997, the 15th National Congress of the Chinese Communist Party established the principle of "retaining the large and releasing the small", and implementing strategic reorganization of state-owned enterprises. The reform of the property rights of small and medium-sized state-owned enterprises was expanding rapidly, and the phenomenon of selling equity to employees and operators spread widely. In such process, the equity of some enterprises was slowly held by the operators, which is referred to as "secondary restructuring of small and medium state-owned enterprises". In addition, in order to break the average shareholding pattern in the joint-stock cooperative system, some enterprises had also started to centralize the equity to the managers in the process. Meanwhile, a small number of large state-owned enterprises and listed companies have transferred holding right to the management, but the number was very limited. In 1999, the fourth plenary session of the 15th National Congress of the Chinese Communist Party put forward "advancing and retreating" and "do something and not" strategy to reform the state-owned enterprises, MBO was implemented in some large and medium-sized state-owned enterprises and state-held listed companies.

Between 2001 and 2003, more than a dozen of listed companies with MBOs emerged in China, plus the a handful of companies that had completed MBOs, before 2004. The number of listed companies having completed MBO were close to 20. At the same time, there are a lot of listed companies preparing for MBO (Ju, 2006). During the period, several negative phenomena occurred, including black-box, under pricing, loss of state-owned assets and unclear financing source in the process of transferring property rights transferring from the state to the management. In the summer of 2004, the controversy about the MBO broke out, like the "the contention of Gu and Lang", in China, which evolved into a widely discussion about the direction of state-owned property rights by scholars and the public. Soon, the government macroeconomic regulators responded accordingly. On September 29

2004, the State-owned Assets Supervision and Administration Commission declared, for the first time, that the reform of the large state-owned enterprises should follow the orientation of separating ownership and managerial authority, while strategic enterprises should remain state-owned. The MBO unification of ownership and managerial authority, was considered to fail the building of an effective corporate governance structure, a mechanism of marketed configuration of management and to maintaining the controlling force of a state-owned economy. Moreover, it is not in line with the direction of establishing modern enterprise system and promoting the reform of shareholding system (Research Center Of State-Owned Assets Supervision And Administration Commission (SASAC) of the State Council, 2004).” In December 2004, SASAC again made it clear that big state-owned enterprises could not implement MBO. And in April 2005, it issued a document banning state-owned listed companies from implementing MBOs. Therefore, from the policy level, the MBOs of Chinese listed companies has stopped in 2005.

During the period of the collision of ideas (2003—2005), the ministry of finance, SASAC and other state-owned asset management agencies issued four documents on the reform of the property rights of state-owned enterprises one after another. The main provisions of these policy documents about MBOs are outlined below in chronological order.

First, "The Decisions on Regulating the Reform of State-owned Enterprises" (Guo Ban Fa [2003] No. 96, enacted on November 30, 2003), specified: (1) the funds raised by the management to acquire the state-owned property right must conform to the General Provisions of Loans, which prohibits borrowing from state-owned and state-holding enterprises, and taking the state-owned property right or physical assets of the enterprise as assurance, mortgage, pledge, discount to get fund; (2) The drawing of schemes of transferring state-owned property right to the management must be led by sectors who hold the state-owned property right or commissioned to an intermediary by the sector. Operators and managers shall not participate in decision making of transferring state-owned property right, financial audit, outgoing audit, asset and capital verification, asset appraisal, price making. Wash sale is strictly prohibited; (3) the operators and managers are responsible for the decline in the performance of the enterprise, and they shall not participate in the purchase of the state-owned property rights of the enterprise.

Second, "The Interim Measures for the Transfer of Property Rights of State-owned

Enterprises" (SASAC, the Ministry of Finance No.3 Decree, promulgated on December 31, 2003 and enacted on February 1, 2004), made it clear that the procedures of transferring property rights of state-owned enterprises shall be conducted publicly in the legal property right transaction institution, with the methods of auction, bidding, agreement transferring. But it did not mention the MBO.

Third, "The Interim Provisions on Transferring State-owned Property Rights to the Management" (Issued by SASAC and the Ministry of Finance, SASAC Certified,[2005] No.78, enacted on April 14, 2005) is the most detailed regulatory policy document about MBO. It explicitly pointed out: "the state-owned property rights of the big state-owned and state-held enterprises are not allowed to be transferred to the management, as well as their main business or branches and the state-owned shares of listed companies. The document detailed the Provisions of procedures of evaluation, trading venues and trading methods, pricing, financing, etc.

Fourth, "The Opinions on Implementation on Further Regulating the Reform of State-owned Enterprises" (QC Certified[2005] No. 60, enacted on December 19, 2005), the document made further make the following clear regarding MBO on the basis of the No. 78 document. (1) The state-owned and large state-held enterprises shall strictly control the management to possess the shares of the enterprises in various ways through the capital increase and expansion in reform. (2) All hired management members through open recruitment, internal competition or having made a significant contribution to the development of the enterprise can possess the enterprise's equity through capital increase and expansion, but their total shares may not achieve holding or relative holding. 3) Those who are directly responsible for the decline in business performance, transfer or hide assets intentionally, or influence the net assets of enterprises through related transactions in the process of reform, depress the valuation of assets and the share price of state-owned property rights deliberately, violate relevant regulations to participate in making the reform scheme, determining the price of state-owned property rights, and selecting intermediary agencies etc. and those who cannot provide legal proof of the funding source shall not be allowed to take equity in the reformed enterprise through capital increase and expansion.

According to the above regulations, MBO of the state-owned listed companies would not be approved by the government administration after April 2005, which is a violation of

the government policy. In fact, the application and endorsement of MBO of the state-owned listed companies had been stopped by SASAC and the Ministry of Finance in 2004. So we can clearly define according to the time: before December 31, 2003, the existing MBOs of the state-owned listed companies did not exist anymore. But in practice, due to the lagging of government approval, after 2004 or even in 2006, MBOs related to the state-owned listed companies occurred from time to time; the operators of listed companies took a variety of so-called "innovations" approaches to get control of the listed companies.

From the development stage of China's MBO, we can see that the MBO in China is accompanied by the reform of state-owned enterprises. Since the 1980s, China's state-owned enterprises had begun to be reformed. From the micro level to the macro level, the government gave more rights and interests to the enterprises, a modern enterprise system was established gradually, the state-owned asset management mode was injected with new content, the state-owned enterprises operating mechanism shifted gradually, and property right relations were regulated continuously. Especially after the 16th national congress of the Chinese communist party in 2002, the state-owned asset management system witnessed more profound reforms. State-owned Assets Supervision and Administration Commission was established in 2003, aiming to further promote the reform of the state-owned enterprises effectively based on the authorization of the State Council and in accordance with the provisions of laws and regulations such as the company law to perform the investors' duties. More attention should be paid on the core enterprises, the management of state-owned assets and the preservation and appreciation of the assets with a view to promoting the establishment of the modern enterprise system in state-owned enterprises. In the process of deepening the reform of state-owned enterprises, some problems were exposed constantly, by investigating the deep reasons, wherein, the root cause of the state-owned enterprises inefficiency is unclear property right, which is mainly caused by the facts of dominance by a single shareholder and average holding. The problem of shareholding structure has become a major obstacle for the long-term development of state-owned holding enterprises and joint-stock cooperative enterprises. Further reform of shareholding structure became an inevitable choice. Under this background, MBO was introduced to China; some of China's state-owned enterprises began a MBO exploration and attempt to become the first to implement MBO.

According to some relevant departments' statistics, about half of the state-owned enterprises in China, especially those of a small and medium size, implemented MBOs. Many operators of large state-owned enterprises have also been keen on MBOs in recent years, trying to become the big shareholders.[Impatiality] Executives of some listed companies have successfully completed MBOs, while others have sought to implement them through different modes. After the definition of rules opposing MBOs of large state-owned enterprises, small and medium-sized enterprises should should meet a set of requirements. At the end of 2004 the announcements of listed companies MBOs included Dare Global (December 20, 2004), Lijiang Tourism (December 30, 2004) among others. In 2005, several listed companies implemented MBOs such as Sundiro Holding, Heywood Limited and Xiancheng Industrial, most of which took place at the end of the year. In most cases,, the MBO was supported by the listed company's holding company. Due to the existing policy restrictions, China's current MBOs use different modes.

1.2.3 The Difference Between Chinese and Western MBOs

As a form of shareholding reform, the nature of MBOs in China and in western countries is identical, but given the differences between China's economic system and the western market economies, improved through a much longer period, they present different features:

Firstly, the motivations are different. Western MBOs mainly aim to solve the agency problem and boost their business value, which are relatively common in the split cases of many big companies. In China, MBO aims to complete the property right reform, lower the proportion of state-owned shares of enterprises, and increase the proportion of shareholding of enterprises' internal staff, especially the management, to replace the state-owned absolute holding position. MBO in China is primarily a tool for property right reform.

Second, the participants are different. Western MBOs are market led, with little government intervention. In China, MBOs are dominated by local governments, who are often constrained by the problems faced by the target enterprises.

Thirdly, the acquisition entities are different. In western MBOs, the management mainly hold the majority equity purchase. In China, the purchasing entities also include the employees of the enterprises, the companies are directly acquired by the management and

employees or indirectly purchased by and through establishing an investment company jointly (Wang, 2013).

To sum up, the main differences between Chinese and western MBOs are shown in the table 1-1.

1.3 The Core Concept Definition

1.3.1 State-Owned Enterprises

Compared to the general enterprises, state-owned enterprises have their own specificity. Under the market economy, some industries or fields related to peoples' living needs, national economic development and national security needs, which have low profits and high risks, require a high investment for pioneering research. Therefore, few enterprises intend to get involved, so this requires the government to purchase or provide public products and services. State-owned organizations are a tool of government intervention in the economy, allowing the provision of public products and services, when necessary.

Table 1-1 The difference between Chinese and western MBOs

Classification	Western MBOs	Chinese MBO
Motivations	Aimed to solve the agency problem	The priority is to modify the property rights
Acquisition-Entities	Most is the management of the target companies	The management , middle level cadres, and other employees
Objects	Mainly the big groups and a majority of listed companies	Small and medium-sized companies, and mainly unlisted companies
Financing Method	Bank loans and bonds-themed external financing portfolio, and methods are flexible.	Internal financing led by government and funds self-raised by the management, and methods are protected by law.
Operation Models	Hire intermediary and operate as per the market normal models d	The majority are completed with direct intervention of the local government

Classification	Western MBOs	Chinese MBO
Legal Basis	Systematic acquisition laws and capital markets regulation	imperfect, evolving regulation

There are different connotations in state-owned enterprises in China and the West. In the west, state-owned enterprises only refer to the enterprises invested and held by the central government or the federal government. In China, due to historical reasons, not just the central government but also the local government set up a lot of enterprises, so the state-owned enterprises in China mean some enterprises invested or controlled by the central government or local government to reflect their respective intentions and interests, and determine their own acts of the state-owned enterprises. The owner, operation objectives, tasks, the production and operation, managers and employees of the state-owned enterprises have their own particularity.

Lin (2014) had once conducted an in-depth study on the background, governance structure and performance evaluation of state-owned enterprises, and believed that the policy burden is an important characteristic of state-owned enterprises. The policy burden includes several aspects, such as the strategic burden of industry development, the social burden of redundancy and endowment insurance. In addition, state-owned enterprises have their own particularity in enterprise goals, tasks and stakeholders.

Firstly, it is the objective and task of state-owned enterprises. In general, the essence of an enterprise is to obtain profit and the goal is to maximize profits. In order to maximize the profits, enterprises generally give priority to the profitability, so they gather their resources to invest in the risk-acceptable industry or industries rather than hastily invest in those with less profit, uncertain prospects and more likeliness to lose. State-owned enterprises, as an important force in China's national economy, should take more social responsibilities than other enterprises while realizing the profit, so for state-owned enterprises, profit making is not the sole purpose.

Secondly, production and operation of state-owned enterprises are particular. Under the condition of market economy, the basic conditions for enterprises to survive in the market is to balance the books in order to maintain continuous operation, otherwise production and business operation activities cannot proceed, enterprises will not be able to survive and

develop. State-owned enterprises, as profit-making enterprises, must also make ends meet under normal conditions, which is the basic condition. However, due to the characteristics of public welfare, production and operation of state-owned enterprises are particular. For example, in some important industries related to the national economy and people's livelihood, like oil, telecommunications, water and electricity, those enterprises undertake some tasks assigned by the State. They would suffer loss under some special circumstances for the sake of national interests. Because of the particularity of their production and operation, the performance of state-owned enterprises can't simply be evaluated by profit and loss, they must be distinguished in consideration of the general situations and the special circumstances.

Thirdly, the SOE stakeholders who can be divided into internal and external are different. The internal stakeholders mainly include the owner (or the shareholder representative, the assignee departments, such as the finance department, the SASAC, etc.), the board of directors, the professional managers, and etc.; External stakeholders mainly refer to institutions or entities related to the enterprises, mainly including the creditors, consumers and regulators. For state-owned enterprises in China, the State Council and Local State-owned Assets Supervision and Administration at all levels are the agencies directly under the government. The government entrusted and empowered them to exercise the functions of the owner. By exercising the rights of national shareholders, in other words, they enjoy rights benefits as contributors such as assets earnings, great decision-making and choosing business operators, their intentions and interests determine their operation goals, operation policy and development direction. At the same time, the government can also be the creditor of state-owned enterprise, because the large amount of loans of state-owned banks owned by the government are invested in state-owned enterprises for historical reason. In addition, the government can also enjoy tax revenues as administrators, to more greatly affect the state-owned enterprise business objectives, and strategic direction.

The sample enterprises selected in this study are all state-owneddue to the important position of state-owned enterprises in China's economic and social development, and the fact that the MBO of state-owned enterprises is of great significance for the development of the national economy.

1.3.2 MBO

Currently, there are many definitions of MBO. For example, some scholars argue that MBO is an acquisition behavior in which the management purchases the company’s shares by using the financing funds, to help managers in the capacity of owners and operators in reorganizing the company for obtaining higher returns of the equity. It is also argued that MBO is a kind of acquisition behavior of the company's management buying the company by using the loans or the equity transactions, which will cause changes in control rights, residual claim rights, and assets so to change the ownership structure of the company. Through the acquisition, the business operator becomes the owner of the enterprise.

From the above definition, at the time of selecting the sample companies in this study, the operational definition of the MBO is that the incumbent management of the listed company become the first largest direct or indirect shareholder of the listed company through the equity transfer activities, and has the actual control of the company. That is, the internal management of the company becomes the actual controller of the listed company. This operational definition can be specifically described as follows:

Firstly, the listed companies had issued a notice of completion of MBO by 31 December 2003. Some companies, such as TMSP, had issued a notice to implement the MBO before 2003, but did not obtain the approval of the SASAC.

Secondly, in the 2005 annual report, the company's management of listed companies, including the labor union, the conference of employees’ shareholding, etc., are the actual controller of listed companies, or have succeeded in directly or indirectly holding the largest majority of the listed companies. The management of some listed companies, such as Mass Transit, DZUG, Johnson Holding, hold the companies in the name of the labor union and the conference of employees’ shareholding, and therefore, we define those as a MBO. A company controlled by the labor union and the conference of employees’ shareholding can also be called MBO.

Thirdly, Third, according to the above criteria, those whose annual report clearly states that the actual controller is SASAC or state-owned capital are removed, even if they meet other MBO criteria. Ningbo Fubon, Jiangsu Wuzhong, BOE, etc., even if managers and employees are the indirect major shareholders of listed companies, but these companies

disclosed in the annual reports in 2005 and 2006 that "Local State-owned Assets Supervision and Administration is the actual controller through equity entrustment" and declared that "the management shareholding is just an equity incentive behavior cannot be counted as MBOs. This study is based on the public company's report to decide whether they are management buy-out or not."

Fourthly, in the screening, we have noticed a great number of cases of private capital acquisition of listed companies, which is not a MBO, where it is important to define the concept of "Actual Controller" or "Ultimate Controller" used in MBO. Controlling Shareholder defines the related subject from the perspective of equity and the Actual Controller defines it from the perspective of control. Therefore, the Controlling Shareholder and the Actual Controller are concepts that belong to different categories. The concept of controlling shareholder does not be adopted in this article. According to the definition of Controlling Shareholder and Actual Controller in the "Company Law", the Controlling Shareholder is the Shareholder who owns the controlling interest of the company; The actual controller is the shareholders and other subjects who control the company, and this subject is not necessarily the shareholders. In practice, it is often easy for public investors to know who the controlling shareholder is of a listed company from the annual report of the listed company. However, the actual controllers of listed companies are difficult to identify in some cases. The actual controller can be the controlling shareholder, the controlling shareholder, or even other natural person, legal person or other organization. According to the requirements of the Chinese stock exchange, when a listed company makes annual information disclosure, the actual controller of the listed company shall finally trace back to natural person, state-owned asset management department or other ultimate controller.

According to the definition of control right of listed companies made by China Securities Regulatory Commission (CSRC), "those having one of the following features are deemed to have the control right of listed companies: (1) The investor is the holding shareholder with more than 50% of the shares of listed companies; (2) The investor can actually control over 30% of the voting rights of listed companies; (3) The investor can determine the appointment of more than half of the board members by controlling the voting rights of the listed companies; (4) The investors may have a significant impact on the resolution of the shareholders' meeting of the company by the voting rights he/she actually controls.

Therefore, by definition, we can see that the actual controller of the company covers the scope of meaning of the controlling shareholder. It is more accurate and comprehensive to judge the listed company of MBO by means of the "actual controller" rather than the "controlling shareholder" or "the largest shareholder". In addition, we assume that the company has a sole actual controller.

For being the largest shareholder of the company, any of the four situations must be satisfied. Except in the first case, in the other three cases, shareholders who have the control rights may not be the largest shareholders. Since we define that a company can have a sole actual controller, therefore, if the actual controller and the largest shareholder are not the same, we hypothesize the following three conditions.

Firstly, the management can get control of the company, although they are the second, the third and even lower-order shareholders (or even do not holding any shares). In this case, the largest shareholder is a virtual holding entity. In practice, such companies are typically companies that have not completed the reform, like Media before 2002. There are no such case in the real world that the shareholders of the company are the second or smaller shareholders in the report, but control the company.

Secondly, the management is the second or the even lower-order shareholder, but they have shareholders acting in concert, they meet the control situation (3) or (4) if their holding shares are combined, such as TCL Group. In September 2006, Article 83 in the Measures for Administration of Listed Companies promulgated by the China Securities Regulatory Commission (CSRC) made a detailed definition of the “persons acting in concert”. The supplementary provisions stipulate that those meets any of 12 situations are considered to be persons acting in concert automatically.

In the listed 12 situations of “persons acting in concert”, the situations (10) and (11) are about the management and employees’ shareholding of the company, which are considered to be “persons acting in concert”. This situation may be due to the managers’ avoidance to declare that relatives or other related entities are persons acting in concert, so that their shareholding surpassed the former largest shareholder and became the actual controllers. This phenomenon can be known as the management motivation to avoid being defined as MBO. Therefore, the company's periodical report released the largest shareholder is the actual controller of the company. Interestingly, the contrary case also happened: in other

words, the management and other insider shareholders have become the largest shareholder, but the actual controller in the company's announcement is not the management, such as Jiangsu Wuzhong.

Thirdly, there were foreign companies or trusts, venture capital firms, private equity firms, and so on which are the largest shareholder of listed companies, but are actually the source of financing for management. For such companies, the actual controller is those institutions or financiers instead of the management. In the western MBOs, the management has not been the company's largest shareholder, but LBO institutes such as KKR group is the largest shareholder of the acquired enterprise, holding the actual control of the company. In western countries, LBO institutions were called LBO associations during the first LBO tide in the 1980s. In the second tide of the 21st century, LBO institutions were renamed private equity institutions. With the success of the company in the following years, private equity institutions get out. Among them, one way to exit is to transfer the equity to management, and finally achieve management control. And, of course, the private equity firm has a choice of other ways to get out like IPO (Initial Public Offerings) and selling it to related companies. There are similar cases in China, like Meiluo Pharmaceuticals and Zhang Yu. However, these cases taking place after 2003, due to the limitation of research time, are not included in the study.

In the end, this study chose the samples from the listed companies that the management must be the largest shareholder. According to the above standards, we have selected 19 listed companies as samples, see the article for details.

1.3.3 The MBO Mode

In reviewing the literature of state-owned enterprise MBO models in our countries, the existing study did not have a clear definition of what is a MBO mode, MBO models discussed by scholars are mainly summarized from the common pattern of the MBO the existing management buyout cases.

In this study, MBO mode refers to the way to complete the MBO. By sorting through the collected literature, we found that the common MBO modes are as follows:

1. Buying the listed companies through the shell set by employee stockholding committee or labor union. The operating point of the pattern is that the firm's union or staff

has a capital contribution, and then it's going to be taken into the interest of the corporation. It's a pattern that typically occurs in the collective enterprise, which has been accumulated by all the staff in the history, or in the case with amount of people. At present, due to restrictions such as the state's investment qualification and annual audit registration for staff, the MBOs conducted in the name of employee stock ownership committee or trade union are gradual reduced. The typical example of a MBO in the name of a faculty shareholder or union is the case of Yuemeiand Public Kechuang.

2. The management directly pay the establishment of the entity to acquire the listed company. The operating point of this model is that the management and other natural people who are involved in the takeover would invest in a limited corporation, and use it to buy the shares of a listed corporation and realize the purpose of the MBO. It is widely used to form the present domestic MBOs. Its advantage is to buy the subject property right clarity, which is good for financing and the subsequent operation funds to repay. The disadvantage is that foreign investment of the company is constrained by the company law with no more than 50% of the company's net assets. Typical cases used in this mode are Shenzhen Fangda, Dongting Water Yield, Shengli Shares, and TBEA.

3. Achieving indirect holding by setting up a shell company to acquire the largest shareholder. This model is a classic indirect acquisition, where the management buy the target corporation's majority shareholder through the shell corporation that they set up, and then control it by controlling the majority of the shareholders. This approach has the advantage of avoiding the complex procedures of directly getting on the shares of the company, reducing the difficulty of acquisition. It is a disadvantage to lengthen the chain control by the target company and to weaken the control force of the enterprise. A typical case is the YuTong Bus.

4. The MBO of the company's high-quality assets or subsidiaries, namely partial MBO. This is a MBO operation in terms of the overall acquisition. The so-called partial MBO, that is, the target acquired by the management is not the whole listed company, but the acquisition of some assets or subsidiaries that have the characteristics of the MBO. This pattern is characterized by operability. For maternal huge or wholly bad assets but locally good companies, or when it is difficult to obtain stock sources in the purchase of parent company, the management may consider partial MBO. In specific operations, management buy-outs

have two operating modes: one is to directly buy an asset of the target company. Another way is to buy and control a subsidiary of the target corporation. The typical case of partial MBO is that Liu Ruiqi purchased HengYuanXiang, the subordinate of ShiMao stock.

5. Influencing the target company by holding "Gold Share". The operating point of this model is that the management does not acquire a large number of shares in the target company, but acquires the shares that are in a very critical position in the shareholder structure or the equity institution, which makes the management play an important role in the target company so as to control the target company. This model is suitable for companies with relatively dispersed shareholding structure, which may lead to the competition for controlling interest or the company with a history of competition. The management can maintain its own interests and the stability of the company by holding the key equity. A typical example of this model is the Shandong Shengli Share.

6. Equity incentive model. This model is characterized by the combination of equity incentive and MBO. The point is to make the management receive a certain amount of equity keeping the status of the state controlling shareholder unchanged so that the management can transfer to owners from the pure management and improve the company's incentive mechanism and reflect the social value of the management. This model is suitable for the MBO or equity incentive operation in the category of "the single-large shareholder" listed companies.

7. Using the trust investment company to hold shares. With the enactment of trust law and the perfection of relevant laws and regulations, trust investment institutions are gradually becoming the auxiliary tool for the management to carry out MBO reform. From the case analysis, there are two functions of trust participating in MBO. Firstly, trust institutions are entrusted by management to acquire listed companies, and trust institutions become nominal shareholders and management become actual shareholders. Due to the impact of information disclosure, management is often not disclosed in this kind of operation (the newly promulgated measures on management of acquisition of listed companies requires disclosure of the actual operators of listed companies). So it is not clear that management is behind the trust companies in similar cases in the market.

1.4 Research Thought and Research Methods

1.4.1 The Problem of this Study

At present, there is a point of view of the MBO of state-owned enterprises in our country, arguing that MBO is not beneficial to the development of state-owned enterprises, but merely a way of embezzling state assets. This view is not coming out of thin air but because of the problems existing in the MBO: purchasing price is not reasonable, the information disclosure system of the MBO is not perfect, the participation of intermediary institutions is not enough and the historical contribution of management is difficult to quantify. The reason for which is the existing problems of the current MBO model adopted by China's state-owned enterprises. Therefore, the exploration of MBO model which is suitable for the state-owned enterprises in China is important in theory and significant in practice. But the first problem is to analyze, summarize and reflect the MBOs of state-owned enterprises in China including the acquisition model, acquisition methods, acquisition effect, etc. With the exploration of the MBO model, this study discusses the following four aspects:

1. The references of relevant theories and the necessary to analyze MBO of state-owned enterprises. This study analyzes the current situations of MBO of state-owned enterprises in China in combination of the typical facts of MBO in China.

2. Use the sample data to evaluate the development of the financial performance of the sample enterprises after MBO.

3. Analyze the four typical models of MBO, and put forward the problems existing in the typical model of MBO.

4. Discuss how to construct the MBO models suitable for China's state-owned enterprises.

To conduct research for the four issues, based on the existing theory at home and abroad, and combined with the typical cases in China, this study carries out quantitative analysis of the performance by adopting models, and choose the four typical cases named: the parent company MBO of listed companies; the MBO of subsidies of listed companies; the MBO involving international capital and the MBO involving the trust investment companies, and then discusses the problems existing in the typical models, and finally building the model

suitable for the current stage of development out of the problems inside. The research thought chart is as Figure 1-1.

1.4.2 The Research Contents and Methods

The contents of this study mainly include the following parts:

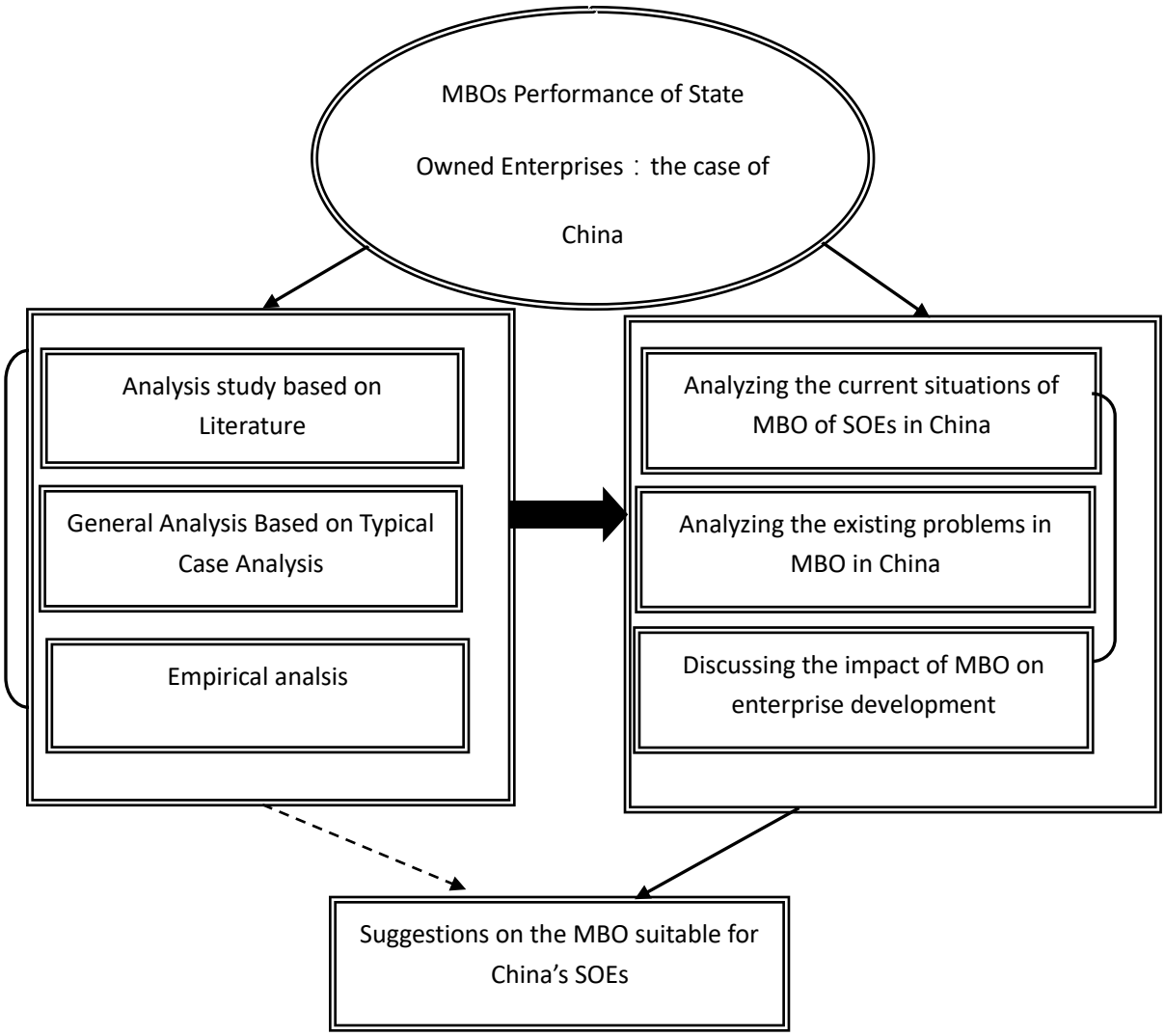


Figure 1-1 Research thought chart

The first part is introduction. This study presents the research question, introduces the development situations of the MBO at home and abroad, defines the core concept of this research, and puts forward the research thought, contents and methods.

The second part is the theoretical basis and literature review of MBO. This study raises the theoretical basis, including agent cost theory, defense deprivation theory,

entrepreneurship theory of MBO, reviews related literature of the present situations of domestic and foreign MBOs, discusses the latest theory of the common value assessment methods, western international typical models of MBO, and state-owned enterprises performance evaluation.

The third part is the analysis of the current situations and existing problems of the MBO in China. This study reviews the present situations of current MBO in China, and discusses the development stage of our MBO, and analyzes the main problems existing in the MBO in China.

The fourth part is the individual case study of the MBO of state-owned enterprises. This study selects the typical cases in the MBOs of state-owned enterprises in China, and analyzes its different acquisition models and existing problems.

The fifth part is the empirical study of the MBO of state-owned enterprises. This study selects 19 state-owned enterprises conducting a MBO as samples, and matches them according to the industry, analyze the financial performance before and after MBO and explores the influence on the development of state-owned enterprises by eliminating the industry factors.

The sixth part is the suggestion to the establishment of the state-owned enterprise MBO models. Based on the above analysis research based on literature, case study, empirical study and the sample data analysis, some suggestions are put forward for the MBO models of China's state-owned enterprises.

The seventh part is discussion and reflection. This study discusses the academic contributions of this study and puts forward suggestions for future research.

The research methods adopted in this study mainly include:

1. Literature study. This study makes use of the national library, Beijing library, library of University of Electronic Science and Technology, CSSCI, SCI, Springer link, China Knowledge Network, the National Bureau of Statistics, etc., and collects and analyzes the theory and literature of the MBO, the state-owned enterprises' reform, and state-owned enterprises' MBO models. Those are the basis of this study.

2. Case analysis. This study collects four typical models of state-owned enterprises in China, analyzes the problems inside, and finds out and analyzes the special factors in the MBO of state-owned enterprises.

3. Empirical analysis. This study selects 19 state-owned enterprises completing a MBO as samples, matches them according to the industry, and analyzes the financial data of six years before and after the MBO.

Chapter 2: Literature Review

2.1 Theoretical Basis of MBO

MBOs, as an effective way to stimulate the enterprise vitality, have been widely spread around the world. It is a significant and profound change in the field of company structure and corporate governance. The academia holds that the theoretical bases of MBOs are mainly the agent-cost theory, defense strip theory and entrepreneurship.

2.1.1 The Agent Cost Theory

Among the early scholars, Smith (1994) is the pioneer one studying the theory of agent cost. He points out that the directors of corporation work for others with their best, but partners of private equity companies are purely for themselves in possession of money. Therefore, it is hard to make directors of the joint stock company supervisor money like what the private equity companies directors do. Only in this way, the corporations engaged in foreign trade are not competitive compared with private risk-takers. In this way, the corporations often have no the franchise privileges. Even the corporations with the franchise are not the predilection for success. This is the earliest statement of the agency problem.

Modern scholars made more research on principal-agent problem. The American economists, Berle and Means (2005) pointed out that with the high cost of dispersed ownership and collective action, from the theory rather than empirical point of view, most of the professional managers are the agents that cannot be controlled in the modern corporations and private property. Berle and Means saw the great shortcomings of the practice of the business owners and put forward "principal-agent theory", which advocates the separation of ownership and managerial authority. The enterprise owners should retain residual claims, and the assignment will operate right. The contractual nature and principal-agent problem of the enterprises they focus on ultimately promoted the germination and development of the agency theory in economics.

In 1972, Alchian mainly studies the enterprise internal structure and incentive problem

(supervision cost) in Production, Information Costs, and Economic Organization, put forward the "team production" theory and argues that enterprise is a kind of typical team production. There are three formation conditions：(1) There are no less than one team members with common goals and intentions; (2) Members should collaborate to produce and interact with each other; (3) Team production results have integrity, which cannot be separated and calculated. Since people cannot be exactly paid as per what they really contribute to the results, shirking and free-riding will be generated. In order to reduce such action, it is necessary to employ some supervisory personnel and give them right to possess the surplus rights and modify contracts to promote them. In addition, the supervisor must be the owner of the team's fixed input because the cost of the non-owner is too high. Thus, the classical capitalist enterprises came into being (Alchian & Demsetz, 1972; Alchian, 1991).

In 1976, Jensen and Meckling (1976) published the Enterprise theory: manager behavior, agency cost and ownership structure, which marked the formal setting of research method of principal-agent problem. They researched and compared the circumstances (100 percent shareholders as well as managers or only the manager). It was found that all shareholders without the 100 percent shares have the motivation of self-interest and produce the agent cost. Therefore the most great governance mechanism is making the 100 percent shareholder be a manager. They think the principal-agent relationship is a contractual relationship. It exists in any organization or cooperative effort that contains two or more people. If both parties are committed to maximizing utility, then the agent will not always act in the best interests of the principal. Managers are considered to be agents of decision-making or control, while owners are considered risk-takers. The agent cost as the consequences includes: (1) The supervision and control cost of the client; (2) The self-restraint cost of an agent; (3) Residual loss (optimal decision - now decision).It means that the reasons of the loss of clients can be the difference of the decision of the client and agent or that full implementation of the contract costs more than benefits (Rafael, 2000; Guay, Core, & Larcker, 2002).

Jensen (1986) proposed the concept of free cash flow firstly in his book Agent Cost of Free Cash Flow, Company Financing and Takeover. It said that the agent cost should be studied with the free flow cash and Agency costs between shareholders and managers. Jensen thought that the reduction of the free flow cash helps to reduce the conflict between

the owner and the operator. Free cash flow refers to the surplus cash after paying the all positive value investment plan. If the company wants to make its maximum value, free cash flow shall be fully delivered to shareholders, but the move will weaken the power of the managers, at the same time again for the funds needed for the investment plan, will be raised in the capital market and monitored, thus reduce agency cost.

If the company seeks for its maximum value, free cash flow shall be fully delivered to shareholders. But it will weaken the power of the managers and the funds needed for the investment plan at the same time, will be raised in the capital market and monitored, thus reduce agency cost.

In addition to reducing the free cash flow of businesses, Jensen considers modest claim (which has to be paid in the future) is more effective than cash dividends to reduce the agent cost. He also emphasized that for those companies that are already experiencing low growth and shrinking in size but still have plenty of cash flow controlling its financial capital structure is important. The meaning of the purchase is that the company borrows and activities to increase the proportion of liabilities appropriately, reduce the agency cost and increase the company's value.

Fama and Jensen (1983) proposed that the principal-agent problem, which exists between the owner and the manager, can be mitigated by the manager's focus on his or her career. Managers' attention their career comes from two labor markets: (1) External labor market, which determine the external employment opportunities that managers can obtain; (2) Internal market of company, which decides the pace of promotion and promotion. From the perspective of corporate constraint mechanism to govern external market, the first market reflects the existence of this mechanism. The manager can recognize that if his perform is poor in a company, the market for his value will be necessarily lower or he will be less likely to get a new job. Therefore, managers must work hard on behalf of the company's owners. A model is established by Holmstrm to show that managers have an important incentive to pay attention to their career. But it is proved that this kind of incentive mechanism will be decrease with career development (Holmstrm，1982).

Fama and French (1992) thought that agency problem can be solved by an appropriate organizational process. Under the condition of the separation of corporate ownership and managerial authority, formulation and implementation is operator's functions and the

powers of decision-making, decision-making assessment and control is managed by the owner, which internal mechanism can resolve the problem of agency. While the merger and acquisition provides an external mechanism to solve the problem of agent. When the target company has agency agent problem, buying the stock control can reduce the agency problem (Chen, 2003).

Johnson (2000) from the French financial school established the results model and substitution model and analyzed the agent costs between large shareholders and minority shareholders in Global Agency Issues and Dividend Policies. The result of the model displayed that the agent costs are less and dividends are high in high-protected countries. The substitution model considers that in the high protection model, because of the establishment of a good reputation, the agent costs are less and dividends are lesser.

An expert on mergers and acquisitions in the United States, analyzed the reasons of several failed merger and acquisition cases in the book named The Art of M&A. Integration. He concluded that the main reason is the integration problem of the clients and agents. Among all reasons of failure, 50% of them is directly related to the M&A integration, which is more than the mistakes of strategic positioning, pricing and others (Lajoux, 2001). Some people proposed in further research that agent cost theory is the core theory basis of management acquisition and enterprise acquisition. It discusses that the two main agent cost sources conflict in corporations: (1) Relationship of shareholders and management; (2) Relationship of shareholder and creditor (Chen & Zhou, 2004; Dong, 2017).

The essential factor that affects the success of M&A is the integration of merger and acquisition enterprises after M&A. In integration, however, financial integration is particularly important.

At the moment, there are also new perspectives on MBOs. T Some scholar tried to study that, from the data of China's A-share market listed companies from 2003 to 2010, whether the agent costs vary with A period of time after the company listed whether to present A general rule for empirical rule and give theoretical analysis to explain that agent cost of listed company has the general logic of time-varying characteristics of finance (Yang, 2013).

From internal agent cost, the game between big shareholders and minority shareholders to shareholders and managers, to the external agent cost, the game between shareholders and creditors, and from agent cost itself to the periodic change of agent cost,

studies on the agent cost theory of Chinese and western scholars are reviewed in the above.

2.1.2 Defense Deprivation Theory

Agent cost theory explains the role of management acquisition in preventing and effectively preventing management opportunism. But management has more control over the acquisition of reality. The defense deprivation theory explains the motivation and industry choice of management to change the status quo.

The defense deprivation theory was based on an enterprise theory proposed by Alchian and Woodward in 1988. Alchian and Woodward argue that ownership and organization structure depend on whether they are susceptible to shareholder opportunistic behavior. There are two opportunistic behaviors of shareholders: plunder and moral hazard. Management's investment in the enterprise has a special attribute, and its remuneration depends on the income or quasi-rent of these investments (Alchian & Woodward, 1988), which is closely related to the overall performance of the enterprise. But part or all of the quasi-rent generated by management's exclusive investment may be taken away by shareholders, employees or other stakeholders. To prevent deprivation of specificity investment income, management have incentives to seek for the protection of quasi-rent related to specific attributes of their enterprises or specific attributes of their behavior by holding more equity or holding more plans closely related to economic performance (Adolf & Gardner, 2005). Therefore, in order to prevent the trend of disenfranchisements, the management naturally has the full incentive to demand the right of the remaining interests of the enterprise and MBO becomes an effective mean of self-protection for management.

Management acquisition is an effective way for management to realize self-interest and prevent the appropriation of private investment. Moral hazard often occurs in creditor and debtor relationships. Moral hazard often occurs when enterprise assets are malleable and allow users to make independent decisions. The plasticity of an asset means that a resource has many uses. The less likely the user tends to self-interest, the less the creditor will need to pay supervision over the use of the bonds, the more indebted the enterprise will be and the easier it is for management to get the financial support to become the owner (Alchian & Woodward, 1988). For company and industry where management is more vulnerable to exploitation and where corporate assets are not malleable and a higher debt burden is

allowed, MBOs or leveraged buyouts will occur and value will be created through this acquisition (Holmstrom, 1982; Westone, 1998). Therefore, the defensive theory holds that management buy-in is the arrangement of the management to change compensation system, which is disproportionate with their contribution. Subsequent performance improvement is the result of strong equity incentive. Reverse takeover is also an effective way for management to realize the equity return.

2.1.3 Entrepreneurship Theory

Mike Wright founded the theory of entrepreneurship. The background of entrepreneurship theory is that the European and American countries have emerged a venture capital investment. The MBO problem is integrated with the participation of many Venture Capital organizations. Their role is becoming larger and more equity financing is provided, where the proportion of debt financing is greatly reduced and the proportion of equity financing structure acquired by management is increased. During the same period, the industry selection of MBO has also undergone a great transformation, and the examples of MBO are increasing. Their high-risk, high-return characteristics stand in stark contrast to traditional, mature industries with stable cash flow. And there are more other examples to show that the success of the MBO is tied to two things, which is the management's efforts and choices. All these changes are beyond the scope of the original theory. Therefore, the theory of entrepreneurship arises at the historic moment.

Mr Wright believes that in the new environment, the entrepreneurship of management has produced the main benefits of MBOs. At the same time, innovation of enterprise value and strategies are also driven by entrepreneurship. In fact, on the one hand, the enterprise owners exert a restraining effect on the entrepreneurial ability of the enterprise managers, and inhibit the potential of the manager to become a good entrepreneur. Therefore, only through the MBO and make manager get the right to control the enterprise, can create a better platform for inspiring entrepreneurship. On the other hand, after the acquisition, the entrepreneurship is also extremely important. When managers intend to improve their efficiency by making acquisitions a risk-taker, they must change governance and other means, which undoubtedly increases the entrepreneurship (Wright & Hoskisson, 2001).

More specifically, the theory of entrepreneurship can be summarized as follows: Much

of the revenue generated by MBOs comes from new value creation, which is often the result of a concerted effort by management and venture capitalists. The implementation of the management buy-in must create an effective mechanism for the management of the enterprise to display the entrepreneurship. Of course, the entrepreneurship has been directed to the word "innovation". But it is well known that once there is any innovation, there will be a lot of uncertainty and a great influence for high risk and a long period of time. However, these particular factors are in the traditional sense of the acquisition of management, which conflicts with the arrangement of financing and incentives: stable cash flows can ensure a high proportion of liabilities and the expectable performance can ensure performance-based compensation arrangements. But these stable and deterministic factors are contrary to the word "innovation". At the same time, there must be a new matching mechanism to guarantee the dual rise of the role and role of VC in the case of management acquisition. It can be seen that the over-traditional management arrangement is difficult to cultivate the spirit of entrepreneurship and can hardly adapt to its needs. Therefore, to solve the matching problem, a new management arrangement must be established, rational allocation of incentive factors and the integration of management potential. Only in this way can the success of "MBOs" be promoted. This is undoubtedly an important development of management acquisition theory (Gabriel & Claude, 2003).

The entrepreneur ability theory, proposed by Wright and others, reinterpret the sources of management's acquisition of revenue. It not only emphasized the role of management, but also emphasized the role of venture capital institutions. It is believed that the combination of the two creates the benefits of management buy-outs. Their theory extends the scope of management buy-outs, differentiating the different types of management buy-outs. Also, the key to the success of management acquisition is to emphasize the correct matching between management style, incentive method and governance mechanism (Wright & Hoskisson, 2001). With its explanatory power and inclusiveness, Wright's theory is the current mainstream explanation theory for management buy-outs.

The theory of entrepreneurship also develops as time goes by. Some Chinese scholars today combine entrepreneurial spirit theory with craftsman spirit. They thought the spirit of the craftsman, which considers the pursuit of excellence, has a strong competitive advantage in the manufacture of large industrial machine. But in the stage of innovation-driven

development, it could also be a factor hindering the birth of innovation. In the development of enterprises now, it is necessary to encourage the spirit of craftsman in the process of industrialization and technological or process innovation, and to encourage the entrepreneurship of innovation and subversion (Gao, 2009).

Some researchers empirically examined the contribution of entrepreneurs' strategic ability, management ability and relationship ability to the growth of enterprises and pointed out that entrepreneurial ability is influenced (He & Li, 2005) by economic structure and entrepreneurial background factors. Zhuang (2007) pointed out that the remuneration structure of different economic activities will affect the allocation of entrepreneurial activities, thus affecting the level of technological innovation and economic growth rate. The provincial data, empirical researched by Li, shows that entrepreneurial entrepreneurship and innovative spirit promote economic growth (Li, 2009). Zheng and Zeng (2009) taking the Yangtze river delta region as an example, demonstrated that the growth mode promoted by innovation was started by the entrepreneurial function configuration and the more skewed the ratio of men and women in our country, the more likely the new private sector will emerge. Liu and Wu (2012) studied the modern Chinese entrepreneur's behavior process, thought ambitious dream is an important intrinsic motivation of entrepreneurs and business,the opportunity to alert and innovation action are the key to the entrepreneurs. Guo (2016) analyzed the relationship between population transformation, entrepreneurship and economic growth by establishing a model in China. Chen and Chen (2016) based on the empirical study of the watching data, analyzed the relationship between property rights protection and entrepreneurship. Xu (2016) analyzed many factors that influenced entrepreneurship, and focused on the relationship between cultural capital and entrepreneurship of entrepreneurs.

2.2 MBO Literature Review and the Comments

Based on the purposes of the study, this chapter will introduce literature review and the comments of domestic and foreign MBOs from three aspects: the value of the enterprise in management acquisition, the typical management acquisition mode in western countries, and the research on the performance evaluation of state-owned enterprises in China.

2.2.1 Enterprise Value Assessment

At home and abroad, an important part of management acquisition is pricing, and the basis of pricing is enterprise value evaluation. The pricing process is to evaluate the value of the enterprise and determine the price of the transaction based on the value of the enterprise.

2.2.1.1 The Origin and Current Progress of Enterprise Value Evaluation

The idea of enterprise value assessment originated from Irving Fisher's theory of capital axiology at the beginning of the century. In 1906, Fisher published a book, *The Nature of Capital and Income*, where he thoroughly discussed the relationship between capital and income and the source of value. In 1907, Fisher, in his book *The rate of interest: its nature, determination and relation to economic phenomena,* analyzed the essence and determinant of interest rates, and further studied on the relationship between income and capital value, which forms a complete and systematic framework of capital value evaluation. In 1958, Modi Glianiand Miller published his famous theoretical article "capital cost, corporate financing and investment theory" in the American Economic Review. He firstly expounded the relationship between enterprise value and capital structure in the case of uncertainty, and proposed the definition and evaluation method of enterprise value. In 1961, Modi Glianiand Miller published the dividend policy, growth and stock price assessment in business magazine, demonstrating the impact of dividend policy on enterprise value. In 1963, Modi Glianiand Miller proposed the enterprise value assessment model under the condition of enterprise income tax to make up for the deficiency of the article in 1958. This series of articles laid the mainstream theoretical foundation of modern enterprise value assessment technology. Since 1950s, great breakthroughs have been made in the understanding and calculation of discount rate in the theoretical circle. The capital asset pricing theory of William Sharpe (Sharpe, 1964) provided a new method to determine the discount rate. In 1974, the professor Myers at the Sloan school of Management in the Massachusetts Institute of Technology proposed the adjusted present value method. In 1986, Alfred Raooaport, an economics professor at Northwestern University, studied the discount method in his book creating shareholder wealth and many papers, proposing a method of future cash flow for company valuation. The growth model is divided into three growth models: fixed growth

(stage 1), normal growth (stage 2) after abnormal growth and normal growth after decreasing growth (stage 3). Fourier simplified the three-stage growth model and transformed it into a model of growth (Fuller, 1906; Fuller, 1907; Fuller & Hsia, 1984).

Stern Stewart Company put forward the concept of Economic Value Added (EVA) in 1991, which was introduced into value assessment area by Stern Stewart, a consulting firm based in New York. In the European and American countries, it became one of the basic tools to analyze the value of companies such as Goldman Sachs and Morgan Stanley for a period.

In 1983, Steventio Chek analyzed the determination of enterprise value in property transactions. He believed that the so-called value is the buyer's sense of the utility of the subject matter. It is shown in the appraisal method, the single asset appraisal plus sum method is used to determine the asset value, and the basic data comes from the market value, book value or original cost (Modigliani & Merton, 1958; Modigliani & Miller, 1963; Sharpe, 1964; Myers & Pogue, 1974; Myers, 1977; Rappaport, 1986). In 1969, Dr. Tobin, an American economist, proposed the Q-ratio investment theory, which holds that in the case of a company merger or acquisition, whether the manufacturer is interested in investing in the target company depends on whether the market value of the marginal unit of the asset of the target company exceeds its replacement cost, i.e., Tobin ratio. Lawrence white and some other person extended Tobin's proportional investment theory, modified the model to Q=P/C, P was the acquisition price of the target company, and C was the replacement cost of the company's assets. They believed that the motive power of assets exchange should be mainly considered when companies acquire or merge. Fama and French studied the relationship between "book value - market value" ratio and total capital return rate, and emphasized the importance of book - market ratio (Farna, 1992). Britain's Strong N.c also proves that the book-to-market value ratio is also significant when explaining the UK's cross section earnings (Madden, Marples, & Chugh, 1990; Strong, 1997).

Hawawini and Viallet think that in terms of enterprise valuation, discounted cash flow method and market comparison method should be mainly used. In combination with the characteristics of MBO, the post-adjusted present value method should be adopted for the pricing of MBO enterprises. In the discounted cash flow approach, they argue, the assumption that the weighted average cost of capital stays the same dose not exist in a true management buy-out. Because managers pay down loans quickly after a management

buyout to reduce the debt ratio, which means that a company's weighted average capital costs won't stay the same for years. The adjusted present value method is not subject to the above assumptions. Under this method, the estimation of enterprise value is the sum of the owner's equity value and the tax saving amount generated by interest on liabilities (William, 1964; Tobin, 1969; Madden & Marples, 1990; Strong, 2010; Wang, 2017).

Kataniwa Hirohisa, a Japanese scholar, thought that the accuracy of the company's pricing determines the success of the management. However, the evaluation of enterprise value is not absolute and the agreed price between the seller and the buyer is the value of the enterprise in usual transactions. Still and all, the price ceiling should be mapped out based on the pre-anticipated cash flow to avoid overpricing. For the standard of the share pricing, it is the sum of current market value and potential benefits for listed companies and is the sum of net assets and future value for non-listed companies in Japan (Hirohisa, 2001).

In practice, under the market-oriented bidding mechanism, the market price per share is the primary benchmark for bargaining between buyers and sellers. 8 to 10 times earnings is a reasonable price in the market. They also analyze and quantify the future development potential and market share of the company and pay much attention to the operation of cash flow (DeAngelo, DeAngelo, & Skinner, 1992; Cheng & Liu, 2011). In the United States, the practice of management buy-outs has also gradually formed a set of pricing methods for high leverage financing. Its core is to determine the maximum liability that the company can bear based on objective and prudent prediction of the company's performance combined with the company's earnings before interest and tax and the affordable interest expense. And then calculate the highest offer that the company's management can make under certain leverage. It is worth noting that management pays more attention to the hidden value and growth potential of the company in the MBO. Therefore, in Europe and the United States, management buy-out is regarded as a financial technique and incentive mechanism to discover and realize the undervalued company value, which is more applied to the MBO of small and medium-sized enterprises with poor performance.

Management buy-out in the United States through practice also gradually formed a set of suitable for the high leverage of pricing method, its core is the objective and cautious projections for the company's performance, on the basis of combining the company's earnings before interest and tax and can afford the interest payments, determine the

company can undertake the biggest debt, and then calculate the under certain leverage company management can be made for the highest bid. It is worth noting that management pays more attention to the hidden value and growth potential of the company in the MBO. Therefore, in Europe and the United States, management buy-out is regarded as a financial technique and incentive mechanism to discover and realize the undervalued company value, which is more applied to the MBO of small and medium-sized enterprises with poor performance.

Wang (2010) proposed that the pricing of MBO in China should introduce game theory, namely quantifying the price of the equity transaction. He constructed a value range and established an overall framework to meet the current situations of the MBO of small and medium-sized enterprises in China. The potential value of the enterprise is fully reflected considering the additional value generated by the merger. Zhang (2014) believes that due to the imperfect laws and regulations in China, the non-standardized operation exist in the MBO of small and medium-sized enterprises. Among them, the MBO equity pricing is the most serious. Jin (2011) pointed out that, in China, MBO lacks of open and transparent markets and the information disclosure is not timely, which results in the result of low-cost transfer and increase the management difficulty. Cheng discussed the rationality of taking income law as transaction pricing. With the one-way test of profit forecast and actual value, it is found that the actual value is significantly lower than the predicted value, which leads to an overestimation of the evaluation value obtained by the yield method. They argue that valuation should not be the only basis for transaction pricing (Zhang, 2011; Zhao & Liu, 2011; Wang, 2012; Cheng, Yan, & Ye, 2015). Zheng (2017) reached a relatively consistent conclusion by analyzing the difference between valuation and transaction pricing that valuation of asset appraisal has become an important basis for the pricing of mergers and acquisitions of listed companies . Wang believes that intangible assets are also an important part of enterprise assets in high-tech enterprises, and puts forward suggestions and countermeasures on how to evaluate the intangible assets of such enterprises (Wang, 2017).

2.2.1.2 Common Enterprise Value Assessment Method and Review

Aswath Damodaran in his book In-depth Evaluation, by using the method of statistical regression analysis for the correlation coefficient in the same industry enterprises, and specific enterprises related theory coefficient is obtained. Finally, these coefficients are used

to estimate the discount model. This approach has been valued in a somewhat relative way, rather than in the unconventional, absolute-business valuation. He makes comparative assessment of the mind illuminating. According to the collected literature, there are eleven kinds of evaluation methods used in enterprise value evaluation. Among them, foreign enterprises are adopting cash flow discount method in MBOs. While in China, the net asset valuation method is more used for MBO.

1. Net asset valuation method

Net asset valuation method based on the work value is widely used during the MBO in China. The net assets based on the book value are usually used for MBO evaluation in China. The legal person share transfer price is usually discounted based on the net asset and the national share is equal or slightly higher than net assets. The main basis of this pricing method is document Guo Zi Qi Fa [1997] No. 32 of State Administration of State Property of China. The document provides for that the transfer of state-owned shares should not be less than the net asset value per share and must be approved by the competent authorities of state assets. In addition, there are stringent rules if equity purchase exceeds 30%, which explains why the MBO of listed companies has to avoid the tender offer and why the stakes are as close as possible but less than 30%.

There is obvious drawback to this pricing. It is mainly because that minority shareholders have the opportunity to hold the company's shares at a premium, but have no right to purchase state-owned shares at state-set prices. If taking the net asset value as pricing, the current and future earnings of the company are not fully considered, and the loss of state-owned asset is easily caused. If the MBO pricing is too low, it is likely to see a wave of wealthy people in the near future in China.

2. Discount cash flow method (DCF)

This is a relatively mature valuation method, which is also the most commonly used method in MBO. The principle of DCF is to discount all the cash flows of the enterprise from the future to today and determine its present worth. It is then compared with share prices to see if it is overvalued or undervalued. Such a pricing mechanism is essential to help acquirers to identify and improve operational efficiency and take the revenue growth or cost reduction as the management goal in the integration after MBO. It can also be used as a basis to

leverage financing and debt repayment arrangements. In addition, the average price of stock in the secondary market of listed companies in a certain period of time is frequently used as prevail pricing, which, of course, is based on full circulation of the company's stock and the maturity of the capital market.

This method is applicable to more mature, late-stage private companies or listed companies. Carlyle Group took this method and bought control of Xugong Group, a maker of construction equipment. Many people use DCF to guide investment, especially many professional investment managers. So its effectiveness is also reflected in the market to varying degrees. Therefore, the most important reason why the cash flow discount model is effective is not how well it can be used to predict the value of an enterprise, but because it is used by many people who have self-validated effect on the market through their investment behavior.

The specific assessment process and methods are as follows:

$$\text{Cash flow}=\text{EBIT}\times(1-t)+\text{depreciation}-\text{working}+\text{capital increment}$$
$$-\text{capital expenditure} \qquad (2.1)$$

EBIT subtracts the corresponding operating costs from the main business income.

The company's free cash flow is predicted by predicting operating income, operating cost, depreciation, working capital increment and capital expenditure respectively in the next few years. For different companies with different levels of management and the different industries, these indicators forecasts are different. The general idea is to predict the future financial situation based on the operating situation of the company in the past few years and the overall situation of the industry. It is assumed that the enterprise will operate permanently and grow steadily at a certain speed.

Second, calculate the company's cost of capital WACC.

Calculate the β value. Using the regression method, the historical stock price of the first three years before the company's MBO and the stock market composite index of the corresponding stock market are used as basic data, and the corresponding weekly interval is used to get the regression β value of the company.

Calculate the cost of equity. Use CAPM model to calculate the cost of equity. Market risk-free rate of return Rf takes one-year bank deposit interest rate. According to research on

risk premium in Chinese stock market and taking the geometrical average of 12.19% of stock returns considering dividend reinvestment from 1997 to 2001 as the stock market yield, R_M =12.19%. You get the cost of equity with

$$R_E = R_F + \beta\ (R_M - R_F) \tag{2.2}$$

The debt cost. Using the debt structure of the company's financial statements in the previous year as the reference, current liabilities are used for the short-term loan interest rate of the bank in the current year, and long-term liabilities are used for the long-term loan interest rate of the bank in the three to five years. Both of them are weighted to get the debt cost.

WACC. For non-tradable shares and tradable shares, we use the stock market closing price to calculate the company's market value, and then calculate the company's debt ratio L. (since the pricing of non-tradable shares is the core issue of this report, it seems inappropriate to price non-tradable shares with corresponding net assets, of course. In fact, non-tradable shares and tradable shares are not likely to be at the same price).

$$WACC = (1-L)\ R_E + L\ (1-T)\ R_D \tag{2.3}$$

The third step is to calculate the value per share of the company.

By discounting the predicted free cash flow at the WACC discount rate, the value of the business is obtained. The equity value is obtained minusing the debt of the business. And then the value per share is obtained divided by the total number of shares.

The main problem that this method needs to solve in the enterprise value evaluation is the quantity of cash flow and its time distribution, and how the corresponding discount rate is determined. In practice, this method can be divided into two types: the discounted entity cash flow method and discounted equity cash flow method. The former needs to calculate the free cash flow of the enterprise, and discount the capital cost by using the weighted average capital cost. The overall value of the enterprise is obtained by calculation. The latter needs to predict the cash flow of the equity investment (the main worth of equity here is the common stock) and discount with equity capital discount rate to obtain the value of the equity capital of the enterprise.

The efficacy of predictions using the Discounted Cash Flow model depends on the accuracy of the cash flow forecast results and choice of discount rate. The biggest advantage

of this method is the wide scope of application and to be used by both private and public companies for evaluation. However, the greatest determinacy determining this method is to rely heavily on the growth of cash flow (including growth rate and growth period) and the expected discount rate of cash flow, and subtle changes in either measure will lead to vast differences in the value of the assessment.

3. Book Valuing Method

The book value of the traditional method is to put forward the influence of inflation, outdated devalued recorded and others for the book value of the assets recorded in the balance sheet. This method shows the replacement cost of capital. However, in the process of adjustment, items that are not present on the balance sheet are not usually taken into full account.

Value assessment expert knell believes that the value of the enterprise should not only reflect the cost of replacement, but also the organizational capital, which can be expressed as follows：

The value of an enterprise = replacement cost of assets + organizational capital (2.4)

Organizational capital is the intangible wealth of an enterprise. It comes in various forms. It includes effective collaboration resulting from a long-term rapport between managers and employees; The company's reputation among customers and suppliers, such as the popularity of various brands, which makes it easy to conduct product sales and negotiation and communication. Abundant profit and investment opportunities arising from the special talents of enterprise staff or special relationship with customers; As a result of visibility, enterprises get higher support in supplier network, distributor network and after-sales service network, thus increasing the value of enterprises.

The advantage of this approach is that it covers the value of the customer relationship and the development opportunities that these values can bring to the company's future development. However, one of the drawbacks of this approach is that it is difficult to measure the organization's capital. The organizational capital of the enterprise is mainly formed by the management of the enterprise in order to operate the enterprise. The difficulty of organizing the measurement of the capital has caused the management contribution to be hard to quantify. This is a fatal flaw of this approach.

4. Price earnings method (P/E) (The price per share of the net income is multiplied by the approved price-to-earnings ratio)

The P/E ratio is the ratio of price per share to earnings per share. We compare earnings per share to share prices to reflect investors' willingness to pay for every dollar of profits. The higher the ratio, the greater the potential is for future growth. Generally, the higher the P/E ratio is, the higher the public's rating is on the stock.

The calculation formula of P/E method is as follows:

Company value = forecasted P/E ratio ×company profits for the next 12 months (2.5)

The company's profits over the next 12 months can be estimated through the company's financial projections. Forecasting price-to-earnings estimates require historical P/E ratios. Trailing P/E is the current profit of a financial year (or the profit of the previous 12 months). Forward P/E is the current market value/company's current financial year profit (or the profit for the next 12 months).

The forecast P/E is a discount to the historical P/E. For example, on the NASDAQ, the average historical P/E for an industry is 40, and the forecast P/E is about 30. For non-listed companies of the same industry and the same size, the forecast price/earnings ratio referred to needs to be further discounted to be about 15 to 20. For smaller startups in the same industry, the reference price/earnings ratio needs to be further discounted to be 7-10. In other words, if a company forecasts a profit of $1 million for the next year after financing, the company will be valued at roughly $7 million to $10 million.

There is a clear limit to the use of this method, and the price-to-earnings ratio is often very high when earnings per share is small or at a loss. For companies that have revenue but no profits, the price earnings method is meaningless.

5. P/E Ratio Valuation Method

The P/E ratio refers to the ratio of the market value to the earnings of the enterprise, and its method of calculation is as follows:

The value per share of the target company= the average P/E ratio of the comparable company ×the earnings per share of the target company (2.6)

The assumption precondition of this approach is that the stock market is a certain

multiple of earnings per share. If the earning is bigger per share, the value of the stock is greater. And comparable companies in the industry and those to be evaluated are comparable, and the pricing for these companies is accurate in the market.

The advantage of P/E ratio valuation method is:

1.The data to calculation the P/E ratio is easily accessible;

2.Simple and convenient calculation;

3.The connection of price and income intuitively reflect the relationship between the input and output and is strongly comprehensive.

The downside of this approach is that it selects the average P/E ratio of comparable companies, which can be affected not only by the enterprise own fundamentals, but also affected by the level of economic development. This method can only estimate the value of the enterprise, which can be used as a supplement to other evaluation methods in practice.

6. Economics Value Added

Economics added value, or EVA, refers to the added value of the operating profit earned by the capital input of an enterprise after all the capital costs are deducted.

Economics added value = after-tax operating profit minus capital cost = investment capital(return on investment capital minus weighted average capital cost) (2.7)

The economics added value method is an indicator to evaluate the internal and external performance of an enterprise. If the economics added value is greater than 0, it means that the wealth of the shareholders will increase, and the value of the enterprise will increase, and vice versa. So the economics added value is positively correlated with the value of the enterprise. Therefore, the economics added value is also a measure of value judgment and is widely used in enterprise value assessment. The formula of calculating the value of an enterprise using economics added value is as follows:

The value of the enterprise = investment capital + the present value of expected economics added value (2.8)

When evaluating enterprise value with economics value added, the problems encountered are similar to the discounted cash flow method, which depends on the prediction of economic value added and the accuracy of discount rate selection.

7. Market Value Method

In order to avoid the shortcomings of strong subjectivities of the cash flow method, the market value method can be used to estimate the price of the target company in the process of actual merger and acquisition. For listed companies, share prices are changing almost every day. The current market value of a listed company can be a core factor in the pricing of M&A, based on which the appropriate risk premium or premium will be added to determine the purchase price. Efficient market hypothesis is the premise of the market price method, the efficient market hypothesis deems that the market is constantly evaluating all the information, and its conclusions reflected in stock prices.

The advantage of market value method is more intuitive. But the deficiency is only a summary of experience from practice with a clear lack of clear theoretical basis. And there is a certain demand for market effectiveness. The application scope of this method is still very limited for chinese secondary capital market, which has not yet completed circulation and is in a weakly effective position.

8. Price/Book (P/B) Method

P/B= the radio of share price and net asset per share (2.9)

The method is more suitable for

a. Enterprises with higher periodicity and relatively stable book value;

b. Companies such as banks, insurance and other liquid assets companies with high ratios;

ST, PT underperformance and reorganization companies.

The method is not suitable for

a. Company that has a relatively fast replacement cost for book value;

b. Service industry with less fixed assets, and more goodwill or intellectual property rights

9. Price-Sales (P/S) Ratio Approach

P/S ratio approach is a kind of relative valuation method. The P/S ratio approach , also called price revenue ratio, is the ratio of the stock market value and sales revenue (operating income)

Price/sales ratio = Total market value/sales revenue (2.10)

The advantages of the P/S ratio approach are

a. The sales income is most stable and the volatility is small;

b. Operating income is not affected by the company's depreciation, inventory, and non-recurrent expenditure and not as easy to be manipulated as profits;

c. Income is not negative, otherwise it will be meaningless, even if the net profit is negative;

Therefore, the P/S ratio approach can be a good supplement to the P/E ratio method.

The disadvantages of the market valuation method are as follows:

a. It could not reflect the cost control ability of the company. Even if the cost rises and profits falls, it does not affect the sales revenue, and the P/S remains the same.

b. In addition, the PS radio will decrease as the sales revenue of the company expands.

c. The larger the operating income of companies, the lower the PS radio.

For example, many startups can't make positive profit forecasts for many years. In such cases, P/S can be used to make estimation, roughly the same as P/E.

10. EV/EBITDA Valuation Method

EV/EBITDA, also called enterprise value times, is a kind of widely used valuation index. The use of EV/EBITDA is the same as price/earnings ratio (PE), The relatively high times, compared to industry average or historical level, usually indicate overestimation, and the lower one indicates an underestimate. Different industries or sectors have different valuation (times) levels.

The formula= EV/EBITDA (2.11)

Enterprise value (EV) = market value + (total liabilities - total cash)

= market value + net liabilities (2.12)

EBITDA（Earnings before interest，tax，depreciation and amortization）=EBIT（Earnings before interest, tax）+ depreciation expense + amortization expense, wherein EBIT = operating profit + investment earnings + non-operating income non-business expenses +

previous annual income adjustment (or = net profit + income tax+ interest) (2.13)

EV/EBITDA valuation method is generally applicable to the capital intensive, quasi monopoly or buyout firms which have huge goodwill. Such companies tend to drive down their work profits because of a lot of amortization. EV/EBITDA also applies to net profit loss, but gross margin, operating income of the company is not in loss. EV/EBITDA valuation method is not applicable to

a. Company with fixed assets changes and updates quickly;

b. Company with loss of net profit, gross margin and business interests;

c. Capital intensive, highly indebted companies or that with large amounts of cash.

11. RNAV Valuation Method

RNAV calculation formula:

RNAV = (property area x market average value - net liabilities)/total equity (2.14)

Property area, average price and net liabilities are important parameters affecting RNAV values. Relatively High asset-liability ratios and relatively large equity capital will lower RNAV values. Using the RNAV valuation method, the value analysis of each asset of the company is conducted separately, and the long-term investment value of the company is reinterpreted from the perspective of asset value. Share price compared to its RNAV, if there is a large discount, it shows that its share price compared to the company real value may be significantly undervalued.

2.2.2 Typical MBO Models in Western Countries

MBO have been common in rich countries, and British and American countries were the first countries to apply MBO in the West. In the early 1990s, as a way of diversified ownership reform, MBO also appeared in Russia, Eastern Europe and other countries in the economic transformation in the process of the reform of state-owned enterprises. In Japan, some companies struggling in the economic crisis had also taken MBOs to rescue businesses (Zhang, 2006). In the western countries up to now, the most typical example is the British and American MBOs, and the MBO model in Russia and Eastern Europe.

2.2.2.1 MBO Models in British and American Countries

The British-American MBO is an open offer (He & Wang, 2005). The typical way for the

group of management and other investors is to buy all outstanding shares publicly on the secondary market with fully developed capital market and perfect market system as the foundation.

In terms of the shareholding structure acquired by the management, the share that management has acquired in British-American equity is the private equity which is basically in circulation. Trading has the characteristics of openness and competitiveness. Improved financial systems and diversified financial instruments provide strong financial support for the implementation of MBOs. The management can raise money by asking for bank loans, issuing bonds, attracting venture capital and outside investors. Multi-level capital markets provide convenient exit channels for MBOs and also bring back more than normal returns to the management and investors.

Management buy-outs in the us and UK are highly regulated. The specific performance is as follows: first, the information is completely open, and there is no information asymmetry between the original shareholders and the management of the company or at least the problem is not serious. The management and the investment group that made the management buyout will only make the purchase if they are convinced that the value of the acquired company is greater than the premium paid to the original shareholders. Secondly, with a high degree of specialization, mature market economies such as Britain and the United States have accumulated a lot of experience in the transaction of enterprise property rights, and intermediaries have a high degree of specialization. They have standard and specific methods for enterprise pricing, such as income and asset evaluation model and cash flow discount model, and the pricing process is open. Thirdly, a complete transaction system has been formed. In the UK and the US, as a form of enterprise property right transaction, MBO has a series of matching transaction systems, such as the pricing system, accounting system and taxation system. At the same time, asset appraisal, accountants, law firms, investment companies and other intermediaries will form a strong service network to participate. Fourthly, in the classic MBO, one of the important conditions to attract financial institutions to invest in the MBO project is that the assets have liquidity, that is, the MBO is required to have certain exit channels. Therefore, in the process of implementing the MBO, British and American enterprises often focus on reforming the company's business strategy, organizational structure, rules and regulations, production management and product

development. Only in this way can we cut costs, improve corporate competitiveness, increase profits and obtain stable cash flow, and realize the investment benefits of management and investors.

The UK actively implemented management buy-outs in the tide of privatisation that began in the early 1980s. After Mrs. Thatcher came to power in 1979, she implemented the "small government, big society" model, reformed the public sector, and transformed public enterprises from state-owned to private.Some share are sold at first, Since the sale of BT began in 1984, privatisation has expanded and involved more and more departments. After 1987, Britain's privatization went further and further, and began to operate in the natural monopoly sector (Yu, 2007). The main form of privatization in the United Kingdom is that public enterprises sell shares to the general public, sell shares to financial institutions, and sell subsidiaries to existing industrial enterprises to their managers and employees at other levels. Management takeovers played a big part in Britain's privatisation. In particular, the company law was amended to allow managers to use the assets of the enterprise as collateral to raise funds when purchasing, which solved the bottleneck of insufficient self-owned funds and financing difficulties in the purchasing of managers, thus increasing the opportunity of the purchasing of managers.

Among them, the management buy-out has played a big role in the privatization of the UK, especially the amendment of the company law. It allows managers to buy in the enterprise assets as collateral to raise money, solve the managers problems of own capital shortage and financing difficulties in the acquisition of the bottleneck, thereby increasing the chances of managers to buy. In 1989, the turnover reached its highest level of management buy-out 7.5 billion pounds, the peak annual management buyout firm number hit more than 600 in 1990. After that, with the end of the state-owned privatization movement, the management of the transaction decreased. But in the mid 1990s, with the promotion of new economic industries such as technology, media and communications, management buy-in gradually reached its climax. By 1997, management had acquired more than 700 companies, and by 2000 the value of the transaction reached the highest point of the record - more than 23 billion pounds (Cao, 2016). Correspondingly the management buy-outs of this period take place in the base and traditional industries. After that, the new economy's bubble burst and management buy-outs cooled.

The MBOs emerged in the US is no later than the UK, and they were also around the end of the 1970s. After the third wave of global mergers and acquisitions, most of the major companies had a large number of departments, a large number of businesses, inefficient and inefficient, and a lack of competitiveness. Such measures as divestiture, spin-off, division, sale and bankruptcy are widely used. At this point, the phenomenon of the company that spun off from the company's managers with the support of external investors to take advantage of high financial leverage to acquire the company appeared. The phenomenon peaked in 1988, fueled by junk bonds. The fed's 1989 statistics show that leveraged buyouts have accounted for 9.9 percent of all commercial lending in big Banks (Zhu, 2003). In the early 1990s, as the market for junk bonds shrank, the pace of leveraged buyouts slowed. By the mid to late 1990s, management buy-outs had emerged as one of the major acquisitions of corporate divestitures (Chen, 2006).

2.2.2.2 MBO Models in Russia and Eastern Europe

In the early 1990s, in Russia and Eastern Europe, MBO was accompanied by mass privatization movement (He & Wang, 2005). The MBO against the background of the reform of state-owned enterprises lacks of norms, which are specifically shown as follows:

Russia and Eastern Europe implement MBOs and EBO (employee stock ownership plan) to make the original management and employees of state-owned enterprises become the owner of the new enterprise by shares subscription. The purpose is to prevent such a number of private property owners as emerged and such powerful insiders as fail in obtaining the subscription from being the biggest obstacle to privatization and transformation process due to cut off the links between the state and the enterprise,.

Russian and Eastern Europe MBO adopts the main way of external financing, namely bank. The MBO financing channel is limited. For MBO firms of Slovakia, for instance, the main loan from two of the largest state-owned Banks - VUB and RIB.

Russia and eastern European countries have not established a regulated financial market before the privatization campaign, and financing methods such as venture capital and junk bonds are rare. Moreover, the results of management buy-outs often involve significant government intervention.In the MBO in Russia and Eastern Europe, the seller is the government and the buyer is the former government-appointed manager. As a representative of the government (such as the head of the state-owned asset management

department), they differ from the target function of the government itself, and they are closely related to the managers of enterprises, which leads to the possibility of rent-seeking behavior. In Russia, due to the chaotic market order, dereliction of duty by the government administration, distorted functions of asset appraisal agencies and corruption, the MBO has become a "feast" for power holders to carve up state assets, resulting in the loss of state assets.

After the implementation of MBOs of Russia and Eastern Europe , different capital exit policies were adopted. After the first phase of the privatization program in 1992-1994, Russia tried to make a public deal. At this stage, the share was sold to management and employees, but a series of factors had hindered the trading of shares. Secondly, the vast majority of privatized companies are in poor financial condition and not attractive to outside investors. Finally, Russia is lacked of a standardized institutional environment for share trading. The government does not have a budget, tax and other policies that encourage share trading. In the Czech republic, management and staff can sell shares to investment funds controlled by state-owned banks. This gives the investment fund a majority stake in many companies, creating a scramble for control between fund managers and management (Jin & Yang, 2002).

2.2.3 Research on Enterprise Performance Evaluation Theory

2.2.3.1 Two Kinds of Propositions of MBO from Performance Evaluation

Whether the MBO can improve the performance of enterprises or not and where is the source of performance have been the focus of foreign scholars' research. The difference in answer to this question has led to the formation of value creation theory and wealth transfer theory. Since the two have different explanations for their performance, the contents of policy judgment are incompatible. The value creators believe that development should be encouraged, while the wealth transferrers argue for the development of repression. In the field of empirical research, foreign scholars mainly conduct empirical research on the existing theories, namely, the two distinct academic viewpoints of value creation theory and wealth transfer theory are examined. In the test of value creation theory, foreign scholars mainly adopt the analysis of the after-the-post share price change analysis and Tobin value.

Angelo and Angelo (1987) drew a sample of the 72 companies. The research results showed that the date the acquisition was announced, shareholders’ wealth increased by

22.27% on average, and shareholder wealth 40 days cumulative increase by more than 30%. They also studied the withdrawal effects of management buy-outs. In their presupposition, if there is a wealth effect, then when the proposal for a management takeover is withdrawn, there will be a significant reduction in the average return of public shareholders. They chose 18 companies as samples. The regression results showed that the average shareholder return on the proposed day of withdrawal declined by 8.88%. And it has a statistically significant increase. So they argue that there is a wealth effect in management buy-outs.

John Core and David Farcker studied 28 enterprises cases of management buy-out and found the company's share price over the next six months will exceed yields very much with the announcement of the release. The value of the shares held by the public shareholders in management buyout increased by more than 50%, compared to a month before the announcement was announced. The study found that 42 times management buy-outs has added $2.2 billion extra daily cash flow. This suggests that management buy-outs have brought a lot of investment income to investors. The impact on enterprise efficiency is positive, as the cost of operation is decreased (Opler, 1994).

Madden through empirical analysis of the management in accordance with the company announced the acquisition of the UK stock market and the company stock price changes, points out that the stock market reflect the management buy-outs is positive, suggesting that enterprises implement management buyout can create value, and therefore should give full consideration to the future potential value in equity pricing (Madden, Marples, & Chugh, 1990).

In terms of wealth transfer theory, foreign scholars have also made some empirical studies. Kenneth and Poulsen (1988) found that takeover premium and the target company before the acquisition of debt/equity ratio is highly relevant. If the target company before buy debt ratio is low, there is great potential at the company tax preferential space, thus takeover premium paid to individual shareholders also higher accordingly. And legal measures for tax avoidance is not only a management buy-out operation technique, is also all the usual practice of the enterprise. More important is management buy-out in tax avoidance as well as several new tax sources, such as equity transactions, etc. So you can't simply judge management buyout performance from the tax saving and criticism of its wealth transfer properties.

Muscarella and Vetsuypens (1989) empirical research suggests that part of the new debt is temporary. High leverage is not the norm of management buy-out firms. Therefore the influence of the tax savings effect is limited, enterprise performance improvement should also consider other factors. An empirical research found that after the acquisition is not acquired by retention management are sold their own equity, if they have inside information about the real value, that the sale of their behavior is not rational behavior, it is difficult to set up so the perception that management opportunism (Kaplan, 1989). Marais, Schipper and Smith's study found that the loss of creditors in management buy-outs is not higher than the loss of the general creditors (Marais, Schipper, & Smith, 1989). Lehn and Poulsen's research also suggests that there is no evidence that bondholders and preferred shareholders suffered losses (Lehn & Poulsen, 1989). Easterwood's study shows that after the leveraged buy-out, enterprise sales of creditors will have a negative impact, the key is to see whether the enterprise is in the midst of the financial crisis. If the enterprise has normal operation, the wealth of the creditors will not suffer (Easterwood, 1998). Scholars from abroad in the empirical study of the performance did not find enough evidence to support the wealth transfer theory, but is more significant to the promotion of enterprise performance is obtained positive results.

2.2.3.2 Evaluation Standard of State-owned Enterprise Performance in China

The improvement of the standard system for performance evaluation of state-owned enterprises in China and related policies and regulations are inseparable. Since the 1990s, the relevant department in charge of state-owned enterprises in China has issued a series of laws and regulations, to promote the progress of the performance evaluation system of state-owned enterprises in our country. In accordance with the time course of laws and regulations, they are shown in the table2-1.

Table 2-1 Main regulations for performance evaluation of state-owned enterprises in China

Main policies and regulations	Years of issue	Enactment	Main Content
ASBE(Accounting Standards for Business Enterprises), *Enterprise Financial Rules*	1992	the Ministry of Finance	It provides eight financial evaluation indicators and evaluates the financial status and operating

Main policies and regulations	Years of issue	Enactment	Main Content
			results from three aspects: solvency, operational capacity and profitability.
Evaluation of Economic Benefit of Enterprises	1995	the Ministry of Finance	Ten indicators were evaluated from investors, creditors and social contributions.
State-owned Capital Performance Appraisal, The Operating Rules of State Capital Performance Appraisal	1996	Ministry of Finance, Former Ministries of Personnel, National Economic and Trade Commission, State Planning Commission	Including 32 indicators of three levels: basic index, correction index, evaluation index
Interim measures on the performance appraisal of the head of the central enterprise	2003	SASAC (State-owned Assets Supervision and Administration Commission)	Building a new type of enterprise responsible management performance appraisal system.
Interim measures for the management of comprehensive performance appraisal of central enterprises, *Implementation rules for comprehensive performance evaluation of central enterprises*	2006	SASAC (State-owned Assets Supervision and Administration Commission)	The enterprise comprehensive performance evaluation index consists of 22 financial performance quantitative evaluation indexes and 8 qualitative evaluation indexes of management performance.
Supplementary provisions on the performance appraisal of the principles of central enterprises	2007	SASAC (State-owned Assets Supervision and Administration Commission)	Conduct performance appraisal for the head of the central enterprise.

Main policies and regulations	Years of issue	Enactment	Main Content
Supplementary provisions on the annual performance appraisal of the heads of central enterprises	2008	SASAC (State-owned Assets Supervision and Administration Commission)	Conduct performance appraisal for the head of the central enterprise
Interim measures on the performance appraisal of the head of the central enterprise	2009	SASAC (State-owned Assets Supervision and Administration Commission)	From January 1, 2010, namely, the third term of the central business administration, the EVA assessment system will be fully implemented.

The policy, driven by the performance evaluation system of state-owned enterprises in China has experienced a process of constant development and improvement. Some scholars have summarized the development of the enterprise performance evaluation in recent years in our country, as shown in the table2-2:

As shown in the graph, China's state-owned enterprises evaluation standards have developed from the simple requirements of technical standard to the enterprise society responsibility, the financial performance and management performance, to maximize shareholder value in combination of introducing EVA evaluation index, etc. During the development process, the focus of attention has also experienced the transformation from the perspective of corporate governance, the financial perspective and the perspective of environmental performance as well as the evaluation of intellectual capital and evaluation of technological innovation (Song, 2007; Li & Huang, 2009; Nie, 2011).

As shown in the graph, China's state-owned enterprises evaluation standards have developed from the simple requirements of technical standard to the enterprise society responsibility, the financial performance and management performance, to maximize shareholder value in combination of introducing EVA evaluation index, etc. During the development process, the focus of attention has also experienced the transformation from the perspective of corporate governance, the financial perspective and the perspective of environmental performance as well as the evaluation of intellectual capital and evaluation of technological innovation (Song, 2007; Li & Huang, 2009; Nie, 2011).

In the process of continuous improvement of performance evaluation standards of state-owned enterprises, the academic community has also been discussing. For example, some scholars have discussed the improvement of performance evaluation methods of state-owned enterprises based on the perspective of social responsibility (Zheng, 2010; Ge & Zhang, 2011; Liu, 2011). This view holds that, in general, profit is the main evaluation index to evaluate the business performance of enterprises as the target of profit maximization. However, one of the important characteristics of state-owned enterprises is the ability of government, which is bound to assume certain governmental functions. This is the responsibility of state-owned enterprises, which is determined by its particularity. Since state-owned enterprises may have some sacrifices and losses in the process of assuming government functions, they may receive some compensation from the state. Therefore, in evaluating the performance of state-owned enterprises, it should take into account that it provides public goods and services, as well as the impact on enterprise income and cost. In addition to the normal operation of state-owned enterprises, they should also make other contributions to the society and how to evaluate these non-profit contributions. It is also important to distinguish between the profits generated by the state-owned enterprise operators through their efforts and the profits (or costs) generated by the government functions of the government.

Table 2-2 The historical development of enterprise performance evaluation in China

Before the reform and opening up	A period of physical production	Enterprises do not have operational autonomy, and the country only evaluates from the perspective of physical goods and output. The evaluation method is simply to compare with the planned target and industry production technology standard.
Reform and opening up to the early 1990s	Focus on output value and profit	Starting from the perspective of value, it emphasizes the economic interests and the evaluation of value indicators such as profit and production value, providing a comprehensive evaluation of the scoring method.
1991-1995	Focus on economic structure and benefit evaluation	It aims to preserve and increase the value of state-owned capital. The evaluation index is based on

		the return of investment, and the national unified standard value is used to evaluate.
1995-1999	Pay attention to enterprise social contribution evaluation	Start to pay attention to enterprise comprehensive economic benefit and enterprise social contribution. Set the industry evaluation standard and start using the efficiency coefficient scoring method
1999-2003	Focus on the overall performance evaluation of enterprises	The combination of financial evaluation and non-financial evaluation: industry, scale and classification
2003-2010	Pay attention to the benefit of the investor, establish the enterprise responsible management performance appraisal system	Quantitative evaluation of financial performance and qualitative evaluation of management performance
After 2010	Focus on enterprise value management	The evaluation index of EVA is introduced, and the value management stage is based on the value creation of shareholders and the pursuit of maximization of shareholder value

In practice, Chinese enterprises also pay attention to the assumption of corporate social responsibility. The Chinese corporate social responsibility report reported the latest characteristics and future trends of China in the field of corporate social responsibility with the analysis of social responsibility report released in 2014 by 1007 companies. It chooses eight companies such as China mobile, China Huadian Corporation as typical cases, describes the procedural management best practice, to provide reference for the enterprise reference. It can be seen that the corporate responsibility is getting more and more attention from enterprises.

On June 1, 1999, Ministry of Finance of the People's Republic of China and other four ministries jointly issued the "rules for evaluating the performance of state-owned capital" and "operating rules for evaluating the performance of state-owned capital" (the rules). So

far, this is a relatively perfect performance evaluation system of state-owned enterprises proposed by China. The regulation has improved the performance evaluation index system of China's state-owned enterprises, and played an important role in correctly evaluating the business performance of enterprises and promoting the innovation of enterprise management system. According to the rules, the performance evaluation index system of industrial and commercial competitive enterprises is mainly composed of four aspects: financial efficiency, asset operation, debt paying ability and development ability. The evaluation of these four levels consists of 32 indicators, including basic indicators, correction indicators and evaluation indicators, which refers to the table of corporate performance evaluation system jointly issued by the ministry of finance and other four ministries.

Based on the particularity of state-owned enterprises and the content of the "rules", combined with the aim of this study, the evaluation standards built in this study are as Figure 2-1.

From Figure 2-1, this study constructed enterprise financial performance evaluation standard, it mainly includes four aspects: financial metrics, cash flow, assets and capital investment. Among them, the financial indicators include: profitability, operational capacity and solvency.

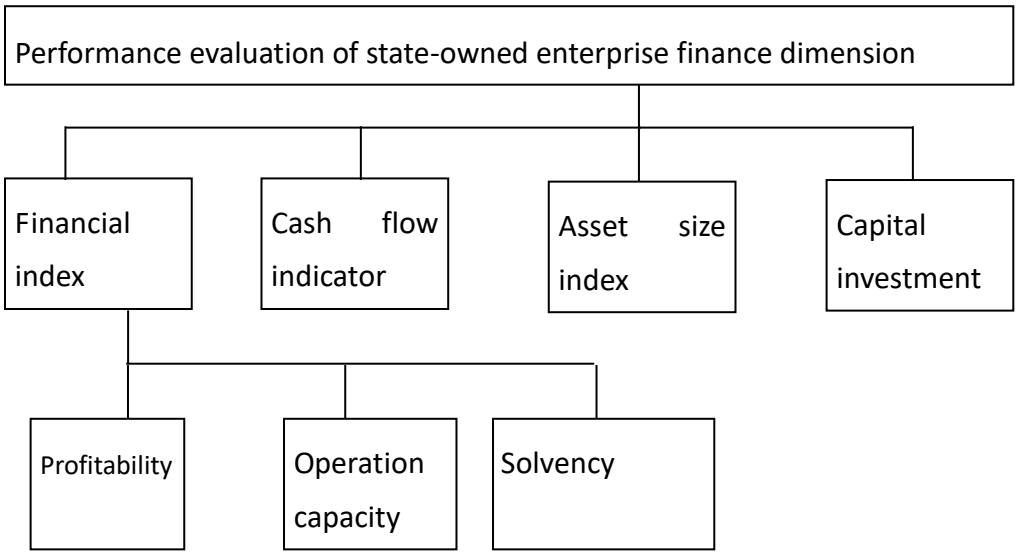


Figure 2-1 Performance evaluation of state-owned enterprise financial dimension

2.3 Brief Summary

The valuation of enterprise value is the basis of pricing of management acquisition. The theoretical model of enterprise value assessment in the west has gone through a process of continuous development and improvement. The model of these values is the basic basis for the current management acquisition pricing. Chinese scholars have also tried to break through the existing value evaluation model and explored it in practice. These explorations are of great value to improve the value evaluation model of management acquisition in our country, and enrich the theory of management purchase pricing. According to the collected literature, there are 11 kinds of evaluation methods used in enterprise value evaluation. Among them, the foreign enterprise in the MBO in using the discounted cash flow method, our country enterprise in the MBO of net assets valuation method.

In the process of the development of the management of each country, the acquisition mode of various national characteristics has been formed. From the point of view of transplantation and reference, the current management measures of management measures in different countries are based on national characteristics, which are transplanted from one or some management modes of acquisition. There are two main modes of management acquisition in the world today, one is the management acquisition mode of the UK and the US, and the other is the management acquisition mode of Russia and Eastern Europe . British and American management is a public offer, bidding mechanism and so on. MBOs in Russia and eastern Europe are largely government intervention.

The performance evaluation of the enterprise after the acquisition of the management brings about two different propositions for the management acquisition: theory of value creation and transfer of wealth. The former believes that the management purchase increases the vitality of the enterprise and improves the performance of the enterprise. The latter believes that the management purchase does not have a significant impact on the enterprise performance development. Instead, it is just a channel for management wealth transfer. By reviewing the performance evaluation standards of Chinese enterprises, this study builds a standard of corporate financial performance evaluation in China, which mainly includes four aspects: financial indicators, cash flow indicators, asset size indicators and capital investment indicators. Among them, financial indicators include profitability,

operational capacity and solvency.

Chapter 3: The Present Situation of MBO

3.1 The Current Situation of MBO in China

Statistics show that at the end of 2007, there were more than 1,200 listed companies in China, more than 900 of which involved state-owned assets. Among them, more than 200 state-owned enterprises are exploring the reform of management shareholding. However, only around 66 listed companies implemented management buy-outs. Many listed companies held the MBO scheme for two or three years without further specifics.

In order to analyze the overall MBO situation in China, this study collected the financial data, location and other information from 1997 to 2007 of the 66 listed companies, which implemented MBO, and produced the graphic of geographic locations concerning the enterprise MBO in China. This work analyses the overall situation of Chinese enterprises' MBO based on the data, which come from the financial reports officially released by the 66 enterprises.

In terms of the case number, there were more than 66 enterprises carrying out MBO from 1997 to 2007. Judging from the research data collected in this study, there were 66 listed companies that officially announced the implementation of MBO. As far as the feasibility of the study is concerned, the data of these 66 companies could be collected through normal channels. In terms of the year of cases to be chosen, the cases from 1997 to 2007 fell within the scope. The reason lay in that 1997 was the first year when MBO was first officially released.

April 2005, the State-owned Assets Supervision and Administration Commission, the Ministry of Finance jointly announced the Temporary Provisions on Transfer of State-owned Property Rights to Management (hereinafter referred to as the Provision), which specifically prohibits large state-owned enterprises from implementing MBO, but allows small and medium-sized state-owned enterprises and state holding enterprises to explore it. It was mainly due to the lack of perfect supporting laws and regulations of MBO in China and many problems occurred in the practice of MBO. Although the Provision specifically prohibited the

large state-owned enterprises to implement MBO, the ongoing MBOs did not stop immediately, but completed the work by various of means. After 2007, MBOs in China cooled down gradually. However, because of the changes after 2005 in statistical rules and criteria of enterprise financial data, the data in financial reports had weak comparability when compared with that of previous years. What's more, MBO enterprises in recent years are too young to have enough data, and the data are too small to see the long-term situation of the enterprise development, which are not favorable for the research and analysis. Therefore, this work collected and analyzed the data of the 66 listed enterprises which implement MBO from 1997 to 2007 to reveal the overall picture of Chinese enterprises in a certain period. The names, registry and other information concerning 66 listed enterprises implementing MBO are showed in the table 3-1(All assets in this study are in RMB Ten thousand yuan).

Table 3-1 List of geographical distribution of MBO 1997 – 2007

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size （Revenue）	Enterprise Size （Assets）
1	Dazhong Science And Technology Innovation Co., Ltd.	SHANGHAI	1997-5-7	600635	33814.21	144485.48
2	Dazhong Transportation (Group) Co., Ltd.	SHANGHAI	1999-12-25	600611	101648.07	324416.48
3	Humanwell Technology Co., Ltd.	WUHAN	1998-10-30	600079	13701.88	35998.11
4	Shanshan Co.,Ltd (Nbss)	NINGBO	1998-11-16	600884	76340.73	115111.6
5	Hangzhou Tian-Mu Pharmaceutical Co., Ltd.	HANGZHOU	2000-6-22	600671	9415.436456	40272.71
6	Cantonese Midea Group	SHUNDE	2001-1	000333	1052530.26	765288.53
7	China Shen Fangda Group Co., Ltd.	SHENZHEN	2001-6-18	000055	32547.17	128086.85

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size （Revenue）	Enterprise Size （Assets）
8	Jiangsu Etem Company Limited	WUJIANG	2002-4-5	600105	103099.36	131948.19
9	Ningbo Veken Eite Group Co., Ltd.	NINGBO	2007-3-28	600152	252436.226	269229.34
10	Hubei Wuchangyu Co., Ltd.	EZHOU, HUBEI	2002-6-11	600275	57218.15	88748.81
11	Guangdong Marco Co., Ltd.	FOSHAN	2002-8-3	000533	110920.3408	295139.62
12	Sichuan Swellfun Co., Ltd.	CHENGDU	2005-11-28	600779	91870.32	230533.34
13	Hunan Dongting Aquaculture Co., Ltd.	CHANGDE, HUNAN	2002-10-8	600257	28665.72	89774.52
14	Ningbo Yong Fubang Co., Ltd.	NINGBO	2002-11-29	600768	30458.69467	30079.73
15	Shandong Shengli Co., Ltd.	JINAN	2002-11-12	000407	70286.04	114025.72
16	Xiamen Prosolar Real Estate Co., Ltd.	SHANGHAI	2002-11-14	600193	18333.89	72629.47
17	Fspg Hi-Tech Co., Ltd.	FOSHAN	2002-11-23	000973	174125.4	249754.4
18	Hunan Genuine New Material Group Co., Ltd.	HONGJIANG , HUNAN	2002-11-25	000156	24650.79766	75637.9
19	Inner Mongolia Eerduosi Cashmere Products Co., Ltd.	ERDOS	2002-11-27	600295	221502.05	475041.36
20	Jiangxi Gannan Fruit Co., Ltd.	GANZHOU	2003-1-19	000829	215504.769	166498.73

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size（Revenue）	Enterprise Size（Assets）
21	Tbea Co., Ltd.	CHAINAN GJI	2003-1-27	600089	16339.63	490372.57
22	Shanghai Qiangsheng Holding Co., Ltd.	SHANGHAI	2003-4-22	600662	110986.6089	191421.97
23	Henan Shuanghui Investment & Development Co., Ltd.	LUOHE	2003-6-13	000895	717945.5254	310530.91
24	Jiangsu Hongdou Industry Co., Ltd.	WUXI	2003-8	600400	93298.43	147764.35
25	Shenzhen Huaqiang Industry Co., Ltd.	SHENZHEN	2006-3-15	000062	217891.51	269742.55
26	Jiangsu Wuzhong Industrial Co., Ltd.	SUZHOU	2003-12-16	600200	112700.7708	176565.55
27	Zhengzhou Yutong Bus Co., Ltd.	ZHENGZHOU	2003-12-29	600066	325364.97	233490.56
28	Tcl Corporation	HUIZHOU	2004-1-7	000100	2825425.841	1596852.86
29	Inspur Software Co., Ltd.	TAIAN,	2004-6-8	600756	18142.34176	17187.78
30	Jiangsu Kanion Pharmaceutical Co., Ltd.	LIANYUNGANG	2004-7-6	600557	17163.59395	1844.75
31	Dalian Merro Pharmaceutical Co., Ltd.	DALIAN	2004-7-10	600297	16740.47927	1928.93
32	Zhejiang Hisun Pharmaceutical Co., Ltd.	TAIZHOU, ZHEJIANG	2004-7-28	600267	43769.66796	2602.6
33	Beijing Centergate Technologies (Holding) Co., Ltd.	BEIJING	2006-6-8	000931	246568.7155	313103.36

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size（Revenue）	Enterprise Size（Assets）
34	Nanjing Chixia Development Co., Ltd.	NANJING	2004-8-25	600533	44198.25527	130763.13
35	Guangdong Meiyan Hydropower Co., Ltd	MEIZHOU,	2004-10-11	600868	12734.27048	6334.77
36	Haikou Agriculture & Industry & Trade (Luoniushan) Co., Ltd.	HAIKOU	2005-12-29	000735	9145.314988	21382.94
37	Boe Technology Group Co., Ltd.	BEIJING	2004-11-12	000725	313086.1828	77144.21
38	Sundiro Holding Co., Ltd.	HAIKOU	2004-11-16	000571	129452.8881	183449.03
39	Zhejiang Conba Pharmaceutical Co., Ltd.	HANGZHOU	2004-11-23	600572	17501.52125	-136.26
40	Shandong Helon Co., Ltd.	QINGDAO	2004-12-3	000677	46748.13652	24880.28
41	Dare Technology Co., Ltd.	DANYANG, JIANGSU	2004-12-16	000910	62662.35395	9627.75
42	Minfeng Special Paper Co., Ltd.	JIAXING	2004-12-30	600235	14687.53378	9870.39
43	Weifang Yaxing Chemical Co., Ltd.	WEIFANG	2004-12-31	600319	28602.14205	7230.69
44	Anhui Shan Ying Paper Industry Co., Ltd.	MAANSHAN	2005-2-4	600567	33634.0337	32081.9
45	Hainan Airlines Co., Ltd.	HAIKOU	2005-3-22	600221	229905.7684	364548.52
46	Lijiang Yulong Tourism Co., Ltd.	LIJIANG	2005-4	002033	2442.140513	962.01

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size（Revenue）	Enterprise Size（Assets）
47	Henan Zhongfu Industry Co., Ltd.	GONGYI, HENAN	2005-5-25	600595	75194.00531	-1617.34
48	Shanxi Yabao Pharmaceutical Group Co., Ltd.	YUNCHENG, SHANXI	2005-9-15	600351	16927.60831	371.99
49	Yantai Zhangyu Pioneer Wine Co., Ltd. A	YANTAI	2005-10-22	000869	38518.0724	6203.01
50	Ningxia Saima Building Materials Group Co., Ltd.	YINCHUAJN	2005-11-15	600449	15648.82933	7511.44
51	Shandong Huatai Paper Co., Ltd.	SHENZHEN	2006-5-18	600308	75154.51024	34500.75
52	Shenyang Ingenious Development Co., Ltd.	SHENYANG	2006-1-21	000511	16482.06474	3090.16
53	Dongguan Winnerway Industrial Zone Ltd. A	DONGGUAN	2006-1-23	000573	11768.78241	-3951.39
54	Jiangsu Zhongtian Technologies Co., Ltd.	NANTONG	2006-4-12	600522	71763.79857	139434.67
55	Zoomlion Heavy Industry Science & Technology Co., Ltd.	CHANGSHA	2006-4-30	000517	3604.69645	-68507.72
56	Hainan Haide Industrial Co., Ltd.	HAIKOU	2006-6-9	000567	5081.336692	1735.61
57	Shandong Lingong Construction Machinery Co., Ltd.	LINYI	2007-2-2	600162	75666.44325	-104256.96
58	Anhui Conch Cement	WUHU	2007-5-25	600585	1609605.67	2293588.01

No.	Name	Enterprise Registry	Year of MBO	Stock Code	Enterprise Size（Revenue）	Enterprise Size（Assets）
	Co., Ltd.					
59	Hengyuanxiang Group	SHANGHAI	2001-2-23	600823	9953.154556	59090.82
60	Livzon Pharmaceutical Group Inc	ZHUHAI	2001-9-17	000513	46627.94257	-10714.13
61	Suntront Technology Co., Ltd.	WULUMUQI	2002-5-30	600084	85371.95479	192377.62
62	Inner Mongolia Yili Industrial Group Co., Ltd.	HUHEHAOTE	2003-3-19	600887	86736.74085	-156924.2
63	Gemdale Corporation	SHENZHEN	2003-6-30	600383	67039.78457	47923.69
64	Anhui Tongfeng Electronics Co., Ltd.	TONGLING	2004-3-25	600237	9309.782013	-1334.38
65	Anhui Water Resources Development Co., Ltd.	BENGBU	2004-8-14	600502	29590.09564	21405.73
66	Henan Yuguang Gold & Lead Co., Ltd.	JIYUAN	2004-5-31	600531	41347.52135	3316.63

Note: the data required are all from WIND information database.

The geographical distribution map of registry of the 66 listed companies implementing MBO is as figure 3-1.

Figure 3-1 The geographical distribution map of 66 domestic listed companies from 1997 to 2007

The red dots in the above picture represent the listed companies that implemented MBO and the position of the red dots are where the enterprises locate. From the geographical distribution map we can know that the listed companies implementing MBO are mainly in the coastal and central regions, such as, Shanghai, Guangdong, Jiangsu, Anhui, Shandong, Henan, which are relatively dense and concentrated areas. Among these areas, Shanghai and Shenzhen have the biggest numbers of MBO enterprises. There are mainly two possible reasons. Firstly, the economic policy and regional economic policy in those areas are relatively loose, which is conducive to enterprises' MBO. The local government is more active in promoting MBO to improve the vitality of enterprises.Secondly, These enterprises are located in the coastal areas and are more close to foreign enterprises in geographical location, so they are influenced by the management modes, operation modes and mode of stock rights earlier than other companies, and are more willing to try new ways to stimulate business activity.

The Figure 3-2 is based on the assets of the enterprises.

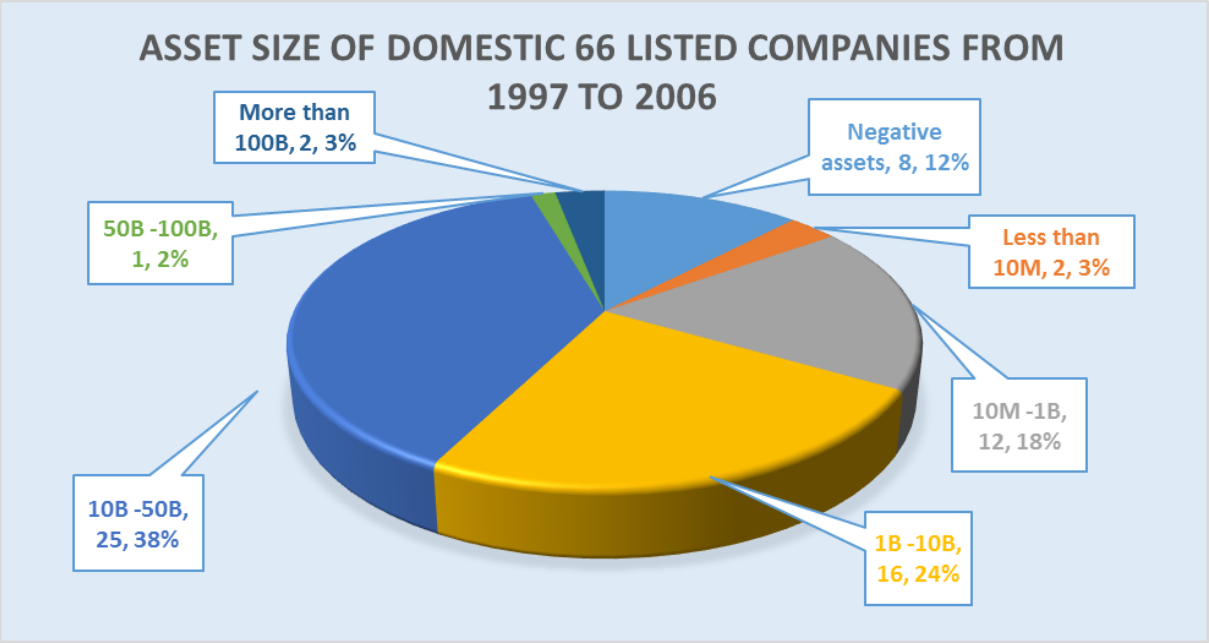


Figure 3-2 Asset Size of Domestic 66 Listed Companies from 1997 to 2006

As can be seen from the figure 3-2, the enterprises with assets of CNY 10B to 50B have the largest number for 38% of the total, followed by those with assets of CNY 1B to 10B, accounting for 24% of the total. Enterprises with asset liabilities of less than CNY 10M have the smallest number, only 3% of the total.

The Figure 3-3 shows the revenue of the enterprises:

As it can be seen from the figure3-3, the enterprises with revenue of CNY 10B to 50B have the largest number and account for 61% of the total, followed by those with revenue of CNY 10B to 50B, accounting for 23% of the total. Enterprises with revenue of less than CNY more than 100B have the smallest number, only 4% of the total.

Based on the time when the 66 listed companies started to implement MBO, this study draws the following bar chart showing the specific time when the enterprises begin to implement MBO from 1997 to 2007.

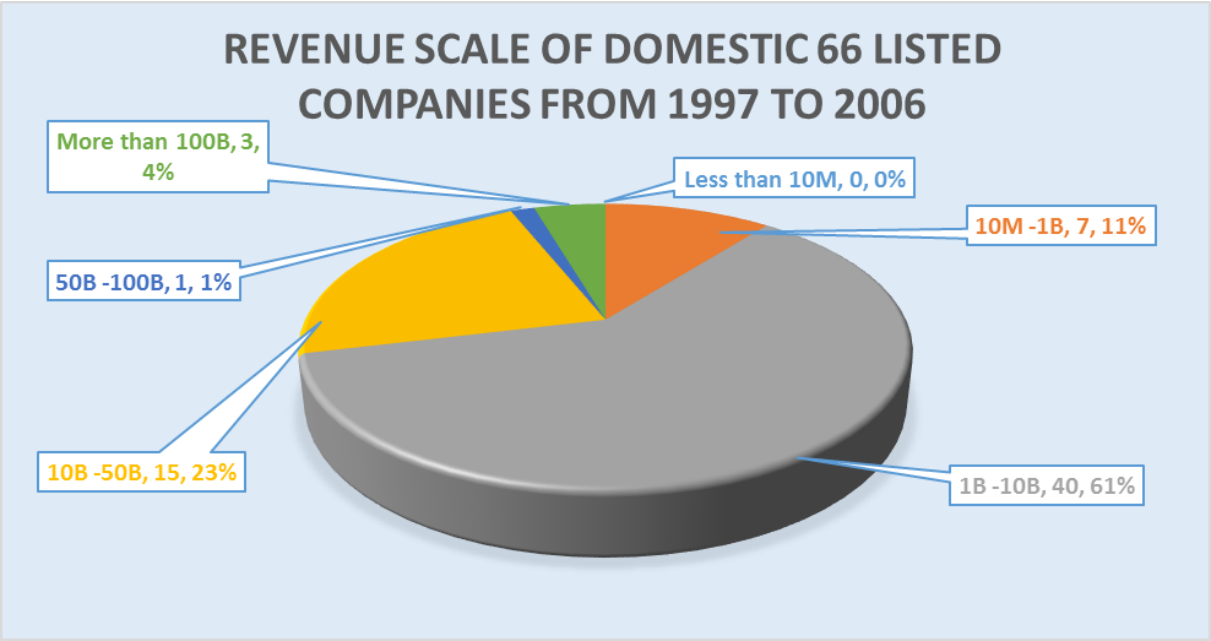


Figure 3-3 Revenue Scale of Domestic 66 Listed Companies from 1997 to 2006

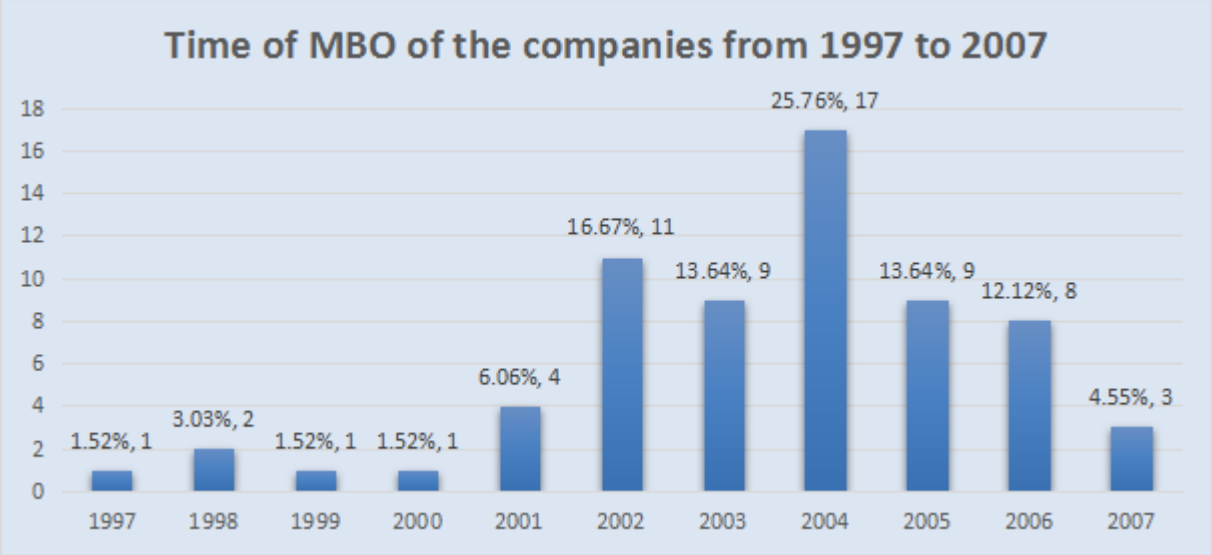


Figure 3-4 Time of MBO of the companies from 1997 to 2007

From the figure 3-4 we can see that, the years of MBO the listed companies mainly fell into the range of 2002 and 2006. There were one to two enterprises that implemented MBO from 1997 to 2000. The number of them increased to 4 in 2001, and further increased to 11 in 2002, where it stayed in the following 5 years. In 2004 the number peaked at 17.

It can be seen from the figure 3-4, although the Ministry of Finance of the People's Republic of China called for a halt to the implementation of MBO in 2003, there is no significant reduce on the number of MBO in 2003, and in 2004, the breakthrough of development happened. In order to explain this phenomenon, the study collected and

analyzed the relevant data. It was found that the companies did not violate rules publicly, but implemented MBO in the background in a disguised manner. In terms of equity transfer, these enterprises mainly have seven modes of transfer: mode for the transfer of state-owned shares of listed company and shares of state-owned legal persons, for transfer of legal person shares of listed company, for the restructuring of listed state-owned parent company, for the restructuring of listed collective parent company and equity transfer of other types of parent companies, for the exchange of assets, for the change of shares to valuable consideration, and for the subsidiary level of the listed company. Among the above 7 modes, the enterprises conducted equity transfer by means of restructuring of listed state-owned parent company, which is also the most common mode, account for the largest number. Besides, the restructuring of listed collective parent company and equity transfer of other types of parent companies, the transfer of state-owned shares of listed company and share of state-owned legal persons are relatively common modes for equity transfer. The three modes, for the exchange of assets, the change of shares to valuable consideration, and the subsidiary level of the listed company, are relatively less adopted by enterprises. Based on the definition of the above 7 modes of equity transfer, this work classifies the numbers and names of the enterprises in terms of the modes, which is shown in table 3-2.

Based on the above analysis, in this work a pie chart is drawn to show the percentage of enterprises in each transfer mode, which can be found in figure 3-5.

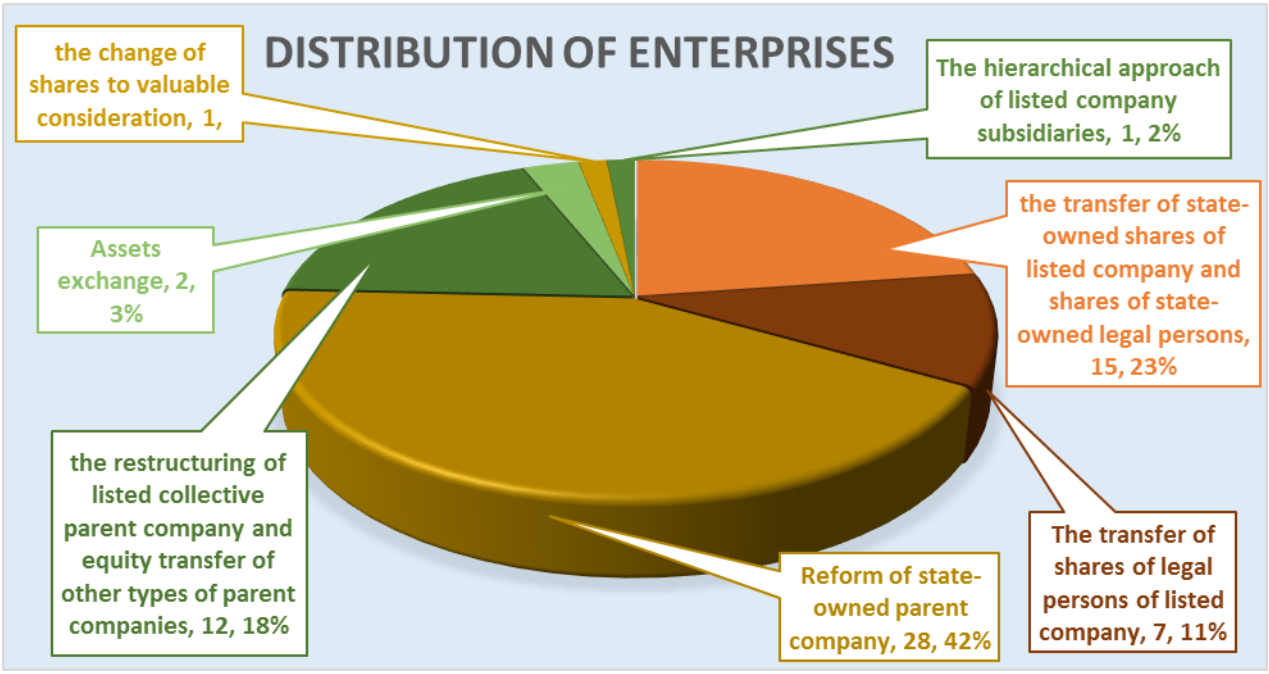


Figure 3-5 Distribution of enterprises

Table 3-2 Statistical table of modes for enterprise equity transfer

No.	Modes of Transfer	Company Number	Proportion	Company name
1	The transfer of state-owned shares of a listed company and shares of state-owned legal persons	15	22.73%	Dazhong Transportation (Group) Co., Ltd. Hubei Wuchangyu Co., Ltd. Guangdong Marco Co., Ltd. Hunan Dongting Aquaculture Co., Ltd. Henan Shuanghui Investment & Development Co., Ltd. Jiangsu Kanion Pharmaceutical Co., Ltd. Sundiro Holding Co., Ltd. Shandong Helon Co., Ltd. Ningbo You Fubang Jingye Group Co., Ltd. Livzon Pharmaceutical Group Inc Shenzhen Gemdale Corporation Suntront Technology Co., Ltd. Inner Mongolia Yili Industrial Group Co., Ltd. Beijing Centergate Technologies (Holding) Co., Ltd. Dazhong Technology and innovation Co., Ltd
2	The transfer of shares of legal persons of a listed company	7	10.61%	Guangdong Midea Group CO., LTD China Shen Fangda Group Co., Ltd. Shandong Shengli Co., Ltd. Xiamen Prosolar Real Estate Co., Ltd. FSPG Hi-tech Co., Ltd. Hunan Genuine New Material Group Humanwell Healthcare (Group) Co., Ltd.
3	Reform of a state-owned parent company	28	42.42%	Hangzhou Tian-Mu-Shan Pharmaceutical Co., Ltd. Ningbo Veken Elite Group Co., Ltd. Sichuan Swellfunco.,Ltd Inner Mongolia Eerduosi Cashmere Products Co., Ltd. Shanghai Qiangsheng Holding Co., Ltd. Shenzhen Huaqiang Industry Co., Ltd. Zhengzhou Yutong Bus Co., Ltd. TCL Corporation Inspur software Co., Ltd. Dalian Merro Pharmaceutical Co., Ltd. Zhejiang Hisun Pharmaceutical Co., Ltd. Nanjing Chixia Development Co., Ltd. Haikou Agriculture & Industry & Trade (Luoniushan) Co., Ltd. BOE Technology Group Co., Ltd. Dare Technology Co., Ltd. Minfeng Special Paper Co., Ltd.

				Weifang Yaxing Chemical Co., Ltd. Anhui Shan Ying Paper Industry Co., Ltd. Lijiang Yulong Tourism Co., Ltd. Henan Zhongfu Industry Co., Ltd. Shanxi Yabao Pharmaceutical Group Co., Ltd. Zhangyu Group Co.Ltd Ningxia Building Material Group Co.,Ltd Zoomlion Heavy Industry Science & Technology Co., Ltd. Hainan Haide Industrial Co., Ltd. Anhui Conch Cement Co., Ltd. Anhui Water Resources Development Co., Ltd. Henan Yuguang Gold & Lead Co., Ltd. Ningbo Shanshan Co., Ltd. Jiangsu Yongding Co., Ltd. TBEA Co., Ltd.
4	The restructuring of a listed collective parent company and equity transfer of other types of parent companies	12	18.18%	Jiangsu Hongdou Industry Co., Ltd. Jiangsu Wuzhong Industrial Co., Ltd. Guangdong Meiyan Jixiang Hydropower Co.,Ltd. Zhejiang Conba Pharmaceutical Co., Ltd. Hainan Airlines Co., Ltd. Shandong Huatai Paper Co., Ltd. Shenyang Ingenious Development Co.Ltd Dongguan Winnerway Industrial Zone Ltd. Anhui Tongfeng Electronics Co., Ltd.
5	Assets exchange	2	3.03%	Jiangxi Gannan Fruit Co., Ltd. Shandogn Lingong Construction Machinery Co.,Ltd
6	The change of shares to valuable consideration	1	1.52%	Jiangsu Zhongtian Technologies Co., Ltd.
7	The hierarchical approach of listed company subsidiaries	1	1.52%	Shimao Property Holding Limitied

It can be directly shown from pie chart 3-5 that, in terms of equity transfer, enterprises adopted the mode of the restructuring of listed state-owned parent company occupies the largest percentage, 26. 39%. The second is the restructuring of listed collective parent company and equity transfer of other types of parent companies, which accounts for 11. 17%. Both of the above equity transfer are made by the method of parent company restructuring, and they account for 37. 56% together. It can be seen that the method of the parent

company restructuring is the most common way for MBO equity transfer.

There are two reasons for this kind of situation: firstly, the capital market is developing in China and there are still many imperfections, especially in terms of transparency and sharing of information. When MBO is implemented by enterprises, there are few institutions can obtain relevant information. Many institutes that have the ability to provide funds or have the intention to participate in acquisition and financing cannot obtain relevant information and participate in it. As there are few financing channels to choose and limited financing party which can provide capital, the enterprise management is more willing to adopt the mode of parent company restructuring which involves more "insiders" to complete MBO. Secondly, before MBO is carried out in China, the income of our state-owned enterprise management is too limited to take out enough fund to implement MBO, and the restructuring of state-owned parent company is a mode requiring the minimum amount of fund and is the safest way relatively.

3.2 Main Problems

3.2.1 Acquiring and Pricing Problems of MBO

Pricing is the key link in enterprise MBO. Whether the pricing is reasonable determines whether the acquisition activity can be continued or not. MBO operation includes the determination of subject and transaction price, the financing channels, information disclosure and the selection of financing channels, information release, subsequent strategic integration after MBO, enterprise management afterwards, and many other links (Bao, 2004). Among them, the valuation assessment of the target company and the determination of transaction price are the crucial links. Only when the reasonable and fair price can be accepted by both parties, the MBO can be ultimately successful in implementation. At the same time, management can avoid unnecessary pressure and reduce the risk of financing. Meanwhile, the party of equity transfer can obtain the realizable value of equity.

Pricing is also an enterprise value evaluation. It means to choose a way to evaluate enterprises, and to set prices to companies according to the evaluation and bargaining. Strong technical and specialized knowledge is required in pricing link. It needs the involvement of professional evaluation intermediary institutions or the third-party agencies,

for example, financial companies or investment banks. Many scholars confirm the importance of the third assessment party. Asset appraisal is not only a very complicated work, but also a scientific work with artistic characteristic. From the perspective of purchaser and that of sales party, global view and fully understood of the information are required. It is not scientific to depend entirely on either one side and allow one party to carry out the evaluation and assessment by itself (Bao, 2008; Ni, 2014) From practice we can also find that the results are likely to have great difference when different subjects carry out evaluation on the same object. When investment banks participate in the evaluation, they tend to take assets as the basis of evaluation. However, when the enterprise owner, especially the owner and operator carry out evaluation, deviations often appear. Because they might be too optimistic on the company's prospects, or deliberately distort the data to increase the value of the company. The fairness can be increased if the strength of two sides can be combined together (Lin, 2018). Therefore, the pricing issues in the MBO of listed companies becomes the focus of acquisition.

An important concept in MBO pricing is the expectation of the target company's value. In MBO, what is acquired is not one specific assets of the target company, but the rights to control the assets and to generate revenue for a long time after the acquisition timing (Chen, 2003). A reasonable transaction price firstly should be able to reflect the principle of openness, fairness and justice. However, it is hard to quantify the principle itself exactly. Moreover, the different positions, interest orientations of the management of equity purchaser, and the shareholder as the equity transfer, and even their professional limitation make it difficult to reach a fair price. Now, the net assets of the company is mostly used as the standard of pricing in China (Yuan, 2003). However, there are many problems when simply using net assets to set price to the enterprise.

Firstly, the fairness of the transaction cannot be reflected when using the net assets as the benchmarking.

The net asset of a company is the book record of company property from the perspective of accountant and it is the real value of the company at a certain time. Although some book records are audited before being used as the pricing standards, it is necessary to avoid management colluded with some intermediate agencies to deliberately underestimate the net worth of the acquisition and influent the reality of the net asset (Xue, 2007; Liu, 2008;

Wang, 2010).

Net assets value cannot show the good or bad of the real assets and future profitability of the company. It also cannot reflect the development potential of an enterprise, and net assets cannot be used as the basis for judging the loss of state-owned assets.

Secondly, the historical contribution of management cannot be properly measured (Guo, 2006; Yang, 2007). Because of the great contribution of the High-tech and management now, it is reasonable for managers to get the dividend from the company. The historical contribution of the management becomes the shield of low cost of acquisition without infringing the statement. As lacking the Unified quantitative standard and model to evaluate the historical contribution of management, most companies make discount on the price obtained by evaluation. How to determine the quantitative criteria is an important factor for the fairness of the pricing.

Thirdly, the lack of developed property rights trading market and professional and matured intermediaries (Zhu, 2009; Zeng, 2012).

From the perspective of frame of capital market in China, the supporting system for the equity market is not completed, which influences the reasonability of pricing. The strong administrative intervene severely affects its function and provides a place for the backstage deals of government and management, rather than put it under sunshine. Some of equity transactions only involve barter trade, others only involve equity trade, while the others play as a symbolic link with market not fully playing its function. The intermediary agencies take part in the implementation process of MBO. In China, the mature intermediary institutions and regulated procedures for enterprise equity sale and confirmation have not been established. The other important reasons for the low pricing and black-box operation include low level of assets evaluation and low occupational qualities of evaluators.

Fourthly, there is no reasonable, transparent and fully market-oriented pricing mechanism and operation process.

The way of pricing is basically agreement-like one-to-one negotiation. The investors in Chia are greatly limited. Only management and staff could be traded even if the government wanted to sell companies to investors outside management, as there is no other investors to choose from. On the contrast, in the UK and the USA where there is highly market-oriented, the final trading price is determined by bidding with the basis of price obtained from

independent and professional valuator and specialist (Yang, 2010; Zhou, 2013). In some cases, it can be seen that some information was published passively by the government, which is not aimed to the market-orientation but to resolve the fairness problem due to the widely spread of information. Therefore, the government had to consider selling the state property rights of the listed companies in that way. Many governments even shield foreign investors to satisfy such unreasonable requirements, which added the influence of the administration and provide room for backstage deal between government administrative offices and enterprises management.

3.2.2 The Problem of Incentive Mechanism

The incentive mechanism of the management during MBO is an essential factor that increases the game of acquisition. In 2014, a survey on the satisfaction of the Chinese entrepreneur found that the current incentive mechanism is not enough to inspire the operators of state-owned enterprises in China, especially in terms of economic incentive (China Enterpreneur Survey System Network: http://www.cess.net.cn/). According to the obtained data from the above survey, the operators are satisfied with their social and political status with 35.1% and 35.5% of them chose “satisfied” separately, which exceed the unsatisfactory proportion 17.1% and 16%. 30.9% of them are satisfied with their economic status, which is slightly less than the unsatisfied proportion of 33.4% in table 3-3.

Taking 5 as the maximum value for the degree of the satisfaction, the average value of economic status is 2.92 (equivalent to 58.4 as of hundred-mark system), political status and social status are, 3.15 and 3.16 (equivalent to 63.2 and 63 as of hundred-mark system respectively). It can be seen that enterprise operators are more satisfied with their social and political status than their economic status.

Table 3-3 Satisfaction degree of enterprise operators on their economic status

	Excellent	Good	Normal	Worse	Worst	Average	hundred-mark
Overall	3.7	27.2	35.7	24.3	9.1	58.4	58.4
The east region	4.4	32.5	37.5	19.7	5.9	62.0	62.0
The middle region	4.1	22.0	34.1	28.1	11.7	55.8	55.8
The west region	1.9	22.6	33.3	29.7	12.5	54.4	54.4
Large-sized	4.8	32.0	34.7	21.4	7.1	61.2	61.2
Middle-sized	4.2	29.0	35.2	23.0	8.6	59.4	59.4
Small-sized	2.3	21.9	36.5	28.3	11.0	55.2	55.2
State-owned	1.1	16.1	34.3	33.5	15.0	51.0	51.0
Non-state-owned	4.8	32.1	36.2	20.3	6.6	61.6	61.6
Private	13.3	42.8	29.1	12.5	2.3	70.4	70.4
Corporation	4.3	39.3	33.8	18.5	4.1	64.2	64.2
LLC (Limited Liability Company)	3.5	30.7	37.0	21.9	6.9	60.4	60.4
Foreign businesses and businesses from Hongkong, Macao and Taiwan	6.6	32.1	38.7	19.1	3.5	63.8	63.8

Note: All data comes from the collation of CESSN network data.

At the aspect of economic status, it is found in further research that state-owned enterprises have the lowest degree of satisfaction, only 51 points as of hundred-mark system, which is much lower than those of large, medium and small-sized enterprises and non-state-owned enterprises, 61.2, 59.4 and 55.2 and 61.6 respectively. Among them, the operators of large enterprises and non-state-owned enterprises are satisfied with their economic status most. At the aspect of social status, the satisfaction degree of state-owned enterprises operators is still the lowest with only 59.8, which is much lower than that of large enterprises (65), middle-size enterprises (63.6), small-sized enterprises (61.6) and non-state-owned enterprises (64.6). Among them, the operators of non-state-owned enterprises are satisfied with their social status most. From the above analysis we can find that, operators of non-state-owned enterprises are most satisfied with their economic status, those of large enterprises are most satisfied with their social and political status, those of state-owned enterprises are satisfied with their economic, social and political status least, among which the most unsatisfied item is economic status followed by social status and then by political status. The findings and results are shown in tables 3-4 and 3-5.

Table 3-4 Satisfaction degree of enterprise operators on their current social status

	Excellent	Good	Normal	Worse	Worst	Average	hundred-mark
Overall	3.7	27.2	35.7	24.3	9.1	58.4	58.4
The east region	4.4	32.5	37.5	19.7	5.9	62.0	62.0
The middle region	4.1	22.0	34.1	28.1	11.7	55.8	55.8
The west region	1.9	22.6	33.3	29.7	12.5	54.4	54.4
Large-sized	4.8	32.0	34.7	21.4	7.1	61.2	61.2
Middle-sized	4.2	29.0	35.2	23.0	8.6	59.4	59.4
Small-sized	2.3	21.9	36.5	28.3	11.0	55.2	55.2
State-owned	1.1	16.1	34.3	33.5	15.0	51.0	51.0
Non-state-owned	4.8	32.1	36.2	20.3	6.6	61.6	61.6
Private	13.3	42.8	29.1	12.5	2.3	70.4	70.4
Corporation	4.3	39.3	33.8	18.5	4.1	64.2	64.2
LLC (Limited Liability Company)	3.5	30.7	37.0	21.9	6.9	60.4	60.4
Foreign business and business from Hongkong, Macao and Taiwan	6.6	32.1	38.7	19.1	3.5	63.8	63.8

Note: All data comes from the collation of CESSN network data.

3.3 Overall Analysis of State-Owned Enterprise Management Buyouts

From the data collected in this study, the current MBOs in China are almost always the "curve MBO". That is to say, the companies embrace the MBO in curve ways, such as the restructuring of the state-owned parent company, the restructuring of the collective parent company and so on. Although there is participation of trust investment companies and the involvement of international capital in the acquisition process of some companies, the main methods of MBO are the curve MBO with more room for the management to manipulate (Wang, 2013; Shi, 2016). The main reasons are that the transfer of state-owned shares is not fully customizable, the State-owned Assets Supervision and Administration Commission (ASAC) is extremely strict and the transfer of state-owned shares of listed companies cannot avoid the supervision and administration of ASAC so that it may returned to the original form with any carelessness. On the other hand, because of the lack of procedural laws regulating the MBO, it will not be easily approved by the regulatory layer. Therefore, there are some commonly used detours for the MBO as follows (Yang, 2009):

Table 3-5 The satisfaction degree of business manager about their political status

	Excellent	Good	Normal	Worse	Worst	Average	hundred-mark
Overall	3.2	32.3	46.1	14.0	4.4	3.16	63.2
The east region	3.4	35.5	44.8	12.5	0.8	3.22	64.4
The middle region	4.0	29.8	46.3	15.2	4.7	3.13	62.6
The west region	2.1	28.7	48.1	15.7	5.4	3.06	61.2
Large-sized	3.6	36.1	45.3	11.3	3.7.	3.25	65
Middle-sized	3.4	33.8	44.0	14.5	4.3	3.18	63.6
Small-sized	2.7	27.8	49.5	15.0	5.0	3.08	61.6
State-owned	1.6	24.5	51.1	17.2	5.6	2.99	59.8
Non-state-owned	3.9	35.7	43.8	12．7	3.9	3.23	64.6
Private	10.9	41.6	30.6	13.2	3.7	3.43	68.6
Corporation	3.6	41.4	41.8	10.2	3.0	3.32	66.4
LLC (Limited Liability Company)	2.7	33.6	45.3	14.2	4.2	3.16	63.2
Foreign business and business from Hongkong, Macao and Taiwan	5.0	37.2	47.8	8.2	1.8	3.35	67.1

Note: All data comes from the collation of CESSN network data.

1. Control its parent company or its high-quality subsidiaries to realize the actual control of the listed company. Ordos and Shenzhen Huaqiang implement MBO at their parent companies' level to control their listed companies. Nanjing New Hundred and Changchun Hi-tech and some other companies implemented MBO at their subsidiaries to control their listed companies.

2. Introduce the trusts as the means of financing to conceal MBO and simplify approval procedures. Due to the covering function, leverage function, financing function, the legal advantage of bridge loan and the common state-owned characteristic of the trust company, trust becomes an important way for MBO after the "moratorium". Because the management of listed companies is often "disguised" when participating in MBOs, it is always suspected as a "curve MBO " if there are trust investment company, unknown private enterprise, affiliated company and other direct or indirect buyer. For example, Inner Mongolia Yili Industrial Group and Sichuan Chengdu Quanxing are good examples.

3. In the name of equity incentives to slowly penetrated. After the TCL case was made public, its option award plan became a model for many listed companies' managements to implement MBO. They signed risk-free rewards plan with the government one after another,

by which they could not only save money, but also avoided the MBO labels.

4. In virtue of the judgment of the court, to evade the approval of the competent authorities, both the shareholding department of the state-owned local government and the listed company jointly staged a play of the "ruse of self-injury to win sb.'s confidence". On December 3, 2003, Shanghai Yutong filed a lawsuit with the People's Court of Zhengzhou Erqi District People's Court and requested court orders that the Finance Bureau should return the equity transfer payment and compensate its interest. On December 20, 2003, Zhengzhou Erqi District People's Court ruled that the 100% equity of Yutong Group held by the Finance Bureau be frozen, and Zhengzhou Auction Head Office be authorized to sell by public auction. Finally, Shanghai Yutong took the equity.

5. Establish joint ventures with private enterprises, or let private enterprises acquire the state-controlled listed companies. For example, a private listed company in Shanghai contacted several listed companies in Shandong to negotiate acquisitions.

In light of the above-mentioned analysis of the main means of curve MBO, the MBO cases mainly fell into four kinds.

3.3.1 MBO of the Parent of the Listed Company

Shenzhen Huaqiang implemented MBO by means of structuring of parent company, which is an indirect MBO for listed company From the disclosed information form Shenzhen Huaqiang, on September 29, 2003, with the authorization of Guangdong People's Government, Guangdong provincial finance department signed the "Shenzhen Huaqiang Group Co., Ltd. State-owned Equity Transfer Agreement" with 10 natural persons, and transferred 91% equity of the Shenzhen Huaqiang Group, the controlling shareholder of the listed company which is held by it. Shenzhen Huaqiang Hefeng Co., Ltd. is a company established specifically for the restructuring of Shenzhen Huaqiang Group and was initiated and established by employees of Shenzhen Huaqiang Group.

After the transfer was completed, the Guangdong Provincial People's Government held a 9% stake in Shenzhen Huaqiang Group Co., Ltd. and Shenzhen Huaqiang Hefeng Company held a 45% stake in Shenzhen Huaqiang Group. Among the 10 natural persons of Shenzhen Huaqiang Group's management, Zhang Jinqiang held 11.5%, Liang Guangwei holds 9.2%. Li Liejun, Gao Zhurong, Yan Yaoming, Xie Fanggu, Weng Ming, Wang Jianxin, Li Guohong and

Fang Dehou hold 3.1625% respectively. Since Shenzhen Huaqiang Group has a 52.5% stake in Shenzhen Huaqiang Co., Ltd., after the acquisition was completed, the management of Shenzhen Huaqiang will indirectly control the listed company.

In September 2003, the application for the overall restructuring of Jiangsu Wuzhong Group, the largest shareholder of Jiangsu Wuzhong Company, was approved by Suzhou Wuzhong District the People's Government. Among the 16 natural persons from the Wuzhong Group's management who participated in the restructuring, there were 8 persons held posts in the listed company. According to the reply letter, the Wuzhong Group would be transformed from a school-run collective enterprise to a limited liability company with the registered capital of CNY 100 million. The nature of the equity would be set by collective shares, natural person shares, and option shares, which respectively accounted for 20%, 60% and 20% of the total capital. And 20%. This means that the management of Jiangsu Wuzhong indirectly controlled the listed company by holding 60% of the equity of the parent company of the listed company, so that they realized the MBO.

As to the curve MBO implemented by Shenzhen Huaqiang and Jiangsu Wuzhong, there are two greatly different views in the market at present. The focus of the dispute between the two parties is whether the pricing of transferred equity is reasonable. Shenzhen Huaqiang Group's net assets were CNY 539 million. According to the agreement, the pricing benchmark of this equity transfer was finally determined to be 90% of its total net assets value (ie., CNY 485 million). After the deductions approved by each party, such as the economic compensation and awards of on-duty employees, the management fees and expenses of retired personnel, which was CNY 260 million in total, the net assets reached CNY 225 million. Therefore, 91% of the equity transfer was CNY 205 million in total. According to the agreement, if the transferee assigns the transfer money in two phases to the transferor's designated account within 3 months and 15 days from the effective date of the agreement, the transferor will give the transferee a 10% payment discount, that is, the price that the transferee actually need to pay is CNY 184 million. The defect in the MBO of Shenzhen Huaqiang is obvious, mainly because price of equity transfer of Shenzhen Huaqiang is more than 10% off its net assets.

Red Bean Co., Ltd. issued an announcement on December 3, 2003 that the company's largest shareholder Hongdou Group Co., Ltd. (holding 70.28% of the company's shares) had

implemented the equity transfer formalities in August 2003, and all the shares of Hongdou Group were transferred to Guo Xiaoxing and other natural persons, which are 50 in total. A natural person holds. This is another example after the curve MBO by Jiangsu Wuzhong and Shenzhen Huaqiang covertly in September 2003.

Among the top 5 shareholders of the 50 natural persons, Zhou Yaoting was the legal representative of Hongdou Group, Zhou Haijiang was the legal person and chairman of Red Bean Corporation, and Dai Kexin and Gong Xindu were vice chairman of Red Bean Corporation. Zhou Yaoting and Zhou Haijiang were father and son in relations, holding a total of 128.65 million shares of Hongdou Group, which accounted for 41.78% of the total shares of Hongdou Group, and indirectly holding 29.2% of Hongdou Group.

The act of Hongdou Corporation was the same as those of Jiangsu Wuzhong and Shenzhen Huaqiang on September 17, 2003 and September 29, 2003. They were all in the name of employee acquisition, but after the actual share transfer was completed, the parent company's management and the main management personnel of listed company got far more shares than those of the general employees, which meant they achieved control over the ownership of listed companies.

The MBO process of Beijing Oriental management is also quite tortuous. On July 11, 2003, China Huarong Asset Management Company (hereinafter referred to as "Huarong") website claimed that Huarong would publicly transfer 43.75% of the share of Beijing Oriental Investment on July 21, 2003. At that time, Beijing Oriental Investment was the biggest shareholder of Beijing Oriental Technology, a listed company, holding 53.15% share of the latter. It was not the Intelligent Kechuang but the Zhongguancun Baixiao Information Co. LTD that took over the stake of Beijing Oriental Investment held by Huarong. It bought 800 million yuan property with CNY 160 million. But the company played only a "bridge" role. After undertaking the stake for three months, it transferred the share to the Intelligent Kechuang. While Intelligent Kechuang bought the equity to the bank loans, its pledge is the share held in the name of Jingdong (Hu, 2008）.

The main reason that the behavior where the management of Erdos, Shenzhen Huaqiang, Anhui Water Resourses and other companies purchased the parent company and indirectly controlled the listed company were failed to pass the approval is that state-owned shares were sold at a discount. Erdos management wanted to spend 900 million yuan to buy

state net assets with 3.2 billion yuan. State-owned shares of Shenzhen Huaqiang's parent company were up for sale at a 10% discount. The majority shareholder of Anhui Water Resourses planed to sell its state-owned stake in the listed company at a discount of 2.5 percent to a newly established acquirer specifically for the management (Hu, 2008). According to relevant provisions in opinions on regulating the restructuring of state-owned enterprises, the transfer price of state-owned shares of listed companies shall be reasonable priced referring to the profit level and market performance on the basis of no less than net assets per share. It can be seen that the net asset per share is the iron bottom of the transfer of state owned shares. If the MBO breaks this bottom line, it cannot pass the state-owned assets supervision and administration commission firstly.

The reason for that corporate management was keen to taking control of by making a detour to avoid the influence of shareholders was that indirect holding is easier to operate. At present, the approval process of direct acquisition of listed companies is more complex and more sensitive. By contrast, it is easier to operate by directly controlling the parent company of a listed company. In addition, the MBO with the means of parent of listed companies can avoid the obligation (The opinions of the independent directors of the listed company and the opinions of the independent financial company) of information disclosure and tender offer regulated by the Administrative Methods of Listed Companies' Purchase. Only a notice of suggestion can achieve the aim of controlling listed companies and the seriousness of regulation is cleared up. Moreover, in term of the effect of MBO on company, the financial situation of the acquired company, whether the tender offer conditions are fair, the possible influence of MBO on the company, the source of MBO funds, etc., the floating stockholder’s rights to be informed are deprived of in a soft manner. Various forms of curve MBO challenge the supervision on the state-owned equity transfer of listed companies.

3.3.2 The MBO of the Subsidiary of the Listed Company

MBO of listed company's subsidiaries refers to the MBO of some assets of listed companies by the management of listed companies through the acquisition of major holding subsidiaries of listed companies. It does not take the listed company's equity as the acquisition target, but directly targets the listed companies’ strong profitability of the assets.

The MBO of Nanjing Xinbai for its subsidiary in the Dongfang Shopping Mall is a typical

example. In August 2003, a on-duty director and vice general managers of Nanjing Xinbai, together with 16 middle and senior managers of Dongfang Shopping Mall, bought 51.02% equity of Dongfang Shopping Mall. After the acquisition, 17 natural persons will become the actual controller of Dongfang Shopping Mall (Hu, 2008). For various reasons, the MBO of Dongfang Shopping Mall ended in a miscarriage, but its “focusing on the small parts, ignoring the large parts” mode of MBO presents a new appearance on the market completely new. According to the ominous disclosure from senior management, after the acquisition of Dongfang Shopping Mall, it is hoped to exchange for the shares of the list company, in order to complete MBO. The concrete method is as follows:1st: The senior management of Nanjing Xinbai sets up an investment company, buys the shares of Dongfang Shopping Mall and successfully realizes the reconstruction and control of the Dongfang Shopping Mall;

Secondly, Make the Dongfang shopping mall reach a certain level of profitability through more effective privatization management and assets operation; In short, it is to incubate Dongfang Shopping Mall;

Thirdly, Buy back Donfang Shopping Mall again. For the senior management of Nanjing Xinbai, they hope the buyback is completed with the stake of Nanjing Xinbai to achieve MBO of Nanjing's Xinbai.

On December 17, 2003, the board of directors of Changchun Gaoxin passed a resolution to transfer 59.68% equity of Changchun Changsheng Bio - Technology Co., Ltd., a subsidiary holding by it, with the price of 2.4 yuan per share. Gao Junfang, the vice president of Changchun Gaoxin, president and general manager of Changsheng Bio - Technology Co., Ltd. would like to sell 34.68% of Changsheng Bio’s shares. The company said that the transfer price was negotiated with the transferee, the transferred was conducted according to an agreement, and no bid was taken. It is difficult to ensure that the transfer price is reasonable and fair. By means of artificially creating buyer's market, negotiating pricing and expelling "high price" with "low price" when other accrued parties reporting high prices, it realized the anti-market operation. According to preliminary calculations, this low price sale could reduce the income of high-salary employees of Changchun Gaoxin by CNY 17.9 million (Hu, 2008).

The biggest equity transferee of Changsheng Bio-Technology equity is the natural person, Gao Junfang. She is the chairman and general manager of the bid, Changsheng Bio-Technology, as well as the vice chairman of the transferor, Changchun Gaoxin. She was

also working as the general manager of Changchun Gaoxin for a long time and has great influence on both companies. In the equity transfer, Gao Junfang is the representative of both transferee and transferor. Consideringher special identity and status in Chuangchun Gaoxin, she is suspected of self-buying and self-selling. Changsheng Bio-Technology is huge assets with the best quality, the most profitable and the greatest development potential. According to the data, the net profit of Changchun Gaoxinin 2002 was CNY 7.3797 million, while the net profit of Changsheng Bio-Technology in that year was CNY 26.34 million. Therefore, the senior management of Changchun Gaoxin would suffer a loss without the contribution of Changsheng Bio-Technology. Obviously, the sale of Changsheng Bio-Technology greatly weakened the core competitiveness and asset appreciation ability of the company, which seriously damaged the core profitability of listed companies.

So far, although the number of listed companies implementing MBO at the subsidiary level has not been large, the few cases have exposed some problems, which are criticized in the market. As soon as the MBO of Nanjing Xinbai and Dongfang Shopping Mall began, such MBO were strongly questioned at the aspects of pricing and information disclosure, and ended in cancellation. The MBO of Changsheng Bio-Technology, the subsidiary of Chuanchun Gaoxin, suffered the problems as well, and the company made the announcement several times that the general meeting of shareholders would be out off. The setbacks of the two listed companies' MBOs successively reflected the management's impulse to implement MBO and many problems in it.

As one of the types of MBO, it is inevitable for listed companies to have common problems of MBO. In addition, compared with the relatively transparent information disclosure of listed companies and the relatively sound regulation and supervision, the subsidiary MBO with relatively weak transparency and supervision is more likely to have hidden operation that undermines the fairness principle in terms of price determination, capital source and information disclosure.

The determination of the price of the acquired assets is the core issue in the whole MBO process, but it is also the most easily questioned part of the market. In addition, due to the lack of effective regulation, as well as internal control, accounting manipulation, deliberately undervalued assets and other factors, the pricing of subsidiary MBO is more likely to cause controversy.

The discount pricing method of net assets which is suspected of losing assets is bound to be questioned by the market. This discount pricing method was adopted in the management purchase of Dongfang mall (net asset appraisal value: 1.07 yuan/share; transfer price: 1.01 yuan/share). Although the loss was not significant, it still caused widespread criticism in the market (Hu, 2008). However, even if the pricing method of net asset premium is adopted, if the price range is not as expected, or the price formation is not fully market-oriented competition through external forces, it is easy to cause market doubts. The premium range of MBO of Changsheng Biotechnology is not low (net assets is 1.79 yuan/share, transfer price is 2.4 yuan/share). However, considering the good fundamentals and profitability of the company, on the one hand, the market believes that its pricing is not fully competitive, and on the other hand, it is accused of ignoring the maximization of shareholders' interests in the case of higher external bidding (Hu, 2008). Actually, it is not reasonable to complain that the market is tough on the MBO pricing. After all, as a special way of acquisition, the management is both the assignee that sets the price and the assignee that accepts the price. At the same time, it is also an operator with information advantage to the target enterprise. Its trinity of identity makes the market extremely sensitive to any action that may undermine the fairness doctrine in the MBO.

In almost all MBOs, the value of the subject matter is far beyond the payment capacity of the subject matter. The 17 managers of Dongfang shopping mall have to pay 1.26755 million yuan for the acquisition, while Gao Junfang himself, the chairman of changsheng biology, has to pay 4.1616 million yuan. The main source of income for the management of the two companies is annual salary and basic welfare, which is a drop in the ocean in front of these astronomical figures (Hu, 2008). Whether there is the legitimate and reliable financing channel become the key of the success of MBO. At present, the newly issued opinions on regulating the restructuring of state-owned enterprises clearly stipulate, the raising funds of the management for the MBO of state-owned property right has to follow the relevant provisions of the "general". It is not allowed to borrow money from state-owned or state-controlled enterprises, including their own enterprises, and not allowed to use their state-owned property rights or physical assets as the subject matter of financing to provide guarantees, mortgages, pledges and discounts. These regulations further plug the channel of illegal financing of management buy-out, but also make the source of funds for the implementation of management buy-out more attention.

The relative vagueness of the information disclosed by the listed company also helps to facilitate the hidden operation of subsidiary MBO on key issues such as price determination and capital source. Different from other types of MBOs, the biggest problem of the MBO of the subsidiary of a listed company is that the management can easily transfer the quality assets and profits of the listed company to the holding subsidiary, and then encroach on the interests of minority shareholders.

Yu Tiecheng, the CEO of Tiandao M&A Website, points out that due to the policy limitations, the management is motivated to innovate the MBO model. Because the net assets of listed companies and their upstream shareholders are generally large (especially the state-owned enterprises), acquisition costs are generally high, and acquisition capital is the weakness of management's acquisition. For example, the net assets of Nanjing XinBai exceed 800 million yuan. Relative to the high acquisition cost, with limited financing channels, the main income of the management is annual salary and basic benefits, which is somewhat insignificant. However, the "enlarge" of MBO, as a result of the acquisition of only a part of the assets of listed companies, to some extent ease the acquisition capital pressure. In fact, although the money of the management is enough, the overall asset quality of the target company is not high and the truly valuable assets may only accounts for the small proportion of the net assets of the target company, from a rational perspective, the management would not make the overall MBO, but would prefer the "enlarge" mode, that is, the acquisition target targets more profitable assets. The purchase amount will not be high, and the rate of return will guarantee that the management will pay the external financing costs from the dividends in the project.

On the whole, there are serious problems with the curve MBO, but the government has not completely banned the MBO of listed companies. On December 16, 2003, the State-owned Assets Supervision and Administration Commission set up the “MBO” section in the Opinions on Regulating the Reform of State-owned Enterprises. This shows that the State-owned Assets Supervision and Administration Commission has given formal recognition to the MBO modes, and also has provided more legal norms and constraints.

In July 2004, and the overseers of State-owned Assets Supervision and Administration Commission of the State Council approved the all-equity transfer scheme of company state-owned controlling shareholders, so that Kangyuan pharmaceutical MBO process went

smoothly. Since the emergency stop of MBO in March 2003 required by the Ministry of Finance , this is the first MBO case that got the approval of the competent department, which showed that the government did not have the intention of prohibiting MBO, and it would approve it as long as it was conducted normatively.Kangyuan pharmaceutical was able to pass, the key of which lay in its price premium relative net assets of state-owned shares of 16%, which conformed to the State-owned Assets Supervision and Administration Commission's requirement in Opinions on State-owned Enterprise Restructuring Work (Hu, 2008).

3.3.3 MBOs with International Capital Intervention

Companies such as Zhangyu Group, Conch Cement and Hainan Airlines have international capital involved in the MBO process. The shareholding structure of HNA Group was very complex before the restructuring. Hainan Traffic was the largest shareholder in name only, and the real controller was Sanya Phoenix Airport and its parent company. Hainan Jincheng, a wholly state-owned subsidiary of the Hainan State-owned Assets Supervision and Administration Commission, has 37.16% of its shares as the largest shareholder among the diversified Airport Shares. As one of the sponsors of Hainan Airlines, HNA Group only hold 7.3% shares at the end of 2003. At that time, American Airlines Investment Corporation, which had the background of Soros Quantum Fund held 108 million shares and become the largest shareholder with a shareholding ratio of 14.8%. However, since 2003, HNA Group has shown signs of increasing its holdings. HNA Group acquired 4.5% of Hainan Airlines shares held by Everbright Group, and increased its holdings by 6.7 million A-shares, raising its proportion to 11.185% which is only 2.95% lower than American Airlines Investment Corporation. Moreover, directors of HNA Group shares many of the listed company. Chen Feng is the chairman of both HNA Group and Hainan Airlines. Wang Jian is the deputy chairman of the two companies. More than three of the nine directors of the listed company are recommended by HNA Group, while there are only two directors recommended by foreign shareholders.

An important institution in the process of MBO of Hainan Airline is the trade union. On February 10, 1993, the Trade Union Committee of Hainan Airlines was established. But from then on, the only record of this union is to attend a provincial selection activity in 1997. On

July 10, 2002, Shengtang development (Yangpu) Co., Ltd. was founded and registered in Yangpu by Shengtang Development (Hong Kong) Co., Ltd.. Its chairman Zhang Zhihai and director He Jiafu used to work for Hainan Airline group; director Chen Guoqing is the chairman of Shengtang Development Hong Kong. This company then became a diving board for HNA Group Union to control Hainan Airlines.

In April 2004, the Airport Shares (the third controller of Hainan Airlines) was brought to court by the creditors for being in debt of more than 30 million yuan. Subsequently, the court was entrusted by the creditor to auction the equity of Phoenix Airport. The reference price is 0.2 yuan per share with a total of 210 million shares. However, the auction was extremely unsuccessful and failed for three times. The main reason was that Phoenix Airport had already froze the 99% stock held by Airport Shares through litigation process as early as February 2004. In the end of February, 2004, Hainan High People's Court and Haikou Intermediate People's Court transferred 13.4 billion unfrozen shares of the Phoenix Airport to Hainan Airlines, who expressed the willing of restructuring the Phoenix Airport. Thus the Airport Shares still held the Phoenix Airport.

On September 28, 2004, Hainan Airlines Trade Union Committee was registered in Hainan Provincial Federation of Trade Unions, and the registered amount is 505,000 yuan. The three served chairmen (legal representatives) are Zhang Hanan, Liang Jun and Shi Zhongliang. The second session of the Trade Union Committee was elected on June 5, 2003 by the Union Member Congress. At the time, there were 2,300 employees and union members.

According to the staff of Provincial Federation of Trade Unions, the registration system in Hainan province was implemented in the late 2000 and the early 2001. Among the well-known large enterprises in the province, Hainan Airlines has registered relatively late. The trade union committee shall conduct business or manage activities: in accordance with The Trade Union Law of the People's Republic of China and the General Principles of the Civil Law of the People's Republic of China, after the approval of the Hainan Provincial Federation of Trade Unions, it is confirmed that the Trade Union Committee of Hainan Airlines has the qualifications for legal persons and obtain the qualification of the trade union as a legal person in accordance with the law, and shall exercise its rights on behalf of all the employees of the company. On October 20, 2004, directors of the Shengtang Development (Yangpu) Co.,

LTD. changed. Chen Guoqing and He Jiafu quit from the company (Hu, 2008).

On February 1, 2005, the general manager Shi Zhonglaing became the legal representative supported by the Trade Unions of Hainan Airlines. He used to be the secretary of Chen Feng, chairman of HNA Group. On March 4, 2005, the Trade Union Committee of Hainan Airlines purchased a 65% stake in a foreign-invested enterprise, Shengtang Development. On March 22, 2005, Shengtang Development acquired a 50% stake of Hainan Traffic from Sanya Phoenix Airport and became its controlling shareholder. However, Hainan Traffic is the largest shareholder of HNA Group holding a 70% stock in it. Now the situation is that the Trade Union of Hainan Airlines owns 65% shares in Shengtang Development. And HNA Group, who holds a 67% stake in Phoenix Airport, transferred 50% shares in Hainan Traffic (owned by Phoenix Airport) to Shengtang Development. By this means, the Trade Union indirectly controlled the Hainan Traffic which owns 70% shares of HNA Group, thus accomplished the successful control of HNA Group ultimately.

In the process of this MBO case, there was an international capital Shengtang Development as an intervenor. It is registered and developed in Hong Kong but controlled by the Trade Union of Hainan Airlines, which means that it serves as part of management. This MBO case is superficially an international capital intervention, but actually a reform of the parent company.

Though the shareholding structure of HNA Group was very complex, the helmsman’s ingenious capital operation saved the situation. By the purchase of 50% stake in Hainan Traffic, HNA Group was released from the control of Hainan Jincheng. The Trade Unions covered up the ultimate beneficiaries of the equity. But it is worth noting that at the current policy level there are many restrictions on unions and employees’ shareholdings as purchasers. As early as 2000, it was forbidden by the Ministry of Civil Affairs to set up companies to buy shares of the original company through trade unions, and SASAC also did not approve such practices. But in practice, community acquisition still exists today. In 1997, the Ministry of Civil Affairs and other three ministries issued the "Provisional Regulations on the Registration of Employee Stock Ownership (ESOP) Associations in Foreign Economic and Trade Pilot Enterprises", which allowed employees to participate in MBO. Due to the unclear legal status of the ESOP associations, the State Council’s office meeting banned them in July 2000. Although the " Provisional Regulations" emphasizes that community acquisitions are

forbidden, local trade unions and other community can legally purchase original group's shares in practice, as long as they can complete the company's registration at local industrial and commercial departments, which the SASAC has no right to bind.

In this case, however, there is a very obvious loophole in the ownership of land resources. By taking 50% of stake of Hainan Traffic, it cut off the ultimate control of Hainan Jincheng for Hainan Airline. The union covered the ultimate beneficiaries of the equity. But it is worth noting that the current policy level has many restrictions on unions and internal staff shareholders. As early as 2000, it was forbidden by the ministry of civil affairs to set up a company to buy shares of the original company through a labor union, and SASAC (State-owned Assets Supervision and Administration Commission) also did not approve such practices. But in practice, community acquisition still exists today. As early as 1997, the ministry of civil affairs and other four ministries and commissions issued the "interim provisions on the registration of internal employees of the pilot enterprises of foreign trade and economic cooperation", which allowed employees to participate in management buy-outs. Due to the unclear legal status of the employees' shareholders, the staff holding meeting was suspended in July 2000. Although the "interim provisions" emphasizes again it shall not adopt the mode of community management buy-outs, but in practice, trade unions and other community around as long as be able to complete the company registered in the local industrial and commercial departments, can legally buy original group co, the SASAC has no right to constraint around the industrial and commercial registration department. There are also some enterprises that involve provincial and ministerial examination and approval, and often invest in certain areas through special policies such as special economic zones, and generally realize employee stock ownership.

From the original document of the State Economic and Trade Commission No. 89, we have seen such statement that the land income can pay the reform cost when restructured companies occupy the state-owned allocated land. This has been widely interpreted as a disguised concession (Hu, 2008). Because of the loopholes in the state-owned land transfer policies, the targets of many companies' MBO are clearly land. By making full use of the low cost, they "disposed" the enterprise equipment and employees, and transformed to a real estate development company in an instant, resulting in the actual loss of state-owned assets. So far, the land management in the reform of state-owned enterprises has not changed

fundamentally.

3.3.4 MBOs with Involvement of Trust Investment Companies

The background of Yili's MBO is mainly about horizontal competition. Because of the foundation of Mengniu, the pressure from Guangming and Sanyuan as well as the fierce competition among the dairy industry, the share price of Yili plummeted from the highest price of about 20 yuan on September 13, 1999 and fluctuated from 8 to 14 yuan. Yili's share had been overperforming the market (Shanghai Stock Exchange Index) since March 13, 1996. However, the situation completely reversed after the foundation of Mengniu. This indicated that investors were worried about the threat Mengniu brought to Yili. Facing the sluggish growth of Yili and the rapid rise of competitors, Junhuai Zheng, as the captain of Yili, made a decision of conducting MBO, intended to make Yili his own.

Yet Yili's MBO is such a big failure, problems of MBO can be further revealed through the study of this case.

In July 2000, Inner Mongolia Yili Fodder Co., Ltd. was founded. Yili Group invested RMB 2,610,200, accounting for 64.5% of the total share capital, and was the largest shareholder; Hohhot Mahatma Trade Co., Ltd. invested RMB 1.23 million, holding 30.4% of the total share; and Hohhot Finance Bureau invested RMB 207,900, taking 5.1% of the total capital.. In 2000, Babai Cow Factory loaned more than 10 million yuan from the bank taking Yili Group as the guarantee. But this loan was not used in Babai Cow Factory but embezzled to Huashi Trading Company instead without the consent of the board of directors. According to a middle-level staff from Yili Group, the guarantee contract was signed by chairman Zheng Junhuai and the loan was transferred to Huashi Trading by Li Shuiping. Guo Shujnxi was the legal representative of Babai Cow Factory at that time (Chen & Zhu, 2007).

After that, Huashi Trading suddenly increased its capital in November 2002. According to a capital verification report (copy) and a description of the capital verification matters (copy) from the Inner Mongolia Amway Accounting Firm, Huashi Trading applied for an increase of 4.15 million yuan of registered capital, which would be paid up by Zheng Haiyan, Ma Qing and Li Fenglan before December 16, 2002 (2.3 million for Zheng Haiyan, 1.75 million for Ma Qing and 100 thousand for Li Fenglan). At the same time, Zhang Xianzhu transferred 200 thousand investment to Zhang Xiangning, and Li Shuiping transferred 300 thousand to Hao

Yinhua. At this point, the registered capital of Huashi Trading soared to 4.65 million yuan, and the company's legal person was changed from Zhang Xian to Li Fenglan. Then Zheng Haiyan became the largest shareholder of Huashi Trading holding 49.47% of its capital. These people have a close relationship. Zheng Hiayan is the daughter of Zheng Junhuai, the chairman of Yili. Ma Qing is the husband of Yang Guiqin, the deputy chairman of Yili. Li Fenglan is the mother of Li Shuiping and Zhang Xiangning is the son of Zhang Xianzhu. Since then, capital operation, foreign equity investment, purchase and sale, restructuring consultation were added to the business scope on the basis of chemical products, building materials, hardware, electricity, daily necessities, auto parts and tourism products. According to the annual reports of Huashi Trading from 1999 to 2001, the sales revenue of the two years was zero. Later, three independent directors of Yili Group expressed their doubts about the motivation of the fourth-largest shareholder Huashi Trading. They pointed out that the Huashi's four major shareholders were all relatives of the top managers and their investment amount was quite large while their capital source remained unknown. The independent directors believed that the setup of Huashi Trading was to use MBO as a tool for making profit for a few people (Hu, 2008).

In November 2002, Yili Group purchased 150 million yuan bonds. From January to June, 2003, Yili Group bought bonds of $140 million. On March 19, 2003, the Yili Group announced that, Hohhot Finance Bureau agreed to transfer 28.028743 million shares of the company’s state-owned shares to Jinxin Trust. The transfer of shares accounted for 14.33% of a company's total equity and the transfer price was 10 yuan per share. Jinxin Trust paid the entire transfer price in cash. After the equity transfer, Jinxin Trust has become the largest shareholder, and its nature of shares was legal person share (Hu, 2008).

In November 19, 2003, Inner Mongolia Yili Fodder Co., Ltd. was renamed as Inner Mongolia Muquan Yuanxing Fodder Co., Ltd. The legal representative is Guo Shunxi, who is now the manager of the raw milk department of Yili Group. This company is the protagonist of the “National Debt Event” in Yili Group. The same as the share transfer of Huashi Trading, the management of Yili did not give any explanation for the renaming.

On March 9, 2004, Yili reported that the fourth board of directors of the fourth session held on October 18, 2002 had made a resolution on "Utilizing part of the idle funds to purchase government bonds". From November 2002, they invested 300 million yuan to

government bonds. At the end of 2002 and 2003, its market value was 150 million yuan and 291 million yuan respectively. For such an important conference resolution, Yili Group had never mentioned it before. In response to questions raised about why it did not promptly disclose the content of the four board resolutions, Yili's reply was: "the meeting reviewed the third quarterly report of 2002 and discussed the use of idle funds for national debt investment, because of the meeting did not specify the amount of investment so the company did not separately disclose the content of the board meeting." Yu Bowei, an independent director of Yili, also pointed out that this was a pending issue. Now that the board has not made a clear decision, it was Yili's managers who made their own decisions and invest in treasury bonds with huge amount of money, then who should bear the losses of their investments?

On June 11, 2004, shortly after the outbreak of the Yili Group "Independent Directors' Storm", the equity structure of Huashi Trading changed again. Zheng Haiyan transferred 49.46% shares of Huashi Trading to a woman named Wang Ling born in 1978, living in Beijing. Ma Qing transferred 37.63% of shares to a man born in Beijing in 1961, Wang Nianxue. Zhang Xiangning transferred his shares to a 37-year-old man named Zhou Peiquan, who lived in the rural village of Liuan, Anhui. Hao Yinhua, who held a 6.46% stake in Huashi Trading, and Li Fenglan who held 21.5%, did not change their shareholding or transfer the shares. On June 15, 2004, three independent directors of Yili Group, Yu Bowei, Wang Bin and Guo Xiaochuan issued "A statement from the independent directors", and asked to hire an auditing company to carry out special audit about the problems concerning cash flow, national debt trading of Yili Group and Huashi Trading Company.

On June 15, 2004, the Yili YuBoWei, from three independent directors and guo xiaochuan issued a statement for the independent directors, and asked to hire an audit company about the Yili shares to cash flow, debt trading and huashi trade company carry out special audit.On June 16, 2004, the Yili shares held companies four of six meetings of the board of supervisors, the independent directors YuBoWei while in office and the company has carried on the review of related party transactions items, through the "for the general meeting of shareholders to revoke YuBoWei bill of independent directors, on the same day of the fourth session of the board of directors of the temporary meeting, review by the company dismissed Mr YuBoWei independent directors to the shareholders meeting of the

board of supervisors.

On June 19, 2004, by providing capital to Muquan Yuanxing Fodder which holds 64.38% of its shares, Yili Group purchased a total of 2.2994 trillion yuan of national debt in the first quarter of 2004. Then Yili sold and recovered the national debt investment fund of 116.34 million yuan. By June 16, the balance of national debt market value was 104.2 million yuan, and 9.4 million yuan was lost. This was not disclosed in time the same as last time.

After the exposure of Yili Group's "national debt event", the secrets behind its closely related companies— Huashi Trading and Muquan Yuanxing Fodder were gradually unveiled. Huashi Trading is the tool of the Yili Group for management incentive mechanism. And independent directors Yu Bowei pointed out that Yili Group had transferred a total of 2.8 billion yuan for five times to the account of Muquan Yuanxing Fodder.

On July 21, 2004, the company received notice of the China securities regulatory commission investigation, the content is as follows: "Inner Mongolia Yili Industrial Group Co., LTD. : for alleged violation of securities laws and regulations, I have decided to initiate an investigation of your units." The investigation ended at the end of September. After that, the securities regulatory bureau of Inner Mongolia will survey report to the China securities regulatory commission, after the related investigation content transferred to procuratorial organs. Involved including Yili shares regardless of the content of the shareholders' interests, long-term bond investment, lead to loss of 180 million and Hohhot Huashi Trade Co., LTD., is actually the Yili shares company executives and their families registered company, now has more than 5000 ten thousand yuan shares (Hu, 2008) .On August 3, 2004, the Yili shares the extraordinary shareholders' general meeting resolution member, because YuBoWei associated with Yili shares for a large company of related transactions, and do not have to remain as independent director's qualification, therefore dismissed YuBoWei independent directors; On the same day, the independent directors from resigned, protest to recall YuBoWei position. Deposed Dong Yu alone "wei have questioned:" Yili shares as losses rather than to buy Treasury bonds, whether the funds required to purchase and management, I doubt that national debt investment is a joint-stock company funds extracorporeal circulation channel." According to industry analysis, the Yili shares investment bond funds is likely to be through stealth, into executive for Yili a shareholder stake in the capital, so as to realize the management buy-out.

In December 2004, the Yili Group released the latest announcement that, Inner Mongolia Autonomous Region People's Procuratorate froze 64.4 million shares of Yili Group, from December 24, 2004 to December 24, 2005. The frozen shares included the largest shareholder Jinxin Trust's 56.05 million legal person shares, accounting for 14.33% of the total equity Yili and Huashi Trading's 8.44 million shares, accounting for 2.16% of the equity. On December 30, 2004, the legal representative Zheng Junhuai, Secretary Zhang Xianzhu and securities transactions representative Li Yongping were arrested by public security organization on suspicion of embezzlement. On April 6, 2005, Jinxin Trust signed "Equity transfer agreement" with Hohhot Investment Company. According to the agreement, Jinxin Trust transferred its 56,057,486 legal person shares of Yili Group (accounting for 14.33% of the total equity) to Hohhot Investment Company, and the transferred price was 5.352 yuan per share, with a total value of RMB 300 million. The Hohhot Investment Company is a wholly state-owned company funded by the State-owned Assets Supervision and Administration Commission of Hohhot City. Before the transfer, Hohhot Investment Company did not directly or indirectly hold stakes in Yili Group.

On December 31, 2005, Zheng Junhuai was sentenced to six years in prison for embezzlement by Baotou Intermediate People's Court. However, the crime Zheng convicted was not directly relevant to Jinxin Trust. Baotou intermediate court decided that the five people including Zheng Junhuai misappropriated the loans of 15 million yuan and lending of 1.5 million yuan belonging to Yili trusteeship enterprises, to purchase Yili's legal person share for Huashi Trading.

From the case of Yili, in terms of the purchase price, compared with the previous MBO, this time Jinxin Trust purchased Yili's state equity with a higher price. In previous MBO of listed companies, the price is generally lower than the company's net assets per share. For example, in Yue Mei's MBO, the first equity transfer price was 2.95 yuan and the second 3.6 yuan, both of which were lower than the company's per share of net assets, namely 4.07 yuan. According to the Yili's third-quarter report, 2002, net assets per share (diluted) is 8.94 yuan ($8.94) after adjusting, the annual report net assets per share must be higher than 894 yuan, but it is difficult to more than 10. If this is really a management buyout, the cost is higher. Of course, may be the company to pay a high price for management approval smoothly. In addition, through trust companies do intermediary transfer of equity, low key,

not easy to attract attention, there are on the market through trust companies for example. May be the company paid a high price in order to be approved by the management. In addition, transferring equity through trust companies will be less noticeable.

What is worth mentioning is the Jinxin Trust Investment Co. LTD. On December 30, 2005, Zhejiang supervision bureau of CBRC issued a notice: due to the illegal operation and poor operation of Jinxin Trust, which caused great losses, according to the provisions of the banking supervision and management law of the People's Republic of China, the CBRC agreed to order Jinxin Trust to suspend operation and rectification (Hu, 2008). Since then, "The first Jiangnan grange" finally ended its vigorous life.

3.3.5 Brief Summary

It can be seen from the above case analysis that the mature western MBO experience does not fit the particularity of state-owned enterprises. The existing problems of Chinese MBOs of state-owned enterprises can be listed as follows: unreasonable pricing during MBO process, imperfect information disclosure system, relatively low involvement of intermediaries, difficult-to-quantify contribution of the management and non-standard behavior of the government, etc.

1. It is unreasonable to take the net asset value of the enterprise as the basis of pricing.

Net asset refers to the real value of the company at a certain point, which is the record of company's assets from the accounting perspective. In spite of the fact that the pricing of equity transferred to MBO based on the value of net assets can prevent some managers from plundering the state-owned assets in the name of the management buyout to some extent, the value of a business eventually depend on its future growth. Therefore, the law of net assets does not take into account the future development of enterprises.

The unreasonable pricing of China's management mainly reflects in two aspects. On the one hand, China's capital market, especially the property rights market, has not been completely constructed yet. This will by no means affect the rationality of MBO pricing. China's property rights market is still very immature for its late start and limited scope of influence. At present, there are three main problems of the construction of property rights market.

(1) Market segmentation is inappropriate. Each province and even each city has its own

property rights market, and there are even different types. As a result, property rights markets are oversupplied and average transaction volume is limited.

(2) Norms are not uniform. Different property rights markets have different trading rules.

(3) Government dominates the market. Government has absolute control over rules setting, personnel arrangement, and even trading arrangement. What's worse, the extremely casual and nonstandard behavior of some government seriously reduce the effectiveness of property rights market.

On the other hand, the unreasonable pricing of Chinese MBO is due to the lack of bidding mechanism. At present, the price base of Chinese MBO is enterprise's net asset value and the pricing procedure is basically a one-to-one negotiation. The two factors result in the fact that Chinese MBO deals are basically between management and government. This can be seen in the cases of this study. The number of investors are very limited. Even if the government intends to sell companies to investors except management, there are no other investors to choose. Management and staff are the only choice. There are many disadvantages to the one-to-one agreement pricing, among which the opacity of transactions and the manipulation of pricing become the most obvious drawbacks.

2. Information disclosure system is imperfect.

The MBO of Chinese state-owned enterprises, even those of listed companies has many deficiencies in terms of the implementation and supervision of information disclosure. In particular, some major issues related to the reorganization of assets may have the problem that information disclosure is not promptly, authentic and sufficient. This can be seen in the cases of this study. Since the management of the listed company was involved in the MBO transaction, the failure to fulfill information disclosure requirements in the process will lead to insider trading problems. And information disclosure is crucial to ensuring fairness of the transaction.

3. Involvement of intermediaries is insufficient.

Intermediaries are rarely seen in China's MBO. Once since December 1, 2002, the time when government regulators require that all purchases must engage independent financial consultants and standardize the purchase process, are intermediaries engaged in the

operations of MBO. However, intermediaries can merely provide asset evaluation service or assist to design acquisition program. It is difficult for them to play a part in the integration of financing, negotiation and acquisition, or even offer effective suggestions on management's equity allocation and management. Compared with the West, China's intermediary institutions are still very immature. Due to their lack of professional experience and irregular behavior, China’s intermediaries are difficult to function in the market and thus cannot participate in the market sufficiently.

In the cases, we did not see any intermediary agency. That is to say, in these cases, the role of intermediary is not worth mentioning. Compared with the west, China's intermediary institutions, being in the cultivation period, are small in scale, narrow in business and insufficient in market participation.

4. The contribution of management is hard to quantify.

Talking about the pricing of MBO, the historical contribution of management is a factor that cannot be ignored, but it should be measured scientifically. Most of the companies involved in the MBO avoid talking about pricing principles. They contend that the low price is due to the consideration of the management's contribution to the company and this does not violate any existing rules. Hence the contribution of management has become a "shield" of low prices. Therefore, the historical contribution of management must be measured by scientific method. Otherwise, it will only end up as an excuse for low prices, leading to the loss of state-owned assets. On the contrary, he incentive mechanism of western enterprises is relatively perfect, so it takes less care of the management's previous contribution in the management buyout process.

The contribution of management refers that how does management as a production factor participate in gains distribution. In the current MBO pricing, the historical contribution of management cannot be reasonably quantified and most companies use the contribution of management as an excuse to make a voluntary discount on the evaluated transfer price. Today’s MBO pricing practices lack unified quantitative standards and quantitative models to measure management's historical contributions. How to determine this quantitative standard is one of the important factors to judge the impartiality of MBO pricing. Unfortunately, there have been no clear legal provisions in this regard yet, regardless of some vague and unquantifiable preferential policies.

5. Government behavior is unregulated.

In China, government's support is a prerequisite for the success of MBO in state-owned enterprises. In some cases of the study, we can see that some government disclosures are passive. Sometimes government did not have the initial intention of marketization, and only when the information was widely spread did the government put the state-owned property rights of state-owned enterprises up for sale in order to ensure the procedure fair and equity. If government is not equipped with market-oriented operation thinking and merely continue to follow the habit of mandatory plans, listed trading in the property rights market will never happen, not to mention marketization.

6. Chinese state-owned enterprises have their particularities.

There are significant differences between Chinese state-owned enterprises and western state-owned enterprises. Under the conditions of market economy, some industries or fields concerning people’s basic needs, national development and national security, whose profit is low while risk is high, require a lot of funds for pioneering research. Few companies are willing to invest in these industries or sectors, and countries are expected to purchase products or provide public goods and services. At this time, government will invest to set up organizations to provide public products and services, a large number of which are called state-owned enterprises. In western countries, state-owned enterprises refer only to enterprises invested or partly controlled by the central government or the federal government of a country.

The state-owned enterprises in China and the state-owned enterprises of west in the MBO have some key differences, which indicate that the MBO experience of western state-owned enterprises cannot be directly applied in the MBO of China’s state-owned enterprises. These differences can be listed as follows.

(1) The premise of implementation is different. In China, the property rights are unclear when MBO is implementing. On the contrary, people intend to clarify property rights by implementing MBO. Obviously, controversy and problem arise from the distinctions of premise and purpose. In the US and UK, the acquisition of property rights is clear. Since both sides are voluntary, there will be no controversy.

(2) The body of leverage effect is different. China’s MBO is personal credit financing and the company does not provide any financing assistance. This means it is extremely difficult

for Chinese management to acquire financing and implies huge credit risk. The MBO of US and UK are leveraged by the company itself, with little credit risk.

(3) The operation is different. China's management is unfairly priced and unfunded, while the MBO of US and UK are priced equity and financing means are diversified.

(4) The result and interests subject after the acquisition are different. In China, MBO firms are still listed after MBO and the split of equity causes different interests subject. In the US and UK, after the implementation of MBO, the company delimits, turns into a non-public company and forms a new community of interests.

(5） The reorganization and integration of the company after the MBO is different. In China, it is difficult for the company to restructure and integrate after the implementation of the management buyout. Or there may be a serious externality, and the optimal allocation of resources cannot be realized. In the US and the UK, after the MBO, the company has become a non-public company, forming a new community of interests. There is no externality, and it can be reorganized and integrated smoothly to realize optimal allocation of resources.

Chapter 4: Empirical Research on MBO of State-owned Enterprises

The difference between Chinese and Western state-owned enterprises and the difference in MBOs make it impossible for Chinese companies to bench mark or draw on western experience without any industry adjustment. Therefore, we should explore an MBO model that is suitable for Chinese state-owned enterprises with Chinese characteristics. This chapter examines the financial performance differences before and after the adoption of MBO mode in Chinese state-owned enterprises from an empirical perspective. The information in this chapter comes from http://www.wind.com.cn.

4.1 Sample Enterprises and Industry Matching Enterprises

4.1.1 Research Sample

4.1.1.1 The Principle of Selection

The sample enterprises in this study need to satisfy the following conditions：

1. Listed company. First of all, the development of listed companies is relatively standard, more consistent with the market law, and has a certain scale. Second, listed companies regularly publish corporate performance and annual corporate financial reports, and statistics about the company's share price are searchable. From the perspective of data collection, relevant data of listed companies are relatively easy to obtain. Thirdly, from the acquisition of corporate data by the collected Chinese management, the MBO firms are mostly listed companies, which are more representative.

2. Medium enterprise scale and above. The size of the selected enterprise assets is more than 100,000 Yuan, and the number of enterprise personnel is more than 100 people.

3. Multiple industries. Industry involved in household appliances, electronic information, power industry, etc. A wide selection of business cases from multiple industries can make the results cover more areas.

4. Corporate financial data can be obtained through official channels. The financial data

of the selected cases are official and accessible through normal channels.

5. The selected case companies have been officially announced through MBOs.

In this study, 19 enterprises were selected as the research objects according to the case selection principle and the acquired MBO cases.

4.1.1.2 Sample Enterprise Information

The information on 19 cases of enterprise includes: the stock code, name of related industries, name of enterprises, time of MBO (MBO), enterprise size (assets), enterprise size (personnel). Detailed information is shown in Table 4-1. Case companies in the domestic distribution are shown in Table 4-1.

Table 4-1 The key information of sample enterprise

No.	Ticker Symbol	Industry	Case	Place of Registry	Year of MBO
1	000527	Household appliances - white household appliances - air conditioner.	Cantonese Midea Group	SHUNDE	2001
2	000055	Synthesis - synthesis 2 - synthesis 3.	China Fangda Group Co., Ltd.	SHENZHEN	2001
3	600066	Transportation equipment - vehicle complete vehicle - commercial vehicle	Zhengzhou Yutong Bus Co., Ltd.	ZHENGZHOU	2003
4	600400	Textile clothing -- clothing 2 -- clothing 3	Jiangsu Hongdou Industry Co., Ltd.	WUXI	2003
5	600257	Agriculture & forestry & animal husbandry & fishery – fishery - aquaculture	Hunan Dongting Aquaculture Co., Ltd.	CHANGDE	2002
6	000023	Building materials - architectural decoration - construction	Shenzhen Tiandi Co., Ltd.	SHENZHEN	2003
7	000062	Household appliances - audio-visual equipment - other audio-visual equipment	Shenzhen Huaqiang Industry Co., Ltd.	SHENZHEN	2006
8	000407	Chemical - plastic 2 - plastic 3.	Shandong Shengli	JINAN	2002

No.	Ticker Symbol	Industry	Case	Place of Registry	Year of MBO
			Co.Ltd		
9	600079	Medical biotechnology - medical device 2 - medical device 3	Renfu Technologies Co., Ltd	WUHAN	1998
10	600089	Mechanical equipment - electrical equipment - transmission and transformation equipment.	TBEA CO., LTD	CHANGJI	2003
11	600105	Information equipment - communication equipment - communication transmission equipment.	Jiangsu Yongding Co., Ltd.	WUJIANG	2002
12	600193	Synthesis - synthesis 2 - synthesis 3.	Chuangxing Resources Co., Ltd.	SHANGHAI	2002
13	600275	Agriculture & forestry & animal husbandry & fishery – fishery - aquaculture	Hubei Wuchangyu Co., Ltd.	YIZHOU	2002
14	600295	Textile clothing -- clothing 2 -- clothing 3	Inner Mongolia Eerduosi Cashmere Products Co., Ltd.	ERDOS	2002
15	600611	Transportation -- bus 2 -- bus 3	Dazhong Transportation (Group) Co., Ltd.	SHANGHAI	1999
16	600622	Transportation -- bus 2 -- bus 3	Shanghai Qiangsheng Holding Co., Ltd.	SHANGHAI	2003
17	600635	Public utilities - gas 2 - gas 3	Shanghai DaZhong Public Utilities co., ltd	SHANGHAI	1997
18	600779	Food and beverage -- beverage manufacturing – white spirits	Sichuan Swellfun	CHENGDU	2005
19	600884	Textile clothing -- clothing 2 --	Shanshan Co.,Ltd	NINGBO	1998

No.	Ticker Symbol	Industry	Case	Place of Registry	Year of MBO
		clothing3	(Nbss)		

In Figure 4-1, the red identification point is the company registration place of 66 listed companies that have undergone management buy-out from 1997 to 2006. The green identification point is the company registration place for the 19 sample companies selected by the 66 listed companies in this study.

Figure 4-1 The Distribution Map of Cases

4.1.1.3 Sample Enterprise classification

1. Classification by Transaction Type

The statistical information of the stock transfer mode of the sample enterprise is shown in Table 4-2.

2. Classification by Financing Model

There are two types of financing: equity financing and debt financing. Yutong Bus

(600066) was financed by equity. All the other case companies are debt financed.

3. Classification by international capital intervention

International capital intervention in MBO can be divided into two types: international capital intervention and domestic capital intervention. The selected sample cases do not involve international capital in MBO.

Table 4-2 Statistical table of transfer of ownership of enterprises

No.	Equity transfer mode	Number of enterprises	proportion	Name
1	Transfer mode of listed company state-owned shares and the state-owned legal person share	4	21.05%	Dazhong Transportation (Group) Co., Ltd. Hubei Wuchangyu Co., Ltd. Hunan Dongting Aquaculture Co., Ltd.
2	The transfer of listed company legal person shares	5	26.32%	Shenzhen Midea Group Co., Ltd China Fangda Group Co., Ltd. Shandong Shengli Co., Ltd. Chuangxing Resources Co., Ltd. Renfu Technologies Co., Ltd
3	The reform of the state-owned parent company of a listed company	4	21.05%	Sichuan Chengdu Quanxing Inner Mongolia Eerduosi Cashmere Products Co., Ltd. Shanghai Qiangsheng Holding Co., Ltd. Shenzhen Huaqiang Industry Co., Ltd.
4	The reform of the parent company of the listed company and other types transfer of parent company equity	4	21.05%	Zhengzhou Yutong Bus Co., Ltd. Ningbo Shanshan Co., Ltd. Jiangsu Yongding Co., Ltd. Tbea Co., Ltd Jiangsu Hongdou Industry Co., Ltd
5	Other ways	1	5.26%	Shenzhen Gemdale Co., Ltd
6	The union and the senior management level jointly establish a new company and indirectly own shares with transfer.	1	5.26%	Dazhong Technology and innovation Co., Ltd

4.1.2 Industry Matching and Enterprise Selection

4.1.2.1 The principle of selection

In order to reflect the changes in the financial performance of the enterprises that have been acquired by management, the influence of industry factors should be deducted. This study collects cases to calculate the financial indexes of industrial enterprises in the same company values, and compares the data of the case company with that of companies in the same industry to reflect the change after buy-outs, compared with companies in the same industry in order to more faithfully reflect the change in the company's financial performance before and after the MBO.

At present, there are three kinds of industry classification for listed companies by three institutions: CSRC (China Securities Regulatory Commission), and SWS Research. CSRC classification is broad, whereby many companies are included in an industry and the consistency of their business is poor. Wink INFOBANK classification is too refined and lacks representativeness. Considering the drawbacks of two abovementioned companies, the industry classification by SWS Research is adopted here.

4.1.2.2 Industry matching enterprise information

According to their industry, in accordance with the company scale, market share, the main business, this study selected 19 corresponding companies of the case company. Details are shown in table 4-3.

The MBO firms in table 4-3 is the case enterprise, the other four companies in the same industry are selected based on the classification model by SWS Research. The study chose one enterprise as the matching company for the case enterprise based on the scale, and management situation and so on. The name of the enterprise is shown in bold.

Table 4-3 Sample Companies and Industry Matching companies

No.	Stock Code	Industry	MBO Company	Other Companies In The Same Industry			
1	000527	Household Appliances - White Household	Cantonese Midea Group	**Qingdao Haier Co. Ltd**	Gree Electric Appliance	Mei Ling Electronics Co.,	Little Swan

No.	Stock Code	Industry	MBO Company	Other Companies In The Same Industry			
		Appliances - Air Conditioner			s Inc	Ltd	
2	000055	Synthesis - Synthesis 2 - Synthesis 3	China Fangda Group Co., Ltd.	Beijing New Building Material Co., Ltd	HEBEI BAOSHUO CO.LTD	SHANGHAI PUDONG DEVELOPMENT BANK CO.,LTD	**China Fiberglass Company Ltd**
3	600066	Transportation Equipment - Vehicle Complete Vehicle - Commercial Vehicle	Zhengzhou Yutong Bus Co., Ltd.	**King Long Motor Group**	Ankai Bus	Yaxin Bus	Zhongtong Bus Holding Co ., Ltd
4	600400	Textile Clothing -- Clothing 2 -- Clothing 3	Jiangsu Hongdou Industry Co., Ltd.	Tianshan Textile	Shenzhen Textile	**China Garments Co ., Ltd .**	Zhongfang Investment
5	600257	Agriculture & Forestry & animal husbandry & Fishery – Fishery - Aquaculture	Hunan Dongting Aquaculture Co., Ltd.	**CNFC Overseas FishYilis Co., Ltd**	Shanghai Kaichuang Marine International Co., Ltd	SDIC Zhonglu Fruit Juice Co., Ltd	Hubei Wuchangyu Co., Ltd.
6	000023	Building Materials - Architectural Decoration - Construction	Shenzhen Tiandi Co., Ltd.	Shanghai Construction (GROUP) CO.,LTD	**Highway Bridge Construction**	SHENZHEN TONGE (GROUP) CO.,LTD	Huitong CO., LTD ;
7	000062	Household	Shenzhen	Jiangsu	**Sichuan**	Sunwave	ALLWIN

No.	Stock Code	Industry	MBO Company	Other Companies In The Same Industry			
		Appliances - Audio-Visual Equipment - Other Audio-Visual Equipment	Huaqiang Industry Co., Ltd.	Hongtu High Technology Co., Ltd	**Hushan Co., Ltd**	Solutions	
8	000407	Chemical - Plastic 2 - Plastic 3.	Shandong Shengli Co.Ltd	Wuhan Plasfic Co., Ltd	Fosu Co., Ltd	**Anhui Guofeng Plastic Industry Co., Ltd**	Baoshuo Stock
9	600079	Medical Biotechnology - Medical Device 2 - Medical Device 3	Renfu Technologies Co., Ltd	Ahead Tech Co.,Ltd	**Lawton Development Co., Ltd**	Beijing Wandong Medical Equipment Co., Ltd	HACI
10	600089	Mechanical Equipment - Electrical Equipment - Transmission And Transformation Equipment.	TBEA CO., LTD	HG Technology Co., Ltd	**SieYuan Electric Co., Ltd**	Tohoku Electrical Construction Co., Ltd	Great Wall Electrical
11	600105	Information Equipment - Communication Equipment - Communication Transmission Equipment.	Jiangsu Yongding Co., Ltd.	ZTE Corporation	HuiYuan Communication	Tongda Venture	**Xinmao Science And Technology**
12	600193	Synthesis - Synthesis 2 -	Chuangxing	**Shangha**	China Sports	Harbin High	Ancai High-Tech

No.	Stock Code	Industry	MBO Company	Other Companies In The Same Industry			
		Synthesis 3.	Resources Co., Ltd.	**itongdaventurecapitalco., Ltd.**	Industry Group Co.,Ltd	Tech Co., Ltc	
13	600275	Agriculture & Forestry & animal husbandry & Fishery – Fishery - Aquaculture	Hubei Wuchangyu Co., Ltd.	CNFC Overseas FishYilis Co., Ltd	Hunan Dongting Aquaculture Co.,Ltd	Shandong Oriental Ocean Sci-Tech Co.,Ltd.	**Shanghai Kaichuang Marine International Co., Ltd**
14	600295	Textile Clothing -- Clothing 2 -- Clothing 3	Inner Mongolia Eerduosi Cashmere Products Co., Ltd.	**HUAFANG TEXTILE Co., Ltd**	Tianshan Textile	Shenzhen Textile	Zhongfang Investment
15	600611	Transportation -- Bus 2 -- Bus 3	Dazhong Transportation (Group) Co., Ltd.	Nanjing Public Utilities Development Co.,Ltd	Sun Bus Holdings Limited	**SHANGHAI JIAO YUN CO., LTD**	Jiangxi Changyun Co., Ltd
16	600622	Transportation -- Bus 2 -- Bus 3	Shanghai Qiangsheng Holding Co., Ltd.	SHANGHAI JIAO YUN CO., LTD	**Nanjing Public Utilities Development Co.,Ltd**	Sun Bus Holdings Limited	Jiangxi Changyun Co., Ltd
17	600635	Public utilities - Gas 2 - Gas 3	Shanghai Dazhong Public	**China Media Group**	SHENERGY Co., Ltd	Bestsun Energy	SICHUAN DATONG GAS

No.	Stock Code	Industry	MBO Company	Other Companies In The Same Industry			
			Utilities Co., Ltd				DEVELOPMENT CO.,LTD
18	600779	Food And Beverage -- Beverage Manufacturing – White spirits	Sichuan Swellfun	Kweichow Moutai	Wuliangye Group Co., Ltd	Gujing Group	**LU ZHOU LAO JIAO Co., Ltd**
19	600884	Textile Clothing -- Clothing 2 -- Clothing3	Shanshan Co., Ltd (Nbss)	SHANG YING GROUP	**Youngor Group**	SICHUAN LANGSHA HOLDING LTD	Mailyard Group

4.2 Research Indexes Selection and Processing

4.2.1 Research Indexes Selection

4.2.1.1 Financial indexes

This study chose return on equity (ROE) as the main research index. ROE can synthetically reflect the company's financial situation as a whole. In related studies and literature, ROE is found to be a commonly used indicator of changes in enterprise performance. Therefore, in comparison of the financial development before and after the acquisition of the management of listed companies, we first selected the return on equity as a measure. At the same time, Du Pont analysis system was used to analyze the return on equity from the three aspects of solvency, operation ability and profitability, and the development statuses of the previous and later stages were compared.

The starting point of the research on financial performance is the four indexes in Du Pont analysis. The specific algorithm is as follows:

Return on equity = sales net profit × equity multiplier × total assets turnover rate (4.1)

$$\text{Net profit rate= net profit} \div \text{sales revenue} \tag{4.2}$$

$$\text{Equity multiplier = total assets} \div \text{net assets} \tag{4.3}$$

$$\text{Total assets turnover rate = sales revenue} \div \text{total assets} \tag{4.4}$$

After the MBO, the issue of management agency cost will also affect the company's cash flow to a certain extent. These changes are reflected in the capital investment. Wasteful investment will be reduced, free cash flow will increase, and will be paid to creditors or shareholders.

Among them, capital investment is divided into three aspects: fixed asset investment, intangible asset investment and research and development expenditure. In reality, detailed data on research and development expenditures are not clearly provided in the financial reports published by the vast majority of Chinese enterprises. The sample companies selected in this study have no detailed data in this regard. Therefore, in this study, we only discuss the investment expenditure of the company in both fixed assets and intangible assets, namely the fixed assets and intangible assets included in the capital investment. (This item is taken from the one item in the cash flow statement of combined annual report, that is, the cash paid in fixed, intangible and long-term assets).

On the basis of the Du Pont analysis method, in this study, eight indicators are added to the existing index system, namely EBITDA, dividend per share, net profit, operating profit, total profit, sales revenue, net non-operating income and net investment profit. Among them, the selection of EBITDA is based on the effect of changes in non-cash expenditure items and tax policies, excluding financial interest and amortization, on the company's performance. The dividend per share refers to the dividend after deducting the non-operating profit and loss. The choice is to exclude the large number of non-operating profit and loss effects caused by possible asset stripping, debt restructuring, disposal or sale of assets after the MBO. Therefore, the selected indicators reflecting profitability are: EBITDA, dividends per share excluding non-operating profit and loss, operating profit, total profit, sales income, net non-operating income and expenditure and net income of investment.

Equity multiplier itself reflects a basic index of the asset-liability ratio. In order to further analyze the enterprise assets structure and solvency in this research, the following indicators are added to the index system: net assets per share, total assets and the owners' equity liquidity ratio.

4.2.1.2 Industry indexes

At present, there are two main methods for calculating industry indexes: the weighted average (Mean) and the Median (Median) selecting method. In this study, the median method is used to calculate the industry indexes since the existence of outliers would interfere the estimation of average absolute industry indexes. At the same time, the index value of the sample enterprise adjusted by the industry is obtained by subtracting the industry index value.

Industry index value

$$\overline{X} = Median \tag{4.5}$$

Whereby, the sample company is X

value of sample after adjustment = sample value - industry index value = $X - \overline{X}$. (4.6)

4.2.1.3 Growth rate

Research on industry adjustment can take absolute and relative indexes. This study focuses on the change trend of the financial situation of the MBO sample companies. In order to facilitate the statistical analysis of the data of 19 sample companies, this study mainly uses the relative quantity index form, which is the growth rate index. The calculation formula of the growth index is as follows:

Index growth rate of sample enterprise:

$$Z_1 = \frac{X_1 - X_0}{ABS(X_0)} \tag{4.7}$$

Industry index growth rate：

$$Z_2 = \frac{\overline{X_1} - \overline{X_0}}{ABS(\overline{X_0})} \tag{4.8}$$

Index value of sample company after industrial adjustment:

$$Z_3 = Z_1 - Z_2 \tag{4.9}$$

4.2.1.4 Index comparison

In this work, Wilcoxon test was used to test the financial performance of the company

after the MBO. Since the number of the sample cases is relatively small in statistics and does not meet the requirements of normal distribution, the method of T test is not suitable for this study. The Wilcoxon test is accurate and useful for small sample studies. Therefore, we use Wilcoxon bilateral test to carry out the significance test of the sample data. In order to carry out statistical tests, this study dealt with financial indexes.

Sample company's first three years mean index：

$$X' = Average(X_{-3}, X_{-2}, X_{-1}) \tag{4.10}$$

Sample company's last three years mean index：

$$X'' = Average(X_1, X_2, X_3) \tag{4.11}$$

Sample company mean index increment：

$$Z_4 = \frac{X'' - X'}{ABS(X')} \tag{4.12}$$

Average index of the first three years of the industry：

$$\overline{X'} = Average(\overline{X}_{-3}, \overline{X}_{-2}, \overline{X}_{-1}) \tag{4.13}$$

Average index of the last three years of the industry：

$$\overline{X''} = Average(\overline{X}_1, \overline{X}_2, \overline{X}_3) \tag{4.14}$$

Industry mean index increment：

$$Z_5 = \frac{\overline{X''} - \overline{X'}}{ABS(\overline{X'})} \tag{4.15}$$

Mean industry index increment after adjustment of industrial:

$$Z_6 = Z_5 - Z_4 \tag{4.16}$$

4.2.1.5 The comprehensive value of the growth rate of the MBO firms after the industry adjustment

The above indexes are the financial data and the growth rate of each of the 19 different sample enterprises. For the convenience of statistical description, this study of takes the median of the data from the 19 samples enterprises every year growth rate of each index (a

total of 21 x 7 = 147 growth rate of financial indexes) and a result reflecting each year's financial indexes of the growth rate is obtained to describe the overall change trend of financial data after the MBO firms were adjusted by industry. The calculation formula is as follows.

The comprehensive value of the growth rate of the MBO firms after the industrial adjustment：

$$Z_7 = Median(Z_3) \tag{4.17}$$

The comprehensive value of the growth rate of the MBO firms：

$$Z_8 = Median(Z_1) \tag{4.18}$$

In this study, the changes of annual trend were drawn based on Z7 and Z8. According to this study, these two indexes, especially the Z7 index chart, can best reflect the overall financial performance changes of the MBO.

4.2.2 Handling of Financial Performance Indexes

In order to better see the change of management before and after the acquisition of the listed company's financial condition, this study selected financial data of the sample company three years before MBO, the year of MBO and three years after the MBO for analysis. So the financial data of a total seven years was used. We define the annual time value t=-3, -2, -1, 0, 1, 2, 3, in which t=0 was taken as the MBO year.

The financial data used in this study are from the Wind information database, and the data were analyzed with Excel and Spss16.0.

4.2.2.1 Change of annual growth rate after industrial adjustment index

1. 2,793 data were obtained to calculate 21 financial indexes in the seven years around the MBO of the 19 sample enterprises.

2. We calculated the corresponding data of the same industry matching company and 11,172 financial data were obtained.

3. We selected the median of the each industry containing the MBO companies.

4. We calculated the annual growth rate of each financial data of the sample companies

and the financial data of the pair companies. The median Z2 of the industry growth rate was selected and z1-z2 was used to obtain the annual growth rate of Z3 of the financial data of the sample company after the industrial adjustment index. 2,793 Z3 data were obtained.

In order to better see overall growth rate of the financial data of the MBO enterprise, the median is taken from the MBO sample companies each year, and 147 data (7 x 21 = 147) were obtained. In this way, a graph of change in the 21 financial data during the 7 years can be obtained, with a total of 21 graphs. These 21 charts are sub graphs that reflect the change in growth rate rather than absolute change, and the growth rate of the same industry is subtracted (Deducting the industry factors is to better see whether the changes in enterprise financial performance are caused by industrial factors or individual factors).The reason why we choose the sub graph of the change of growth rate is that the absolute quantity change is unable to compare the financial development of enterprises in different industries. Then we select the median from the sample MBO enterprises. The chart produced after such data processing can reflect the changes in the financial performance of the company before and after the MBO.

4.2.2.2 Annual growth rate change without industry index adjustment

In order to better see the difference between the data graph after the industrial adjustment and the data graph without industry adjustment, this study calculated according to the above calculation, and obtained Z1, as the annual growth of the 21 financial indexes in seven years. For each year, the median is selected from 19 sample companies to, and 147 financial data were obtained, leading to the index Z8. A change value can be established to reflect the change in the 21 financial data of the MBO enterprises in the seven years without industrial adjustment. We draw the graph and compare with the graph after industrial adjustment.

4.3 Analysis of Financial Performance Indexes

4.3.1 Du Pont Financial Analysis

It can be seen from the change trend chart of ROE that the return on equity of the sample company has changed significantly before and after the MBO. Specifically, return on equity of the company declined significantly in the first year after the MBO. Compared with the median level of the industry, the return on equity of the MBO firms is 12% behind.

However, before the MBO, the ROE of the sample companies exceeded or was equivalent to the median level of the industry. The return on equity has changed significantly in the second and third year after the completion of MBO. In the second year after the MBO, the sample company was still 6 percent below the industry level, while in the third year, the return on equity of the sample company exceeded the industry's growth rate by 8%, reaching the best level.

In Figure 4-2, the ROE with no industry adjustment has demonstrated a very significant trend change. Before the MBO, the return on equity was decreasing year by year, and the rate of decline was growing. The return on equity of MBO decreased 25% compared with that of the year before. After the MBO, the return on equity was still falling. The rate of decline was significantly reduced. In the third year after the MBO, the return on equity was no longer falling.

Combining the two graphs, it can be seen that the return on equity of the company before the MBO is decreasing year by year, and the biggest decline took place in the year of MBO. After the MBO, the return on equity of the company is still falling, but the range has been greatly reduced. In the third year after the MBO, the return on equity is no longer falling. After deducting the industry factor, the annual rate of return of ROE of the enterprise before the MBO is better than the average level of the industry. That is, the decline of ROE is less than that in the industry. But in the first two years after the MBO, the annual rate of return on net assets of the enterprise lagged behind the industry level. Especially in the first year after the MBO, the percentage of lagging behind reached the maximum, which was 12 percentage points, which means that it decreased 12% compared with other companies in the same industry. From the third year, the ROE exceeded the industry's growth rate by 8 percentage points, significantly surpassing the industry level，the highest in seventh year. The growth rate of return on net assets before and after MBO witnessed a great trend shift, which took place in the first year after MBO.

According to the Figure 4-2 analysis and charts, it is believed that MBO is a strategy for enterprises to cope with difficult situations. Before the MBO, the return on equity of the enterprise was slightly better than the industry average, but it was still in a declining state. With MBO, the comprehensive profitability of the enterprise was reversed, and after the MBO, the company started to surpass the industry average in the third year, and the return

on equity began to increase.

The DuPont analysis is conducted on the growth rate of each index from three aspects: profitability, operational capability and solvency.

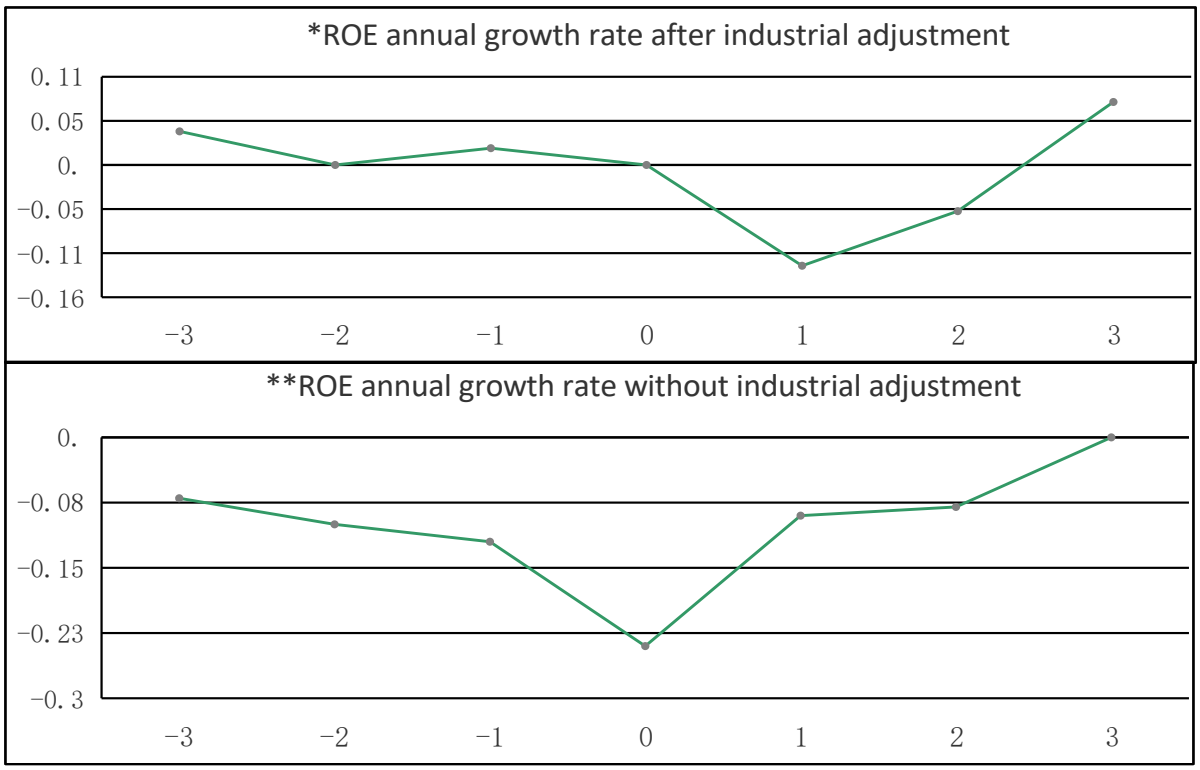


Figure 4-2 the ROE changes before and after the MBO of the sample companies

4.3.1.1 Profitability

Profitability is the ability of the enterprise to obtain profits, which comprehensively reflects the enterprise's marketing ability, the ability to acquire cash, and the ability to reduce costs and risks. In this study, net profit margin, tax rate depreciation and amortization profit are selected to reflect the profitability of the enterprise.

First, from the perspective of net profit margin (see figure 4-3), the company's net sales interest rate fluctuated significantly before and after the MBO. Specifically, the sales net interest rate of the three years before the MBO shows a significant downward trend. But in the year of MBO, the growth rate of net interest rate was lagging behind the growth rate of the industry, close to 2%, which was the worst. In the third year after the MBO, the trend of volatility increases. But its growth rate is greater than or equal to the industry average. The growth in net interest rates for the third year after MBO exceeded the industry's growth rate by nearly 6%.

As it can be seen from the Figure 4-3 , the annual growth rate of the net interest rate of sales without the industrial adjustment declined significantly in the third and second year before the MBO, with the maximal decline in annual growth rate being 15%. Net interest rates rose in the first and second years after the MBO, but fell again in the third year. Combining the two graphs, it can be seen that the net interest rate of the MBO firms is higher than the industry level, and they are the high-quality companies in the industry. The company's net interest rate on sales before the MBO fell, but it surpassed that of the same industry, whose decline was less than that of the same industry, but the advantage was narrowing. The MBO was a turning point. After the MBO, the net interest rate of sales began to increase, and the advantage was expanding compared with the growth rate of the same industry. The graphic conclusion is similar to that of the return on equity.

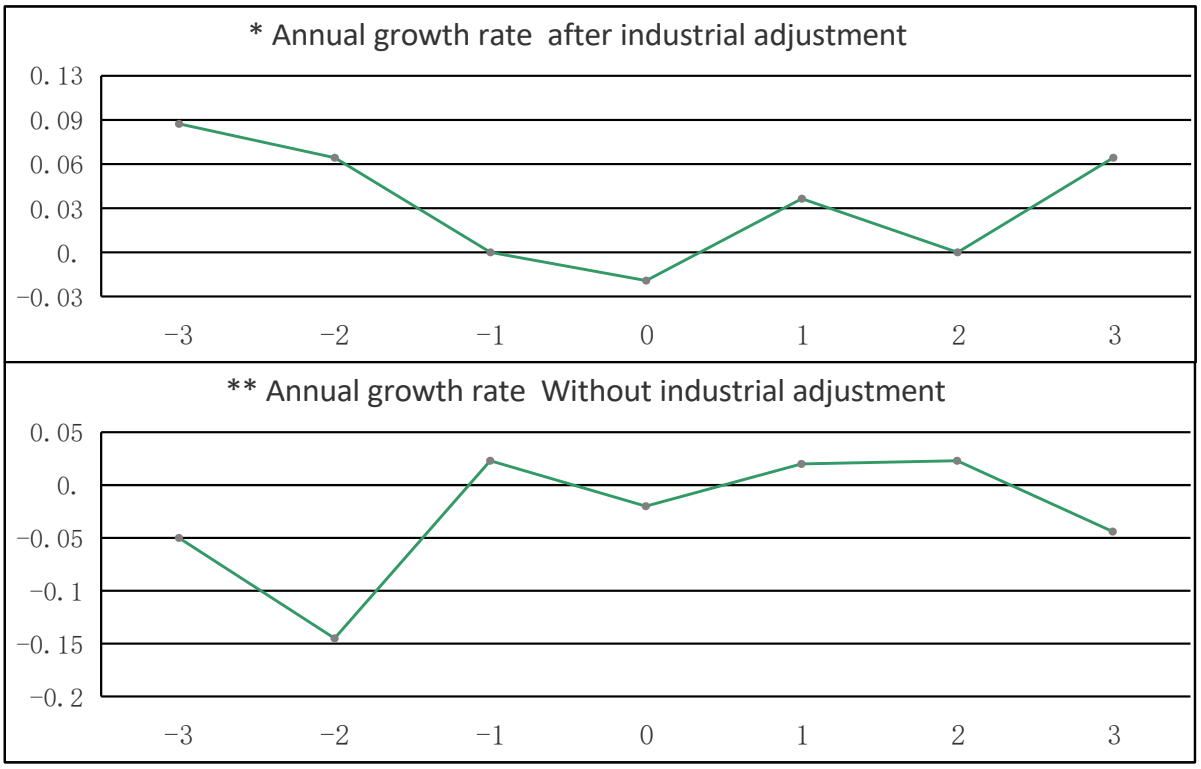


Figure 4-3 Changes in net growth rate before and after the MBO of the sample company

It can also be seen from the profit before interest, tax, depreciation and amortization (EBITDA) that the growth of profit index has been fluctuating greatly. There was a rapid increase from the first three years to the previous year. The EBITDA growth rate was the median of the industry in the MBO year and two years after the MBO. In the third year after the MBO, there was a rapid increase, and the companies' EBITDA were over 4%.

It can be seen from Figure 4-4 that, without industry adjusting, the rate of interest rate

growth before interest, tax, depreciation and amortization witnessed large fluctuations. This shows that there might be a big positive and negative fluctuation for the sample company earnings and this kind of volatility is mainly due to the change of the ups and downs in the industry.

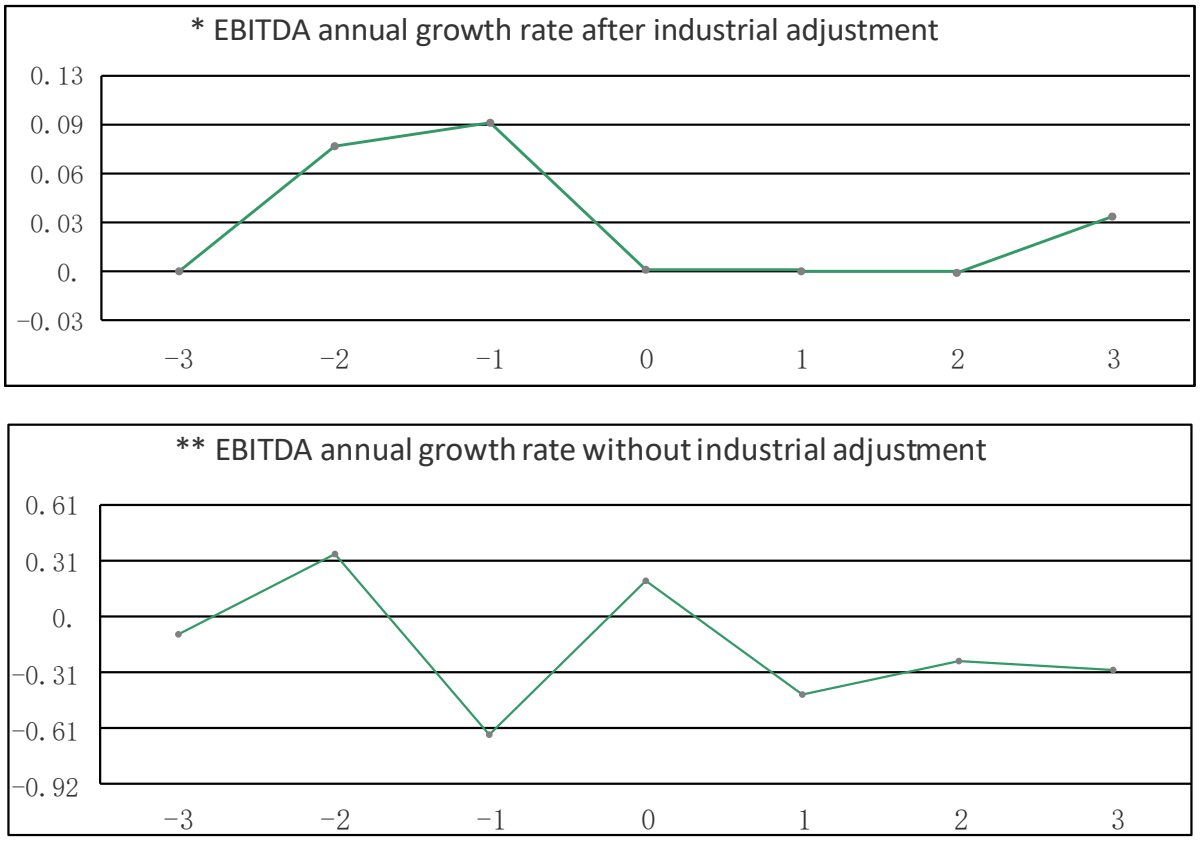


Figure 4-4 EBITDA changes before and after the MBO of the sample companies

4.3.1.2 Operating Capability

The assets' operating condition of enterprise assets is directly related to the degree of capital appreciation. The faster the capital turnover, the stronger the profitability is and the faster the capital appreciation is. Total assets turnover rate is an index of the company's operating capacity. As it can be seen from Figure 4-5, the growth rate of the total assets turnover of the company is basically consistent with the industry level before the MBO. However, after the MBO, compared with the industry level, except for the slight 1.5% decline in the first year, the rate of change of the remaining years exceeded that of the industry level. In the third year after the MBO, it exceeded the industry level by close to 3%, reaching the maximum. Combining the following figures, it can be concluded that the asset turnover rate of the industry after the MBO is falling sharply, while the management company's

performance is better than the industry level. This shows that, after the MBO, the company's operating capability has been improved, enjoying prominent industrial advantages.

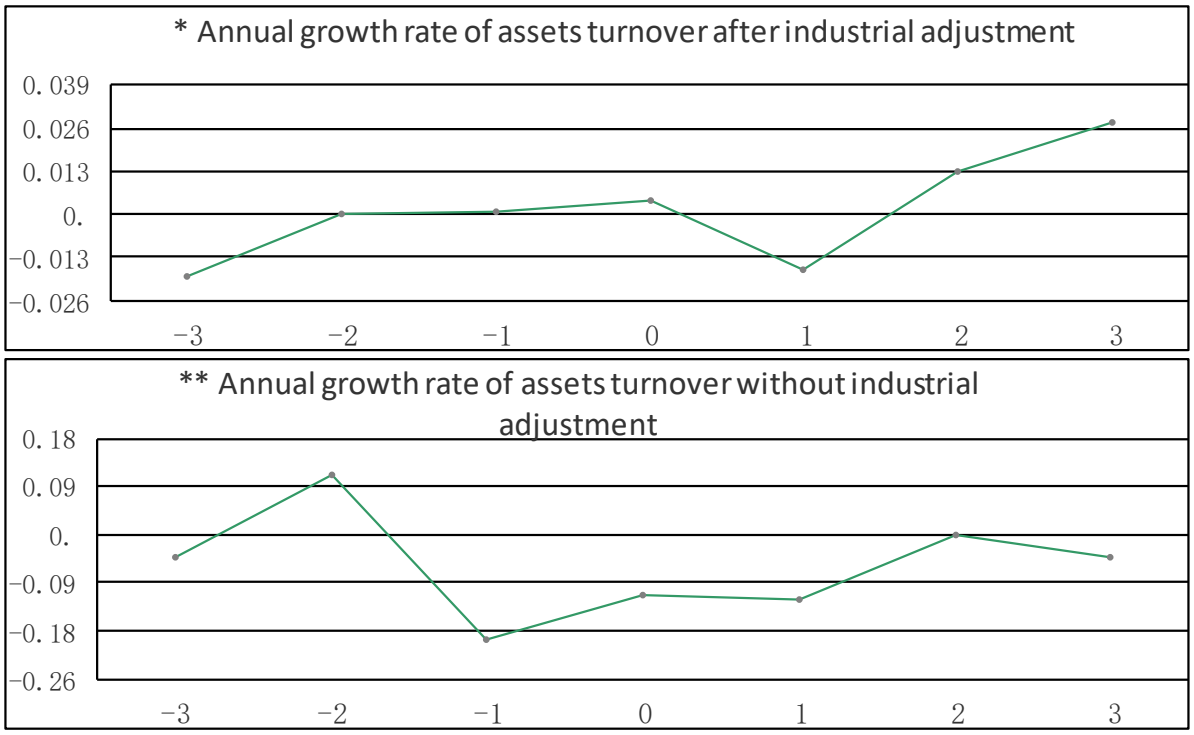


Figure 4-5 Changes of total assets turnover rate before and after the MBO of the samples

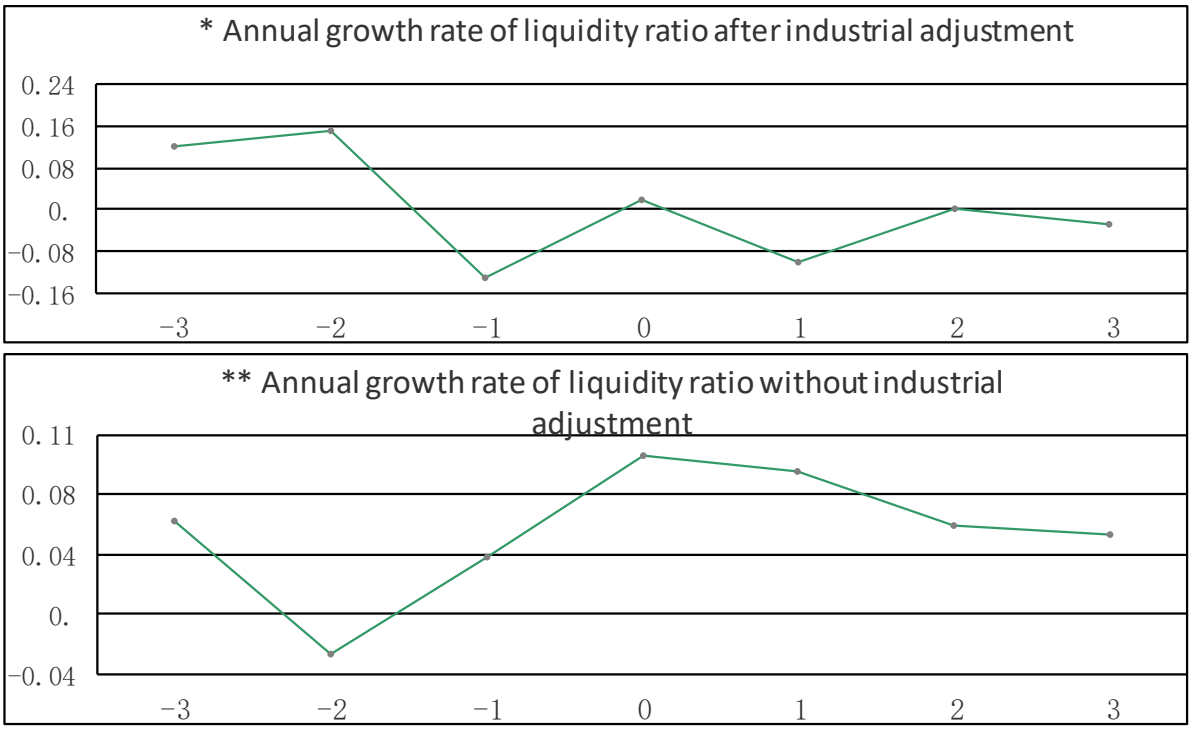
4.3.1.3 Solvency

Solvency is the capacity or guarantee of the enterprise to pay off the debt, which reflects the degree of cash guarantee of the enterprise to repay all the due debts. For enterprises, maintaining a good solvency is an important prerequisite for enterprises to continue to borrow or operate. In this study, the solvency of an enterprise includes two aspects: short-term solvency and long-term solvency. This study selected the liquidity ratio and equity multiplier to represent the solvency of the company. The liquidity ratio measures the short-term solvency of the listed companies, while the equity multiplier reflects the long-term solvency of the listed companies.

Firstly, the solvency of a company can be analyzed by its liquidity ratio. As it can be seen from the chart below, the growth rate of MBO is less than 10% below the industry average and the gap is narrowing. In Figure 4-6 without the industry adjustment, the liquidity ratio of the sample company improved after the MBO with a positive growth.

Secondly, the companies' solvency can be analyzed through the equity multiplier (The equity multiplier = the total assets/shareholders' equity, therefore, the equity multiplier = 1/

(1 - asset-liability ratio), and the equity multiplier changes in the same direction as the



asset-liability ratio).

Figure 4-6 Changes in the liquidity ratio before and after the MBO of the samples

As it can be seen from figure 4-7, the equity multiplier of the MBO firm changed after the first decline, and the turning point occurred in the MBO. In the first year after MBO, the growth rate of the equity multiplier of the sample enterprise was 10%, more than 1.5% of the growth rate of the same industry, which also indicated that the growth rate of the same industry was also very high. But in the third year after MBO, the equity multiplier for the sample companies grew by more than 4% in the same industry. This shows that the equity multiplier of the samples after the MBO reached the maximum in the first year, and the subsequent growth rate decreased gradually. But the growth rate of the equity multiplier was rising relative to that of the same industry, which means that the equity multiplier in the same industry is falling faster.

Therefore, during the study period, the equity multiplier in the first year after the MBO by management was the fastest and most varied. And then the growth rate of equity multiplier is declining. However, compared with the same industry, the growth rate of the equity multiplier after MBO is obviously rising. According to the definition of equity multiplier,

the larger the equity multiplier is, the higher the asset-liability ratio is, the greater the risk of enterprise is and the worse long-term solvency is. Therefore, no matter whether the industry level is deducted or not, the debt ratio of the samples after the MBO is rising, and the long-term solvency declines.

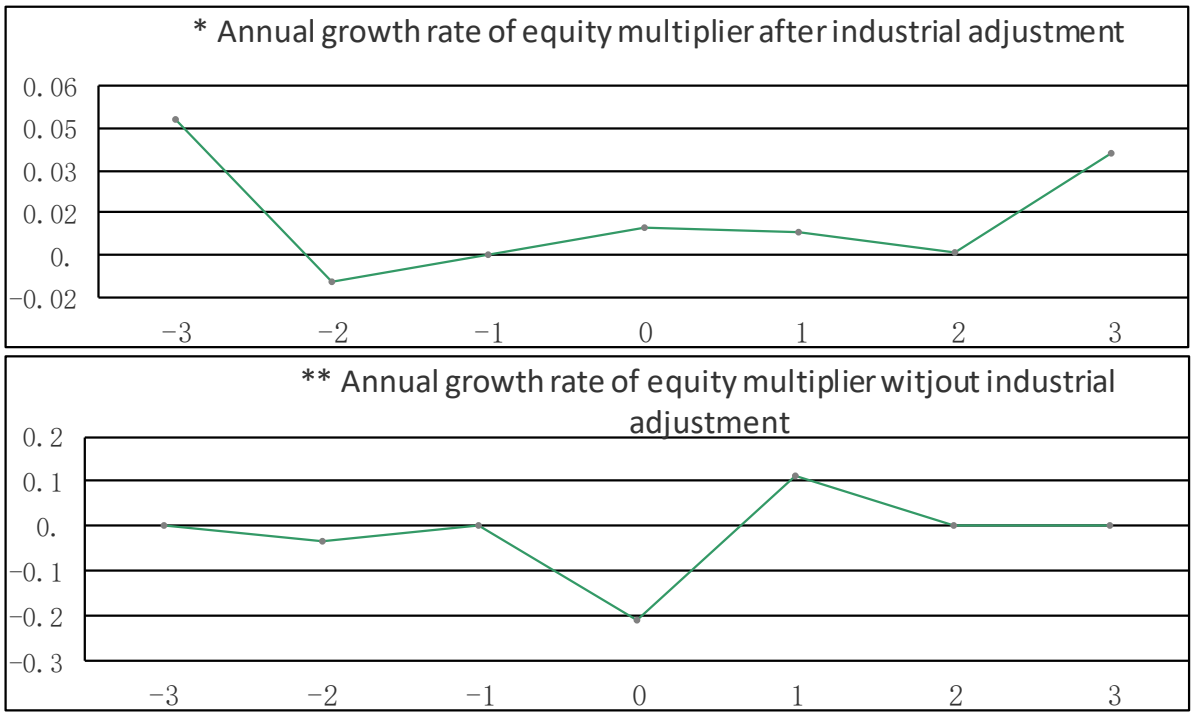


Figure 4-7 Changes in the equity multiplier before and after the MBO of the samples

4.3.2 Analysis of Cash Flow Indexes

We selected four indexes of operating activities, investment activities, financing activities and advanced net increase to analyze the cash flow changes before and after the MBO.

4.3.2.1 Net Cash Flow from Operating Activities.

Figure 4-8 shows that the growth rate of net cash flow index is relatively stable before MBO while after the MBO the growth index showed a trend of decline after rising first. From the perspective of the industry without deduction, it revealed a significant decline in the index. Overall, after MBO the net cash flow index of business activities fell. After deducting industry factors, net cash flow is behind or equivalent to industry both three years before and three years after the MBO. The second year after the MBO it significantly lagged behind the industry level by 80%, while in the third year after MBOs it substantially exceeded the

industry average by nearly 60%.

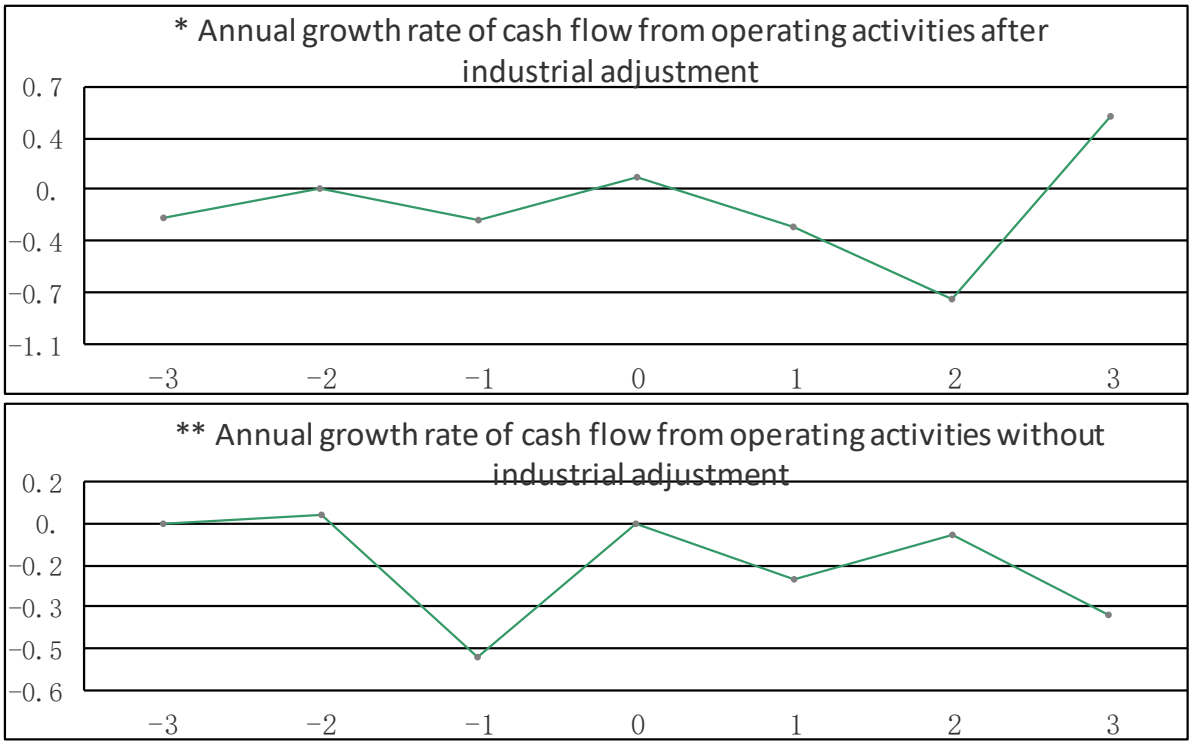


Figure 4-8 Changes in cash flow of operating activities before and after the MBO of the samples

This indicates that the net cash flow of the sample enterprise operating activities is very volatile. On the whole, the cash flow of the management after the MBO declined.

4.3.2.2 Net Cash Flow from Investment Activities.

By figure 4-9, after deducting the industry factors of MBO firms, the growth rate of investment activities cash flows indexes show an upward trend after falling first, especially in the third year after the MBO and rate is 150% higher than the industry growth rate. However, the cash flow of investment activities of sample enterprises without industry adjustment showed a downward trend.

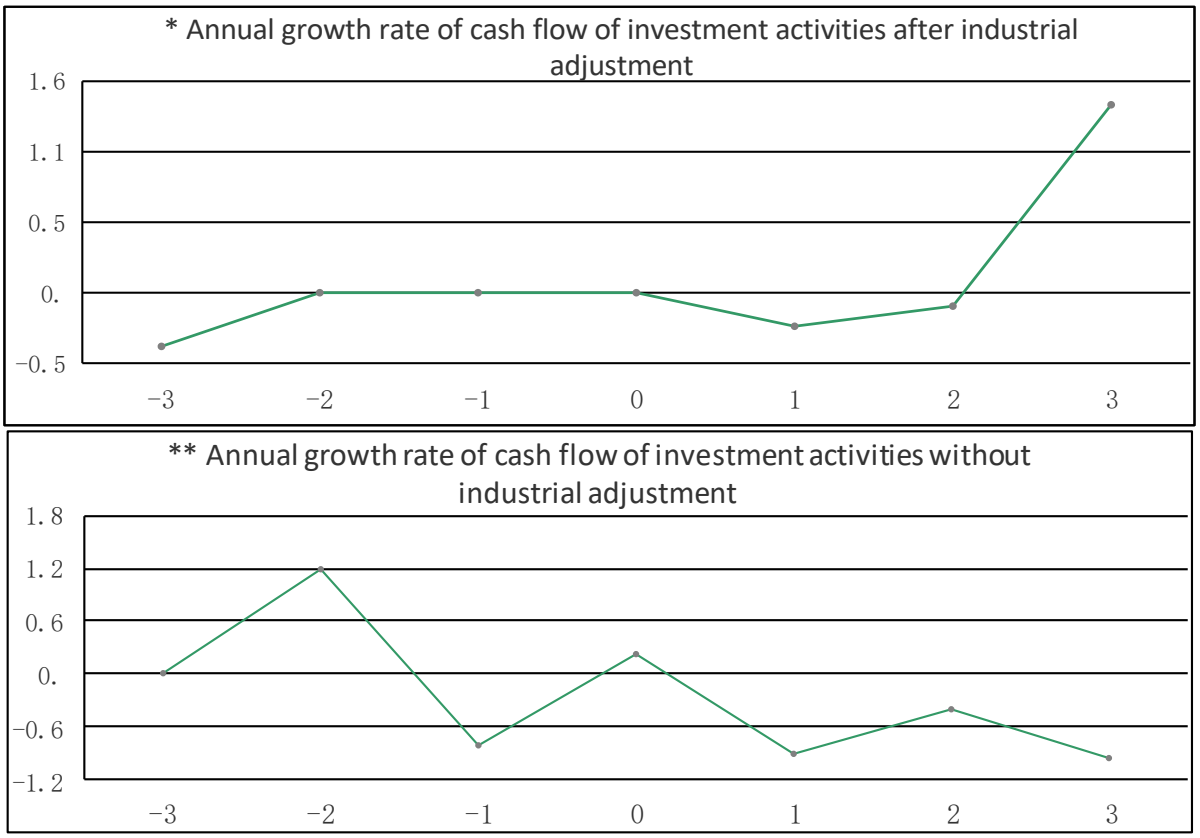


Figure 4-9 Changes in cash flow of investment activities before and after the MBO of the samples

This indicates that the cash flow of the investment activities of the enterprises after the MBO is showing a declining trend, which also indicates the increase of the enterprise's outbound investment activities, namely the cash out flow.

Thirdly, we analyzed the net cash flow generated from the financing activities. As it can be seen from Figure 4-10, the growth rate of cash flow of financing activities, whether adjusted by the industry or not, there had been a very large fluctuation. Therefore, it is difficult to draw a clear conclusion.

Finally, we analyzed it from the perspective of the net increase in cash and cash equivalents.

It can be seen from Figure 4-11 that without industry adjustment, the cash flow growth rate of the samples showed a declining trend of falling before the MBOs. But the decline is moderating after MBO and there was a positive trend of growth after three years after the MBO. After excluding the industry factor, the growth rate of the index fluctuates greatly (the reverse fluctuations appeared). Overall, the growth rate of net cash flow after MBOs has improved. Therefore, it is believed that after the MBO of the listed companies, there is a

positive growth in net cash flow, and the growth rate is rising.

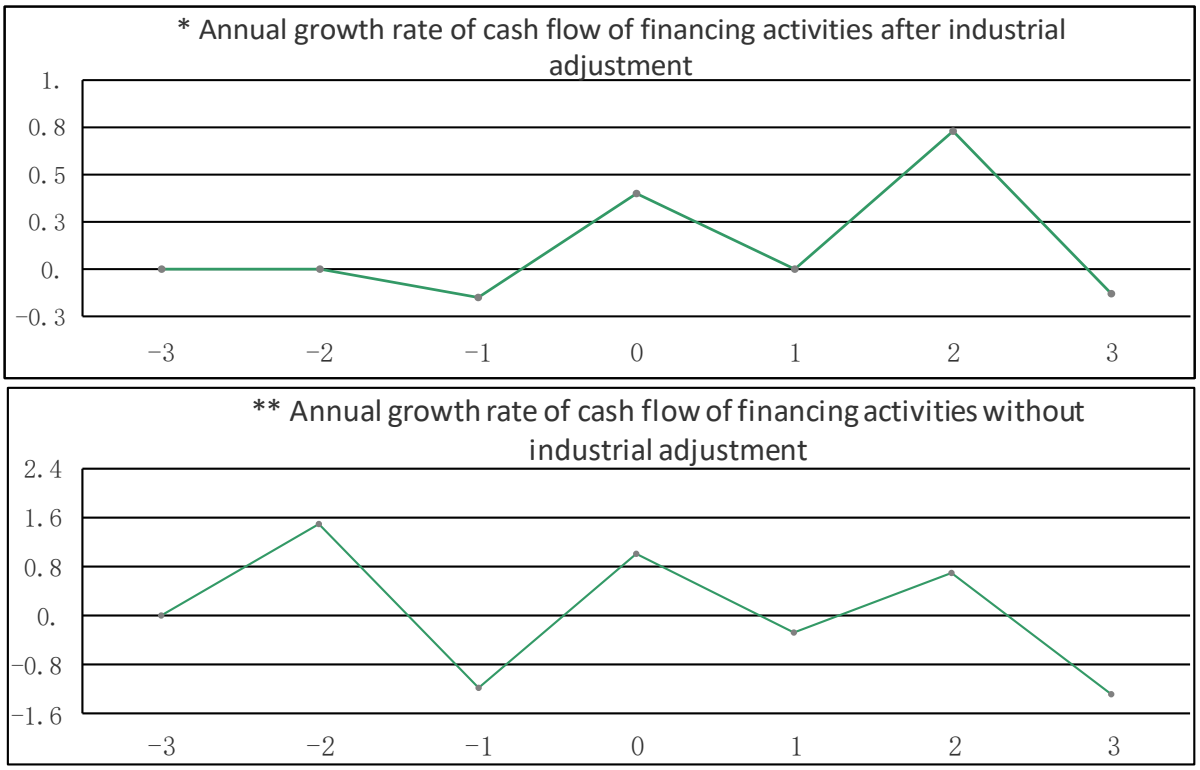


Figure 4-10 Cash flow changes before and after MBO of the samples

4.3.3 Scale Index Analysis

As it can be seen from Figure 4-12, the asset growth rate of the company is positive after the deduction of industry factors. The assets of the sample companies have been growing relative to the industry. The unadjusted annual growth rate of assets fluctuates. But overall, the size of the assets is growing.

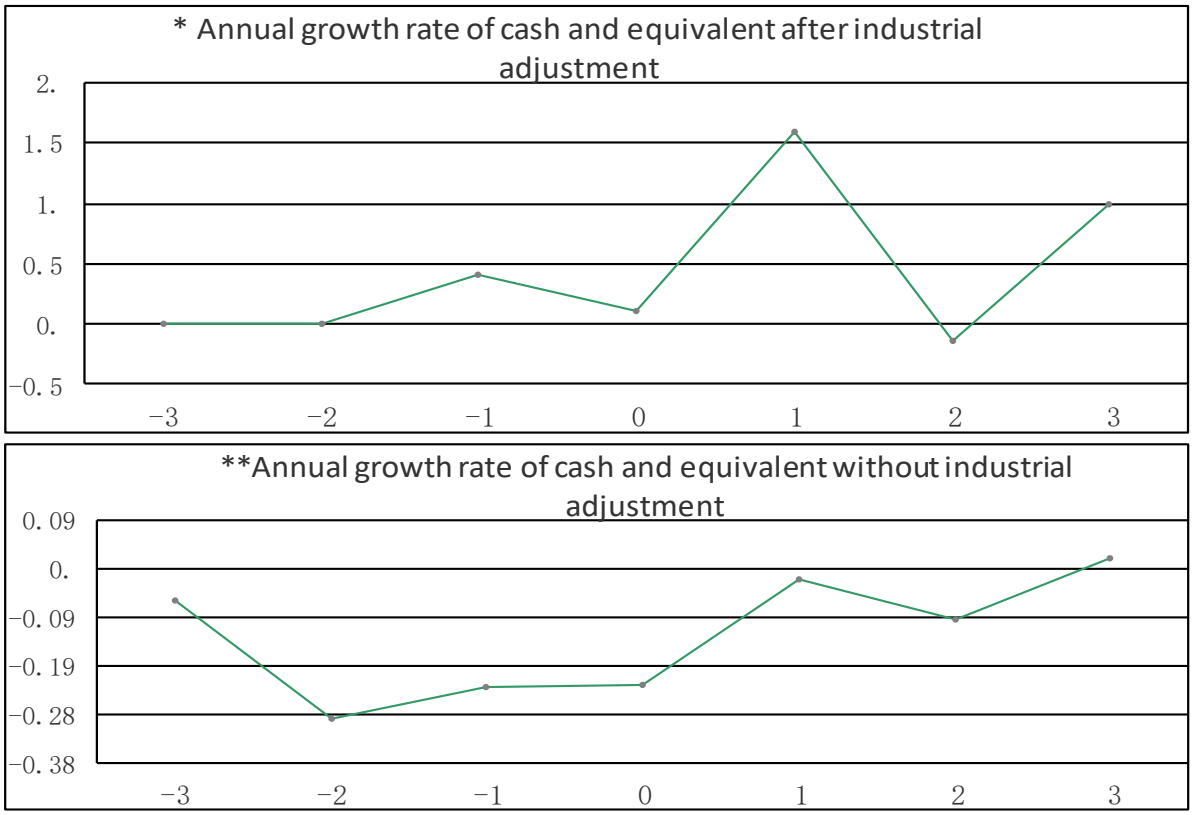


Figure 4-11 The annual growth rate of cash and equivalent before and after the MBO of the samples

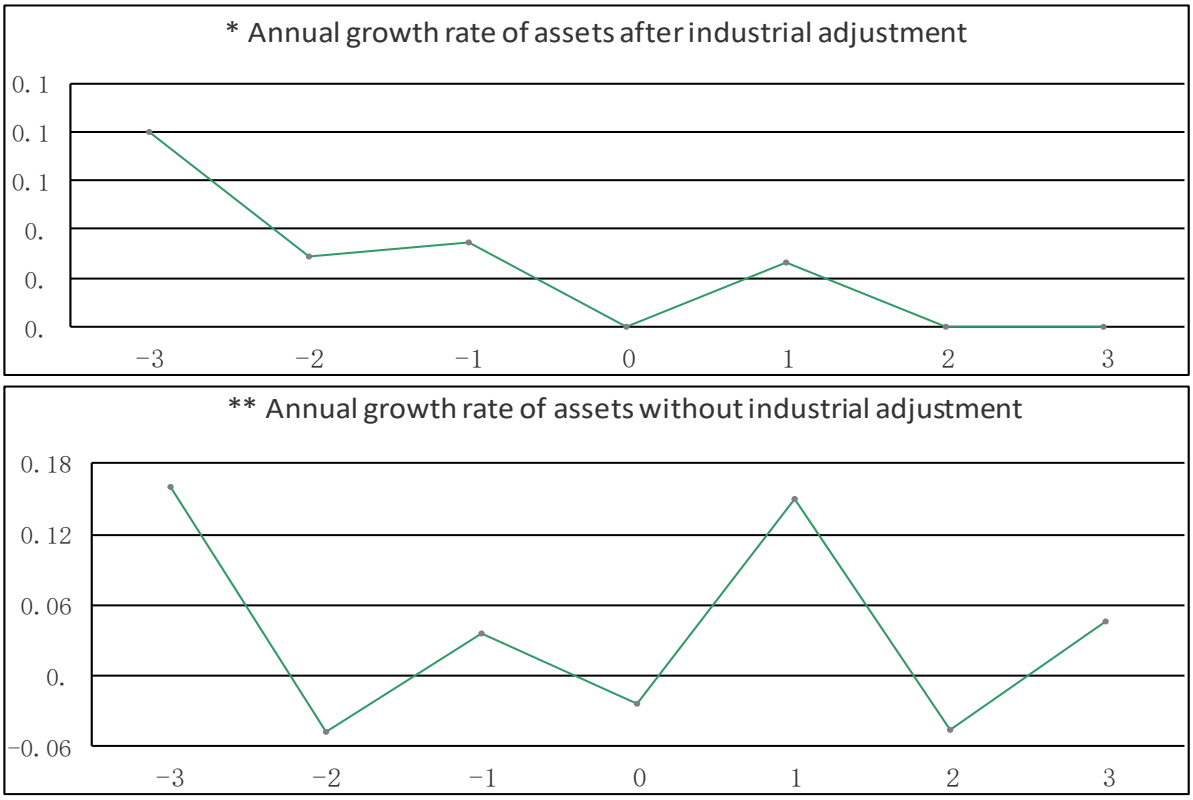


Figure 4-12 Total assets change before and after the MBO of the sample enterprises

4.3.4 Investment Index Analysis

As it can be seen from Figure 4-13, the ups and downs of capital investment changed greatly before the MBO, but it was basically the average level of the industry after the MBO. On the basis of the ratio of industry adjustment, the capital investment was increasing before the MBO, and the decline trend occurred after the MBO. As a result, the overall trend of capital investment after the MBO of the sample enterprises declined.

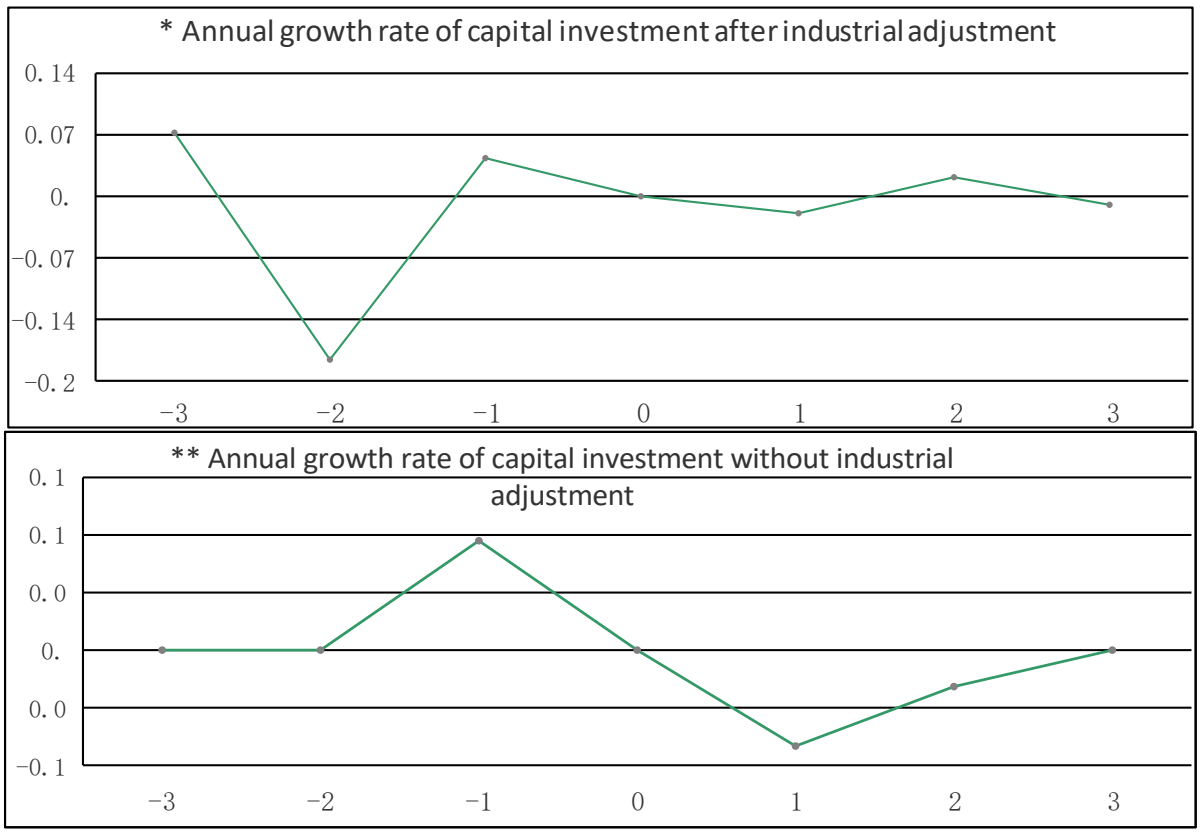
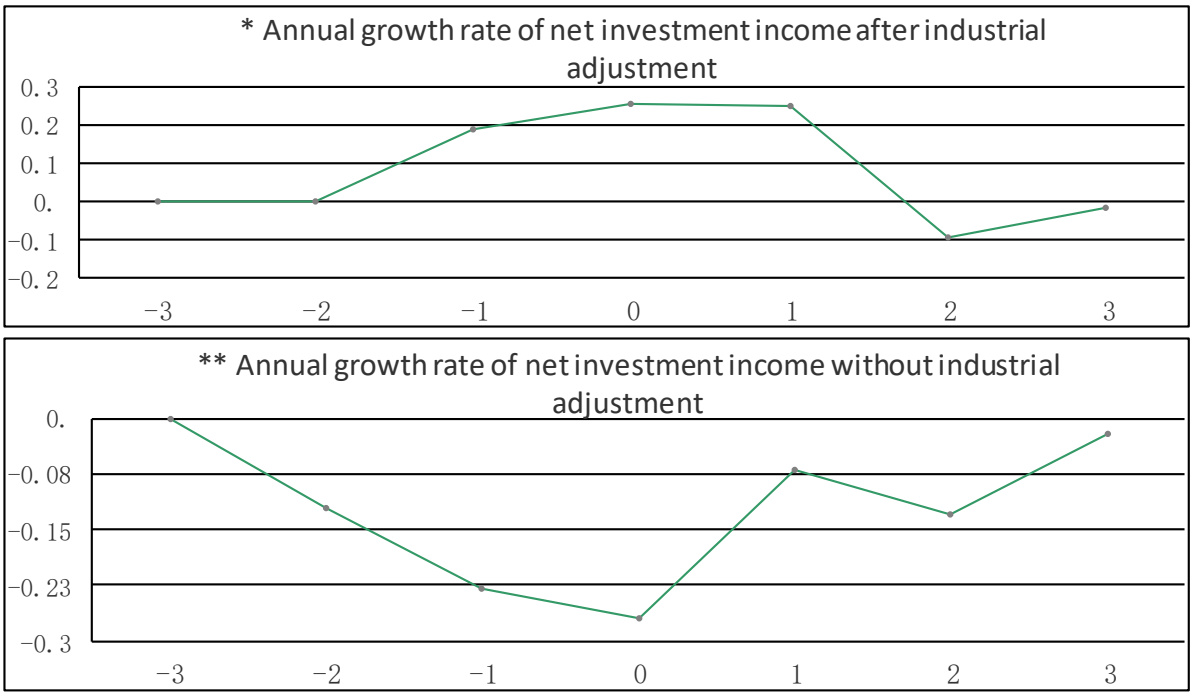


Figure 4-13 The change of capital investment of MBO of the sample

From the perspective of net investment income, according to the analysis of Figure 4-14, without considering the industry factors, the investment income of sample enterprises significantly exceeded the trend of the same industry in the three years before, after and of the MBO. The return on investment was 20 to 30 percent in the three years before, after and of the MBO. But the trend was not maintained, and after the second year of MBO, it was basically in line with the industry. The rate of change of investment income without industry adjustment showed a significant downward trend before MBO, which was significantly

reversed after MBO.

Therefore, before the MBO, the investment income of the company deteriorated continuously, and the trend of investment income declined after MBO was controlled.Figure



4-14 Changes in the investment income before and after MBO of the sample enterprises

4.3.5 Analysis of Changes in Financial Performance

The financial indexes based on descriptive of statistics description only give a direct interpretation. In order to answer whether the corporate performance has been improved significantly before and after the MBO, this study aims at the change of the samples before and after the MBO financial index to carry out the statistical significance test. The matching comparison test of the financial indexes before and after the improvement of the MBO firms is not suitable for the matching sample T test because of the relatively small sample size. For small sample studies, the Wilcoxon signed rank test is a more accurate and useful test method. Its basic idea is to analyze the two paired samples (i.e. the same sample company of paired comparison before and after an event occurred). For this study, the matching samples are taken by the management of the company before and after MBO, and whether the distribution of the two samples is stored.

The original hypothesis was that there was no significant difference in the overall distribution of the two paired samples; that is to say, there was no significant change in the

financial indexes of the company before and after the MBO. The alternative hypothesis is that there is a significant difference in the overall distribution of the two paired samples, that is, the financial indexes of the company changed significantly before and after the MBO. In this work, Wilcoxon signed rank test is adopted to test the sample data.

4.3.5.1 Selection of the test index

In the Wilcoxon signed rank test, we mainly studied the changes of financial performance status before and after MBO of the sample company from five aspects:

1. Profit scale: our choices are net profit and EBITDA index.

2. Profitability or efficiency (no size impact): The above results and the research on the changes before and after the MBO in and out of China revealed that many target companies increase their profits by expanding their assets and sales after MBOs. However, the changes in assets scale and profit scale do not represent the improvement of enterprise performance, and can even represent the decline of operating efficiency. Only after deducting the influence of scale, can we reflect the change of business performance.

3. Cash flow: as mentioned in the second part of this chapter, the settlement of the agency cost after the MBO is expected to affect the cash flow of the enterprise. Particularly in capital investment, these changes (Jensen, 1986), namely the wasteful investment after the MBO would be reduced, and the enterprise's free cash flow should increase, and be paid to the creditors and shareholders. Here, we choose the net increase in cash and cash equivalents.

4. Asset size: select the total assets index.

5. Operating efficiency: see table 4-4 for details.

Table 4-4 The selection of financial indexes with Wilcoxon signed rank test

Research	Financial index
Earnings scale	Net Profit
	EBITDA
Profitability	ROE（Deduction/weighting）
	Net profit margin
	Operating profit/revenue
	Earnings per share excluding non-operating profit
Cash flow	Net increase in cash and cash equivalents
Asset size	Total assets

Operating efficiency	Total assets turnover

4.3.5.2 Test methods and results of Wilcoxon

1. The definition of pair comparison

To remove the effects on the financial indexes in certain years because of the enterprise earnings management or other special circumstances, iron the data fluctuations, we take the data of the first three years after MBO to represent the financial situation before the MBO [Equation (4.10)] and take the average of the three years after MBO as the financial status of the management after the MBO [Equation(4.11)] to test and match the financial position after the MBO and the financial condition before the MBO with Wilcoxon and analyze whether there are differences in the financial status of the target company before and after management.

2. Adjustment of Industry Impact

Taking into account the overall economic situation and the economic cycle of the industry and other factors, the financial situation of the management after the MBO should be adjusted. Specifically, we use the change rate of the management of the sample company before and after MBO [Equation(4.12)] minus the median [Equation(4.15)] of the industry change rate in the same period, that is, [Equation(4.16)]. (See the introduction to specific industry adjustment methods mentioned above).

3. Test Results and Conclusion

We obtained the statistics of the financial index of adjust sample companies after industry adjustment. The original hypothesis is that there is no significant change in the company's financial indexes before and after the MBO, that is the rate of change is equal to zero. One the other hand, the alternative hypothesis is that there are significant changes before and after the MBO, which is the rate of change is not equal to zero. Moreover, according to the special case of the Wilcoxon test, rank and inspection of the original hypothesis and T test, not necessarily two columns of data do not necessarily mean values are equal to zero (rate), but rather a column data is greater than another column to compare data. Specifically, (1) the original hypothesis that the rate of change after the deduction of industry factors is positive; (2) The original hypothesis that the rate of change after the deduction of industry factors is negative. The test results are shown in Table 4-5.

Table 4-5 The financial indexes and test of the sample companies before and after MBO (without the industry impact)

Financial index	Sample size	Mean rate of change of 19 companies	Number of companies with positive the rate of change	Number of companies with negative rate of change	Z test statistics	Double-tail P
Net Profit	19	-88.1%	5	14	-1.127（a）	0.260
EBITDA	19	92.7%	10	9	-0.644（b）	0.520
ROE	19	-71.2%	13	6	-1.248（b）	0.212
Net profit of sale	19	-69.4%	9	10	-0.885（b）	0.376
Operating profit/revenue	19	10.2%	9	10	-0.926（b）	0.355
EPS Excluding non-operating profit	19	84.3%	12	7	-0.483（b）	0.629
Net increase in cash and cash equivalents	19	-255.0%	8	11	-0.282（a）	0.778
Total assets***	19	-20.8%	3	16	-2.817（a）	0.005
Total assets turnover	19	15.8%	12	7	-1.207（b）	0.227

Note: the data required are all from WIND information database, Where, (a) represents the original hypothesis that the rate of change after deducting the industry factor is positive, (b) the original hypothesis that the rate of change after the industry factor is deducted is negative, (c) is zero; *** indicates that at the significant level of 1%, ** is significant at 5% significant level, and * indicates significant at 10% significance level.

From table 4-5 can be seen that the statistical results of the survey of the financial indexes of the company before and after the MBO are deducted from the industry factors, and there are no significant differences except for one index. Only one variable of the total assets growth rate saw a significant decline in relative industries, with a significance level of 1%.

4.4 Regression Analysis

4.4.1 Descriptive Statistical Analysis

In this work, the sample enterprises are classified and counted according to the MBO. Table 4-6 is the annual data statistics of various business indexes of MBO enterprises, and the annual data statistics of various business indexes of enterprises without MBO are shown in table 4-6.

According to the tables 4-6 and 4-7, we can find that the average return on equity of the MBO firms is 7.096%, which is higher than the average return value of the enterprise with no MBO. The average profit growth rate of MBO enterprises is 9.27%, higher than that of enterprises without MBO. The average EBITDA of MBO enterprises is 163.92 million, higher than that of enterprises without MBO. Through the above financial indexes, it can be indicated that profits of the companies with MBO are better than that of those without MBO.

However, the average turnover rate of the total assets of MBO enterprises is 0.5906, lower than that of enterprises without MBO (0.6964). It is shown that the capability of MBO enterprises is weaker than enterprises without MBO.

Table 4-6. Descriptive statistics of MBO enterprises

	mean	median	maximum	minimum	standard deviation	Observed value
1 ROE（%）	7.09614	8.28	28.57	-99.98	13.02001	114
2 Net profit of sale（%）	9.272632	7.92	60.87	-77.28	19.76347	114
3 Equity multiplier	2.02193	1.91	4.29	1.12	0.648474	114
4 Total assets turnover	0.590614	0.5	1.97	0	0.407969	114
5 Net cash flow net	14272.27	4414	189703.7	-25557.9	30901.25	114

worth (10,000)						
6 Net cash value of investment (10,000)	-13279.9	-7042.08	30541.23	-126645	22456.86	114
7 Net cash flow value (10,000)	2358.824	0	81795.09	-104425	23090.69	114
8 Net increase in cash and cash equivalents (10,000)	3375.078	608.535	67942.26	-25544.8	14266.87	114
9 Capital investment (10,000)	11011.73	4478.185	148521.2	0	18960.87	114
10 EBITDA	11753.45	7261.92	54457.56	-9927.24	13492.5	114
11 EPS（Yuan）	0.154386	0.12	0.88	-0.59	0.233265	114
12 Net profit (10,000)	8529.835	6021.175	49860.93	-17910.1	10303.23	114
13 Operating profit (10,000)	10475.94	6949.465	65330.98	-14420.9	12208.78	114
14 Total profit (10,000)	10611.58	7372.955	66820.57	-21182.2	12262.26	114
15 Sales revenue (10,000)	150733.5	67275.39	1920088	3600.75	264495.3	114
16 Net operating income (10,000)	-176.398	-25.6	2945.9	-10282.9	1399.385	114
17 Net investment income (10,000)	1294.089	267.455	15398.86	-7423.21	2933.12	114
18 BPS (Yuan)	3.097456	3.005	7.01	0	1.329658	114
19 total assets（10,000）	208066.7	132803.4	1096481	10884.78	195766.2	114
20 Owners equity （10,000）	101909.4	82830.66	351896	5324.94	78237.51	114
21 Current Ratio	1.810789	1.495	9.66	0.41	1.237569	114

The investment net cash flow of an MBO enterprise averages - 132.79 million Yuan, -96.3753 million Yuan lower than those without MBO; the net cash flow of MBO enterprise averages 142.72 million Yuan, 90.3 million Yuan higher than the enterprise without MBO ; financing average net cash flow of MBO enterprise is 23.58 million Yuan, 43.71 million Yuan lower than enterprise without MBO; the net increase in cash equivalents of MBO enterprise averages 33.75 million Yuan, 37.419 million Yuan lower than those without MBO. The above cash flow index shows that after the MBO, the listed companies can find new growth points,

and the operating ability is higher than that of non-MBO enterprises. According to the total assets index, the mean value of MBO enterprise assets is 208.666 million Yuan, and the mean value of non-MBO enterprises is 147.628 million Yuan. We found that MBO enterprises usually have larger assets than non-MBO enterprises. According to the index of net income of capital investment and investment, the mean value of MBO enterprise capital investment is 139.26 million Yuan, 93.82 million higher than that of non-MBO enterprises Yuan. The net income of MBO enterprises was 30.16 million Yuan, 7.6 million Yuan higher than non-MBO enterprises.

Table 4-7 Descriptive statistics of enterprises without MBO

	mean	median	maximum	minimum	standard deviation	observed value
1 ROE（%）	5.475789	6.775	441.45	-574	73.92764	114
2 Net profit of sale（%）	5.10886	6.38	97.1	-240.05	35.12857	114
3 Equity multiplier	2.729649	1.81	37.74	-2.9	4.372107	114
4 Total assets turnover	0.696404	0.51	3.2	0	0.590641	114
5 Net cash flow net worth (10,000)	9030.022	3193.455	95203.56	-20025.7	17416.6	114
6 Net cash value of investment (10,000)	-9637.53	-2724.16	21924.1	-91107.2	18527.64	114
7 Net cash flow value (10,000)	4371.074	0	95681.79	-70389.8	21863.54	114
8 Net increase in cash and cash equivalents (10,000)	3741.966	0	86290.22	-68635.2	17538.5	114
9 Capital investment (10,000)	9382.176	3935	85853.06	0	13923.36	114
10 EBITDA	10226.82	5593.325	82119.1	-28373.5	16392.06	114
11EPS（Yuan）	0.073684	0.06	1.19	-3	0.457553	114
12 Net profit (10,000)	6315.503	3888	45468.04	-41836.7	12133.91	114
13 Operating profit (10,000)	7416.208	4466.74	51345.19	-36977.7	13014.64	114
14 Total profit (10,000)	7720.447	4836.095	53698.14	-41713.4	14043.83	114
15 Sales revenue	124509.3	48981.2	1529938	0	238973.4	114

	mean	median	maximum	minimum	standard deviation	observed value
(10,000)						
16 Net operating income (10,000)	98.235	22.565	13047.46	-26805.9	2891.414	114
17 Net investment income (10,000)	760.9738	278.255	13019.69	-13871.8	3016.243	114
18 BPS (Yuan)	2.534474	2.31	7.6	-0.49	1.648501	114
19 total assets（10,000）	147628.3	98631.46	739413.7	0	147968.5	114
20 Owners equity （10,000）	81738.28	55303.09	617674	-2612.59	102176.9	114
21 Current Ratio	1.868421	1.27	11.79	0	1.774672	114

4.4.2 Regression Analysis And Conclusion

According to the analysis of the financial performance indexes in section 4.3, a Double Difference (Difference in Difference, DID) model of all the above financial indexes was established to explore the listed companies after MBO, and whether the financial indexes on the statistics have changed for the better.

$$Performance = C + \beta_1 AFTER + \beta_2 MBO + \beta_3 AFTER*MBO + \beta_4 TOTAL\_ASSET \quad (4.19)$$

In the regression equation, the explanatory variable includes the various financial performance indexes analyzed in section 5.3. AFTER is a dummy variable. 0 represents the selected year before the acquisition time. 1 indicates the selected year after the MBO. MBO is a dummy variable. 0 means no MBO. 1 represents MBO. Whether the coefficient of MBO is remarkable or not can be used to determine whether there is a selectivity deviation between the MBO enterprises and the enterprise without MBO. AFTER*MBO is the interaction term of AFTER and MBO, whether the coefficient is significant enough to judge the performance of MBO behavior. TOTAL ASSET is the total asset, which is put into the equation as the control variable.

4.4.2.1 Select the Dupont Analysis Index for Analysis

1. Take ROE as explanatory variable

According to the regression results in Table 4-8, no variables are significant. It shows that after controlling the selectivity deviation, the MBO has no effect on ROE.

2. Profitability Index Analysis

(1) Take the net interest rate as explanatory variable

Table 4-8 Return on equity

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.231563	0.207285	1.11712	0.2651
MBO	0.169091	0.204008	0.828845	0.4081
TOTAL_ASSET	-0.008007	0.076842	-0.104198	0.9171
AFTER*MBO	-0.266996	0.28769	-0.928069	0.3544
C	-0.136373	0.147651	-0.92362	0.3567
R-squared	0.06			

Table 4-9 Sales net interest rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.202084	0.20334	0.99382	0.3214
MBO	0.361444	0.200125	1.806089	0.0723
AFTER*MBO	-0.38177	0.282214	-1.35276	0.1775
TOTAL_ASSET	-0.04663	0.075379	-0.61863	0.5368
C	-0.18936	0.144841	-1.30733	0.1924
R-squared	0.015573			

According to the regression results in Table 4-9, it can be seen that the other variables are not significant except for the MBO variables. It shows that the impact of MBO on net growth rate is not significant. The coefficients of MBO variables under the 10% level are significantly positive, which implies that, compared with non-MBO enterprises, MBO enterprises have a higher net interest rate.

(2) Take the net interest rate as explanatory variable

According to the regression results in Table 4-10, it can be seen that the other variables

are not significant except the control variables. It shows that the impact of MBO on EBITDA is not significant.

Table 4-10 EBITDA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.052277	0.147251	0.355024	0.7229
MBO	-0.04573	0.144922	-0.31554	0.7527
AFTER*MBO	-0.11867	0.204368	-0.58065	0.5621
TOTAL_ASSET	0.587755	0.054587	10.76738	0
C	0.022558	0.104888	0.215064	0.8299
R-squared	0.367883			

4.4.2.2 Select Operational Capability Indexes for Analysis

Take total asset turnover rate as the as explanatory variable

Table 4-11 Total assets turnover

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.19925	0.170885	1.165989	0.2449
MBO	-0.08006	0.168183	-0.47605	0.6345
AFTER*MBO	-0.54192	0.23717	-2.28496	0.0233
TOTAL_ASSET	0.425497	0.063348	6.716824	0
C	0.059804	0.121722	0.491317	0.6237
R-squared	0.196834			

According to the regression results in Table 4-11, the other variables were not significant except the control variables. It shows that the management acquisition has no significant impact on the total assets turnover rate.

4.4.2.3 Solvency

1.Take flow rate as the explanatory variable

According to the regression results in Table 4-12, the variable AFTER*MBO was significantly different from 0 and negative. It shows that after the MBO, the liquidity ratio of listed companies decreased. The reason may be that the MBO Company relies on a large

amount of responsibility for management acquisition, the ratio of current assets and current liabilities is greatly reduced, and then the solvency is reduced.

Table 4-12 Flow rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.258552	0.196926	1.312938	0.1906
MBO	0.396468	0.193812	2.04563	0.042
AFTER*MBO	-0.82593	0.273312	-3.02194	0.0028
TOTAL_ASSET	-0.06661	0.073002	-0.91241	0.3625
C	-0.09359	0.140272	-0.66719	0.5053
R-squared	0.052879			

2. Take the equity multiplier as the explanatory variable

Table 4-13 Equity multiplier

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.075811	0.203976	0.371665	0.7105
MBO	-0.25851	0.200751	-1.28772	0.1992
AFTER*MBO	0.070773	0.283096	0.249996	0.8028
TOTAL_ASSET	-0.04725	0.075615	-0.62492	0.5327
C	0.099212	0.145293	0.682838	0.4954
R-squared	0.016041			

According to the regression results in Table 4-13，As can be seen from the regression results, all variables are not significant, indicating that the management acquisition event has no effect on the equity multiplier.

4.4.2.4 Analysis of Cash Flow Indexes

1. Operating cash flow changes

Table 4-14 Cash flow net value of operating activities

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.007485	0.137924	0.05427	0.9568
MBO	-0.13838	0.135743	-1.01943	0.3091

AFTER*MBO	0.210743	0.191423	1.100929	0.2721
TOTAL_ASSET	0.716983	0.051129	14.02301	0
C	0.035319	0.098244	0.359499	0.7196
R-squared	0.518915			

According to the regression results in Table 4-14, it can be seen that the other variables of control variables are not significant, indicating that MBOs have no influence on the cash flow changes of operating activities.

2. Net cash flow of investment activities

According to the regression results in Table 4-15 it can be seen that the other variables of the control variables are not significant, indicating that the MBO has no effect on the net cash flow of investment activities.

Table 4-15 Cash flow net value of investment activities

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.028476	0.135962	0.209444	0.8343
MBO	0.002304	0.133812	0.017216	0.9863
AFTER*MBO	0.034572	0.188701	0.183213	0.8548
TOTAL_ASSET	-0.495158	0.050402	-9.824189	0
C	0.01902	0.096847	0.196389	0.8445
R-squared	0.324999			

3. Net cash flow annual growth rate

Table 4-16 Cash flow net value of financing activities

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	-0.00112	0.173055	-0.00646	0.9949
MBO	0.095085	0.170318	0.558278	0.5772
AFTER*MBO	-0.29771	0.240181	-1.23952	0.2165
TOTAL_ASSET	-0.07969	0.064152	-1.24226	0.2154
C	-0.04904	0.123268	-0.39779	0.6912
R-squared	0.028373			

According to the regression results in Table 4-16, it can be seen that the other variables of the control variables are not significant, indicating that the MBO has no effect on the net

cash flow of the fund-raising activities.

4. Annual increase in cash and cash equivalents

Table 4-17 Cash and its equivalent net increase

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.052944	0.192792	0.274619	0.7839
MBO	-0.05824	0.189744	-0.30693	0.7592
AFTER*MBO	-0.09143	0.267574	-0.34169	0.7329
TOTAL_ASSET	0.233629	0.071469	3.268958	0.0013
C	0.006113	0.137327	0.044512	0.9645
R-squared	0.051497			

According to the regression results in Table 4-17, it can be seen that the other variables of the control variables are not significant, indicating that the MBO event has no effect on the annual net increase of cash and cash equivalents.

4.4.2.4 Scale Index Analysis

Table 4-18 Total assets

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.536846	0.176633	3.039328	0.0027
MBO	0.244755	0.176633	1.385672	0.1672
AFTER*MBO	0.199155	0.249797	0.797268	0.4261
C	-0.44475	0.124898	-3.56092	0.0005
R-squared	0.12457			

According to the regression results in Table 4-18, it can be seen that the other variables are not significant except the variable AFTER, which indicates that the MBO event has no effect on the company size.

4.4.2.5 Investment Index Analysis

1. Capital investment

According to the regression results in Table 4-19,As it can be seen from the regression

results, except for the control variables, the other variables are not significant, indicating that the MBO has no effect on the annual growth rate of capital investment.

Table 4-19 Capital investment

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	0.16289	0.147462	1.104623	0.2705
MBO	-0.02806	0.14513	-0.19336	0.8469
AFTER*MBO	-0.2055	0.204661	-1.00412	0.3164
TOTAL_ASSET	0.668998	0.054665	12.23815	0
C	-0.03533	0.105038	-0.33636	0.7369
R-squared	0.437518			

2. Net investment income

According to the regression results in Table 4-20, it can be seen that AFTER*MBO variables are significantly positive, which indicates that the net income of capital investment of enterprise companies with MBO is higher than that of non-MBO enterprises.

Table 4-20 Net investment income

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AFTER	-0.17972	0.191366	-0.93916	0.3487
MBO	-0.12899	0.188341	-0.68485	0.4941
AFTER*MBO	0.619676	0.265596	2.333156	0.0205
TOTAL_ASSET	-0.0026	0.070941	-0.03664	0.9708
C	0.017882	0.136311	0.131188	0.8957
R-squared	0.035598			

4.4.2.6 Regression Analysis Summary

Based on the above regression results, we found that the above financial indexes were significant only when the liquidity ratio and net investment income were taken as explanatory variables.

The independent variable AFTER*MBO is significantly negative when current ratio is taken as the explanatory variable. It indicates that MBO enterprises have high current

liabilities. It is possibly because that the management found a new developing point in the market.

4.5 Brief Summary

It can be seen from the empirical analysis of the present study that MBO experienced better development than other companies in the industry in terms of profit ability, operational ability, debt paying ability, cash flow and assets scale. In terms of profitability, the company's ROE is still falling after the MBO. But the magnitude of decline has fallen sharply. By the end of the third year of MBOs, it is no longer falling, and has begun to outstrip the industry. ROE edjoyed a shift in momentum before and after MBOs, which took place in the first year of MBOs. The net sales profit margin of the MBO firm is higher than the industry level, and they are high quality companies in the industry. The MBO was a turning point. The net interest rate of sales started to increase after MBO, which is faster than the growth rate of the same industry. EBITDA growth showed a larger fluctuation from the three years preceding the MBO to the year before, and then later experienced fast growth. But in the first year and the second year after MBOs, EBITDA's growth rate was in line with the median of the industry. The third year after the MBO, EBITDA experienced a rapid growth and exceeded 4% compared to the industry growth rate. It can be concluded that In terms of operational capability, the asset turnover in the industry has fallen sharply, while MBO firms performed better than the industry level, which indicates that the operational capacity of the company has been improved after the MBO, enjoying obvious industry advantage. In terms of solvency, the flow of the sample companies is increasing, but it is weaker than that of the same industry after the MBO. Regardless of whether the industry level was deducted, the debt ratio of all sample companies increased after the MBO.

In terms of cash flow and asset size, the cash flow rate of the sample companies without the industry adjustment showed a declining trend before the MBO. But the decline slowed after the MBOs and began to show the positive trend in the third year after the MBO. Overall, the growth rate of net cash flow after MBO improved. In terms of asset size, the company's asset growth rate is positive after deducting the industry factors before and after the MBO. This shows that in terms of the industry, the asset size of sample enterprises shows a trend of

growth. The financial data analysis of the empirical research part of this study shows that the financial performance of the enterprise after the MBO is optimistic and higher than that of the same industry.

However, from the perspective of regression analysis, the financial indexes of the company did not improve significantly after the MBO and after controlling the selection bias and the asset management of the samples. This suggests that China's state-owned enterprises are generally inefficient.

Now, some people in China argue that the MBO is unnecessary on the ground that some unsolved problems in the MBO pricing caused a serious loss of[”] state assets and MBOs benefit the managers with no impact on the the development of the enterprise. The author of this study agrees that there are problems in the MBO pricing in China. However, it is believed in this study that MBO is a necessary way to enhance enterprise vitality and the problems in pricing can be solved with the adoption of adequate pricing models.

The MBO of state-owned enterprises in China has a deep historical motivation and is the main way of reform for small and medium-sized state-owned enterprises. From the view of the history and background of state-owned enterprise reform in China, the management of state-owned enterprises is a strategic adjustment of the state-owned economy. In the process of this adjustment, whether the choice of state-owned assets transfer is reasonable or not will directly affect the success of the strategic adjustment of the state-owned economy. Among all subjects, managers enjoys a great advantage in the transfer of state-owned assets. Their in-depth understanding of the industry, high recognition in the market and long-term cooperative relationship with the government can help them achieve a smooth transition of power and asset restructuring.

Secondly, the problem of the property rights system of state-owned enterprises has become an urgent problem that needs to be solved and the MBO is an important way to reform the property rights system of state-owned enterprises. From the perspective of state-owned enterprises, although the reform of state-owned enterprises in China has made great achievements in the past two decades, there are still many problems. The most important problems among them include, unclear property rights. As well as an unclear distinction between government and enterprise and others, which inevitably leads to the lack of effective incentive mechanisms, undermines the motivation of managers and

restrains the human capital. In addition, due to the special features of the state-owned enterprises, the supervision of state-owned enterprises is often lacking in strength and efficiency.

Thirdly, the MBO and the state-owned enterprise reform background are deeply compatible. MBOs provide the following mechanism. The management of the enterprise has considerable control and responsibility for taking risks. After the completion of the MBO, the governance structure changes fundamentally due to the change in the property rights structure. The goal of management is unified with the goal of the enterprise, which realizes the management control over decision-making, residual control and residual claim. It not only minimizes the agency cost of the enterprise, but also closely links their personal interests with their contribution to the enterprise so as to maximize the entrepreneur incentive and greatly stimulate the managers' career consciousness. Therefore, it is very efficient to solve the unreasonable property right structure through MBO.

Although the MBO was called off by the government in China and SASAC (State-owned Assets Supervision and Administration Commission) began the argument of the loss of state-owned property and released five bans on the MBOs, the ban is a regulation of MBOs rather than the prohibition and the state's takeover of management is mainly aimed at large state-owned enterprises. Therefore, the total amount of enterprise assets is so large for large-scale state-owned business that the amount of money that management has and can regulate to raise cannot meet the amount of capital required by the holding company. It is difficult to avoid irregularities to prevent unregulated behaviors and cause the loss of state-owned property if we carry out the MBO with the development of "Left" deviation.

According to data provided by the Organization for Economic Cooperation and Development (OECD), for the three basic methods of reforming state-owned enterprises, IPO, third party vendors and MBO, their proportions are 26%, 56% and 18% for non-OECD countries and 62%, 20% and 18% for OECD countries respectively. SASAC has made it clear that the MBO and holding can be explored for small and medium-sized enterprises. However the legal rights and interests of investors, creditors and employees should be verified to be effectively upheld in an open and fair manner. It can be predicted that with the improvement of the relevant system, the MBO will become one of the main methods for the reform of state-owned SMEs (middle and small-sized enterprises).

Chapter 5：Conclusion

5.1 Research Conclusions

There are two main conclusions in this study:

1. The main problems existing in the management of listed companies in China are acquisition pricing and management incentive mechanism.

Through sorting and analyzing 66 MBO cases of China’s listed companies in a decade, the study drew a map of China's MBOs, and found that the main problems existing in China’s MBOs are unreasonable pricing and insufficient management incentive mechanism[“and an insufficient management incentive mechanism” or “and insufficient management incentive mechanisms”.], as shown by the following: the pricing based on net asset value of the enterprise is unreasonable; the information disclosure system is unoptimized; the participation of agents is not enough; the historical contribution of the management is difficult to quantify; the government behaviors are not regulated; the situation of China’s state-owned enterprises has its uniqueness.

2. The listed state-owned enterprises that carry out the MBO have realized better development compared with other enterprises of the industry in terms of profitability, operating capacity, solvency, cash flow and asset size.

This study selected a sample of 19 listed state-owned enterprises and selected the corresponding industry match-pairing enterprises. Through calculating 21 items of financial indicators in the 7 years before and after the MBOs in the 19 sample enterprises, 2793 pieces of financial data of the 19 sample companies were obtained. The study analyzed the financial performance indicators ranging from Du Pont Analysis, cash flow index analysis, the scale index analysis, investment index analysis and financial performance changes, and conducted the regression analysis on the financial data.

Through the analysis, we found that the state-owned enterprises that undertook MBOs enjoyed higher profit ability, operating capacity, solvency, cash flow and assets size compared

with enterprises of the same industry. In terms of cash flow, the growth rate of net cash flow after MBO has improved; in terms of asset size, the annual growth rates of the companies' assets have been positive after deducting the industry factors, which means in relation to the industry, the asset size of the sample enterprises has been growing. However, from the perspective of regression analysis, with the control on the factors of sample selection bias and the companies' asset management, the companies' financial indicators have not improved significantly after the completion of MBOs, which suggests that the MBOs of the state-owned enterprises in China are generally of low efficiency.

5.2 Research Recommendations

In China, MBO is necessary and is an effective way to enhance the vitality of enterprise operation. However, it must also be acknowledged that there are many problems in China's current MBO model. For instance, the particularity of China's state-owned enterprises has resulted in the inapplicability of replicating the western experience. At the same time, there are some other problems such as unreasonable MBO pricing, imperfect information disclosure system, insufficient participation of agents, difficulty in quantifying the historical contribution of the management, and unregulated government behaviors. Based on the problems existing in the MBO, this study puts forward some recommendations on building the MBO pricing model adaptable to China's state-owned enterprises.

5.2.1 Choose Discounted Cash Flow (DCF) Method as the Method of Enterprise Evaluation

The Discounted Cash Flows(DCF) method is a mature valuation method. Its principle is to discount all the cash flows that a business is expected to generate in the future to today, see what its value is, and then compare it with the stock price to determine whether it is overrated or undervalued. Its most significant characteristic is to discount the future free cash flow of the company by predicting the future free cash flow and the capital cost, in which the company's value is the present value of future cash flows. It covers the factors that affect the company's value in a comprehensive and concise way. Such a pricing mechanism helps the buyers identify the key to improving the operating efficiency, and thus can solve the problem of valuation in MBO integration.

The DCF method is also the most commonly used method in overseas MBOs. This method is more suitable to the mature and later-stage private companies or listed companies. There have been many cases of the DCF method being used in the real world, such as Carlyle's acquisition of the Xugong Group.

Through the empirical research, this study found that the year of MBO was often the year with the lowest financial performance among three years both before and after the MBO. However, it can be seen that their financial performance has been higher than those of the same industry in the second or third year after MBO. Therefore, if the companies' net asset value in the year of MBO is used as the basis for determining the purchase price, the result will often be that the assets are sold at a lower-than-usual price. However, using the DCF method to estimate the enterprise value is a way to deliberate and predict the future development trend of the enterprise, and it is a relatively accurate method in estimating the enterprise value.

5.2.2 Quantify the Historical Contribution of the Management

In the development of enterprises, the historical contribution of the management should not be omitted. But it is difficult to quantify the management's historical contribution in the current MBO models. Therefore, it is difficult to express in an open and official form the actual benefits of the management after the acquisition, which is also one of the important reasons leading to the multi-player game in the pricing during MBO. It is found in the study that some scholars have tried to put forward a formula for quantifying the historical contribution of the management (Xue, 2007), which is as follows:

The history contribution of the management is D:

$$D = D_1 - D_2 \tag{5.1}$$

Where, D_1 refers to the quantified value of the management contribution, D_2 refers to the part where the enterprise has made compensation for the investment of human capital value of the management and the cost of enhancing its human capital value, which include the annual salary and bonus the company has paid to the management and the training costs in improving the operation abilities of the management.

D_1 is reflected by the excess return from leading small enterprises in the management,

and is shown as follows:

$$D_1 = \sum_{i-1}^{N} NA_i \times (ROE_i - \bar{k}) \times (1+r)^i \quad (5.2)$$

Where, N is the office term of the management, NA_i is the rate of return on common stockholders' equity of the i[th] year, ROE_i is the return on equity of i[th] year; $\bar{k}$ is the average rate of return on common stockholders' equity, and r is the seamless rate of return on capital market.

$$D_2 = \sum_{i-1}^{N} (W_i + I_i) \times (1+r)^i \quad (5.3)$$

Where, W_i is the annual salary and bonus of the management in the i[th] year; I_i is the cost of training for the management in the i[th] year.

The quantitative formula for the historical contribution of the managers of state-owned enterprises is as follows,

$$D = D_1 - D_2 = \sum_{i-1}^{N} NA_i \times (ROE_i - \bar{k}) \times (1+r)^i - \sum_{i-1}^{N} (W_i + I_i) \times (1+r)^i \quad (5.4)$$

When the management has zero or negative contribution to the enterprise, the salary and training cost paid by the enterprise have fully compensated the management's human capital investment in the enterprise, so that this situation no longer applies to this model.

5.2.3 Introduce Strategic Investors

The introduction of strategic investors is a combination of debt financing and equity financing, and compared with the general MBOs, its financial leverage ratio is low, and the degree of risk faced by the management is also low. After the introduction of strategic investors, a mechanism of check and balance between the two parties will be formed. On the one hand, the management is familiar with the development status of the industry and the production and operation of the enterprise. On the other hand, as the major shareholders, the strategic investors will supervise the production and operation of the enterprise. This kind of checks and balances is advantageous to monitor the management structure and prevent the malpractice of the insider control that may occur in pure MBOs, enhancing the system transformation and mechanism innovation.

5.3 Innovative Points of the Research

This research has carried out the theoretical and empirical study on the modes of China's MBO. The innovation and academic contribution of this study can be summarized as the following four points:

First: The present situation of MBO is discussed speculatively. By collecting the related MBO research and literature, the study has sorted out the MBOs' development in China, drawn a map of the development for the MBOs of China's listed companies and reviewed critically the related research on MBO, which provides the reference for future studies on the development of SOEs' MBOs, in China and other countries.

Second: An overall analysis of the typical types of cases in China's management buyouts. Several typical types of management buyout cases were analyzed, the acquisition process was analyzed, and the measures taken and possible problems in the process were analyzed and commented, which provided a reference for later researchers to review the management acquisition process.

Third: A comparative analysis of management buyout of different types of state-owned enterprise in China was conducted. The study has made a statistical analysis of the large amount of financial data concerning 19 cases of companies before and after the MBOs, and presents the development and changes in financial performance before and after the MBOs, which provides the reference for future researchers to examine the role of MBO in enterprise development.

Fourth: The recommendations on "good practices" for the MBOs in other countries are given. Through the statistical analysis and case study on the financial data of the company cases, this study has given the recommendations on the enterprise's MBO strategies, valuation methods, market mechanism and government behaviors, which provides the reference for the possible practices to be adopted by other countries

5.4 Weaknesses of this Study

In retrospect to the process of this study, we may find there are the following weaknesses:

First: The various factors influencing the enterprise performance after the MBOs are not dealt with. This study analyzes the effect of MBOs on enterprise performance based on the changes in the enterprises financial data before and after the MBOs, and although it has taken into account the industry factors, the changes in enterprise performance might be the result of joint functioning of multiple factors, such as the change in the management after the MBOs, the strategic choices, the dividend distribution and the organizational behaviors. This study has not examined whether such factors can cause significant effects on the enterprise performance after the MBOs, which may lead to certain limitations in the conclusions of this study.

Second: There may be some limitations as to the analysis on MBO performance and the case study. As the ten years between 1997 and 2007 were the most prosperous decade of MBO development in China, the case documents and data used in this study are the literature of that period, and this study deals with that period. However, due to the complexity of MBO itself in China, in view of the historical literature and data adopted in this study, and plus the limited ability of the author, there may be certain limitations in this study, as it might have not presented the MBO performance in China in a comprehensive, in-depth and objective manner.

Third: Although this study has chosen enterprises from different industries, it was found that it was not possible to find information on some enterprises even if various channels were tried, so this study had to select the enterprises with more complete data available, and in the end dwelled on 19 state-owned enterprises. This may make questionable the typicality of the cases adopted in this study, and thus the conclusions of this study may not be representative.

5.5 Prospects of Future Study

In the follow-up study, the following two major issues are expected to be studied:

First, the relationship between MBO and its industry, i.e., whether the influence of MBO on the financial performance of the enterprise has further relationship with the industry the enterprise belongs to.

Second, whether the MBO valuation method has any further relationship with the

industry the enterprise belongs to.

Bibliography

Alchian, A. A. (1991). *Property rights: A classic annotation.* Shanghai: Shanghai Sanlian Bookstore.

Alchian, A. A. & Demsetz, H. (1972). *Productiong, information costs and economic organization*. Retrieved October 3, 2017, from https://max.book118.com/html/2012/1006/2956536.shtm

Alchin, A. A. & Woodward, S. (1988). *Thinking about corporate theory.* Shanghai: Shanghai University of Finance and Economics Press.

Angelo, H. D & Angelo, L.P. (1987). Management buy-out of publicly traded cooperation. *Financial Analysts Journal,* 5(5), 38.

Bao, C. X. (2004). *Research on the pricing of MBO in the listed companies of China.* Doctorial Dissertation, Suzhou University.

Bao, G. X. & Zhang, Z. D. (2008). Analysis of the self-realization of the third party government performance evaluation organization in China. *China Administration*, (1), 60-70.

Barry, C.B., Muscarella, C. J., & Peavy, J. W., et al. (1990). The role of venture capital in the creation of public companies: Evidence from the going-public process. *Journal of Financial economics*, 27(2), 447-471.

Berle, A. A. & Means, G. C. (2005). *Modern company and private property.* Philippines: Business Printing Press.

Burley, M. (2005). *Modern company and private property.* Philippines: Business Printing Press.

Cao, X.L. (2016). Game analysis on the protection of financial consumer interests and supervision of P2P network lending and comment on the current regulation of Internet lending. *Financial Regulation Research,* (11), 43-49.

Chen, G. & Chen, J. Z. (2016). Property rights protection and entrepreneurship: An Empirical Study Based On Micro Data. *Comparison of economic and social systems,* (1), 33-39.

Chen, G. & Zhou, J. (2004). Research on corporate debt financing structure: A theoretical

analysis based on agent cost. *Journal of Finance and Economics*, (2), 58-65.

Chen, J. P. & Zhu, Z. H. (2007). Reunderstanding of the "Yili incident". *Accounting Communications (comprehensive version),* (3), 10-16.

Chen, X. F. (2003). *Theory and practice of MBO.* Doctorial Dissertation, Southwesten University of Communications.

Chen, X. Y. (2006). *Research on risk and legal supervision of international MBO*. Doctorial Dissertation, Dalian Maritime University.

Cheng, F. C., Yan, X. S., & Ye, Y. C. (2015). Research on the rationality of stock pricing in mergers and acquisitions of listed companies in China. *Macroeconomic Study*, (1), 31-41.

Cheng, F. Z. & Liu, J. P. (2011). Research on the pricing of mergers and acquisitions of the listed companies. *Accounting Research,* (11), 57-65.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (1992). Dividends and losses. *The Journal of Finance,* 47(5), 1837-1863.

Dong, Y. (2017). The impact of social responsibility information disclosure on financial performance. *Times Economic and Trade*, (10), 59-66.

Easterwood, J. C. (1998). Divestments and financial distress in leveraged buyouts. *Journal of Banking & Finance*, 22(2), 129-159.

Fama, E. F. & French, K. R. (1992). The cross-section of expected stock returns. *The Journal of Finance,* 47(2), 427-465.

Fama, E. F. & Jenson, M. C. (1983). Separation of ownship and control. *Journal of Law and Economics,* 26(2), 264-271.

Fuller, I. (1906). *The nature of capital and income.* New York: The Macmilan Co.

Fuller, I. (1907). *The rate of interest, from preface and appendix to ch. VII.* New York: Macmillan Publication.

Fuller, R. J. & Hsia, C. C. (1984). A simplified common stock valuation model. *Financial Analysts Journal*, (5), 49-56.

Gabriel, H. & Claude, V. (2003). *Senior manager financial management creates value process*. Beijing: Mechanical Industry Press.

Gao, Y. Y. (2009). Technological capability, position of value chain and enterprise

competitiveness: an empirical study from the manufacturing industry in Suzhou. *Financial And Trading Economy,* (11), 298-306.

Ge, B. S. & Zhang, X. F. (2011). Research on comprehensive performance evaluation method of state-owned enterprises from the perspective of social responsibility. *Information Science,* (5), 328-335.

Gong, L. (2005). *Research on some problems of MBO in China.* Doctorial Dissertation, Northeast Forestry University.

Guay, W. R., Core, J. E, & Larcker, D. F. (2002). Executive equity compensation and incentives. *A survey*, (3), 26-34.

Guo, K. M. (2016). Demographic change, entrepreneurship and economic growth. *Economic Science(quarterly),* (4), 78-85.

Guo, Z. J. (2006). *Research on the legal system of management buyout in state-owned enterprises*. Doctorial Dissertation, Chongqing University.

He, L. S. & Wang, J. F. (2005). Management buyout: Foreign practice and the reality in China. *Economic And Management Research,* (11), 98-109.

He, X. G. & Li, X. C. (2005). Entrepreneurial capability and enterprise growth: Empirical study based on Chinese experience. *Economic Research,* (10), 276-284.

Hirohisa, K. (2001). *MBO*. Beijing: China Citic Press.

Holmstrom, B. (1982). *Managerial incentive schemes-A dynamic perspective*. Helsinki: Swenska Handelshogkolan.

Hu, J. W. (2008). *Equity circulation: complete collection of management buyouts of Chinese listed companies (1997-2008).* Beijing: China Economic Publishing House.

Jensen, M. C. (1986). Cost of tree cash flow, corporate finance and takeovers. *American Economic Review*, 5(6), 76.

Jesen, M. C & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agent costs and ownership structure. *Journal of Financial Economics,* 3(4), 305-360.

Jin, S. D. (2011). Research On Management Buyouts. *Foreign Investment in China,* (2), 87-94.

Jin, X. J. & Yang, X. L. (2002). Management buyout in Transition economy: Take russia and eastern europe for example. *Foreign Economy and Management,* (3), 98-104.

Johnson, S. (2000). Tunneling. *American Economic Review,* 4(7), 22-27.

Ju, Y. X. (2006). Thinking about perfecting the supervisory board system of listed companies. *Inner Mongolia Science,Technology and Economy,* (8), 67-74.

Kaplan, S. (1989). The effects of management buyouts on operating performance and value. *Journal of Financial Economics*, 24(2), 217-254.

Kenneth, L. & Poulsen, A. (1988). *Leveraged buyouts: wealth created or wealth redistributed?* New Jersey: Transition Books.

Lajoux, A.R. (2005). *The art of M&A integration.* New York : McGraw-Hill.

Lehn, K. & Poulsen, A. (1989). Free cash flow and stockholder gains in going private transactions. *The Journal of Finance,* 44(3), 771-787.

Li, D. Y. & Huang, Y. (2009). Comparative study on performance evaluation of state- owned enterprises based on EVA. *Journal of North China Electric Power University (Social Science)*, (4), 32-40.

Li, H. B. (2009). The impact of entrepreneurship and innovation spirit of entrepreneurs on the Chinese economic growth. *Economic Research*, (10), 156-164.

Lin, X. C. (2018). *Applied research on the valuation method of high-tech enterprises: Taking Huawei klc holdings ltd as an example.* Doctorial Dissertation, Qingdao Technological University.

Lin, Y. F. (2014). The government is the backstage supporter of the enterprise. *Chinese Entrepreneur,* (7), 139-146.

Linda, E. D. (1986). Accouting number as market valution substitutes: A study of management buyouts of public stockholders. *The Accouting Review,* 61(3), 78-89.

Liu, Q. W. (2005). *Practice research of MBO in China.* Doctorial Dissertation, Capital University of Economics and Business.

Liu, S. H. (2011). Research on the evaluation index system of social responsibility of state-owned enterprises. *Accounting Communications*, (6), 156-163.

Liu, Z. C. & Wu, N. Q. (2012). Research on the behavior process of Chinese entrepreneurs from the inspection of entrepreneurs in the modern China. *Management Science,* (6), 39-45.

Liu. Y. (2008). *Management buyout of China's listed companies: Theoretical and empirical*

research. Doctorial Dissertation, Southwestern University of Finance and Economics.

Lu, Y. C. (2016). *Shuanghui development curve MBO performance research.* Doctorial Dissertation, Lanzhou University of Finance and Economics.

Luo, R. (2005). MBO and reform of state-owned enterprises. *Coastal Enterprises and Technology,* (2), 72-74.

Ma, Y.W. (2006). Empirical test of KMV model applied to early warning of financial distress in Chinese listed companies. *Mathematical Statistics and Management,* (5),593-601.

Madden, G. P, Marples, L. W., & Chugh, L. C. (1990). A stock market evaluation of management buyouts. *Journal of Business Finance & Accounting,* 17(3), 351-358.

Marais, L., Schipper, K., & Smith, A. (1989). Wealth effects of going private for senior securities. *Journal of Financial Economics,* 23(1), 155-191.

Mayers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147-175.

Modigliani, F. & Merton, H. M. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review,* 48(3), 261–297.

Modigliani, F. & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review*, 53(3), 433-443.

Muscarella, C. J. & Vetsuypens, M. R. (1989). A simple test of baron's model of IPO underpricing. *Journal of Financial Economics,* 1989(24), 125-135.

Myers, S. C. & Pogue, G. A. (1974). A programming approach to corporate financial management. *Journal of Finance*, 29(2), 579-599.

Ni, X. (2014). On the development direction of local government performance evaluation research. *Political Science Research,* 4(3), 146-174.

Nie, J. (2011). *Empirical study on managerial overconfidence, corporate governance and capital structure*. Doctorial Dissertation, Huazhong University of Science and Technology.

Opler, T. C. & Titman, S. (1994). Financial distress and corporate performance. *The Journal of Finance,* 49(3), 1015-1040.

Pian Tinghaojiu. (2001). *Management buyout*. Beijing: CITIC Press Group.

Rafael, L. P. (2000). Agency problems and dividend policies around the world. *The Journal of*

Finance, 2000(1), 1-8.

Rappaport, A. (1986). *Creating shareholder value: The new standard for business performance.* Collier Macmillan: Free Press.

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of rist. *Journal of Finance,* 19(3), 425-442.

Shi, X. H. (2016). *MBO: Tool for corporate development or tool for wealth transfer?* Doctorial Dissertation, Suzhou University.

Smith, A. & Jackson, G. (2013). *The wealth of nations.* Miami: HardPress Publishing.

Song, L. (2007). Empirical study on the influencing factors of RMB exchange rate. *Entrepreneur World,* 2007 (8), 39-45.

Strong, N. C. (2010). Discussion of the impact of dividends, debt, and investment on valuation models. *Journal of Business Finance & Accounting,* 24(78), 111-140.

Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of Money Credit & Banking*, 1(1), 15-29.

Wang, J. D. (2012). Research on the relationship between asset valuation and transaction pricing: Based on the data analysis of listed companies in 2010. *Research on Economics and Management*, (5), 107-114.

Wang, J. N. (2010). *Research on the pricing of MBO in the listed companies of China.* Doctorial Dissertation, Beijing Forestry University.

Wang, J. N., Ji, M. C., & Wang, F. W. (2010). A brief discussion on game theory and Chinese stock market. *Management Observer*, (9), 25-26.

Wang, W. (2013). *Research on management buyout of state-Owned enterprises taking Shuanghui MBO as an example.* Doctorial Dissertation, Henan University.

Wang, Z. Y. (2017). Problems and countermeasures of intangible assets evaluation of high-tech enterprises. *Shopping Mall Modernization,* (1), 98-106.

William, S. (1964). Capital asset price: market equilibrium theory under risk conditions. *Financial(monthly),* (9), 78-86.

Wright, M., Robert, E., Hoskisson, & Busenitz, L. (2001). Firm rebirth: buyouts as facilitators of strategic growth and entrepreneurship. *Academy of Management executive,* 15(1),

111-125.

Wu, J. L. (2010). Thinking about the way of macroeconomic dilemma. *Technology and Enterprises*, 12(6), 26-34.

Wu, X. F. (2005). *Intermediaries of MBO: comparison and countermeasures.* Doctorial Dissertation, Shandong University.

Xu, J. (2016). Entrepreneur culture capital and entrepreneurship. *Management Science,* (3), 98-106.

Xue, F. (2007). *Research on the management buyout (MBO) pricing of state-owned enterprises*. Doctorial Dissertation, Southwestern University of Finance and Economics.

Yang, H.T. (2009). *Research on China's management buyout law.* Doctorial Dissertation, Southwest University of Political Science and Law.

Yang, X. H. (2007). *Study on the pricing of MBO in China.* Doctorial Dissertation, Shandong University.

Yang, X. L. (2013). *The relationship between the board characteristics and auditor reputation in the listed companies of China.* Doctorial Dissertation, Tianjin University of Finance Economics.

Yang, Z. Y. (2010). *Research on risk control of state-owned enterprises in China.* Doctorial Dissertation, Southwestern University of Finance and Economics.

Yu, D. (2007). *Research on MBO in China.* Doctorial Dissertation, Tianjin University.

Yuan, Z. Y. (2003). *Theory and practice of MBO.* Doctorial Dissertation, Zhejiang University of Technology.

Zeng, F. Z. (2012). *China's multi-level capital market system and its' construction in the context of internationalization.* Doctorial Dissertation, Central Party School.

Zhang, J. (2009). *Research on the agency problem in the diversification of family-controlled companies of China: Based on the empirical analysis of family-owned listed companies in the a stock market of China.* Doctorial Dissertation, Fudan University.

Zhang, W. (2006). *Management buyouts: Theoretical analysis and empirical research.* Doctorial Dissertation, Xiamen University.

Zhang, X. T. (2011). MBO pricing regulation of small-and-medium-sized enterprises. *Modern*

Auditing and Economics, (2), 14-15.

Zhang, X. T. (2014). *Survey report on small and micro financial services carried out by commercial banks*. Doctorial Dissertation, Fudan University.

Zhao, L. X. & Liu, P. (2011). *Research on valuation and pricing of mergers and acquisitions of listed companies.* Beijing: China Financial Publishing House.

Zheng, H. C. (2017). Research on assets assessment in mergers and acquisitions. *Shopping Mall Modernization,* (2), 213-220.

Zheng, J. H. & Zeng, S. H. (2009). Entrepreneur's function configuration, R&D and growth mode transformation: a case study of the Yangtze river delta. *Economics,* (9), 73-94.

Zheng, J. R. (2010). *Research on performance evaluation based on corporate social responsibility.* Doctorial Dissertation, Tianjin University of Finance Economics.

Zhou, L. (2013). *Research on pricing and trading of resource assets. Financial Science Research Institute*. Doctorial Dissertation, Ministry Of Finance.

Zhu, Q. F. (2009). *Development theory of China's private equity fund.* Doctorial Dissertation, Xiamen University.

Zhu, T. (2003). Analysis of the ownership structure and control allocation of the companies in the field of the power sector. *Chinese Electric Power Enterprise Management,* (10), 98-106.

Zhuang, Z. Y. (2007). Innovation, entrepreneurial activity allocation and long-term economic growth. *Economic Research,* (8), 367-378.