

Chinese Listed National Oil Companies: an Analysis of the Minor Shareholder
within an Agency Theory Framework

Von der Mercator School of Management, Fakultät für Betriebswirtschaftslehre, der

Universität Duisburg-Essen

zur Erlangung des akademischen Grades

eines Doktors der Wirtschaftswissenschaft (Dr. rer. oec.)

genehmigte Dissertation

von

Stenya Kountourakis

aus

Nowosibirsk, Russland

Referent: Prof. Dr. Markus Taube

Korreferent: Prof. Dr. Yuan Li

Tag der mündlichen Prüfung: 25.11.2019

Abstract

During the period of economic reforms Chinese National Oil Companies (NOCs) became involved in a process of corporatization. This led to an Initial Public Offering (IPO) of three major Chinese NOCs in the beginning of 2000. After the IPO, along with the State as a major shareholder, Chinese NOCs obtained private shareholders. In a framework of an Agency theory one concludes that Chinese listed NOCs as Agents obtained Multiple Principals (State and Private Shareholders). This Thesis attempts to reveal the influence of the Second Principal on the Corporate Governance of listed NOCs. This is done by using the method of regression analysis to measure the interrelation between the amount of Private Shareholders and different financial and non-financial parameters (i.e. expenses for social services) of NOCs as well as detailed presentation of measures that have been taken to protect Private Shareholders' rights for a period of 15 years of IPO (2000-2015). Having this information I could conclude on distinctive features of marketization of Chinese NOCs and Energy Sector, seen through the perspective of Corporate Governance. In order to support the findings, I also conducted interviews with the industry insiders and academics related to the Energy Sector. Findings of the research prove that the management of NOCs as Agent tends to take favorable measures for the Second Principal. However, Private Shareholders that are qualified for voting in the Company usually do not use this privilege.

Keywords: Corporate Governance, Chinese National Oil Companies, Agency Theory, Chinese Stock Market, Energy Sector, energy legislation

Table of Contents

List of Tables.....	6
List of figures	9
Introduction	12
Relevance of the research	12
Problem-Purpose Statement and Research Questions	14
Conceptual framework.....	15
Chapter 1. Literature review and Theoretical implications.....	17
1.1. Corporate governance: approaches to definitions and theoretical overview	17
1.2. Corporate governance in China	18
1.3. An issue of Ownership of State-Owned Enterprises	20
1.4. Corporate governance of Chinese National Oil Companies.....	24
1.5. Corporate governance and Chinese stock market.....	27
1.6. Agency theory in Corporate Governance.....	33
1.7. The relevance of agency theory.....	42
Chapter 2. Methodology.....	48
2.1. Research questions	48
2.2. Research methods and the choice of parameters	50
2.3. Interviews	54
2.4. Regressions.....	56
Chapter 3. Background of the problem.....	58
3.1. Privatization of State-Owned Enterprises: new principals new agents	58
3.2. Corporate governance reform with Chinese characteristics	63
3.3. Institutional and legislative framework for Corporate Governance in China	64
3.3.1. Restructuring of an Energy Sector in China.....	64
3.3.2. Institutional framework of Chinese listed companies.....	71
3.3.3. Legislative framework of Chinese listed companies	75
Chapter 4. Corporate governance of Chinese listed NOCs	84
4.1. Stock market developments and Initial Public Offering of Chinese NOCs.....	84
4.2. Corporate structure of NOCs	89
4.3. The role of independent directors (at the example of PetroChina)	92
4.4. Number of employees and expenses for social services in NOCs.....	95

4.4.1. Expenses for social services of Sinopec.....	99
4.4.2. Number of employees and expenses for Social Services of CNOOC.....	102
Chapter 5. Share capital and shareholders of listed NOCs.....	104
5.1. Share capital and shareholders of PetroChina	104
5.2. Share capital and shareholders of Sinopec Corp.	109
5.3. Share capital and shareholders of Chinese National Offshore Oil Corporation.....	116
Chapter 6. Minor shareholders of NOCs: rights, participation, and risks.....	121
6.1. Minor shareholders of NOCs.....	121
6.2. Minor shareholders' participation in a decision-making process.....	125
6.3. Risks for minor shareholders.....	129
6.4. Minor shareholders' rights	129
Chapter 7. Data Analysis	137
7.1. PetroChina.....	139
7.2. Sinopec.....	145
7.3. CNOOC	151
Chapter 8. Interviews based on Data Analysis	159
8.1. Corporate Governance of NOCs	159
8.1.1. Management of NOCs.....	159
8.1.2. Social responsibilities of NOCs.....	162
8.2. Institutions for Corporate Governance in China.....	165
8.3. Protection of minor shareholders' interests	168
8.4. Corporate Governance at the employee level.....	169
8.5. Distinctive features of marketization of Chinese National Oil Companies.....	171
Chapter 9. Findings and conclusion	177
9.1. Private shareholders and the decision-making process	177
9.2. Private shareholders and the welfare of employees	179
9.3. Private shareholders and agency theory.....	180
9.4. General patterns of NOCs' marketization	182
Appendix	185
References.....	202

List of Tables

Table 1. Chinese NOCs' IPO data	86
Table 2. Role of independent directors, PetroChina	93
Table 3. Number of employees and expenses for Social Services in PetroChina	97
Table 4. Expenses for social services of Sinopec	98
Table 5. Number of employees and expenses for social services of CNOOC	102
Table 6. PetroChina shares by type in 2001 and 2015	104
Table 7. PetroChina shares capital history	105
Table 8. PetroChina State and Private Shareholders and their shares	107
Table 9. Sinopec State and Private Shareholders and their shares	112
Table 10. CNOOC structure of shares by IPO	115
Table 11. CNOOC State and Private Shareholders and their shares	117
Table 12. Minor shareholders participation rights conferred by the Articles of Association, PetroChina	130
Table 13. Additions and expansions of minor shareholders rights by minimum proportion of voting shares	132
Table 14. Corporate governance financial and non-financial indicators, PetroChina	139
Table 15. Multivariate Analysis of Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, PetroChina	140
Table 16. Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders of PetroChina	141
Table 17. Descriptive Statistics for the number of Employees and Social Expenses by	141

the amount of Private Shareholders, PetroChina	
Table 18. Multivariate Analysis of Variance for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, PetroChina	142
Table 19. Univariate Analysis for Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, PetroChina	143
Table 20. Descriptive Statistics for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, PetroChina	143
Table 21. Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, PetroChina	143
Table 22. Corporate governance financial and non-financial indicators, Sinopec	145
Table 23. Multivariate Analysis of Variance for the number of number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec	146
Table 24. Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec	146
Table 25. Descriptive Statistics for the number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec	147
Table 26. Multivariate Analysis of Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, Sinopec	148
Table 27. Univariate Analysis for Variance for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, Sinopec	148
Table 28. Descriptive Statistics for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, Sinopec	149
Table 29. Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, Sinopec	149
Table 30. Corporate governance financial and non-financial indicators, CNOOC	151

Table 31. Multivariate Analysis of Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC	152
Table 32. Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC	153
Table 33. Descriptive Statistics for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC	153
Table 34. Multivariate Analysis of Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, CNOOC	154
Table 35. Univariate Analysis of Variance for Dividend Per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, CNOOC	154
Table 36. Descriptive Statistics for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, CNOOC	155
Table 37. Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, CNOOC	155

List of figures

Figure 1. The first round of restructuring of the Chinese energy sector (1980s)	64
Figure 2. Subordination and responsibilities of energy institutions in China	65
Figure 3. Forming of Ministry of Land and Natural resources in China	66
Figure 4. Institutional responsibility over Chinese NOCs before 2003	67
Figure 5. Institutional responsibility over Chinese energy sector before 2003	67
Figure 6. New institutions governing energy sector	68
Figure 7. Institutional responsibility for Chinese NOCs in modern period	69
Figure 8. Institutions governing listed companies	71
Figure 9. Legislative framework of Chinese listed companies	75
Figure 10. Sources of shareholders rights of NOCs	81
Figure 11. Corporate structure of PetroChina	90
Figure 12. PetroChina shares by type, 2015	99
Figure 13. PetroChina shareholders by type, 2015	106
Figure 14 PetroChina shareholders by type of possessed shares	109
Figure 15. Sinopec shares by type	109
Figure 16. Sinopec shareholders by type	110
Figure 17. Sinopec shareholders by type of possessed shares	116
Figure 18. CNOOC shareholders by type	118
Figure 19. HKSCC ownership structure	122
Figure 20. Voting of the foreign investors	125

Figure 21. Voting of the shareholders represented by HKSCC	126
Figure 1. The first round of restructuring of the Chinese energy sector (1980s)	61
Figure 2. Subordination and responsibilities of energy institutions in China	62
Figure 3. Forming of Ministry of Land and Natural resources in China	63
Figure 4. Institutional responsibility over Chinese NOCs before 2003	64
Figure 5. Institutional responsibility over Chinese energy sector before 2003	64
Figure 6. New institutions governing energy sector	65
Figure 7. Institutional responsibility for Chinese NOCs in modern period	66
Figure 8. Institutions governing listed companies	67
Figure 9. Legislative framework of Chinese listed companies	70
Figure 10. Sources of shareholders rights of NOCs	76
Figure 11. Corporate structure of PetroChina	85
Figure 12. PetroChina shares by type, 2015	99
Figure 13. PetroChina shareholders by type, 2015	100
Figure 14 PetroChina shareholders by type of possessed shares	101
Figure 15. Sinopec shares by type	104
Figure 16. Sinopec shareholders by type	104
Figure 17. Sinopec shareholders by type of possessed shares	105
Figure 18. CNOOC shareholders by type	110
Figure 19. HKSCC ownership structure	114
Figure 20. Voting of the foreign investors	117
Figure 21. Voting of the shareholders represented by HKSCC	118
Figure 22. Proportion of private shareholders and number of employees, PetroChina	134
Figure 23. Proportion of private shareholders and net profits, PetroChina	134

Figure 24. Net profits and OPEC oil prices, PetroChina	135
Figure 25. Proportion of private shareholders and dividends per share, PetroChina	136
Figure 26. Proportion of private shareholders and diluted earnings per share, PetroChina	136
Figure 27. Proportion of private shareholders and the expenses for employee welfare or ancillary services, PetroChina	137
Figure 28. Correlation of private shareholders and number of employees, Sinopec	140
Figure 29. Correlation between private shareholders and net profits, Sinopec	140
Figure 30. Net profits and OPEC oil price, Sinopec	141
Figure 31. Proportion of private shareholders and dividends per share, Sinopec	142
Figure 32. Proportion of private shareholders and diluted earnings per share, Sinopec	142
Figure 33. Proportion of private shareholders and expenses for employee welfare or ancillary services, Sinopec	143
Figure 34. Proportion of private shareholders and number of employees, CNOOC	146
Figure 35. Proportion of private shareholders and net profits, CNOOC	147
Figure 36. Net profits and OPEC oil price, CNOOC	148
Figure 37. Proportion of private shareholders and dividends per share, CNOOC	148
Figure 38. Proportion of private shareholders and diluted earnings per share, CNOOC	149

Introduction

China became a net-importer of oil in 1994. By that time the energy sector was represented by three giant oil companies that had undergone massive reconstruction. The former ministries became vertically integrated companies, but retained the corporate model of governmental entities and full state control. Chinese National Oil Companies (NOCs) of that time were ponderous entities with ill-defined corporate governance and an urgent demand for oil. Also, Chinese NOCs were in the position of being latecomers to a world energy market already populated by strong players who controlled well-defined import-export relations. Due to this fact, Chinese NOCs were primarily orienting towards markets deemed unappealing to the established companies either due to complicated historical or economic conditions (e.g. civil wars or dictatorship regimes in Africa).

Based on this history of entry, even today Chinese national oil companies are controversial. On one hand, they represent the huge and powerful energy sector of the highest national energy consumption in the world. On the other hand, the names of Chinese National Petroleum Corporation (CNPC), Chinese National Offshore Oil Corporation (CNOOC), and Sinopec continue to appear in news with the relation to corruption, violation of human's rights, or scandals related to purchasing foreign assets (e.g. Unocal deal of 2006).

Relevance of the research

The term Chinese National Oil Companies refers to State-Owned Enterprises (SOEs) and belongs to a solid, conservative, and resource-consuming energy sector. During the period of economic reforms that started in late 1970's these companies became involved in a process of state-led marketization. The marketization of Chinese NOCs is an example of the major

processes influencing the broader sector of Chinese SOEs. Among the main features of the marketization process are: decentralizing of decision-making rights (at least on a micro level); state-independent adjustment of production plans; increased variety of ownership models; and the legalization or normalization of contract fulfillment of economic participants (Chen et al., 2000).

Following the implementation of new institutional arrangements (e.g. applying the Corporate Law of 1992) Chinese NOCs began facing internal and external risks. Internal risks are mainly related to the need of increasing profits and taking care of social benefits for employees, which had been provided by the state previous to the period of economic reforms. External risks refer to making a good investors' portfolio of the companies that have placed their Initial Public Offering (IPO) on international stocks. Therefore, risks did not only shift—or began the on-going process of shifting—from the state to enterprises, they also changed in general as part of the process accompanying the transition from planned to market economy. Whereas the topic of “renewed” state-owned enterprises dealing with their responsibilities has been mentioned in a literature, the way NOCs in particular underwent and are still reacting to these changes remains unexplored.

Also, due to economic reforms, Chinese NOCs have been heavily involved in international affairs. The vivid and ready example of NOCs international activities is their buying of foreign oil companies and licenses for exploration (e.g. PetroChina holds actives of around 20 companies in 12 countries), and public listing. NOCs' international operations have led to institutional learning. In the field of corporate governance Chinese enterprises have made steady moves in implementing “good corporate governance” practice. At the same time this progress is visible, however, potential investors or partners must be aware to risks and challenges of corporate governance in China (e.g. the lack of transparency and control). The main tool that deliberately demonstrates this transition is the evolving implementation and exercise of corporate governance.

The notion of corporate governance in Chinese NOCs is closely interrelated with aspects of marketization such as changing property rights. There is so far no literature providing clear evidence on the situation between state as a principal and new shareholders of listed NOCs as other principal that have to collude about their interests and also to execute their decision-making power over the management of NOCs (their agents).

Even while it is a topic for vigorous debate, the corporate governance of Chinese NOCs remains also a sensitive issue. This is because: a) the interests of shareholders may collide with the interests of socialistic state, b) there are still no clear mechanisms of dealing with evolving risks, c) there exist a situation of overlapping responsibilities of leaders of Chinese NOCs.

The aim of this research is to explore the functioning of the Chinese NOCs—i.e. SOEs that have undergone transition to public listing—using the multiple principals part of the agency theory.

The main goal of the thesis is to trace the situation in which the managers of the SOE have to subordinate themselves to both the state and their other shareholders. To this end and for parallelism and parsimony, I fit all issues described in the literature of the topic into the framework of multiple principals (state and shareholders) and single agent (managers).

Problem-Purpose Statement and Research Questions

Chinese NOCs have undergone the process of corporatization and partial privatization (i.e. an Initial Public Offering). After the listing, Chinese NOCs present both the State and private (non-state) shareholders as main Principals of the Company. Inevitably, the interests of the socialistic State and private shareholders can be disparate and malign. However, the Chinese State has signaled intent to follow the practice of the good corporate governance, demonstrated through granting private shareholders different rights and participation in the decision-making process. This leads to a problem of corporate governance of NOCs on

different levels – from the shareholders' rights' protection to the risk and budget independence of NOCs' management.

The literature on the issue of corporate governance in Chinese state-owned enterprises and NOCs focuses on the variables of financial efficiency across different types of ownership. The issue of interrelation among state and minor shareholders as principals and NOCs' management as agents in Chinese NOCs remains unexplored. Also there is a gap in the knowledge about the effect of partial privatization on NOCs' corporate governance in terms of the protection of minor shareholders' interests.

The problem lies in an intersection of two theoretical fields. First is the functioning of the Agency theory within the model of multiple principals and one agent. The second is the Corporate Governance of Chinese listed NOCs. As all three Chinese NOCs underwent their IPO in approximately 2000, I frame the research across the following 15-years time period employing the newest data of 2015.

Conceptual framework

My evidence comes from primary and secondary sources and interviews. Primary sources include annual reports (domestic and international issues) of three Chinese NOCs for 15 years and the Chinese Corporate law with its amendments. Secondary sources include books and journals on the topic of corporate governance in Chinese state-owned enterprises. Finally, the research draws on interviews conducted with the representatives of Chinese energy sector in China during the time period between 2012-2013.

The purpose of this research is to explore the position of minor shareholders of Chinese listed NOCs, the institutional and legal measures for their protection, and the extent of their participation in the decision-making process within a company. I also intend to evaluate the interrelation between the number of minor shareholders and different indicators of NOCs' corporate governance (the expenses for social services, employees lay-offs, etc.).

Research questions of the Thesis concentrate around two main topics – the participation of minor shareholders in Chinese listed NOCs, and the way that minor shareholders influence marketization of the energy sector. Therefore the research questions are following:

1. What is the influence of the Second Principal on the corporate governance of Chinese NOCs? In order to answer this question I analyze financial and non-financial parameters (among them the interrelation between the number of private shareholders and NOCs' employee lay-offs, expenses for social services and so on); and different levels of minor shareholders' participation in a company's decision-making process.

2. What are significant features of marketization of Chinese listed NOCs? I conducted open-ended interviews with the industry insiders and academicians that are related to Energy Sector. I found out what are the special features of marketization of listed NOCs in terms of development of corporate governance.

Chapter 1. Literature review and Theoretical implications

1.1. Corporate governance: approaches to definitions and theoretical overview

Many disciplines influence the development of corporate governance, therefore researchers address approximately 20 theories that vary in the studied component and approach to the topic. Theories presented in most modern textbooks on corporate governance include 13 prime theories altogether (Tricker, 2012; Mallin, 2013). These are: agency theory, stewardship theory, stakeholder theory, resource dependency theory, transaction cost theory, political theory, class hegemony theory, managerial theory, path dependence theory, institutional theory, network governance theory, psychological and organizational theory, and system theory.

These theories address the cause and effect of such concepts as the configuration of board members, audit committees, independent directors, management, and the interwoven corporate relationships between these players. I classify these basic concepts and issues into two basic categories: internal and external. Internal parameters include: shareholders of the company, board of directors, management, and employees. External parameters influence a company's operations from outside and define the legal and institutional framework of its operation, namely: government itself, corporate regulators (ministries or commissions that assure compliance with corporate codes and good corporate practice), socially-involved stakeholders (from consumers to people that are anyhow influenced by the company's

operations), stock markets (for listed companies), and institutional investors (i.e. financial institutions) (Tricker, 2012).

As there is no single, commonly-accepted, unified theory of corporate governance, there exist different approaches to define the term. Tricker (2012) discusses five ways to define corporate governance: operational approach, relationship perspective, stakeholder perspective, financial economic, and societal perspective¹.

The financial economics perspective forms the base for most theories of corporate governance². Financial economics deals with such aspects of corporate governance as financial returns on the capital invested into the company by its shareholders. This involves legal protection available to investors, different ownership concentration issues, and board-level economic activities. This approach presents the following definition: "the Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment" (Shleifer & Vishny, 1997, p. 737). Denis and McConnell (2003) elaborate on this definition by adding the importance of institutional and market-based mechanisms that make managers act in the financial interests of owners of the capital (i.e. for maximizing the value of the company). The most frequently used theory formulated in line with the financial economics perspective is agency theory, though as the field has progressed works also bridge into stewardship and stakeholder theories, and explore resource dependency theory (Haslinda & Benedict, 2009).

1.2. Corporate governance in China

The majority of research on corporate governance focuses on examining the benefits that shareholders gain from corporate governance practices, deals with the mechanisms and efficiency of shareholders' protection from self-interested executives, and it focused in

¹ There also exist more complicated ways to define approaches of classifying theories of corporate governance. For example,
² Out of 13 widely acknowledged theories, five come from financial economic perspective (agency theory, stewardship theory, resource dependency theory, transaction cost theory, managerial hegemony theory).

developed regions and western countries leaving a gap in the knowledge concerning corporate governance in emerging markets. Several researchers identify this focus on established and developed markets as a shortcoming of the existing literature on the topic, yet few studies yet fully address the perceived deficiency (Daily et al. 2003).

There are several reasons why it is important to study corporate governance in emerging markets as well as in developed markets. This reasoning deals with two aspects. First, that emerging economies provide unique opportunities for investors, and, therefore, benefits from implementing efficient practices of corporate governance; second, differentiating the institutional context framing a case may change the understanding of what are the “right” practices for corporate governance itself.

According to Rajagopalan, Zhang (2008) both foreign investors and local firms have an interest in and benefit from well-structured and functioning mechanisms of corporate governance in emerging markets.

In the early 1990's China opened itself to foreign direct investment (FDI) for the first time, allowing foreign investors to acquire a shareholding of A-share on the Shanghai and Shenzhen exchanges. The opening provided newfound opportunity for investment and growth, but also increased exposure to risk as a result of the under-developed governance environment. To protect the short- and long-term interests of their projects and to define their level of involvement, foreign investors always have to be aware of nuances and alert to sensitivities concerning institutional and organization frameworks that shape non-transparent and specific mechanisms of corporate governance in developing countries (George et al., 2000).

At the same time they entail risk, emerging economies also represent special opportunities to organically develop and implement corporate governance practices. Even though Rajagopalan & Zhang (2008) mostly concentrate on the issues of emerging economies “corrupting” corporate governance practices by being opaque and unwilling to accept the best

Western experience, my own research proposes that major differences in institutional environment may require adaptation of corporate governance practices between mature and developing environments. It is myopic to call such a situation a failure of implementation of the western experience; rather it is a successful modification of the model to factors specific to a country's institutional context. The difference in ownership structure and unclear legal and business arrangements that are often a factor may lead to variations arising when executing a western model of corporate governance in a non-western setting. Foreign investors see the gap in this implementation, but it is important to alibi a verdict of failure by observing whether the system is functioning, or, at least, trending in the right direction in regards to revenues and investment behavior.

In the end it is not only the regulators who are quick to pronounce the adoption or implementation of the practices, but also the system that can or cannot be arranged in favor of western standards.

1.3. An issue of Ownership of State-Owned Enterprises

There are debates about to which type of ownership do SOEs belong. Some researches speak strictly about the concentrated type of ownership of SOEs. For example, according to Xu & Wang (1999) the ownership structure of SOEs is highly concentrated among main shareholders, while private listed firms have dispersed ownership. In contrast, Denis and McConnel (2003) claim that in instances in which the government has significant shares of a company, a hybrid type of dispersed and concentrated ownership emerges. The explanation of this phenomenon lies in a dissection of the dual nature of the state as an owner. Able to support the company with almost unlimited resources, the state becomes a strong blockholder of the firm; this creates an analog to a highly concentrated ownership scenario. The argument for dispersed ownership arrives as the natural conclusion to the view that the state itself is not a singular entity but a community of individuals. Thus, resources that

belong to and invested on behalf of the state as an entity represent the collective will of many individuals. Ownership and investment of state resources is dispersed since the state's ownership is itself dispersed (Denis and McConnel, 2003).

There are also debates about the correlation of the type of ownership and performance. As companies that have undergone privatization are proven to show better performance, there is an assumption that concentrated ownership negatively correlates with performance (Sun et al., 2002). King and Santor (2008) study the potential for a negative effect of concentrated ownership, i.e. kinds of power misuse by larger shareholders and managers under differentiated control. According to Qi et al. (2000) state ownership negatively correlates with firm performance as the example of Shanghai Stock Exchange for the period of 1991 to 1996 demonstrates. Solomon (2007) does not, however, support this argument, counter-claiming that the government possesses the political and financial resources to positively influence a SOE's performance in comparison with the private sector. The research goes on to claim that concentrated ownership can positively influence the company's performance in two distinct ways. First, the larger shareholder can help to limit agency problem (Hu & Izuminda 2008). Second, a large shareholder (in this case the state) is strongly motivated to execute more thorough control and to exercise his or her decision-making right (Chiu & Lewis, 2006).

Opinions also differ concerning monitoring in SOEs. Dam & Scholtens (2013) view concentrated ownership as a condition for more effective monitoring. Claessens et al., (2002) mention that the concentration of ownership is supposed to positively influence a firm's performance through enhanced monitoring at the behest of large shareholders. In contrast, Mei (2013) proves that, as compared to private firms, the state normally does not have capabilities to provide necessary monitoring, control, and incentive structures.

Bamberg et al. (2012) studied the way the state functions in a role of principal. The aim of the state and its government is to provide and meet social goods and objectives for the

community of people. To accomplish this, the state employs people at different institutional levels, therefore becoming a principal with hired agents. At the same time the government represents the state—i.e. an owner of certain property—and in this role might have solely economic interests. Moreover, the government is not a unitary behemoth, but is itself comprised of representatives who are individuals each with their own incentives, whether power, influence, or money (Lane 2005). In a situation of state ownership Gugler & Yurtoglu (2003) suggest that the Citizens being a Principal that got very little control over the State as an Agent. That together with non-financial goals of the State and poor monitoring over Company's managers lead to a negative effect of a state control over Company's efficiency. The goals of the State presented by bureaucrats, are also not necessarily in line with maximizing the well-being of employees.

Therefore, I can conclude that the government as a principal is faced with a puzzling trilemma of objectives: first, it must pursue socially important goals; second, act as an economic entity that should raise profits; and third, fulfill the individual ambitions of its representative members. The “people”, in whose interests the government act also perform ambiguously: on the one hand they are ultimate principals because they are the objective of government's acts; on the other hand, the government hires them to perform certain work, therefore making them agents. Thus, there is complexity to the topic of the state as a principal on several levels, foremost: the complicated nature of state's objectives and the dualistic role of both principals and agents.

Toninelli (2000) refers to SOEs managers as “agents without principals”. Identifying the state as a principal leaves ambiguous the answers to the question of who is in charge. Is it the local government or higher officials, or is it the public in general, or perhaps the bureaucrats. Li and Zhang (2007) point out the problem of a lack of ultimate principal in SOEs that prevents defining the right mechanism to control and influence managers' self-aligned behavior. Also, SOEs may display a of divergence of principal and agent goals. The

state as a principal might be concentrated on socio-political goals, whereas managers as agents might be more interested in increasing profits Bamberg et al. (2012).

Qian (1996) call the costs that arise from the divergence between the principal and agent's cost "political costs", differentiating them from regular agency costs that principals shoulder to prevent managers from privately benefiting at the firm's expense. Political costs can also be called "bureaucratic costs" as an indication of governmental officials ruling SOEs in socialistic or transitional economies (e.g. in the work of Bai and Wang (1998)). Bureaucratic control over enterprises whether termed political or bureaucratic cost is so named because the principal is still not the ultimate beneficiary of enterprise's operation. The final beneficiaries are the public citizens, on whose behalf bureaucrats perform as agents. But, being still one step removed from the final outcome, bureaucratic principals lead to enduring soft-budget constraints in the state sector (Keasey, 1999).

I may conclude, that in situations with several strong shareholders, the typical problem of principal and agent relations can become further clouded by conflict among principals. This is particularly true in circumstances with both controlling and non-controlling shareholders, i.e. when there is a separation of owners that possess resources from owners that possess control (Becht et al. 2002).

Forbes-Pitt (2011) finds that depending on the distributed possession of resources there may arise several variants of shareholders tensions within a concentrated ownership structure. First, if minority shareholders possess little resources they are in danger to be excluded from ownership by their more resource endowed counterparts. Second, if minority shareholders possess significant resources, they may cause a deviation in the control of the firm from its majority shareholders. Concentrated ownership may also lead to full control by the larger shareholder over the managers. This may result in suppressing managers' initiatives, diversifying managerial risks, and lead to a situation of shareholder in control (Guislain, 1997). Still, large shareholders may misuse their power in order to gain profits that would not

necessarily be in favor for smaller shareholders (Qi et al., 2000). Large or small, external shareholders positively influence a firm's performance by inspiring larger shareholders to improve monitoring (Guislain, 1997). Also, Gugler (2001) points out that institutional investors are getting more and more importance worldwide. He also claims that even in case of institutional investors, the identity of shareholders matter. He finds it also very important to find out their influence over company's corporate governance.

1.4. Corporate governance of Chinese National Oil Companies

Tordo et al. (2011) sum up the literature on the relative advantages and disadvantages of National Oil Companies versus Private Oil Companies. As China cannot accurately be described as having completed a true privatization of its NOCs I mention the arguments for keeping the state control over NOCs.

“Public ownership does not imply state monopoly and private ownership does not entail competition” (Carney & Farrington, 2005). Chinese government has had a strong motivation to keep full control over its three main oil companies. First, NOCs are huge State-Owned Enterprises, providing hundreds of thousands of jobs and contributing to securing political and social stability. Given these circumstances, it was too risky for the state to disrupt, let alone forfeit, its considerable control of such a powerful sector. Second, beginning in 1994 China began to rely solely on oil imports, the impetus to secure the oil supply lying in its relationship to and the necessity to keep social and, therefore, political stability.

There are also political reasons for China to retain state ownership of its energy sector. On the one hand, China is often faulted by other members of the international community, particularly liberal Western democracies, for involving itself with politically and socially-challenged countries for the sake of oil contracts (Schaffartzik & Fischer-Kowalski, 2018). On the other hand, as nationalized entities, when negotiating such less than savory contracts with Chinese NOCs are entitled to act on behalf of the government backed by the leverage and

clout that such association affords and with the government's full financial and political support.

Still, public ownership of oil companies leads to certain difficulties that may influence both the industry and the operations of the company. Most of the problems arise from the collision between the state and the enterprise as each pursues its respective goal. The state is not necessarily interested in maximizing profits; instead, its aims center on creating stability, securing employment, and protection of reserves. This is a well-known principal-agent problem. It occurs because the state as ultimate owner outbalances the interests of its two agents: the citizens and NOCs management. At the same time, NOCs management possesses a higher level of expertise in industry and may influence government decisions regarding regulation and policies. This problem directly influences the operation of NOCs, and may result in reduced efficiency.

Another point that leads to a decreased operational efficiency is the lack of developed institutions and educated personnel. In fact, the government officials who represent the ultimate owner of Chinese NOCs often do not have economic or managerial education; in a situation of weak fiscal and regulatory institutions this may be fatal for to efficiency. Within the industry, Chinese NOCs operate in a highly protected environment. Though China claims a certain degree of competition, a mere two major NOCs that compete solely with each other in terms of downstream hardly constitutes a competitive environment. However, the Chinese NOCs are less restrained about maximizing profits. PetroChina and Sinopec are involved in joint ventures with Western companies in a sphere of upstream operations, construction of petrochemical plants, and setting up retail networks.

Downs (2011) claims that the central government expects Chinese NOCs to be profitable and successful international oil companies that focus on corporate social responsibility and corporate governance both in China and abroad. Therefore the top

management of NOCs experiences lots of pressure to meet high corporate standards both in domestic and international spheres of operation.

Yetiv (2015) raises the interesting argument that NOCs may have a tendency for what so called “challenged transparency”, meaning that NOCs may disclose information to owners but not outside parties. From this perspective, minor shareholders of Chinese NOCs play a simultaneous, dual role of an outsider and an owner.

Victor et al. (2011) claim that in comparison to other SOEs, NOCs tend to have less strict corporate governance. As the rolls higher management and board of directors is filled by representatives of the government, these leaders are seldom motivated to ensure the development, application, and fulfillment of corporate governance standards. At the same time managers of NOCs usually have less independence in the decision-making process as compared to managers of regular SOEs.

Even though the topic of corporate governance in listed companies in China is quite young, it offers a surprising depth of research papers and case studies. The Organization for Economic Co-operation and Development (OECD) Working Paper of 2005 offers thorough descriptive material on this topic representing different aspects of corporate governance for listed companies in China. Those aspects are: the treatment of shareholders, informational disclosure, control and other functions of the board, and corporate social responsibility of companies' stakeholders. It also includes a thorough presentation of institutional and legislative framework of Chinese listed companies (OECD, 2005).

Though initially encouraging, these aspects are presented from the point of the Corporate Law and other documents and circuits without any comment on their fulfillment. For example, OECD cites Article 11 of the Corporate Law that grants institutional investors rights to participate in an appointment of company's directors and take part in major decision-making processes (OECD, 2009). However, there is neither mention that the “appointment of directors” means the appointment of independent non-executive directors, nor that the

investors' rights refer to the right to suggest candidates. There is, moreover, no clear definition of what constitutes a major versus minor decision, and a neglect shown to whether and in what quantity an institutional investors should possess a percentage (and not a small percentage!) of the company's shares in order to exercise the minimum of granted rights.

Nathan and Scobell (2015) present an overview of three main Chinese NOCs and claims that Chinese NOCs are neither regulatory nor public governmental agencies.

Some authors see the direct threat of a global expansion of Chinese NOCs (Lind & Press, 2018). They perceive the corporate governance of NOCs as solely profit-chasing, and the managers as only acting in favor of the state. It is also mentioned that Chinese NOCs cannot be compared to European NOCs due to the goals that the Chinese government ascribe to them (Mallin, 2011).

Tordo (2011) speaks of three levels of NOCs budgetary independence: low, some, and high. With low budgetary independence NOCs transfer all revenues back to the state and are obliged to make requests to fund their own projects. Some level of budgetary independence means that the NOC can apply a measure of its profits to meet its own needs; still the ownership of the NOCs belongs to the state, and above the certain amount budgeted it, the NOC must yet request permission for investment and movement of capital. High budgetary autonomy authorizes the board of directors independent jurisdiction to direct monetary decisions.

1.5. Corporate governance and Chinese stock market

In 1987 SOEs were officially granted permission to become independent legal entities. Some companies became independent due to the process of corporatization that transformed SOEs into listed companies (Qi et al., 2000). Managers of companies gained higher levels of autonomy during the corporatization process but were still excessively dependent on state decisions and support. The negative impact of this relationship on SOEs' performance led to

the decision to issue companies' shares for public trade. This measure was meant to bring SOEs to the market and boost performance but was not done with the intent to privatize companies, i.e. take state-owned shares away from the state. Thus, even though certain SOEs have gone through listing, they can be considered only partially-privatized (Chen et al., 2009).

The Chinese stock market was officially established with the opening of Shanghai and Shenzhen Stock exchanges in 1990 and 1991. Still, even though the institution was present, there was a very poor institutional environment with neither stable corporate governance regulations nor robust rules (Bai et al., 2004). One big step in building the institutional environment was the 1992 establishment of the China Securities Regulatory Commission. The Commission's main function was to regulate market affairs and protect shareholders of listed companies. Chinese government helped to develop corporate governance systems on the Exchanges by introducing a new entry mechanism in 1999. When a company placed an IPO it was required to follow set corporatization procedures and demonstrate sufficient performance within one year. The process of corporatization helped newly listed companies overcome the heritage of inefficient SOEs, but though the framework was established concurrently with SOEs reforms, the corporate governance of listed firms remained problematic (Wei & Geng, 2008).

There are five distinctive characteristics of corporate governance of Chinese listed companies. First is the concentrated type of ownership with the state as the trump-wielding power. Large state-owned shareholders bearing controlling rights own the majority of listed companies (Li, 2008). On average, state shareholders own 45% of listed companies. Compounding the control afforded by this large stake, these state institution shareholders are also assured to be the largest single owner (Qu & Zhang, 2000).

Second, and building upon the first observation, Chen et al. (2009) points out a sizable gap between the number of shares the first and second shareholder are likely to hold. Because

of the gulf between the shareholders, the largest shareholder can easily misuse power in order to increase its profits at the expense of the other shareholders (Zhou & Lan, 2018).

Third, there is an observed relationship between the nature of state ownership and certain type of agency relationship. Local governments are the entities which nominally possess the state-owned shares, but do not have the right to benefit from that position. All dividends collected from SOE shares on stock exchanges must be transferred to the financial department (Liu, 2014). Due to this, the owners of state-owned shares quite often have no vested interests in developing corporate governance and increasing profits, but rather invest their resources to develop relationships with higher political circles (Howie & Walter, 2011).

Fourth, an excessive number of non-tradable shares is common. Where there is no trade, there can be no market, and thus no need for corporate governance tools to oversee controlling (Yeh et al., 2009).

The final feature is that the controlling shareholder alone appoints agents, i.e. top managers of the company. As discussed in the preceding review, this relationship is very likely to lead to collusion between shareholders and managers (Liu, 2014).

A number of authors have published work elucidating aspects of the corporate governance and Chinese listed firms beginning from the end of the 20th century. Tam (1999) was exploring the topic of corporate governance in the Chinese developing market and possible issues that can prevent introduction of positive corporate governance practices in newly listed Chinese companies. Yu (2013) studied the direction of Chinese stock market development in terms of introducing new incentive schemes and deregulating entrance restrictions. Li (2008) introduces the number of indexes for evaluation of different aspects of corporate governance in Chinese companies. Among the indices, he develops one that evaluates the behavior of the controlling shareholder and top management. The Chinese listed companies are taken as an example for the stakeholder governance index.

Nakamura (2008) studied the adaptation of Anglo-American practices of corporate governance in Chinese and Japanese companies. He edited the book of articles, “Changing Corporate Governance Practices In China And Japan”, which discussed corporate governance issues in Chinese SOEs and listed firms. The work included articles on such issues as protection of minority shareholder’s rights and interests under the Chinese Corporate Law (Shuliang Wang in Nakamura, 2008), the role of independent directors in Chinese listed firms (Jiangyu Wang in Nakamura, 2008), and selective adaptation of international norms of corporate governance in Chinese Companies (Goo & Carver in Nakamura, 2008).

Liao (2009) discusses the governance structure of Chinese state sector, and claims the high level of surplus as a result of SOEs’ corporatization and privatization. Leng (2009) presents a comprehensive research on corporate governance in China in relation to financial reform. She explores topics ranging across corporate governance and the performance of listed companies to the structure and effect of the legal and regulatory reforms that were introduced to improve corporate governance of Chinese listed companies. Jia et al. (2010) introduces research on corporate governance and resource security in China by presenting two case studies of big Chinese resource companies (Sinopec and Baosteel) in order to describe the corporate governance challenges of an industrial firm. Chen and Shi (2002) discusses stock exchanges and listed companies in China in terms of political determinants, i.e. regulations and artificial burdens of the stock market’s development. Shi (2012) also explores the main problems of the post-transformation SOEs and listed companies, naming among the challenges facing these organization as excessive state ownership, lack of investor protection, and inefficient supervision of listed companies.

Using the empirical data on a three-year panel of all publicly-listed companies in China Bai et al. (2004) prove that a high number of non-controlling shareholders (i.e. second principal) in conjunction with issuing shares to foreign investors resulted in a higher valuation, i.e. an indisputable positive effect. At the same time, the research also showed that the firm

valuation suffers when the CEO of the company is a government representative and when the state is the largest shareholder of the company.

The corporate governance structure of listed companies in China presents such elements as:

- shareholder meetings
- board of directors
- independent directors
- supervisory committee

Listed companies in China observe an ostensibly two-tiered board system (i.e., the separation of directors and supervisors). However, there are certain difficulties with the supervisory board that prevent recognition as truly two-tier. Normally, in a two-tier system the management board is responsible for implementing decisions over functional operations of the company; the supervisory board has in turn control over the management board, including decision-making about the board's membership. In China, by contrast, the supervisory board is often relatively small, lacks expertise about the company's operations, and does not have rights to displace board management (an Interview with the industry insider).

Chinese listed company boards—often primarily comprised of representatives from parent companies and government officials—are believed to be weak. Despite the duty to protect all shareholders' rights and monitor the rule of law in a company, the board is not always capable of performing this essential function due to a minority amongst the membership of professional directors with a financial or law background (Chen et al. 2009). Attempts to address this issue have been made, but still leave much to be desired. Since 2001 all listed companies have been obligated to include independent directors within their board; the Chinese Security Regulatory Commission (CSRC) currently requires that independent directors make up at least one-third of board. However, it remains unclear whom exactly and

with what qualifications should be appointed independent directors and how these individuals should best act to represent minority shareholders within the company.

There are three types of shares in listed companies: state-owned shares, legal person shares, and privately owned shares. Only one-third of shares can be traded relatively freely on the stock market, i.e. those in the last category—owned privately by Chinese investors or belonging to overseas investors. State-owned shares and legal persons shares are not tradable.

State-owned shares belong to state asset administration bureaus, state investment companies, and parent companies of listed firms (Yu, 2013). State-owned shares are not tradable on the stock market, but with the approval of the CSRC can be distributed to state institutions (Sun & Tong, 2003).

The term legal person regarding share ownership describes a group of people who unite in order to act as a single individual. In certain circumstances it may be allowed for a single person to gain recognition as legal persons, i.e. when making contracts, proceeding legal events, and owning the property (Wei, 2008). Normally legal person shares are partially owned by central and local governments or state institutions and are not tradable, even though they are considered private. Nevertheless, the shares may be transferred and exchanged among their owners (Jia & Tomasic, 2009).

Privately owned shares, i.e. tradable shares, fall into four subcategories based on conditions regarding the trade and ownership. In addition to the "B" shares, the "H", "L", and "N" types of shares allow Chinese companies to raise foreign capital overseas. "H" shares are issued to foreign investors on the Securities Exchange of Hong Kong. "L" and "N" share are issued by Chinese companies and traded on the London Stock Exchange and the New York Stock Exchange, respectively (Guo, 2007).

1.6. Agency theory in Corporate Governance

Agency theory is based on the financial economic theory. Agency theory posits that one party (principal) hires another party (agent) to perform work (Mallin, 2011). Principals that are shareholders of a company therefore delegate the running of a business to its directors or managers, who are shareholders' agents (Clark, 2004). The theory concentrates on delineating and defining principal to agent relations. Adam Smith predicts the conflict of interests that may appear in case when owners of the company are separated from those who are in control; Clark (2004) takes up the topic at length.

Later, the idea of separation of ownership and control as a root of problems in agency theory was confirmed within the second stream of the theory's development in the 1980s (developed by managerial capitalism, organizational theory and strategic management (Mallin, 2011). Alchian and Demsetz (1972) first describe what is considered modern agency theory, which is later expanded by Jensen (1976). Jensen and Meckling's (1976) work also elucidates the possible conflict of shareholders and debt-holders, while Wymeersch (1998) writes about the opposition of controlling shareholders and independent directors in terms of the range of influence.

According to the agency theory, shareholders expect agents to act in the principals' interests. However, that is not always the case, as demonstrated by Padilla (2000). The agency relationship obtains many potentially conflicting areas. Daily et al. (2003) point out two main factors that form the understanding of the agency theory. First, it involves simple concepts, reducing the corporation to two core participants: managers and shareholders. Second, it suggests that those employees and managers in an organization can act in their own interests. Supporting the first point, Mallin (2011) claims that agency theory views the company as a nexus of contracts. Haslinda and Benedict (2009) define agency theory as "the relationship between the principals, such as shareholders, and agents, such as company executives and managers"

Agency theory deals with the phenomenon known as agency problem. Agency problem has its roots in the separation of ownership from control in a company. It occurs as a condition of relative freedom of decision-making when no special internal mechanisms are in place to prevent top-managers from acting in self-interests rather than in that of their shareholders (Tosi, 2009). This situation leads, among others, to the following two problems: asymmetrical information, as the agent can choose not to disclose all the information to owner; and the managerial misuse of company's assets.

In this scenario, due to the agency problem the principal falls into what is termed agency cost. Agency cost refers to measures implemented by the principal to ensure the agent fulfills tasks in line with principal's interests. In order to minimize agency costs the principal has to balance monitoring costs, i.e. the costs of risk-shifting against the cost of unresolved agency problem. There are two main ways to solve the agency problem—establish a sufficient incentive program or implement good monitoring measures. The incentive program should be applied to skew the agent's interests away from the selfish misuse of the company's profits towards a connected view in which his own welfare parallels the welfare of the company, i.e. the principal. Generally speaking, there are two methods of manager incentive—stock options or salary bonuses awarded in connection to performance

Tosi (2009) points out three common situations within the agency theory; I identify them as the three main sources of the agency problem. First, there can be a divergence of interests of shareholders as principals and managers as agents. This normally is added up by self-utility maximizing of both actors. Without the self-utility, maximizing principals could influence agents' interests in order to align them with their own, however it is the self-utility maximization by agents themselves that becomes a source of an agency problem.

The second situation lies within managers' work- and risk-aversion. Mallin (2013) calls this phenomenon 'agent's infidelity'. Hired to act in the best interests of the principal, the agent may in fact not or only partially fulfill this task. This can be related to managers' risk

aversion or misinterpretation of the risk-profit situation. If agents are not risk-averse, principals can make agents' income dependent upon the company's performance. The ideal situation under these principles would be a hypothetically 100% risk-taking manager whose goals are aligned with those of the owner. In this case the need for monitoring and controlling tools would be moot, as managers would undertake with vigor all assigned work as it would be in their own as well as their employer's best interests (Goergen, 2018).

Risk aversion is, however, a general assumption of managerial behaviors in agency theory. Whereas the owners of capital remain largely risk neutral by diversifying their investment, managers are without this option. They cannot diversify their human resources and must depend on market and other fluctuations that may by turns positively or negatively influence their work. In such a dynamic variable situation managers logically choose to diversify risks (Tosi, 2009) The agent may succumb to self-interest, selfish behavior, or fail to balance his or her own aspirations with the principals' plans. For example, Ahlstrom and Burton (2009) conclude that mergers are very often arranged with the intent to facilitate the risk management of a compromising managers' income. Holmstrom and Milgrom (1994) further argue that rather than aiming efforts at modulating incentive payments, agents focus on projects with high returns and have a fixed wage without any incentive component.

The third source of an agency problem is informational asymmetry. Informational asymmetry arises when agents obtain special information that can influence a company's performance and principal's profits (Tosi, 2009). If an agent obtains more valuable information, he or she may consciously use it to compromise the principal's interests to protect material or non-material assets. This informational asymmetry becomes the source of an agency problem as principals cannot omnisciently monitor all managers' activities and must consign themselves to some degree of trust (Mallin, 2011). Tricker (2012) refers to "myriad"

instances in which managers in listing companies misuse a principals' lack of information to accrue benefits³. As the root of this conflicts lies in an unavoidable inability of owners to construct perfect contracts and maintain seamless monitoring of managers, firms easily becomes prone to resultant value reduction (Denis & McConnel, 2003).

Tosi (2009) summarizes potential goals of managers in opposition to owners by referring to the research in management, sociology, political science and accounting. Those are: participation in merges and acquisitions that increase agency costs for the owner, but are profitable in terms of managerial gains; blockage of organizational control mechanisms through internal political strategies and influence performance evaluation to manipulate efficiency reporting; unfavorable investment decisions regarding owners' profits and manipulation of accounting methods such as treatment of inventory, depreciation, and interest charges to provide slanted results that favor them over their stakeholders.

Agency theory claims that monitoring and incentives are necessary in instances in which the goals of owners and managers are divergent or the actions of the manager cannot harm the owner. The monitoring costs include various types of actions that should be performed by the principal. It consists of establishing "incentive schemes, monitoring procedures, supervision, added hierarchical levels to the organization, information systems, budgeting systems, reporting procedures and boards of directors" Tricker (2012). While costly to implement, monitoring is however an effective tool to solve an agency problem.

Basically, monitoring deals with three types information collection discrepancies, which may arise due to self- over company- interest pursuits. These are: information concerning the manager's effort, information about external factors influencing firm's performance, and misestimating the outcomes. The agency problem does not occur when all

³ Monks (2008) writes about trillions of shareholder's profits that have been pulled out of the US companies as a result of managers abusing their responsibilities.

these two types of information are simultaneously available for the principal unencumbered by error or manipulation. Monitoring has proven an effective predictive tool of managerial performance. Thus, Baker et al. (2008) sketch strong interrelation between well-enforced monitoring and reduction of risk-shared payment for the agents (i.e. enhanced monitoring predicts outcomes of a manager's effort; therefore easing contract fulfillment).

Within an agency theory principals experience several challenges. Such challenges include moral hazard, adverse selection, and monitoring problem. Moral hazard is manifested either by lack of effort of the agent or misuse of the principal's resources in the agent's own interests. Adverse selection characterizes agent misrepresentation of the ability to meet targets and achieve private objectives. This problem can be eliminated in two ways. Either through disclosure of the agent's private information, eliminating opportunities in which he or she may not profit, or through risk-distribution between the agent and principal that minimize the agent's returns in cases of misrepresentation (Ward & Filatotchev, 2010).

Shareholders' monitoring problem is closely related to the ownership issue. In situations of dispersed ownership the single shareholder is incapable of influencing the monitoring system over managers, due to the requirement for considerable additional resources. In a situation of dispersed ownership among unacquainted shareholders this becomes an impossible task. In order to enforce optimal monitoring systems shareholders should cooperate. However, it is worth noting that authentic cooperation must often arise through self-initiation of both inspiration and motivation to be most effective. Single owners with small shares may not be interested in spending the additional resources required for solving managerial issues. Thus, shareholders with larger assets are capable and more motivated in the task of controlling, monitoring, and other mechanisms key to influencing managerial behavior (Maury & Pajuste, 2005).

Principals try to reduce agency problem by linking managerial compensation to performance (Denis & McConnel, 2003). Making the payment of managers dependent upon

their performance, eliminates many challenges to curtailing risk-averse and moral hazard problems. Linking managerial compensation to performance helps the owner to reduce his or her own risk of fixed salary compensation schemes in case of poor outcome due to inept, unformed, or otherwise ill-advised management. The self-utility maximizing managers do not have to create moral hazard or adverse selection because it can compromise their own payment (Tosi, 2009). Research demonstrates a variety of correlated and intersecting instances of risk aversion and manager compensation (Milidonis & Stathopoulos, 2014). The dominant trend in the theoretical discussion concerns interconnecting manager compensation with self-directed outcomes, but never leave the totality of risks to the independent manager. The stronger the link between a manager's effort and outcome, the more risks the principal shares with an agent (Evans, 2013). Risk-sharing is less desirable in the situations where the outcome of manager's effort can be mitigated or influenced by extenuating external factors – in this case manager would rather claim additional compensation. Generally rewarding the manager for measurable result that supports owner's interests represents risk sharing.

In order to eliminate agency complications, shareholders may create mitigating agencies or controlling organs, such as a board of directors (Denis & McConnell, 2003). A board of directors is specifically in charge of representing interests of shareholders. Therefore the board's function is to hire, fire, and otherwise monitor the interim performance of managers in the interest of shareholders with the intent to maximize the firm's value. Huse (2007), along with many other researchers, views the board of directors as an essential instrument to monitoring managers in order to avoid potential abuse of power. It is also seen as a tool to protect shareholders' against self-involved managerial decisions. Agency costs that arise as a result of this monitoring are perceived to be both inevitable and justified.

In terms of agency theory, the board of directors should act in the best interests of the owners. Whether this is true, depends on the level of ownership dispersion. That is, in case of high dispersion amongst a large number of equity holders it is more likely that the board of

directors will act in the interests of managers. Observation of this behavior stands regardless of legal implication and other obligation. Moreover, a board of directors often reflects a selection bias. Members are often appointed by the top management of the company, therefore moving their members and their resultant decisions in elementary steps closer to the management rather than to stakeholders.

Another common flaw is that the main board chairman simultaneously serves as the CEO of the company, thus placing these individuals in a self-monitoring position that can easily lead to oversight in the name of self-interested goals. Finally, monitored managers themselves may at the same time serve on the board, creating again a system of self-policing which can easily be abused. If this happens, the board loses its main function: to advocate shareholder interests. This setting compromises the actual belief about the board of directors. Rather than protect shareholders' rights, the structure raises incentives for the board directors to act with bias to owners.

Considering this, the main subtopics discussed within the issue of a corporate board role are the board's structure and composition, executives' compensation, and independent directors. Board composition covers both the total number of board representatives, as well as the number of insiders vs. outsiders among them; the size and the structure of the board; and the appointment of board chairman, namely whether or not he or she is also the CEO. Hermalin and Weisbach (2003) review the literature on the efficiency of the board in terms of structure and outside directors. They claim board size negatively correlates to the firm's performance and decision-making process and that dramatic structural changes within the board often lead to correspondingly large shifts in the company's performance and function. The more frequent, numerous, and intense external directors' participation, the more effective decision about mergers and acquisitions, managerial appointment, and executive compensation.

Executive compensation research discusses the best motivation and incentives to extend to managers to ensure their reciprocal loyalty to the shareholders' goals. Considering

managerial incentives does not, however, resolve the argument concerning their strength of influence on agent's performance. Understanding incentive and compensation is central to the "viable theory of the firm" (Baker et al. 2008). The effect of an incentive structure may vary according to difference in implementation between companies (Chandra & Wimelda, 2018). Also, research shows a negative correlation between using incentives and monitoring; firms with stronger monitoring had less incentive alignment, and vice versa (Demougin & Fluet, 2001). There is still no evidence on substituting increased incentive mechanisms for more intense monitoring, or for implementing heightened monitoring without additional incentives. The question of control emerges paramount: is it the board of directors that control managers, or owners that should control the board of directors, or perhaps both?

Research on a European approach to the board of directors appears in research by Clarke (2007). He concludes that European boards of directors are not prescribed by law and generally do not claim shareholder wealth maximization as a primary task of their agenda (exceptions from this rule are Great Britain, Switzerland, Belgium). European firms' boards are mainly unitary and two-tiered. Two-tiered boards are compulsory in Germany and Austria. Such a board incorporates both company executives and a supervisory board representing company. There is no sound evidence displaying a significant positive effect of such board structure on the firm performance.

Despite a lack of firm evidence, in 1992 the UK became the first country to issue the Codes of the Best Practice, prescribing recommended board structures and roles. Even though the Codes are not mandatory, many European countries followed the UK example and issued their own Codes. The common feature of most of them is requirement that a certain percentage of independent directors sit on the board. The UK Codes, for example, forbid the CEO to serve simultaneously as the chairman of the board; it further advises the tally for independent directors be no less than three. Though it is voluntary to abide by the Codes, their application is widespread. This feat achieved by a requirement that firms

declaring opposition to the recommendations made by the Codes must justify their decision when during an IPO on London Stock Exchange (Denis & McConnell, 2003).

Agency theory outlines strong interrelation between the ownership structure and the performance of the company (Hu & Izumida, 2008). Firms are classified according to their ownership structure, defined by the share of any shareholder in the company. It is shareholders who determine the ownership structure of the company, making ownership structure one of the sources of an agency problem (Ang et al., 2000). Subjects who obtain control of the firm define the ownership structure. That control gives in its wielders' power to select the board, or at least a majority of the board of directors. That power is then further exercised by influencing voting outcomes—either through legal or illegal mechanisms—or otherwise exerting pressure over the choice of key figures in the company. If the single non-management equity holder in a company has got at least a 5% share of stock holdings, the company is classified as owner-controlled. Which side of the 5% share of stock holding upon which the owner falls determines next whether the firm is classified as either, when under 5%, manager-owned, or owner-managed if over (Tosi, 2009).

The most frequently described agency relationship in corporate governance is a relationship in which different ownership and control rights are distributed among the corporation's parties. Shareholders usually obtain ownership and refer control to the managers. That managers may use or misuse as an asset. Apart from this ownership type, there exist also property rights relations within the company. For example: relations between the company (i.e. shareholders and managers) and the provider of financial sources, and relations among employers and employees; it is not uncommon that managers also obtain property rights in a company. So, it is infrequent that ownership and control of the company are fully isolated from each other. More often, some owners with bigger assets use their power to influence the control of the company and managerial decisions, while some managers acquire and exercise ownership rights (Denis & McConnell, 2003).

Generally, the separation of ownership and control is a beneficial model. Those who possess capital do not necessarily also obtain managerial talent, and vice versa. Also, separating ownership and control let the owner of the capital gain returns on investing it and ensure the growth by benefiting from the firm's size. This happens despite managerial constraints like risk aversion, wealth seeking, etc. (Panda & Leepsa, 2017).

Hence, I would define four possible equity ownership types: owners without control, owners with control, managers without ownership, managers with ownership. The extent of control does not seem to depend on the quantity of assets; it is likely but not a inevitable that the owner with considerable assets would influence firm's governance. However, a member of board of directors who obtains property rights in the company may be more influential in terms of the firm's governance (managers that comply the board or CEO as a board's chairman).

1.7. The relevance of agency theory

Granick (1990) in his considerable work on regional property rights of Chinese state-owned enterprises (SOEs) notes that the state and local governments, that were in charge of SOEs and were therefore equated to them, can be described by the Stackelberg duopoly model. According to this model the state represents a principal and local governments represent agents. Both principal and agent are in charge of certain an open-ended variable, V_1 and V_2 respectively. The principal assumes that the agent sets value according to the equation V_2/V_1 , and so set his variable (V_1) accordingly to this assumption. Therefore, the principal's variable is set as $V_1(V_1/V_2)$. The agent, observing the principal's choice, is convinced that the principal will stay by his choice and set V_2/V_1 in line with the role of a Stackelberg follower.

Granick develops his thought that the principal and agent differ in their behavior towards each other as a result of the difference in their relative power. Applied to the SOEs, the state (principal) as the more powerful actor sets the institutional and economic conditions;

local governments (agents) due to their proportionally diminished standing cannot significantly influence or challenge these conditions and instead attempt to maximize their utility function within the state's parameters. This situation was clear and relatively stable until SOEs began undergoing privatization through listing. In the new order (beginning from 2000) the state was no longer the only principal. As SOEs gained other shareholders, the shareholders took on the role Stackelberg followers (i.e. not the agents but following principals) because they still needed to operate largely within the state-set parameters, but were also not the operators of the enterprise. In other word, SOEs—and NOCs that are in focus of this research—are operated neither by the state nor by private shareholders themselves. Instead, these institutions are operated by hired managers who must correlate their decisions with both the state and private shareholders.

As soon as the situation is split between ownership and control of the company, a principal – agent relationship with all its challenges and solutions becomes apparent. The situation of NOCs in this case is burdened by inserting the second part accompanying ownership rights, namely private shareholders.

Research by both Cournot and Stackelberg describes the case of multiple principals in duopoly models. Each model describes two principals – two companies – that have to decide on the amount of output (Tremblay & Tremblay, 2012). In the case of Cournot, markets' principals have to decide simultaneously in a situation of non-cooperation. Each principal acts rationally, offers homogeneous products, and have the market power so that their decisions influence the setting of the market. As the wrong amount of output can lead to profit loses or earning nothing, there is a need for principals to optimize their expected earnings. Taking variable Q to equal total quantity, with subvariables q_1 and q_2 as the quantities of the product principal 1 and principal 2 should produce, then their total output will be:

$$Q = q_1 + q_2$$

A price function $P(Q)$ that shows how much of each unit of a product will be sold equals the difference between demanded quantity α and total quantity Q if $Q < \alpha$, or if $Q = 0$ when $Q > \alpha$ or $Q = \alpha$. So that price functions looks as following:

$$P(Q|Q < \alpha) = \alpha - Q$$

$$P(Q|Q > \alpha) = 0$$

The cost of each item c with the assumption that $c < \alpha$ (i.e., that at least some production is profitable) will look like:

$$C1(q1) = cq1 \text{ for firm 1}$$

and

$$C2(q2) = cq2 \text{ for firm 2.}$$

The utility function U for each firm posits the amount of goods produced times the amount of money each unit generates. Interpreting the price and cost functions, the utility function for $U1$ is:

$$U1(q1,q2) = q1 (\alpha - q1 - q2 - c) \text{ for firm 1}$$

and

$$U2(q1,q2) = q2 (\alpha - q1 - q2 - c) \text{ for firm 2.}$$

In order to figure out which optimal value of q_1 the firm will choose to produce, we take the first order condition of utility function of every firm and solve it in terms of zero. The critical value of q_1 that maximizes utility function U_1 is therefore:

$$q_1 = (\alpha - q_2 - c)/2 \text{ for firm 1}$$

and

$$q_2 = (\alpha - q_1 - c)/2 \text{ for firm 2.}$$

If we solve equation, we may present the critical value of each firm's production as following:

$$q_1 = (\alpha - c)/3,$$

noting that critical value is less than $\alpha - c$.

In cases in which firms do not move simultaneously, but sequentially, we observe another principal-principal relationship—a leader–follower situation. Stackelberg describes this as a “Stackelberg duopoly model”. In the same way as in the Cournot model, we find that the critical values can be counted by the formula:

$$q_1 = (\alpha - c)/2 \text{ for the leading firm}$$

and

$$q_2 = (\alpha - c)/4 \text{ for the following firm}$$

There are several variants of principal – principal – agent relations. The principals can be neutral, as in a model of Cournot; they can coordinate, as in a situation of von Stackelberg;

and they can oppose. In case of the principals' opposition, the best method may be for one of the principals to be disregarded by an agent (Heath, 2009).

In a situation of dispersed ownership managers become the only people in charge, i.e. the only controlling and decision-making power. Also, in terms of balancing gains and losses, dispersed ownership among too many shareholders can lead to eliminating possible gains to any shareholders (when the price of share increases) due to the cost of the effort that led to the gain (Man & Wong, 2013).

Even though due to basis theory the agency conflict does not occur if the owners are in control or if managers own the firm, greater overlap between ownership and control does not lead to maximizing the firm value and solving the agency problem. Still, if managers obtain property rights in a company, their interests are more likely to align with those of other shareholders. Nevertheless, the extent of a manager's ownership rights may lead to the opposite situation: the manager may rather persist in pursuing his own interests due to his simultaneous position concerning ownership and the power to do so. Thus, the interdependence between the managers' ownership, control, and firm value is not straight; it depends on diversification of interests within the firm. In other words, managers who obtain shares of the company are capable of increasing their firms' value, but only if it doesn't distract from their own interests. (Denis & McConnel, 2003)

It might be assumed that if managerial ownership does not inevitably lead to an increase in firm value, then shareholders with blocking-sufficient quantities of assets (blockholders) might use their clout. Still, from the perspective of the other shareholders this is not always the case. Blockholders obtain enough power to increase the firm's value, therefore increasing profits for all shareholders. However, when persuading their own interests, blockholders may extract resources from the company, which could lead to other shareholders' general losses. When evaluating the effect of a blockholders' influence on a

firm's value, it is important to take into account the diversification between his/her private interests and the interests of other shareholders.

In listed Chinese NOCs one may consider the development of different scenarios. First, the major Principal (the State) and second Principal (private shareholders) can act within a Cournot model and act only in its own interests. That would mean little or no influence of the second principal in terms of policy-setting, resource allocation, management and so on. In case of taking the second principal as a Stackelberg follower, one would see the NOCs' management (agents) act in both second and first principals' interests. In this situation there would be signs of participation of the second principal in a voting process, relative low entering barrier (the amount of shares granting certain rights) and actions of the major principal that reveal cooperative tendencies to the minor shareholders.

Chapter 2. Methodology

As demonstrated in the research review, corporate governance is a complex topic that can be addressed with many and diverse approaches. However, the economic manifestations of corporate governance do not exclude social components, such as employee welfare and minor shareholder participation. These components must be addressed with a qualitative approach, e.g. by conducting interviews and analyzing corporate documents, that allow a nuanced view outlining processes that cannot be traced with numbers alone. As research questions herein addressed include both social and economic issues of the development of corporate governance in listed NOCs, I employ mixed qualitative and quantitative approaches in order to create a well-rounded treatment of the topic. The methodology of this thesis is structured according to the framework that Creswell suggests in “Research Design: Qualitative, Quantitative And Mixed Approaches” (2014).

2.1. Research questions

Chinese parent NOCs (CNPC, Sinopec, and CNOOC) gathered successful part of their businesses and established listed daughter companies (PetroChina Ltd., Sinopec Ltd., and CNOOC Ltd., respectively). These daughters obtained private shareholders through stock market listings, with some shareholders possessing up to 20% of the company’s foreign-traded shares. Thus, the listed NOCs present an interesting example of the companies that are on the one hand marketized, having gained private shareholders, but are on the other hand governed by a state shareholder, the case for the major shareholder of all listed NOCs.

Still, corporate governance is a complex process that includes many stages—from making decision on corporate strategy to defining particular expenses for subsidiaries. Partial privatization of NOCs through listing could not help but influence companies’ corporate governance. Expectations predict that the presence of the private shareholders, a second

principal, would influence different financial and non-financial parameters in a company. This thesis presents a detailed analysis of the development of corporate governance of listed NOCs' in terms of relations with minor shareholders. As the topic is both broad and complex, it is divided into the three following sub-themes:

1. The influence of minor shareholders on NOCs' corporate governance measured with financial and non-financial indicators
2. The development of NOCs' Corporate Governance in terms of implementation of better monitoring, transparency, voting rights
3. Significant features of marketization of NOCs.

According to the main topics of the research I formulated Research Questions as following:

1. What is the influence of the second principal on the corporate governance of Chinese NOCs?

The literature provides several financial and non-financial indicators of development of corporate governance in a company (for details see Chapter 7 on Data Analysis). Financial indicators include employee lay-offs, expenses for social services, and dividends and earnings for shareholders; non-financial indicators refer to different means to instituting minor shareholder protection, including minor shareholders' participation in the company's decision-making process (also voting procedures at the board meeting), the role of independent directors and supervisors, and legal protection of minor shareholders' interests. Therefore, in order to answer this question I seek to answer two sub-questions:

- 1.1. What is the interrelation between the number of private shareholders and employee lay-offs, expenses for social services, dividends and earnings for shareholders, and NOCs' net profits?
- 1.2. What measures do NOCs take for the protection of second principals' interests, including the extent of second principal's participation in a NOC's decision-

making process, legal measures for minor shareholders' protection, and evaluating the role of independent directors and supervisors at the company?

2. What are significant features of marketization of Chinese listed National Oil Companies?

Listing of the company is regarded as partial privatization. Before placing an IPO National Oil Companies have undergone corporatization. I may assume that there are significant features of marketization of Chinese energy sector that are manifested by the modern practices of Corporate Governance implemented in listed NOCs.

2.2. Research methods and the choice of parameters

As my research questions address different kinds of information (i.e. quantitative and qualitative), I apply different methods in order to provide answers. To answer my first research question I employ both the quantitative method of linear regressions and qualitative method of interviews and analysis of primary sources. I use the quantitative method in accordance with the definition of corporatization and privatization's suggestion that certain indicator parameters (e.g. employment, net profits, etc.) herald further company change. It is expected that within the process of corporatization/privatization massive employee lay-offs will occur to "trim the fat", cutting expenses and optimizing management/control in the company. Also, most of researches suggest that alongside the processes involved in privatization, net profits will increase.

As part of my measurements, I gauge privatization by number and proportion of non-parent shareholders of the company. Non-parent company shareholders are not necessarily non-state shareholders. For example, in the case of Sinopec, the non-parent company shareholders are still companies that belong to the state. However, as these companies neither belong to energy market nor have connections to the parent company, it is fair to suggest that

these state-owned shareholders bought their shares with the aim to accrue profits. For both PetroChina and Sinopec the main non-parent shareholder is a collective shareholder represented by Hong Kong Securities Clearing Company (HKSCC) - in both cases with greater than 10% of shares; in the case of CNOOC the non-parent company is represented by a number of corporate and private shareholders that are not registered within any proxy.

Since the Initial Public Offerings of their organizations, NOCs have increasingly obtained private shareholders, i.e. second principals. In order to find out how a second principal influences corporate governance of the company, I analyze the correlation of several financial and non-financial indicators. The indicators are obtained from annual reports of listed NOCs for the period marking the beginning of IPOs in 2000 through 2015. To answer research questions about the influence of minor shareholders on the corporate governance of Chinese NOCs I analyze and present six parameters (four primary and one additional financial, two non-financial) for three NOCs within the 15 years period of the company's operation. I justify my use of methods of regressions and explain the choice of parameters and theoretical expectations of their change due to the process of privatization as follows.

Financial parameters:

1. The number of private shareholders and net profits of the company. A positive correlation is expected between the number of private shareholders and net profits of the company. In order to identify the correlation between the number of private shareholders and NOCs' net profits I run three linear regressions (one for each NOC) according to two indicators (the number of private shareholders and NOC's net profits) within 15 years of listing. Altogether, I analyze 90 indicators, and run three regressions.

2. The number of private shareholders and dividends per share. A positive correlation is expected between the number of private shareholders and dividends per share. For PetroChina and Sinopec I take the sum of interim and final dividends per share, assuming these a reflection of the company's payments to the shareholders; due to the opacity of the

data for CNOOC I only use the indicator of final dividend per share. Altogether, I analyze 90 indicators (and additionally calculate the dividends per share of two NOCs for 15 years that consist of final and interim dividends), and run three regressions.

3. The number of private shareholders and diluted earnings per share. A positive correlation is expected between the number of private shareholders and diluted earnings per share.

4. The number of private shareholders and the expenses for employee welfare or ancillary services. This indicator is chosen in order to follow the influence of privatization on employee welfare. However, after 2006 the annual transfers to employees welfare fund (“statutory public welfare fund”) were no longer required (article 167 of PRC Company Law). According to the “Notice on the Accounting Treatment of Business Enterprises In Relation to the Enactment of the Company Law”, issued by the Ministry of Finance, the balance of the employee welfare fund is transferred to a statutory surplus reserve.

Therefore, from 2006 I substitute the expense of welfare services with the expense of ancillary services, judging it a close corollary to employees welfare spending (“Ancillary and social services represent expenditures for social welfare and support services such as educational facilities, media communication services, sanitation, accommodation, canteens, property maintenance and management services” (Sinopec Annual Report, 2009). The correlation of spending on employees’ welfare and ancillary services and the number of non-parent shareholders is expected to be negative, as these kinds of transfers are made before the dividends payments. Therefore, it decreases the amount of dividends paid, increasing the likelihood of a “no” vote from non-parent shareholders.

Additionally:

1. The interrelation between the NOCs’ net profits and Organization of the Petroleum Exporting Countries (OPEC) oil prices. I chose this additional parameter in order to trace fluctuation in the main indicators resulting from and in relation to world oil market

conditions (three NOCs for 15 years, two indicators. Altogether, I analyze 90 indicators, and run three regressions).

Non-financial parameters:

2. The number of private shareholders, and the shareholdings of the owners with the greatest number of non-state shares. This is a key parameter. Private shareholders and private (i.e. non-state) shares are de facto representation of the privatization of NOCs. Also, this trend reflects the real situation concerning the development of corporate governance because it is “safe” to grant rights to the shareholders with at least 10% of shares if there are no such shareholders except for the parent of the company. Apart from the non-parent shareholder, I sum up the shareholdings of the next largest shareholder.

3. The number of private shareholders and the number of employees. During the privatization of state-owned companies, mass employee lay-offs to cut expenses are common. Therefore, I expect a negative correlation between the number of private shareholders in newly privatized NOCs and the number of employees. The interrelation between the number of private shareholders and number of employees (3 NOCs x 15 years, 2 indicators. Altogether, I analyzed 90 indicators, and run 3 regressions).

To answer my first research question I analyzed 720 parameters and ran 6 regressions (the parameter of the number of non-state shareholders was not expected to show any correlation). However, the influence of minor shareholders on the development of corporate governance could not be evaluated solely by numbers; therefore, I analyzed the primary sources—the Corporate Law and the Articles of Association of NOCs—and conducted interviews with industry insiders and academics directly related to the Chinese energy sector. Given these inputs, the qualitative portion of this work is presented in two forms: interviews and primary sources analysis (annual reports, a form-20 reports).

2.3. Interviews

To manage the qualitative portion of the research I employed a method of in-depth interviews using semi-structured questions. In preface to each interview I introduced myself to the interviewee and explained the purpose and the form of the interview. I gave interviewees the option to speak anonymously; out of 14 respondents two used that option. In a pre-answer format to accompanying the verbal discussion, I also asked each subject to record his/her work experience in the industry (e.g. how many years, what kind of job, etc.). I also asked each subject for permission for the interview to be recorded, solely for the research purposes.

Altogether I conducted 14 interviews with people professionally related to Chinese oil and gas sector: two professors of Chinese National Oil University (one of whom is a Director of the China Oil and Gas Industry Development Research Center), three employees of Sinopec (post-graduates of the Chinese National Oil University), the chief of the corporate governance department of the CNPC Kunlun Energy, the manager of CNPC, two employees of Chinese Aviation Oil Company, and three researchers of Chinese Oil University (all three holding PhD degrees). Interview queries centered on the corporatization and privatization of Chinese NOCs, with questions concerning private and state shareholders of listed NOCs, collision and compliance of interests in this situation, and the development of corporate governance.

The analysis of primary sources, i.e. obtaining genuine information from two annual reports forms the second half of the qualitative portion of my Thesis. I analyzed annual reports for three listed NOCs for the period beginning from their IPO in 2000 up to 2015 and

annual reports presented in a Form-20 for parameters reflecting the development of minor shareholders' participation in administration of the listed company⁴.

The parameters I chose to trace were the rights granted to the shareholders at 1, 3, 5, 10, and 30 percent of the company shares. I also compared the rights presented for each level of shareholder with those officially granted by the Articles of Association and the Corporate law, considering amendments of both. In order to trace the changes considering corporate governance, I looked through the amendments concerning regulation of minor shareholders' participation in company administration. In terms of 'good corporate governance' it is also important to consider how minor shareholders' rights are articulated to shareholders. I achieve this aim by summarizing the relevant information presented in annual reports.

If a predetermined number or proportion of shares conferring special rights to the bearer is written into the Articles of Association but not mentioned in annual reports, I consider this a weak articulation of the shareholders' rights to the shareholders. Moreover, I attempt to trace the record of minor shareholders' participation in NOC's administration (record on voting, nomination of directors etc.).

Altogether I analyzed 45 reports for 5 parameters. The data on 225 parameters regarding minor shareholders' participation in corporate administration gave me an opportunity to answer the research question about measures taken concerning the protection of minor shareholders' rights in listed NOCs.

⁴ Form-20 is a format of the Annual Report established by the U.S. Securities and Exchange Commission (SEC) for "foreign private issuers" of listed shares on the U.S. stock exchanges. The format helps to unify the financial and corporate governance information of the companies belonging to the developing countries, or those that are relatively young to the market.

2.4. Regressions

Xu and Wang (1999) use the method of regression to see the interrelation of ownership structure and firm performance. They regress different types of ownership (state ownership, legal person ownership, and individual ownership) in relation to a firm's performance. Their results show that in terms of corporate governance the state ownership is generally inefficient, the dispersion of ownership leads to a decreased firm's valuation, and large institutional shareholders play a great role in the corporate governance of a listed company.

Bai et al. (2004) use a panel of data obtained from annual reports of listed firms to check the effect of corporate governance on the market valuation of the listed companies. Their findings show that the market valuation of the listed company has a positive correlation with the issue of shares for foreign investors as well as with the amount of non-controlling shareholders. At the same time, state ownership and a preponderance of state-owned shares or of the company's major insiders belonging to the government produces negative effect on the firm's market valuation.

Antill and Arnot (2000) present empirical evidence on the operational efficiency of NOCs. The study uses a panel of data of 80 NOCs within three years on following parameters: the share of state ownership, revenues, reserves of natural gas and oil, and also the production of gas and oil products and employment. Bai et al. (2004) also take the amount of state shares as a variable to evaluate the corporate governance of Chinese firms.

There are a number of studies testing the interrelation of state share and corporate governance. Many concentrate on the different kinds of firm valuation and performance (Qi et al. 2000; Bai et al., 2003). Most of the studies prove the negative effect of state ownership over SOE performance (Sun & Tong, 2003). The data obtained from the empirical analysis of 80 NOCs within 3 years show that government interference in NOC operations causes the losses in commercial profitability compared to private oil companies (Antill & Arnot, 2000).

Wolf (2008) used the regression analysis to measure change in performance of partially-privatized NOCs. The overall NOC's performance after the IPO was estimated by the constellation of different parameters, among them: profitability, the number of employees, dividend pay-out, etc.

Chapter 3. Background of the problem

In this Chapter I present the institutional and legislative framework for the corporate governance of Chinese listed NOCs. I also introduce the milestones of the development of Chinese energy sector from the founding of the PRC in 1949 to the present day. I discuss the foundation of the NOCs and the economic models they employed, especially in relation to corporate governance.

3.1. Privatization of State-Owned Enterprises: new principals new agents

The gradualist approach best characterizes Chinese policy over SOEs. Starting as the process of building enterprise autonomy, introducing managerial incentives, and inspiring competition, the practices finally led to corporatization and either partial or full privatization of SOEs. Among factors influencing the direction of reforms China joining WTO in 2001 stands out as worth mention.

The weak law enforcement common to markets undergoing marketization influences and is markedly apparent in the legislative framework that determines corporate governance in China. There is no agreed definition of periods and timeframes for corporate governance development in China. Zeng (2013) separates analysis into three conditional periods: traditional period (1950-1984), transitional period (sometimes referred to as “contractual model”) (1984-1993), and modern times (1993-present). The timeframe can also be divided according to actions taken by the Chinese government as Leng (2009) determines most logical, dividing between the periods of 1978-1992 as the period of “Autonomy, Incentives and Competition”; 1993-1997 as the time of “Restructuring, Corporatization and Ownership diversification”; and 1997 to present times as the period of “Decentralized Privatization”.

The traditional period covers the time from the establishment of the SOEs to the beginning of economic reforms in the end of the 1970's. The transitional period began in 1984 with the introduction of the contractual model of governance with the breakpoint

“Decision of the CPC Central Committee on the Reform of the Economic System” presented by the 12th CPC Central Committee. Covering the new corporate law of 1988, guidance in the document lasted until 1993 when the 14th CPC Central Committee passed the “Decisions on the Establishment of the Socialistic Market Economy”. The official start of the modern period of Chinese SOEs begins at that mark—in 1993 with the new corporate law—and brings SOEs through their first listings in 2000. New corporate governance rules concerning listing passed in the corporate law revision in 2005 signaling a subcategory shift in the modern period, i.e. the privatization period of Chinese SOEs and continuing until the present.

With corporate governance as my focus, I find it appropriate to concentrate on the sequential changes in the legal framework in each of these main periods resulting from the adaptation of corporate laws. Therefore, this model takes the following form: a traditional socialistic model, from establishing SOEs in 1956 up to the first corporate law adopted in 1988; a transitional (contractual) socialistic model, in place from 1988 up to the next corporate law changes in 1993; a market socialistic model according to the corporate law of 1993; and finally a corporate socialistic model reflecting the corporatization and privatization developments included in the 2005 revision of the 1993 laws (revised in 2005, the changes were implemented in 2006). Tracing the transition points in SOE governance helps us to see the change of the role of SOEs within the Chinese economy and make conclusions about the nature of this change.

During the period of traditional socialistic model SOEs were not regarded as true business entities (Zhang, 2011). Following the founding of the PRC the state purchased enterprises from private owners following the socialist model in which state ownership is the most advanced and only legal form of ownership. This process shifted slightly in 1956, establishing the system of SOEs that had monopolistic rights in production and retail of Chinese industrial sector. The milestones of functioning of the newly born SOEs within traditional socialistic model were:

- Fulfilling the state plan of demand, production, and retail of industrial goods
- Managing physical, human, and financial resources (all resources were provided by the state);
- Ensuring following the state policy within the enterprise appointing and discharging SOEs executives. Managers and executives had rights of government officials and were cadres of the Communist Party, their task was mainly to fulfill production plan of the state and general performance was not in focus. Also, their work was controlled by different government agencies with sometimes conflicting objectives (Leng, 2009).
- Ensuring fulfillment of socialistic state obligations in terms of providing employees with social goods (salary, housing), security (medical treatment), and stability (pension).
- Being enterprises, SOEs were not only in charge of business activities, but also social stability and lifetime employment. As monopolists, SOEs did not have to develop competitiveness or high operational efficiency. In fact, at the beginning of economic reforms period “industrial SOEs were losing almost as much money as they were making“ (Naughton, 2010). This influenced other parts of Chinese economy; the banking sector had to deal with non-performing-loans of non-profitable SOEs, and the private sector’s resource supplies were often choked due to the prioritization of the state-owned sector (Broadman, 2007). In the end of this period the first steps began to materialize to guide the SOEs towards an incentive structure for making profits. The introduction of the contractual governance model was an attempt to help SOEs overcome the consequences of the Cultural Revolution as well as poor planning both on production and management levels.

During the reformation process that started in the late 1970-s a decision emerged to begin to grant SOEs limited management rights. First, in 1979 SOEs managers gained some limited operational and decision-making autonomy from the state. Second, rather than transferring all profits back to the state, SOEs earned the right to pay fixed taxes. This led to

an increase in manager and worker salaries that formed an additional incentive for maximizing profits (Leng, 2009). This strategy was initially run in select SOEs as a pilot experiment; in 1984 the 12th CPC Committee reviewed and analyzed the effects the strategy had had, and moved to implement it officially across all firms (Zhang, 2011). In 1988 SOEs Law amended and added articles 2, 8, 35, 44, and 45 establishing new rules for governance, namely:

- The only owner of SOEs is the ‘whole people’ i.e. the State;
- SOEs carry full responsibility for profits, losses, and accounting;
- SOEs make own decisions on management of the enterprise; still, as the property of the enterprise belongs to ‘the people’, the state should be informed and carries weight about operational and management decisions;
- SOEs are recognized as legal persons carrying civil liability with the property granted by the state;
- The head of the SOE becomes a legal representative with civil liability as well; the head of the SOE must be appointed by the ‘competent department’ of the government based either on staff and workers’ congress election or on a competitive basis among candidates of the government department; the removal of the director must be approved by the government department, with a regard to the opinion of staff and worker’s congress;
- SOE bears obligation to fulfill the state’s plans regarding production;
- The SOE has to fulfill guideline principles and policies of the state, ensured by its control by the local CCP organization.

Under the tenants of this new law, SOEs gained more obligations rather than more freedom and remained ‘socialistic’ in their civil obligations sense. This was a part of a plan for gradual reformation of the economy, with no disruptive immediate abolishment of old practices. The effect being that instead of a shift in concentration to maximizing profits, SOEs were still assigned to fulfill state principles and policies. Also, the increased salary of managers

led to a dangerous dispersion of responsibilities; as ‘additional’ output was traded at market price, managers gained the ability to allocate the resultant profits, whereas the state was still responsible for losses. The contractual model proved to neither functional in terms of making SOEs economically effective nor brought non-state sector enterprises to a competitive level (the policy discrimination in favor of SOEs included additional resources for R&D, easier access to bank loans, and softer policy in general). Still the contractual model helped cushioned initial entry and smoothed the first steps for enterprises towards marketization within the situation of immature institutional environment (Yusuf et al., 2006).

At the same time, the political and social challenges of the end of the century could slow down or stop the marketization process. It was obvious that the economy could not remain in this limbo plan and market situation for long; it needed a direction. From these circumstances arose the “Decisions on the Establishment of the Social Market Economy” which stipulated a modern corporate system as an “urgent and important objective”. This document, passed by the 14th CPC Central Committee, became the basis of the first Corporate Law of PRC adopted in 1993.

The contractual model proved a good transitional measure but did not show much effect on SOEs profits and capitalization. The new Corporate Law of 1993 started two major processes that influenced the development of all Chinese industry. The first process was called, “grasping the big, letting go the small” – it allowed small and medium enterprises to privatize or be acquired by larger companies to become new business entities. The second process can be called “corporatization instead of privatization” – big and key SOEs were advised to recapitalize and apply modern governance system.

The new Corporate Law recognized three types of companies: limited liability companies, joint-stock companies, and wholly state-owned companies. Some big SOEs were allowed to list on domestic stock market in order to gain profits, i.e. became shareholding companies. In official documents these enterprises were denominated “state-controlled listed

companies” (Yusuf, 2006). Even though most listed companies employed Western-style corporate governance (introducing boards of directors, supervisory committee, etc.), those listed companies that retained the state as a majority shareholder mainly kept old style of governance (OECD, 2009). The number of state-controlled listed enterprises gradually grew from 1993 bringing most of the profits to the Chinese national budget. The number of state-owned industrial enterprises that did not go through listing, on the contrary, started sinking. I may conclude, that with the new Corporate Law of 1993 Chinese spurred industry to undergo structural change in terms of role and number of SOEs and introduced Western tools of corporate governance, such as boards of directors, supervisory boards, and general shareholder meetings.

3.2. Corporate governance reform with Chinese characteristics

Corporatization implies reorganizing a company from a government-owned entity into an enterprise with the structure of a publicly owned company. This structure requires boards of directors, management, and shareholders. Still, unlike publicly owned companies, the state often remains the company’s only shareholder and may not allow shares to be traded publicly.

Corporatization is often done to eliminate the outcome of an ineffective style of governing state-owned enterprises characterized by the high level of bureaucracy involved. Keeping state ownership but putting in place the conditions for the company to run with the efficiency brought by employing corporate governance tools similar to a private one may be the final goal of corporatization. In some instances this may even include disrupting complete state ownership by offering shares on the stock market in order to catalyze profits through ownership diversification. Following corporatization, the next step is privatization, which commonly leads to a dramatic increase in profits as private ownership increases and the associated pressures private owners exert concerning profit and performance changes the

behavior of the firm. The end effect of privatization is full private ownership and a consequent withdrawing of shares from public offering (George et al., 2000).

Corporatization of SOEs under China's contractual period was not made in the sense of withdrawing enterprises from the state control by offering them to new private owners. The goal in line with corporatization was rather to build a new form of enterprise (shareholding company instead of a plan-reliant one) while leaving the state untouched in its control as the supreme shareholder, though still a shareholder (Clark, 2003).

The privatization model that has emerged in China focuses on maintaining state control over strategically important SOEs while making owning the SOE cheaper at the cost of private capital. Basically, making state control over the enterprise more effective in economic and organizational way (Leng, 2009).

3.3. Institutional and legislative framework for Corporate Governance in China

3.3.1. Restructuring of an Energy Sector in China

The petroleum industry in China remains one of the nation's most massively protected industries. Being vertically integrated, the state controls Chinese NOCs at all levels – from upstream exploration, to downstream marketing⁵.

During the period of self-reliance (1960-1970s) the oil and gas sector was closed to foreign influence (including technological). The beginning of the reforms led foreign technologies, capital, and trade to the industry.

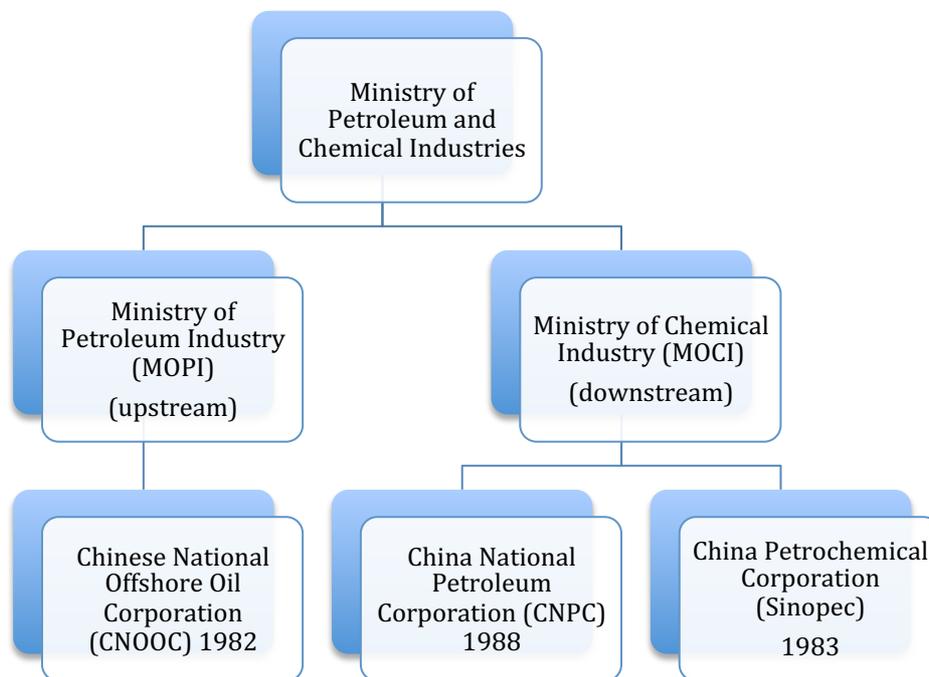
All Chinese NOCs start from the Ministry of Petroleum and Chemical Industries, which in 1978 was divided into the Ministry of Petroleum Industry (MOPI) and Ministry of Chemical Industry (MOCI). The responsibilities of these ministries were overlapping and unclear, except that MOPI alone in charge of upstream exploration and development and

⁵ The chain of vertical integration is as following: exploration, development, production, refining, distribution and marketing

production; downstream activities were shared not only between the ministries, but also with local governments as well. To clarify responsibilities for upstream and downstream activities three major oil companies were established—Chinese National Offshore Oil Corporation (CNOOC) in 1982, China Petrochemical Corporation (Sinopec) in 1983, and China National Petroleum Corporation (CNPC) in 1988. CNOOC was subordinate to MOPI and was in charge of all offshore and foreign activities of oil and gas industry in China, including all steps of production (i.e. exploration and development) and handling overseas investment, which were first allowed from the 1960s. Sinopec undertook all downstream activities and refineries from MOCI and local governments. CNPC took over upstream onshore operations and some refineries (Wu, 2013).

Figure 1

The first round of restructuring of the Chinese energy sector (1980s)



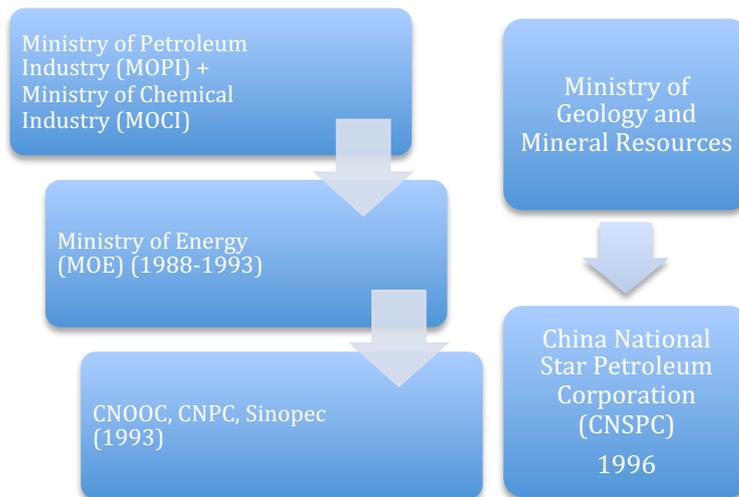
Note. Adapted from Chinese NOCs’ Annual Reports, 2000-2015.

In 1988 China began major restructuring of its national industrial ministries. It abolished MOPI, MOCI, Ministry of Geology and Mineral Resources, as well as the Coal,

Nuclear, and Electric Power Ministries. In all the former ministry functions shifted to massive industrial corporations. Some refineries and fertilizer plants previously subordinate to MOCI were transferred to CNPC and Sinopec, respectively. MOPI's and MOCI's governmental functions of coordination and planning were transferred to a newly established Ministry of Energy (MOE). However, by that time CNOOC, CNPC, and Sinopec were so powerful and expert in their respective areas that MOE did not exist longer than 5 years before again transferring these responsibilities to the three major NOCs in 1993. Following these processes the China National Star Petroleum Corporation (CNSPC) also replaced the Ministry of Geology and Mineral Resources in 1996.

Figure 2

Subordination and responsibilities of energy institutions in China



Note. Adapted from Wu, 2013.

The first restructuring of the industry did not solve the problem of overlapping of business-governmental responsibilities, non-transparent choice of leaders and CEOs, overstaffing, and inefficiency of the oil and gas industry.

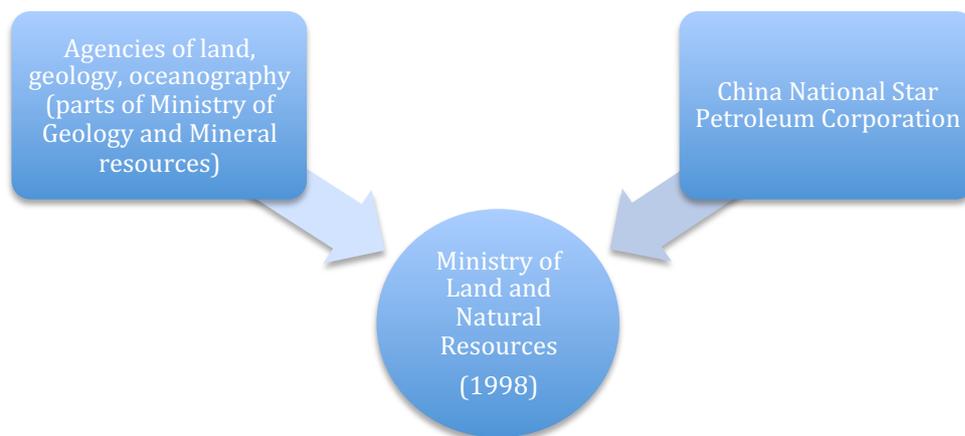
During the second round of restructuring in 1998 CNPC and Sinopec were strictly dividing areas of operation, and again no major corporate governance-based efficiency gain were made

(EIA, 2015). In 2008 the CNPC adopted the strategy of „exchanging resources for market“, having a vertical integration a part of it. Therefore PetroChina excluded all upstream and downstream competitors and took over the development of gas market, where the market mechanisms started to get stronger (Sheng, 2012).

At the middle governmental level in 1998 the agencies governing land, geology, and oceanography under the Ministry of Geology and Mineral resources together with the China National Star Petroleum Corporation were transferred to the freshly founded Ministry of Land and Natural Resources⁶.

Figure 3

Forming of Ministry of Land and Natural resources in China



Note. Adapted from EIA, 2015.

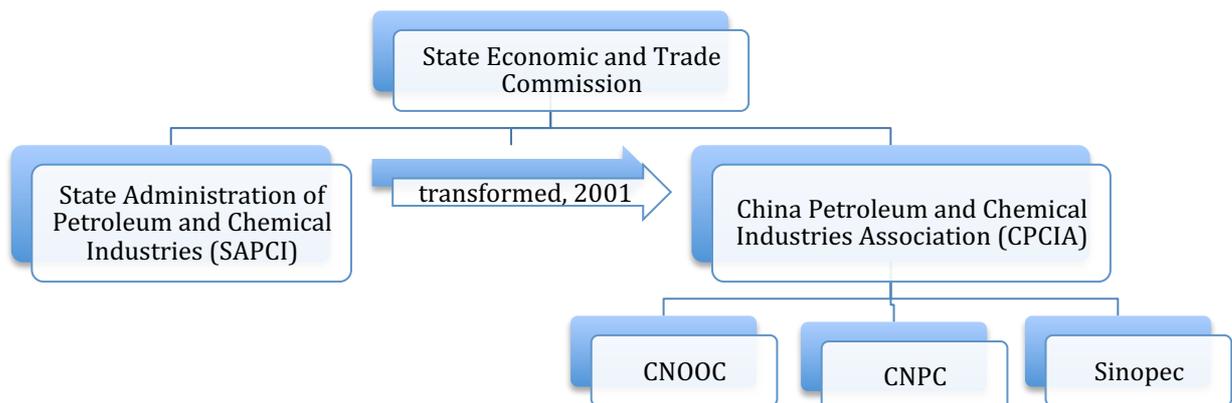
At the highest governmental level the State Planning Commission, which held direct influence over CNOOC was renamed the State Development Planning Commission. Later,

⁶ Later CNSPC was shifted to State Administration of Petroleum and Chemical Industries (SAPCI) and finally was absorbed by Sinopec in 2000.

governmental oversight for CNOOC, CNPC, and Sinopec was transferred to the State Administration of Petroleum and Chemical Industries (SAPCI) under the State Economic and Trade Commission. In 2001 the China Petroleum and Chemical Industries Association (CPCIA) replaced SAPCI, which apart from the three state oil players included around 200 additional member companies. CPCIA however had neither governmental nor managerial influence over state oil companies. Together with their listed subsidiaries, the NOCs instead fell under the purview of the State Economic and Trade Commission (until it was demolished in 2003) and the State Development Planning Commission (renamed the National Development and Reform Commission in 2003), both subordinate to the State Council.

Figure 4

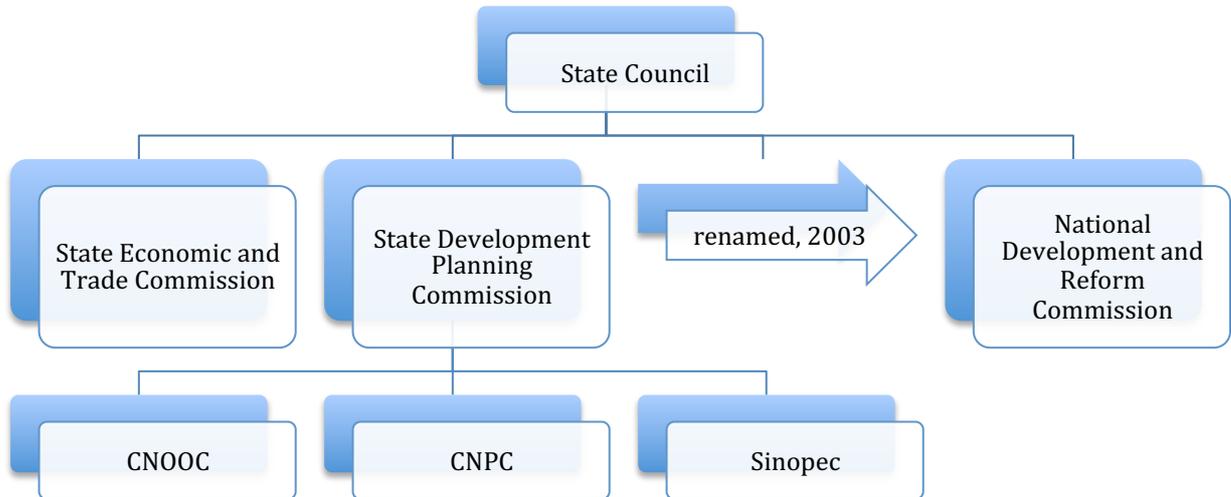
Institutional responsibility over Chinese NOCs before 2003



Note. Adapted from Wu, 2013.

Figure 5

Institutional responsibility over Chinese energy sector before 2003

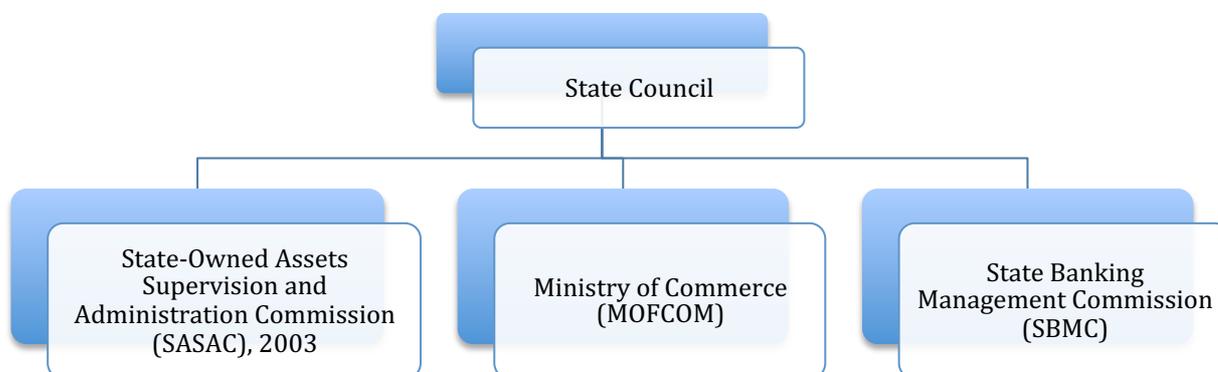


Note. Adapted from Wu, 2013.

Apart from restructuring some governmental bodies, 2003 also saw the establishment of three new key governmental agencies: the State-Owned Assets Supervision and Administration Commission (SASAC), the State Banking Management Commission (SBMC), and the Ministry of Commerce (MOFCOM). These institutions managed state assets worth trillions of US dollars including shares of major state oil companies. All these commissions were said to enjoy certain independence under the supervision of State Council.

Figure 6

New institutions governing energy sector



Note. Adapted from EIA, 2015.

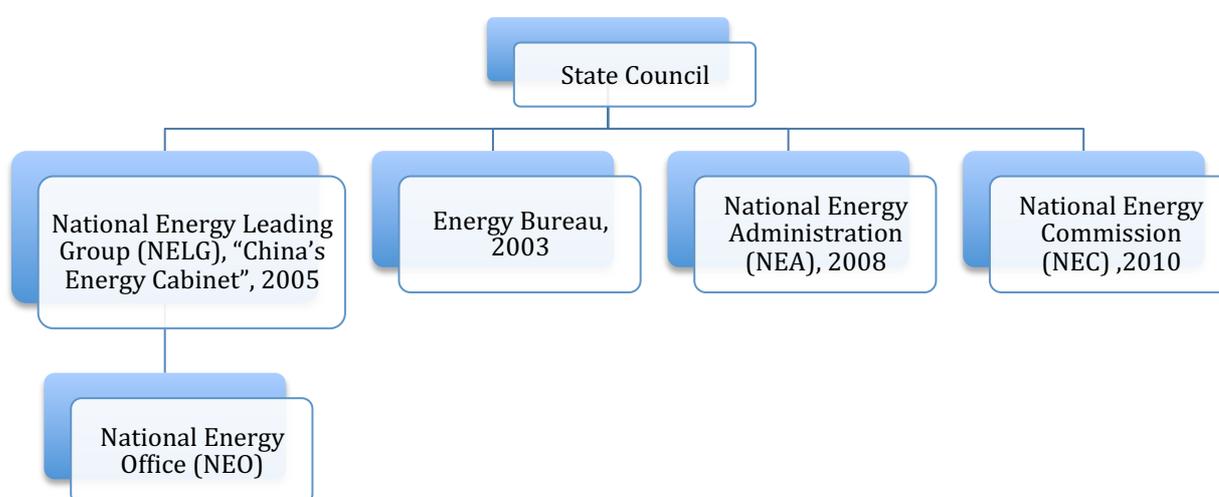
In order to govern the energy sector the State Council established the Energy Bureau. The Energy Bureau absorbed smaller energy agencies and departments formerly under SETC and SDPC. Newly empowered as an agency within NDRC, the Energy Bureau was responsible for the coordination of planning, regulation, and policies over all Chinese energy sectors, i.e. coal, oil, gas, power plants, and renewable energy. Still, the government obviously hesitated to create a new Ministry of Energy with ultimate decision-making power on the highest level. Instead, the next authority level in the energy sector was given to the National Energy Leading Group (NELG) or “China’s Energy Cabinet”. NELG was established within the State Council in 2005 and created the National Energy Office (NEO), which represented it in the NDRC. A National Energy Bureau was created in 2003 as a direct subordinate to the NDRC and, further, the State Council. However, the Energy Bureau lacked decision-making power as its functions overlapped with the functions of other administrative bodies (Li, 2007).

In 2008 the Chinese government established the National Energy Administration (NEA) as a major regulatory body in the energy sector. The NEA had a broad variety of functions, from energy policy-making to implementation of Research and Development to

administration of the energy sector at all levels. In order to support the NEA the government established the National Energy Commission (NEC) in 2010. The NEC consists of 23 agencies from different governmental bodies (e.g. Bank of China, NDRC, Ministry of Finance, etc.) and should administrate energy policies on different levels (i.e. environmental, energy storage, etc.) (Energy Information Administration (EIA), 2015).

Figure 7

Institutional responsibility for Chinese NOCs in modern period



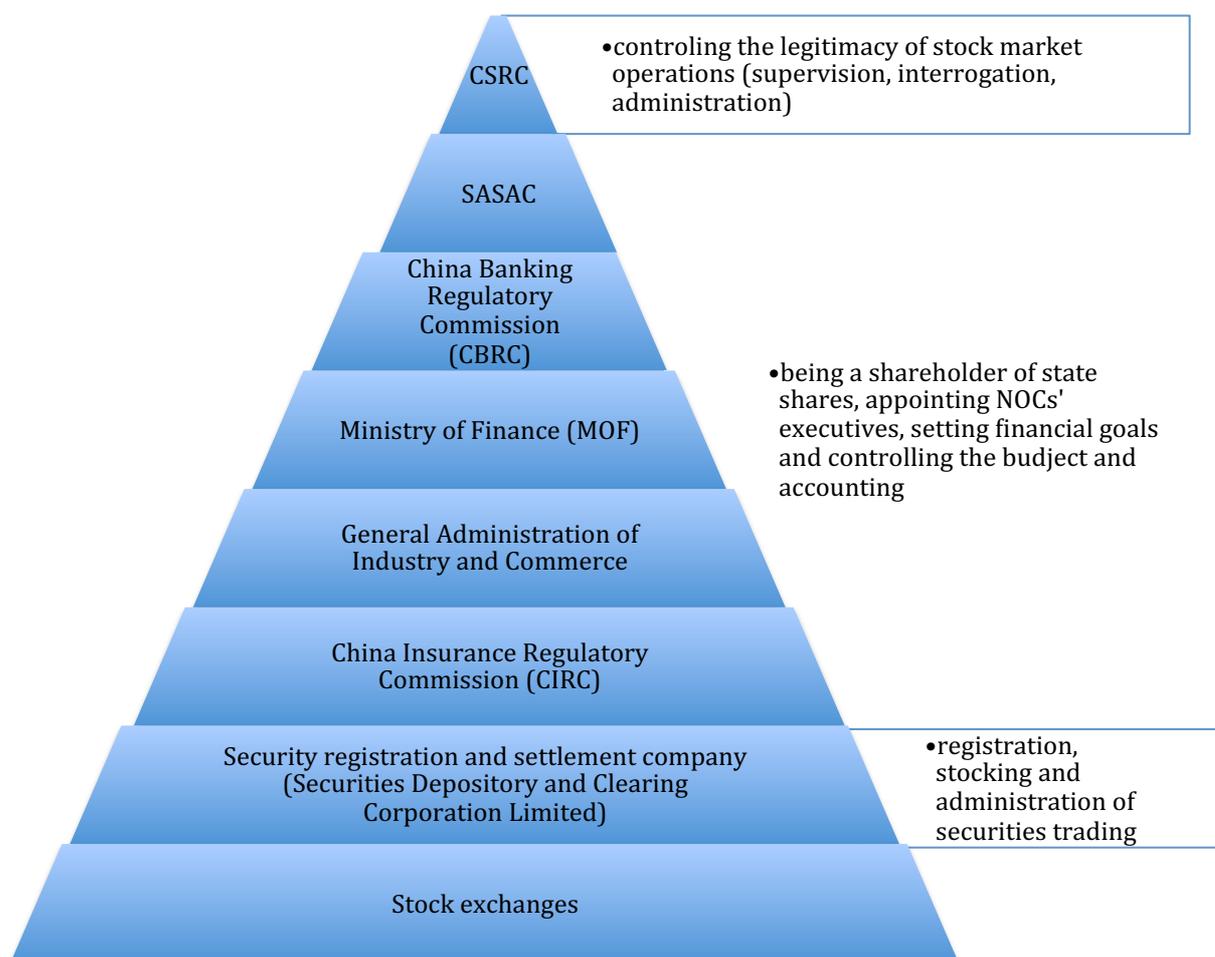
Note. Adapted from EIA, 2015.

3.3.2. Institutional framework of Chinese listed companies

Institutional framework of China's corporate governance of listed companies is constructed in three levels. At the highest level, the Chinese Security Regulatory Commission (CSRC) under the State Council; on them middle tier, several government agencies, including the Ministry of Finance, State-Owned Assets Supervision and Administration Commission, General Administration of Industry and Commerce, China Banking Regulatory Commission (CBRC), and China Insurance Regulatory Commission (CIRC)); in the final level lie the stock exchanges and security registration and settlement company.

Figure 8

Institutions governing listed companies



Note. Adapted from OECD, 2009.

CSRC is a public institution directly subordinate to the State Council. It has a public offering review committee, a merger and acquisition review committee, an inspection division, three centers, and 18 functional departments. It is headquartered in Beijing with an additional 36 local bureaus in provinces, autonomous regions, and cities under central government jurisdiction. The general function of the CSRC is to maintain legitimacy of futures and capital market operations. It achieves this through four levels of oversight: 1. Supervising the investigation of cases concerning listed companies and preventing money laundering plus prosecuting; 2. Interrogating cases of insider trading and market manipulation; 3. Guiding local authorities and local bureaus for formal and informal investigations of legal violations by

listed companies; and 4. Supervising administrative bureaus responsible for trials (OECD, 2015).

The CSRC establishes codes of conduct and professional paradigm for security operations and watches over their implementation across the industry, including overseas operations. CSRC has right to investigate, evaluate, and control the security of markets, including such operations as registration, listing, and trading. Its mandate also extends into the function of stock exchanges, listed companies, investment fund management, and other related companies (Chen & Thomas, 2003)

Under the authorization of State Council the CSRC established a taskforce to fulfill the “comprehensive regulatory framework for listed companies”. The intent of the taskforce was to create a framework to push departments and local governments towards a common effort concerning the regulatory process for listed companies. The taskforce, which consisted of representatives from 12 ministries (including among them the ministries of Finance, Commerce, and SASAC), built a standardized regulatory system for listed companies. This system included steps for the coordination of all related supervisory committees and agencies to foster a non-tradable share reform that impeded misuse of capital by major shareholders (Guo, 2007).

The governmental agency bearing institutional influence over listed companies at the next level is the State-Owned Assets Supervision and Administration Commission of State Council (SASAC). The SASAC is directly subordinated to the State Council and acts as a shareholder in listed companies on behalf of the State Council. Representing the state as a shareholder, the SASAC fulfills several responsibilities (according to Company Law). First, the SASAC appoints companies’ executive managers and directors and controls those executives’ wages and shares of company profits. The commission also gathers statistics, sets financial goals and objectives for the assets, and controls the return of profits to the state. Finally, it is responsible for the calculation and enforcement of state-owned companies’ budgets (Tomasic,

2016).

The Ministry of Finance (MOF) at its turn is the next governmental agency with influence over the corporate governance of listed companies. The Ministry has the right to draft laws and regulations concerning the financial function of listed companies. It is responsible for controlling all accounting matters of listed companies, including the financial resource allocation, public accountants, and accounting firms. The MOF is responsible for the portion of the central budget that supports enterprises and for the implementation of the General Rules of Finance for Enterprises. It controls all financial transactions of listed companies, including the management of returns of state-owned assets and the asset-appraisal regulations. On these matters the Ministry of Finance reports directly to the Central Government (Garnaut et al., 2018).

Stock exchange regulations comprise the third level of decision-making over corporate governance of listed companies. Both the Shanghai and Shenzhen stock exchanges were founded in 1990; both are subordinate to CSRC but function at the same time as independent legal entities. Stock exchanges set up their own rules for trading and monitor fulfillment, control acceptance, and proceeding of companies' listings and draw regulations concerning market information (OECD, 2015).

China's security registration and settlement company (Securities Depository and Clearing Corporation Limited) is responsible for registration, stocking, and arrangement of securities trading. It controls internal accounts and transfers, names registration, financial transparency and credentials, and provides consulting services (Securities Depository and Clearing Corporation limited, 2015).

The restructuring of the oil sectors helped to overcome the losses of the oil market that came from the central control over the price for petroleum products. Before the geographical and structural division of companies to upstream and downstream there have

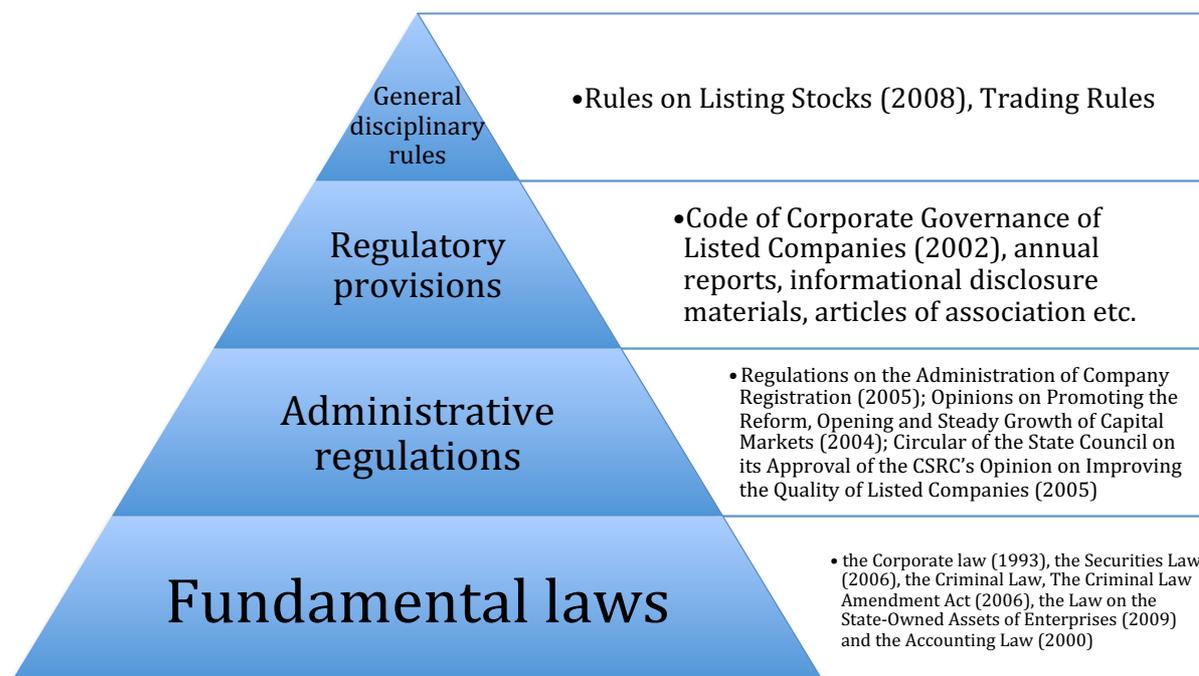
been lots of disputes that led to an insufficient use of resources. The vertical integration helped to solve this problem (De Jongi, 2008).

3.3.3. Legislative framework of Chinese listed companies

Before 1979 the legal system of People's Republic of China (PRC) was mainly based on interpretations of the legal statutes by the Supreme People's Court and had relative law precedent value. The process of development of laws concerning corporate rights, economic and legal regulation of business activities, and corporate governance and organization began with the reform period in 1979. The National People's Congress or its Standing Committee establishes all basic laws regulating corporate governance of listed companies. The legislative framework for listed companies is presented at four levels – fundamental laws, administrative regulations, regulatory provisions, and general disciplinary rules (Sinopec Form 20-f Report, 2011).

Figure 9

Legislative framework of Chinese listed companies



Note. Adapted from OECD, 2011.

Fundamental laws are: the Corporate Law (1993, amended in 2005), the Securities Law (2006), the Criminal Law, The Criminal Law Amendment Act (2006), Accounting Law (2000) and the Law on the State-Owned Assets of Enterprises (2009). The predecessor of the Corporate Law of 1993 was the SOEs Law of 1988 (Clarke, 2008).

The 1988 SOE Law required SOEs to establish a clear ownership structure separate from the government with specific rights and responsibilities and run on principles of “scientific management”. Since ownership was clearly established, SOE shareholders were entitled to enjoy rights in proportion to their shares. Shareholders were also allowed to receive post-declaration dividends and net assets if the corporation liquidated. Finally, the shareholder’s personal property, including their capital investment, was pronounced separate and independent from the corporation’s property (Tylecote & Cai, 2004).

Specific rights and responsibilities referred to a clear delineation of distinct rights, obligations, and liabilities among the corporation, shareholders, employees, creditors, consumers, and other stakeholders. Eight legal relationships were specifically enumerated. These are: 1. The relationship between the corporation and its shareholders, including a corporate parent; 2. Shareholders' relationships among themselves; 3. The fiduciary relationship between the corporation and its directors, supervisors, and top management; 4. The relationship between the corporation and its creditors; 5. The relationship between shareholders and creditors; 6. The legal relationship between the corporation and its employees; 7. The relationship between the corporation and its competitors; and 8. The relationship between the corporation and consumers (Zhou, 2014).

The SOE Law also declared a separation of government from enterprise that face practical difficulties in its implementation due to the immaturity of the institutions. Moreover, the new management needed to counteract "random decision-making, inexperienced management, undisciplined job performances, and low-level managerial abilities" inherent in SOEs (Form 20-f Report, 2011).

The National People's Congress established the Corporate Law of 1993. It was the first law to regulated company relations regardless of ownership structure. The 1993 Corporate Law provided SOE corporations the privilege to issue corporate bonds in order to raise funds; this option was unavailable to other corporations. The law set in place regulation governing corporate finance, bonds and accounting, merges and acquisitions, as well as issues of companies' foreign branches (and foreign companies' daughter organization on Chinese territory) (Wang, 2014).

In 2005, the Corporate Law was amended to regulate and unify the organizational structure of limited liability companies; the procedure of issue and transfer of shares; the obligations, qualification, and appointment of company's higher management (executives, supervisors, and directors); and delisting and dissociation of the companies. Amendments also

addressed the protection of minor shareholders' rights. This provision granted shareholders with at least 10% of a company's shares the right to request the liquidation of the company in cases of serious material difficulties or harm of interests that could not be resolved by any other means. With full implementation beginning in 2006, these shareholders could request an Extraordinary General Meeting, and organize and preside over it in cases in which the top management of the company refused to do so. Shareholders with at least 1% of shares gained the right to request a court investigation into the top management of the company if they were suspected to be operating out of compliance with the Articles of Association in such a way to cause financial or other loss to the company. This request was to be addressed either to the board of supervisors or to the board of directors. In case of conflict of interests during mergers and acquisitions, the shareholders had the right to ask the company to repurchase their shares (Zhou, 2014).

The Securities Law of 2006 deals with direct protection of interests of shareholders. Therefore, it standardizes informational disclosure, forbidden transactions, acquisitions of a company, legal liabilities, and security regulation as well as a variety of actions connected to security issues (Clarke, 2008).

The Criminal Law Amendment Act of 2006 deals with informational violation of all kinds. Its mandate includes informational disclosure breaches, company interests damage, insiders trading and insiders manipulations, as well as future speculations conspiracy

The Law on the State-Owned Assets of Enterprises passed in 2009 was designed to promulgate state-owned sector of economy as a dominant part of the state. Therefore, the law focuses on state sectors as investor, governs enterprises financed by the state, and controls legal liabilities of state-owned enterprises, managerial performance, and possible conflicting areas. Finally, it supervises state-owned enterprises budgets

The Accounting Law enacted in 2000 deals with accounting practices, supervision, personnel, offices, and legal liabilities, and governs the standardization of accounting methods and financial management of listed companies (OECD, 2011).

In addition to these, there are several additional laws and regulations of note that influence corporate governance and the Chinese NOCs in the modern period. In 2008 the NDRC formulated the basic Energy Law of China. By 2012 an updated draft of the law contained 15 chapters regulating different areas of the energy industry (management, conservation, reserves, development, technologies, control, international cooperation, etc.). As for management part, the Energy Law was to increase the sector's efficiency and promote the foundation of a distinct Energy Ministry. It further addressed and regulated an entry regime for energy companies, pricing mechanisms, and ownership structure within and across the energy sector. With the 2012 draft the government retained control and regulation over major energy areas. Still, Article 13, which describes implementing of national energy policy on a local level, emphasizes that it is the State Council that determines the extent of authority but is ambiguous about which local department should do it (Qiu & Li, 2012).

The State Council provides a number of further administrative regulations, including: Regulations on the Administration of Company Registration (2005); Opinions on Promoting the Reform, Opening and Steady Growth of Capital Markets (2004); Circular of the State Council on its Approval of the CSRC's Opinion on Improving the Quality of Listed Companies (2005). The Regulations on the Administration of Company Registration was designed to unify company registration, alteration, and termination processes. Also, it sets the terms for admitting companies as legal persons. Opinions on Promoting the Reform, Opening, and Steady Growth of Capital Markets provides the call for developing capital markets and standardization of listed companies' operations. It focuses on the optimization of capital markets' structure and supervision, as well as risk monitoring and risk management. Generally the Opinions reflect a proposed course for further development of the opening-up

policy. The Circular of the State Council on its Approval of the CSRC's Opinion on Improving the Quality of Listed Companies strengthens the points of the previous document. It confirms the development of listed companies as a priority, therefore promoting measures to improve supervision and management as well as the corporate environment in terms of leadership and guidance (Yao & Chang, 2014).

Regulatory provisions are provided by government agencies with administrative power under the jurisdiction of State Council, such as Ministries, Commissions, the People's Bank of China, the Auditing Administration, etc. Regulatory provisions include various types of documents designed to standardize operational processes in listed companies. For example, in 2002 the Code of Corporate Governance of Listed Companies was established following the 2001 accession to the World Trade Organization with which China agreed to follow the OECD Principles of Corporate Governance for listed companies. In 2002 the Chinese prepared their own document (i.e., the Code of Corporate Governance of Listed Companies) reiterating these principles and establishing in a national publication good practice of corporate governance. The document was prepared and published in a joint effort between the China Securities Regulatory Commission (CSRC) and the National Economic and Trade Commission. With the OECD Corporate Governance Principles as a base, this document takes into regard special establishments of listed companies in China. It concentrates on the means of protection of shareholders' interests, as well as a general code of professional and corporate ethics required for all company executives (OECD, 2011).

The Code covers such topics as shareholders and shareholders' meetings, the issue of controlling shareholders, directors and board of directors, supervision and supervisory board, incentive and performance program, informational disclosure and transparency. All listed companies are advised to follow the standards set forth in the Code in their corporate governance structure. In case of discrepancies or violations, the securities institutions would pressure the company reach solutions with regard to the principles in the Code. Other

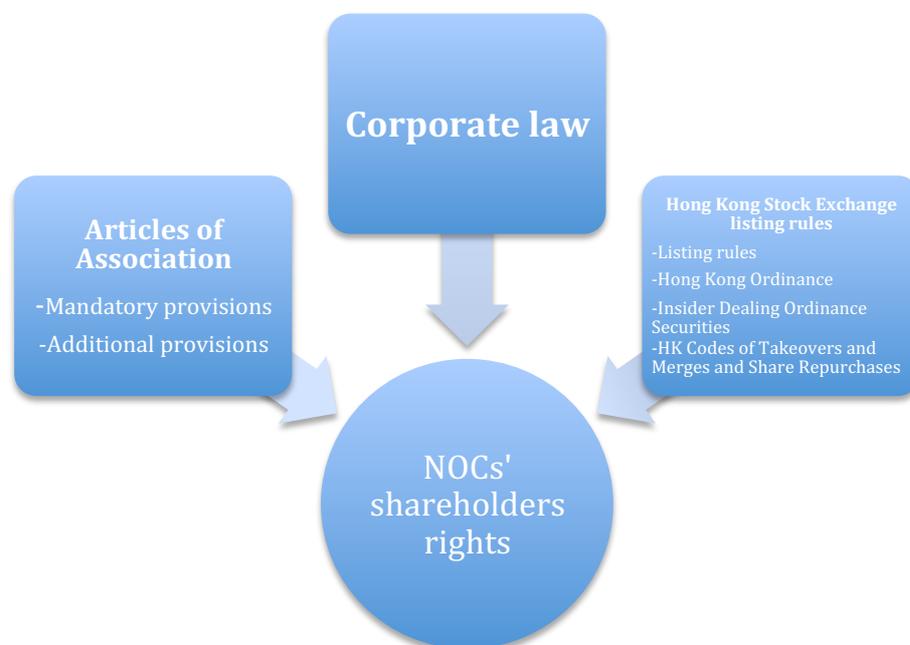
regulatory provisions govern such separate issues as listed companies' shareholders meeting, informational disclosure, independent directors, protection of shareholders, listed companies' takeovers, managerial incentives, and so on.

All listed company reports, including the IPO announcements, periodic reports, and informational disclosure materials fall under the jurisdiction of the Regulations on Information Disclosure of Listed Companies. The Guidelines on Articles of Association of Listed Companies regulate various major corporate governance institutions within listed companies (e.g. the question of shares, shareholders' meetings, boards of directors, supervisory board, managers and executives, auditing, etc.); the Rules on Shareholders' Meetings of Listed Companies as well as Guiding Opinions on the Establishment of the System of Independent Directors in Listed Companies also play a regulatory role. Apart from the aforementioned regulatory documents, there are a number of scripts coordinating more specific sides of listed company operations. These are: Provisions on Strengthening the Protection of the Rights and Interests of Public Shareholders, Regulations on the Takeover of Listed Companies, Regulations on Major Asset Reorganization of Listed Companies, Regulations on Option Incentives of Listed Companies (Trial), Regulations on the Registration and Settlement of Securities (Chen & Shi, 2002).

Stock exchanges themselves provide general disciplinary rules including The Rules on Listing Stocks and Trading Rules. Rules on Listing Stocks (implemented in the Shanghai and Shenzhen Stock Exchanges in 2008) regulate diverse kinds of Stock Exchange's activities, from informational disclosure and management to reports and coordination between domestic and international listings. Trading rules of both Stock Exchanges cover diverse trading activities including handling trading disputes and setting trading fees. The main sources of shareholders' rights in NOCs remain the Corporate law, the Articles of Association, and Hong Kong Stock Exchange listing rules (Wang, 2005).

Figure 10

Sources of shareholders rights of NOCs



Note. Adapted from Sinopec Form-20 Report, 2011.

The Articles of Association include the Mandatory Provisions for Articles of Association of Company Listing Overseas. The State Council Securities Committee together with the State Commission for Restructuring the Economic System adopted the Provisions in 1994 to guide overseas operations of NOCs. The Mandatory Provisions part of NOCs' Articles of Association can only be amended with approval from both the SASAC and the China Securities Regulatory Commission. Also, the Articles of Association of those NOCs that list their H-shares on the Hong Kong Stock Exchange must incorporate the Additional Provisions.

As for the HK Stock Exchange Listing Rules, there are several legal provisions by which NOCs must abide. Those are: the Listing Rules of the HK Stock Exchange, HK Ordinance (the “Securities Disclosure of Interest (SDI) Ordinance”), the Insider Dealing

Ordinance Securities, and the HK Codes of Takeovers and Merges and Share Repurchases (Hong Kong Takeovers and Repurchase Codes). The SDI Ordinance requires disclosure of the identity of the largest shareholders of the listed company. In case of refusal the shareholders may be prosecuted under the Securities and Futures Commission of Hong Kong. The Hong Kong Takeovers and Repurchase Codes is a set of commercial standards for mergers, acquisitions, and repurchases of shares on the HK Stock Exchange. The Securities and Futures Commission establishes the Codes, and while they are not the rule of law, expectation is that they be followed (Barham & Braham, 2011).

Chapter 4. Corporate governance of Chinese listed NOCs

In this chapter I present the story behind the Initial Public Offering of NOCs. I introduce the development of marketization tendencies and characteristics of NOCs' listing. Additionally, I analyze the corporate structure of NOCs, the role of independent directors, the treatment of employees after listing, and the expenses for social services in relation with the further corporatization. I outline the share capital of listed NOCs and their shareholders, adding detailed description of the type of non-state shareholders and their potential for participation in a decision-making process in a NOC. Considering non-state shareholders, I also present the data of the next biggest shareholder after the HKSCC Nominees Ltd. and the rights granted thereto according to the number of shares. The choice justification and details of these parameters are discussed in the Methodology Chapter.

4.1. Stock market developments and Initial Public Offering of Chinese NOCs

The number of shares issued by SOEs was strictly regulated in line with the relation to the government. As there was no plan to dissect SOEs by component to sell to non-state actors most issued shares were pronounced state-related and non-tradable (Walter & Howie, 2006). Share issue also used a 'double-track' pricing mechanism that set the price for the share according to the buyer, not the seller. Within this mechanism private investors had to buy shares at their market price while state actors (state agencies that traded shares among themselves) were able to trade at the fixed price 1 RMB per share. Furthermore, state shares owned by a legal person or public investor could not be traded at all; private investors were issued specially A-shares for trade (Jia & Tomasic, 2009).

This complicated and non-flexible system was eliminated in 2005 making all shares legally tradable. Of listed companies, 97% completed the share restructuring within two years after the announcement, raising about 9 trillion RMB in 2007. Transforming non-tradable shares into tradable ones eliminated transactional difficulties, significantly facilitating the

process of mergers and acquisitions (M&A) and other corporate activities and bringing them in line with international standards. Still, the changes had only minor impact over the ownership structure of SOEs, because, technically tradable or not, the majority (around 70%) of shares belonged to the government (i.e. the SASAC and other agencies). Therefore, by retaining administrative power over SOEs the State remained responsible for internal corporate affairs and corporate governance, the only difference being the additional responsibility for international operations and foreign markets (Jiang, et al., 2007).

State-controlled privatization was a part of a market-oriented strategy employed by the Chinese government for SOEs in the late 1990s. It is remarkable that the reformation of PetroChina took place before the establishment of SASAC in 2003, but nowadays the history of development of NOCs is closely related to SASAC (Naughton et al., 2015).

Corresponding to several major factors, such as integration in global economy, response to the 1997 Asian financial crisis, and the perspective of WTO membership, SOEs have restructured into shareholding cooperatives and limited liability companies (Qi et al., 2000).

SOEs started to separate their major business and subsidiaries in order to turn subsidiaries into a branch company and transform them into joint stock companies. The next step was placing these new entities on both the domestic and international stock markets (Oi & Center, 2011).

CNPC, Sinopec, and CNOOC listed their subsidiaries (or branch companies) in 2000-2001. During this period all three NOCs went to the stock market with fully-fledged companies in accordance with the SOE listing rules of that time. CNOOC formed CNOOC Ltd. at the beginning of 1999; CNPC formed PetroChina (PetroChina Company Ltd.) in November 1999; and Sinopec (the parent company is Chinese Petrochemical Company, CPC) formed Sinopec Corp. in February 2000. All three parent companies transferred their core businesses to listed subsidiaries and kept the “shells”—mostly indebted, non-producing

businesses. For example, CNPC was shifting most of its upstream activities to PetroChina, such as refineries, pipeline companies, research and development of oil deposits, petrochemicals, marketing, and sales. The parent company remained with social services, property management, technical and production business, and overseas investments. Listing of the daughter NOCs were also seen as a mean to end the competition between the mother and daughter companies. However, the parts of the mother companies that were not brought through listing, were either very small or not sufficient for the market competition. When these entities (for example refineries) became ready for the corporatization – they were also transferred to the listed daughter (De Jongi, 2008).

For its initial listing PetroChina issued 17.558 billion shares that accounted for 10% of total amount of shares offered, and raised 2.89 billion dollars on the Hong Kong and New York stock exchanges (see Table 1). Sinopec transferred core businesses in upstream services, refining, and petrochemicals to Sinopec Corp. The joint stock entity of Sinopec group (China Petrochemical Corporation), Sinopec Ltd., issued 1.803 billion (21.21%) of shares that raised 3.74 billion dollars on the Hong Kong, New York, and London exchanges. The owner of the non-tradable shares was not only Sinopec (56%), but also the Bank of China (27%).

The story of Sinochem, once the biggest oil importer and exporter of China, is an example of both CNPC and Sinopec consolidating their activities in the oil trade. Sinochem previously participated in two joint ventures together with CNPC and Sinopec. Its joint venture with CNPC was Chinaoil; with Sinopec, it created Unipecc. After the CNPC and Sinopec's listings Sinochem lost 20% of its Chinaoil and 100% of its Unipecc shares, leaving it with 30% Chinaoil shares only. Although Sinochem is represented on the Chinaoil board, it has no significant influence over the company's operations.

With the advent of responsibility for their shares' market price, all NOCs restructured and resized their facilities. In 1999 CNOOC established a branch that later in 2001 was granted exclusive rights for overseas exploration and development of petrochemicals as well

as commercial communication with foreign partners. In 2001 the CNOOC Ltd. issued 27.5% of shares with total price of 1.64 billion dollars raised on the Hong Kong and New York stock exchanges; 67.5% of shares remained in the property of the parent company (Guo, 2007).

Table 1

Chinese NOCs' IPO data

		PetroChina	Sinopec	CNOOC
Amount of shares, billion	Initial Public Offering, 2000	175.58 (10% of the total)*	1.8 (21.21% of total)	1.64 (27.5% of total)
	2015	183.02	118.2	44.6 **
Total IPO funds, billion US dollars***		2.89	3.7	1.26
Structure of shares	RMB ordinary shares	88.47%	78.93%	No data
	Foreign listed shares	11.53%	21.07%	No data
Amount of Parent company shares (beginning of IPO)		90%	56%	67.5%
Shareholdings of main shareholders (2015)	State-owned shares	86.35%	70.86%	64.44%
	H-shares	11.39%	20.96%	35.56%
	Other	2.26%	8.18%	
Amount of shareholders In 2015	A-shares	619,755	741,935	No data
	H-shares	7,269	6,275	
	Total	627,024	748,210	
Stock Exchange		Hong Kong, New York	Hong Kong, New York, London	Hong Kong, New York

Note. Adapted from Guo (2007) and NOCs' Annual Reports, 2000-2015

*On April 7, 2000, the Company issued 17,582,418,000 shares

** Form-20 2015, Weighted average number of ordinary shares for the purpose of diluted earnings per

share

*** Reproduced from Guo, 2007

Before 2005 around 70% of shares of PetroChina, Sinopec Corp, and CNOOC were non-tradable. After the reform of 2005 PetroChina was the first NOCs to complete the process of transforming non-tradable shares to tradable ones, changing 157,5 billion shares valued at 1.89 trillion RMB onto the Shanghai Stock Exchange. Other NOCs have yet to complete this process (6,712,195 non-tradable shares, or 77.42% of the total shares in case of Sinopec). In spite of an injection of new shareholders on both domestic and international market, listed Chinese NOCs remain under the administrative control and corporate ideology of the Chinese state (OECD, 2009).

In spite of considerable profits, Chinese NOCs received subsidies from the government (RMB 76.349 billion in 2008 for PetroChina and Sinopec). Those transfers were made in order to 'ensure the market supply of petroleum products'. Private companies, however, did not get any governmental support neither in form of subsidies nor as state funds (Sheng, 2012).

The listing of subsidiaries of the three major Chinese NOCs had several important consequences. First, companies gained easy access to capital through raising funds by investments. Second, the companies became considerable players on the international oil market (though they face the shortcomings and challenges of latecomers). Third, they could pull "strategic foreign capital alliances" (Guo, 2007) with other Asian and international oil companies. De Jongi (2008) claims that the restructuring in an oil sector and creating large vertically-integrated NOCs was a step towards marketization. The marketization was meant to be done by the companies that would be able to compete with the international giants instead of selling out the national companies in small pieces to private owners.

4.2. Corporate structure of NOCs

The official objective of SASAC remains to make the high-level companies fully-listed and corporatized and implement the functioning Boards of directors that would also include an outside, independent parties. Even though the Corporate Law required the establishment of the Board of directors, most of the listed companies haven't got such Boards up to 2003 (Naughton et al., 2015).

All three listed NOCs—PetroChina, Sinopec, and CNOOC—have similar Corporate Governance structure. The Shareholders General Meeting is the highest decision-making organ in each of the companies. The Board consists of independent directors, the company's top management, and SASAC representatives. The Board of Directors present annually at the General Meeting on the following topics:

- Administration: the attendance to the Meetings of the Board members; the enforcement of the decisions made at the annual Board Meeting of the previous year; the overview of the meetings of the Board committees (Audit Committee, Strategy Committee, Remuneration Committee, and Social Responsibility Management Committee); the implementation of the resolutions/policies required by the State.
- Fiscal: performance; relative performance compared to the previous year; dividends and profit distribution; proposals for the amount and timing of dividend distribution, including details of location specific dividend taxation (Hong Kong or mainland China); bank loans, debts and charity donations.
- Property: fixed assets; reserves; activities taken on shares (sales, redemption, repurchase).
- Stakeholders: suppliers and customers; the year on year comparative relative amount of sales/purchases; risks for shareholders.

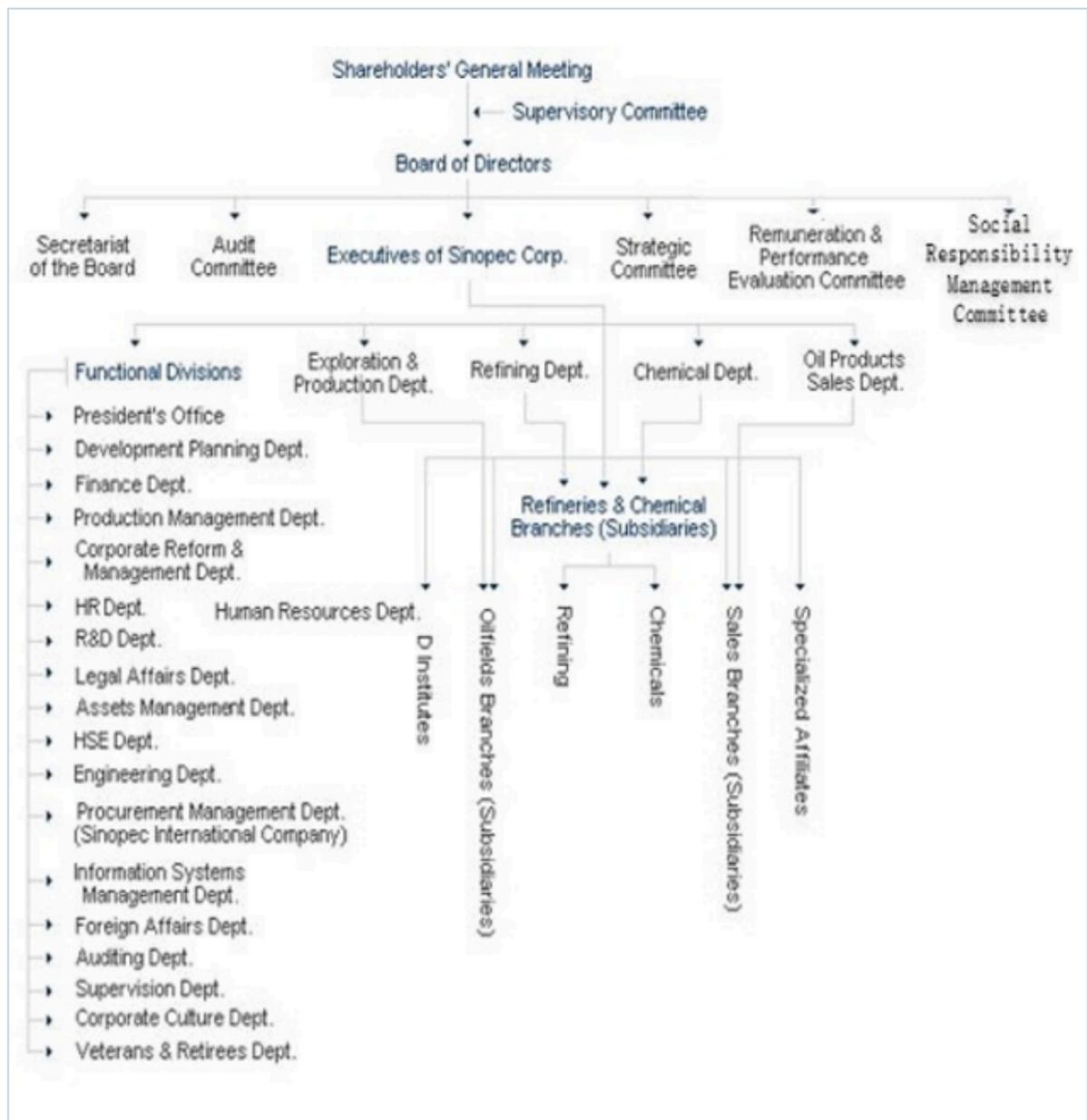
- Internal Affairs: profile and competitiveness; research and development, upstream and downstream technologies; chemical expertise on products; etc.

The official scheme with divisions and departments of NOCs often depicted in thematic sources does not reveal the lines of communication and connection between departments and committees. For example in Sinopec, according to the scheme, the board receives reports from four committees, the Audit Committee, Strategic Committee, Remuneration and Performance Evaluation Committee, and Social Responsibility Management Committee. At the same time, the company executives are shown at the same level as the committees, implying the committees are directly subordinate to the board, but not to executives. However, according to the same diagram, the executives control the departments that are supposed to be subordinate to the committees. Apart from the Exploration and Production, Refining, Chemical, and Retail departments, the executives are in control of a number of functional divisions. These departments are: the president's office, development planning, finance, production management, corporate reform and management, human resources, research and development, legal affairs, assets management, engineering, procurement, information systems management, foreign affairs, auditing, supervision, corporate culture, and veterans and retirees.

As a further complication, those divisions that have a separate committee do not appear to be subordinate to them. For example, the Auditing Department is not subordinate to an Audit Committee; Corporate Culture and Veterans and Retirees Departments are not subordinate to the Social Responsibility Management Committee; the Supervision Department is not subordinate to the Supervisory Committee; and the Finance, Corporate Reform, and other similar departments have nothing to do with the Strategic Committee.

Figure 11

Corporate structure of PetroChina



Note. Reproduced from Liao, 2009.

Victor et al. (2012) states that some CNPC executives claim that PetroChina is a fully privatized entity and does not need to fulfill any obligations of the mother company CNPC. That might be understood in terms of the expertise of the subsidiaries of CNPC – the

company is so “compartmentalized”, that some subsidiaries act as a wholly independent entities.

PetroChina and CNOOC are both similarly opaquely and complexly organized. Most of the executives of the Sinopec Corp. are appointed by the mother Sinopec due to the proportionality in the shareholdings. Also there exist party organizations as a parallel controlling organs of the formal committees of the company. That means that the government appoints the head of the Sinopec Corp., the secretary of the Board, the heads of the committees and probably also the supervisory board as there is no record of the participation of the minor shareholders in a nomination or voting for the members of any of the boards (Jia & Tomasic, 2009).

In the official corporate structure diagrams there is also no any information on the participation of independent, non-executive directors. The data on independent directors is presented in annual reports and Form-20 reports only and is similar for all three listed NOCs.

4.3. The role of independent directors (at the example of PetroChina)

In time period of 2001-2014 the number of independent, non-executive directors in the NOCs varied from three to five. Independent, non-executive directors do not hold any official post in the company and are considered unpaid workers despite receiving a director’s fee varying from 16,000 RMB in 2001 up to 240,000 in 2007 (PetroChina Annual Reports, 2001, 2007). In 2008 independent, non-executive directors were specified to be nominated/elected every three years, serving for no more than two terms. Directors are elected at the General Meeting following which they can be re-elected, re-appointed, or terminated. Five out of twelve directors are the representatives of the mother CNPC company.

In the 2001-2003 reports the independent, non-executive directors were mentioned in connection with the following activities:

- confirming the annual report
- confirming the ordinary commercial nature of regular transactions, e.g. sales of goods, purchases, exploration and development services, production-related services, ancillary and social services, operating lease charges, etc. (PetroChina Annual Reports, 2001-2003).

In the 2004 Annual Report the Corporate Governance section includes a paragraph on independent directors' duties. Independent, non-executive directors' duties are stated to be specified in suitable regulations, laws, and the Articles of Association. However, it is not clear precisely which laws and regulations are meant; the Articles of Association list all directors, but without additional information of their duties (PetroChina Articles of Association, 2004). According to the paragraph from the 2003 Annual Report, independent, non-executive directors participate as consultants, presenting at the General Meeting of the Board and Committees and giving advice on operations, corporate governance, internal affairs, and so on; they participate in negotiations about merges and acquisitions (M&A), and the appointment and dismissal of directors; and are documented to show "particular concern" for the protection of minor shareholders and ensuring fair corporate governance. In compliance with Hong Kong Stock Exchange requirements all independent, non-executive directors must formally confirm their independence. The functions of independent, non-executive directors are first separately mentioned in the 2007 Annual Report. While mentioned, they are again not specified in reference to the Articles of Association (Puchniak et al., 2017).

In 2000 there were three independent, non-executive directors present in PetroChina, among them an Italian top-manager from a telecommunication industry (PetroChina Annual Report, 2000). Shareholders nominate and elect the company's independent, non-executive directors (PetroChina Annual Report, 2001; no record on shareholder's nomination rights). Independent, non-executive directors of PetroChina attend and participate at Board Meetings and discussions, as well as audit and remuneration committees. They present their opinions, which are reflected in the annual report, and primarily focus on justifying the nature of

transactions (i.e., if they are legally fair and commercially reasonable) and regular and irregular money transfers. These include CNPC-PetroChina' mutual transactions (in 2000, 12% of PetroChina revenues were transferred to the CNPC), annual expenses for construction, production, social services and financial transactions.

Table 2

Role of independent directors, PetroChina

Year	Independent, non-executive directors PetroChina	Report of independent directors
2000	3 persons out of 13 directors; appointment approved by shareholders at Annual General Meeting	Yes, p.42
2001	3 persons out of 13 directors; nominated and elected by shareholders	Yes, p.55
2002	3 persons out of 12 directors; appointment approved by shareholders at Annual General Meeting	No
2003	3 persons out of 12 directors; nominated and elected by shareholders	Yes, p.52
2004	3 persons out of 13 directors; nominated and elected by shareholders	Yes, p. 57
2005	3 persons out of 13 directors; nominated and elected by shareholders	Yes, p.77
2006	3 persons out of 12 directors; nominated and elected by shareholders	No
2007	3 persons out of 12 directors; nominated and elected by shareholders	Yes, p.52
2008	5 persons out of 14 directors; (new HKSC listing rules)	Yes, p.51
2009	5 persons out of 14 directors	Yes, p.52
2010	5 persons out of 14 directors	Yes, p.52
2011	5 persons out of 14 directors	Yes, p.54
2012	5 persons out of 14 directors	Yes, p.46

Year	Independent, non-executive directors PetroChina	Report of independent directors
2013	5 persons out of 14 directors	Yes, p.40
2014	4 persons out of 13 directors	Yes, p.48
2015	4 persons out of 13 directors	Yes, p.54

Note. Adapted from Annual Reports of PetroChina 2000-2015

4.4. Number of employees and expenses for social services in NOCs

During the listing of PetroChina it was decided to keep the noncore operations of the company by the mother CNPC, and to list the core services in order to maximize efficiency of the IPO. This is important to mention because the listed NOC got only one-third of the personnel of CNPC. So all core operations were transferred to 480,000 workers, whereas the non-core services were left to the other million employees (Naughton et al., 2015).

Employee lay-offs and hiring are calculated according to the data provided in Annual Reports, 2000-2015. Considering an expectation for employee reduction, the three NOCs showed different patterns. After the IPO in 2001 the Sinopec Group discharged 68,000 of employees as a part of a cost reduction program, almost 50% more than the original plan to discharge 27,000 employees. Following further cost reduction estimations, plans were made to reduce the number of employees by 100,000 in 2005 (compared to the original number of around 500,000).

PetroChina was reformed in order to form right incentives for the employees and build a culture of workplace productivity (Naughton et al., 2015). The Chairman called the employee reduction program an operation under ‘market forces’. Generally, reduction costs were connected to the ‘market environment’, however it should be noted the main plan was not to lay-off existing employees, but rather to not replace workers as they retired. In 2002, nearly 20,000 employees left the company, but in 2003, the number of retiring employees

rocketed to 98,951; thus, for three years the number of true lay-off, not counting non-replaced retirements was around 15,000 workers (13% of all lay-offs). Altogether, within 15 years of listing Sinopec laid off 30% of its employees, leaving approximately 350,000 employees in 2015.

Similar to PetroChina situation occurred during the listing of CNOOC. The listed CNOOC got 1,000 employees, whereas the parent CNOOC was left with 16,000 and a general request of not competing the listing CNOOC. In the end the profits of listed CNOOC were transferred to the mother CNOOC in order to cover its financial losses (Naughton et al., 2015). However, CNOOC began hiring and employing people from the time of their IPO. By 2015 this resulted in a staff of 14,000 people, i.e. 14 times more than the firm employed in 2001.

PetroChina, like Sinopec, also initially pursued an employee reduction plan immediately following their IPO. Like Sinopec, they achieved this by allowing the natural attrition of retiring workers to reduce their labor force until to 2004. Beginning in 2004, however, PetroChina reversed trend and started to increase the number of employees. In 2015 the company showed a 15% increase in personnel compared to 2001 (521,566 in 2015 against 441,612 in 2001). In the immediate aftermath of the IPO the cost reduction measures were estimated higher, and were so fulfilled through employees' lay-offs, terminating non-profitable manufacturing projects, and optimization of production and reselling (PetroChina Annual Report, 2001).

The expenses for employees' needs in all three NOCs are presented within the Statutory Public Welfare Fund. Statutory Public Welfare Fund receives a 5-10% annual transfer to be used for company employees welfare, and cannot be used for any other purposes. Common uses for these funds include building dormitories, canteens, kindergartens, and other facilities. The same as for the Statutory Surplus Fund, transfers to the Public

Welfare Fund are calculated before paying dividends to shareholders. In 2001, Sinopec required shareholder approval to transfer 10% of the company's net profit to this fund.

All three NOCs also make transfers to the Statutory Surplus Fund. The Statutory Surplus Fund gets an annual 10% transfer of company revenues. The transfer is obligatory in accordance with PRC Accounting Rules and Regulations, and is made before paying dividends to shareholders. Statutory Surplus Fund can serve several purposes. In case of losses it is used to cover the budget deficit; it also can be employed to issue new shares, or to increase the par value of currently owned shares. If there are new shares issued to the shareholders, the issue should be proportional to the shares currently possessed, and the balance after the issue not be less than 25% of the registered capital.

Out of the three NOCs only Sinopec makes transfers to a Discretionary Fund. Mention of the Discretionary Surplus Fund first appears in the 2002 Annual Report, which states that transfer to the discretionary surplus reserve must be agreed at the Annual General Meeting upon a resolution. The category of ancillary services is mentioned from 2007 on as the only category of expenses for social services. Ancillary services mostly include expenses for training centers, canteens, employees' housing etc. (2000, p.106). The expenses to ancillary services were limited to RMB 5 million every year from 2001-2008, to RMB 8 million from the 2008-2014, and to RMB 10 million from 2015⁷.

All expenses for social services have been calculated by the author based on the data of RMB transferred to employee welfare fund and NOC's net profits.

⁷ Numbers in this category are calculated based on the company's net income

Table 3*Number of employees and expenses for Social Services in PetroChina*

Year	Number of Employees	Statutory Surplus Fund	Welfare Obligation Fund*	Ancillary Services*
2000	441,612	10% of net profits up to 50% of registered capital	9%	3%
2001	422,554	10% of net profits up to 50% of registered capital	9%	4%
2002	419,598	10% of net profits up to 50% of registered capital	5% to 10%, 5% transferred	4%
2003	417,229	10% of net profits up to 50% of registered capital	5% to 10%, 5% transferred	3%
2004	424,175	10% of net profits up to 50% of registered capital	5% to 10%, 5% transferred	1%
2005	439,220	10% of net profits up to 50% of registered capital	5% to 10%, 5% transferred	1,7%
2006	446,290	10% of net profits up to 50% of registered capital	5% to 10%, 5% transferred	1,5%
2007	466,502	10% of net profits up to 50% of registered capital	No longer required; Balance transferred to Statutory Surplus Fund; Transferred to Ancillary Social Services	1,5%
2008	477,780	10% of net profits up to 50% of registered capital	No longer required	2%
2009	539,168	10% of net profits up to 50% of registered capital	No longer required	2%
2010	552,698	10% of net profits up to 50% of registered capital	No longer required	2,6%
2011	552,810	10% of net profits up to 50% of registered capital	No longer required	2,8%
2012	548,355	10% of net profits up to 50% of registered capital	No longer required	3,9%

Year	Number of Employees	Statutory Surplus Fund	Welfare Obligation Fund*	Ancillary Services*
2013	544,083	10% of net profits up to 50% of registered capital	No longer required	2,9%
2014	534,652	10% of net profits up to 50% of registered capital	No longer required	3%
2015	521,566	10% of net profits up to 50% of registered capital	No longer required	12%

Note. *Calculated according to the net profits of the NOC. Adapted from Annual Reports of PetroChina 2000-2015

4.4.1. Expenses for social services of Sinopec

Sheng (2012) studied the spendings of the CNPC for the employees' benefits. NOCs' employees' income is comprised from wage, salary and allowance, yearly bonus, health insurance and housing fund. Although there are no or very little non-monetary spendings for employees' welfare, the workers' position in NOCs is very satisfying.

According to the Annual Reports of Sinopec the balance of the welfare obligation fund was transferred to the statutory surplus reserve upon the request of the Ministry of Finance's in 2006. In 2007, shareholders' approval authorized the directors at the Annual General Meeting to transfer RMB 20 billion to the Discretionary Surplus Reserve. The same process, approval, and transfer were repeated in 2009. As the purpose of the Discretionary Surplus Reserve is similar to that of the Statutory Surplus Reserve, all Welfare Obligation Funds were substituted by the discretionary fund. In Table 4 I present the overview of the amount of employees, Statutory Surplus fund as a share of net profits of the Company, Welfare Obligation and Discretionary Surplus fund, as well as the Ancillary services, that cover direct employees' needs. In terms of meeting the employees' needs in a corporate governance framework I am particularly interested in spending for the Ancillary services. In order to simplify the perception, I present the numbers as a percentage of net profits of

Sinopec. As it has been mentioned before, the Welfare Obligation Fund and Discretionary Surplus Fund became one after the request of the Ministry of Finance in 2006. The transactions at the Discretionary Surplus Fund have reached the 50% of Company's registered capital in 2011 and have been stopped.

Table 4

Expenses for social services of Sinopec

Year	Number of Employees	Statutory Surplus Fund, Share of Net Profits	Welfare Obligation Fund (Statutory Public Welfare Fund)	Ancillary Services*	Discretionary Surplus Fund (Similar to Statutory Surplus Fund)*
2000	506,168	10%	5% to 10% Request for 10% transfer subject to shareholders' approval; approved	12,7%	Not mentioned
2001	443,808	10%	5% to 10% Request for 10% transfer made with shareholder approval	12,5%	First mentioned No transfer made
2002	418,871	10%	5% to 10% Request for 10% transfer made with shareholder approval	13,8%	5% Approval given at General Meeting
2003	400,513	10%	5% to 10% Request for 10% transfer made with shareholder approval	9,4%	5% Approval given at General Meeting
2004	389,451	10%	5% to 10% Request for 10% transfer made with shareholder approval	5,4%	~5% Approval given at General Meeting
2005	364,528	10%	5% to 10% Request for 10% transfer made with shareholder approval	4,5%	~5% Approval given at General Meeting
2006	340,886	10%	Balance transferred to Statutory Surplus Reserve	3,1%	Not required

Year	Number of Employees	Statutory Surplus Fund, Share of Net Profits	Welfare Obligation Fund (Statutory Public Welfare Fund)	Ancillary Services*	Discretionary Surplus Fund (Similar to Statutory Surplus Fund)*
2007	334,377	10%	Not required	2,8%	Not required; 36% shareholder approval at General Meeting
2008	358,304	10%	Not required	5,3%	Not required; ~40%, shareholder approval at General Meeting
2009	371,333	10%	Not required	5,3%	Not required; ~40%, shareholder approval at General Meeting
2010	373,375	10%	Not required; 5% as “Ancillary and Social Services“	5,1%	Not required ~30%, shareholder approval at General Meeting
2011	377,235	10%	Not required	5,3%	Not required; ~50%, shareholder approval at General Meeting
2012	376,201	10%	Not required	6,3%	Not required;
2013	368,953	10%	Not required	10,1%	Not required;
2014	358,571	10%	Not required	14,2%	Not required;
2015	351,019	10%	More than 20% as “Ancillary and Social Services“	21%	Not required;

Note. *Calculated according to the net profits of the NOC. Adapted from Annual Reports of Sinopec 2000-2015

4.4.2. Number of employees and expenses for Social Services of CNOOC

In is stated that CNOOC transfers funds to the Statutory Surplus Fund depending on expenses required by employees (Annual Report of CNOOC, 2005). However, the expenses stated in reports remain constant at approximately a 9,5% level of Company's net profits. The same situation is seen with the Welfare Obligation Fund – the amount of transfers stay constant at around 10% of the net profits. It is also noted, that the Welfare Obligation Fund (also mentioned in some Annual Reports as a Statutory Public Welfare Fund) should only be collected up to the amount of 50% of Company's registered capital. In Table 5 I sum up the statistics of the number of employees and the transfers to both Statutory Surplus and Welfare Obligation Funds. Whereas the number of employees increased almost 15 times within 15 years of listing, the CNOOC did not seem to change the policy of spending for the workers' welfare.

Table 5

Number of employees and expenses for social services of CNOOC

Year	Number of Employees	Statutory Surplus Fund*	Welfare Obligation Fund (Statutory Public Welfare Fund)
2000	1,007	9,5%	10% of net profits, up to 50% of registered capital
2001	1,081	9,5%	10% of net profits, up to 50% of registered capital
2002	2,047	9,5%	10% of net profits, up to 50% of registered capital
2003	2,447	9,5%	10% of net profits up to 50% of registered capital
2004	2,524	9,5%	10% of net profits up to 50% of registered capital
2005	2,696	9,5%	10% of net profits up to 50% of registered capital
2006	2,929	9,5%	10% of net profits up to 50% of registered capital
2007	3,288	9,5%	10% of net profits up to 50% of registered capital
2008	3,584	9,5%	10% of net profits up to 50% of registered capital
2009	4,019	9,5%	10% of net profits up to 50% of registered capital

Year	Number of Employees	Statutory Surplus Fund*	Welfare Obligation Fund (Statutory Public Welfare Fund)
2010	4,650	9,5%	10% of net profits up to 50% of registered capital
2011	5,377	9,5%	10% of net profits up to 50% of registered capital
2012	10,063	9,5%	10% of net profits up to 50% of registered capital
2013	17,553	9,5%	10% of net profits up to 50% of registered capital
2014	21,046	9,5%	10% of net profits up to 50% of registered capital
2015	14,956	9,5%	10% of net profits up to 50% of registered capital

Note. *Calculated according to net profits of the NOC. Adapted from Annual Reports of CNOOC 2000-2015

All three NOCs have benefited from the listing not only in terms of gaining profits, but also due to an institutional learning by adopting international rules in informational disclosure, monitoring and other practices required by the market environment. This in turn resulted in an improved corporate governance and financial performance (Huang, 2013).

Chapter 5. Share capital and shareholders of listed NOCs

I have calculated the shareholdings of next biggest shareholder (after HKSCC) for each of the three NOCs according to the number of H-shares as presented in Annual Reports and Form-20 reports for corresponding years (for a detailed presentation of the amount of private shareholders during listing see Chapter 6). In this Chapter I am interested at the current number of private shareholders as a part of all share capital shareholdings (A-shares + H-shares) as this is the number that confers voting rights. Under the term 'share capital' one considers domestic state-owned A-shares, ordinary A-shares, and H-shares. The information of shareholders who possess more than 10% of H-shares of a company's shareholdings is provided according to SDI Ordinance Section of Stock Market Rules.

5.1. Share capital and shareholders of PetroChina

In 1983 The Ministry of Petroleum (possessing refining and petrochemical assets), Ministry of Chemical Industry (possessing chemical and synthetic fiber production assets), and Ministry of Textile Industry were converted to a ministry-level China National Petrochemical Corporation (CNPC). The newly established CNPC was subordinate directly to the State Council. In the mid-1990s CNPC became a national-holding company. In 1998 the governmental functions of CNPC were transferred to a newly established State Bureau of Petroleum and Chemical Industry (Jia & Tomasic, 2009).

The second half of 1998 saw massive restructuring and cross-transfers of companies. At that time CNPC transferred 19 of its companies to a China National Petroleum⁸ Corporation (modern Sinopec Group) and obtained 12 companies from it. After the restructuring, the companies consolidated into two vertically-integrated oil and petrochemical

⁸ CNPC is a China National Petro**chemical** Corporation

groups. CNPC acquired the downstream lines of operations, and Sinopec Group gained the upstream (exploration and production⁹) (EIA, 2015).

In Table 6 I present the amount of shares of PetroChina in 2000 and 2015. The initial amount of shares in the 2000 IPO was 175.8 billion; by 2015 the amount of shares grew insignificantly to 183 billion. In 2015, PetroChina possessed 88.47% of ordinary shares (the state-owned A-shares) and 11.53% of foreign-invested H-shares, also known as listed overseas shares (PetroChina Annual Reports, 2000-2015).

Table 6

PetroChina shares by type in 2001 and 2015

	2000	2000	2015	2015
State-owned*	158,241,758,000	90%	161,922,077,818	88.48%
Foreign-invested (H and Ads)	17,582,418,000	10%	21,098,900,000	11.53%
Total	175,824,176,000	100%	183,020,977,818	100%

Note. Adapted from PetroChina Annual Report, 2001.

*Prior to 2007 State-owned shares were represented by Chinese National Petroleum Corporation (CNPC); after listing in 2007 they were turned into A-shares

In order to raise funds, PetroChina initiated several big transfers of A-shares to H-shares, together with an additional issue of H-shares. Therefore, within 15 years PetroChina made two big transfers (in 2000 and 2005) and one big issue of A-shares in 2007. Table 7 represents the shares capital history of PetroChina. The par value per share remained 1.00 RMB within all 15 years of listing. During the IPO there has also been a massive issue of the American Depository Shares (ADS) that traded at the value of 1 ADS for 100 H-shares.

⁹ Later this separation became less pronounced

Table 7*PetroChina shares capital history*

	State-owned shares, billion	H-shares, billion	Par value per share	Description				
2000	160	17.5 <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>13.4</td> <td>0.41</td> </tr> <tr> <td>H-shares</td> <td>ADSs</td> </tr> </table>	13.4	0.41	H-shares	ADSs	RMB 1.00	Initial Public Offering 41,345,210 ADS = 4.1 billion H-shares (1ADS = 100 H-shares)
13.4	0.41							
H-shares	ADSs							
	-1.7	+1.7		A-shares transfer to H-shares				
2005	-0.3	+3.1 +0.3	RMB 1.00	A-shares transfer to H-shares				
2007*	4,0		RMB 1.00					
2015	161,922	21,099						
Total	183,0							

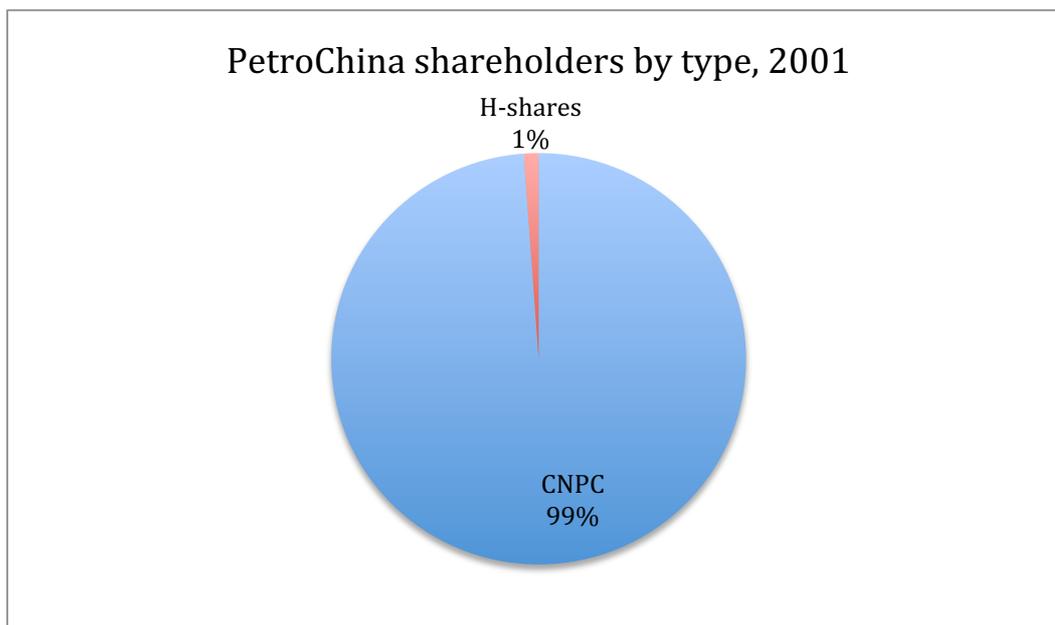
Note. Adapted from PetroChina Annual Reports and Form-20 reports, 2000-2015

*Prior to 2007 State-owned shares were represented by CNPC; after listing in 2007 they were turned into A-shares

The Figure 13 presents the structure of shareholders by type. In the beginning of IPO the total number of shareholders of PetroChina was 627,024, among them 619,755 holders of A-shares and 7,269 holders of H-shares (including 241 holders of the ADSs). That means that 1% of shareholders possessed all foreign-traded shares, whereas other 99% were holding all state-owned A-shares.

Figure 13

PetroChina shareholders by type, 2001



Note. Adapted from PetroChina Annual Report, 2015

Through SFO (Securities and Futures Ordinance of Hong Kong) disclosure in 2015 it appeared that three major shareholders¹⁰ possessed 25.53% of all PetroChina's foreign shares. Those are: Morgan Chase & Co. with 12.39% of H-shares, Black Rock Inc. with 7.1%, and Aberdeen Asset Management with 5.99%¹¹. However, 25% of H-shares make less than 3% of PetroChina total shares, and there is no any single shareholder with at least 1% of PetroChina's total assets. In Table 8 I present the retrospective of PetroChina's public and private shareholdings within 15 years of listing.

¹⁰ Calculated according Annual Report of PetroChina (2015)

¹¹ Calculated according Annual Report of PetroChina (2015)

Table 8*PetroChina's State and Private Shareholders and their shares*

Year	CNPC*	HKSCC (H- shares)	Other shareholders by holdings possessed		
			>10%	>3%	>1%
2000	90%	10%	None	None	- BP Investments China Limited 2% - Franklin Resources, Inc. 1,19% - Templeton International, Inc. 1,16% - Tempelton Global Advisors, Ltd. 1,2%
2001	90%	10%	None	None	- BP Investments China Limited 2% - Franklin Resources, Inc. 1,19% - Templeton International, Inc. 1,16%
2002	90%	10%	None	None	- BP Investments China Limited 2%
2003	90%	10%	None	None	- BP Amoco Plc 2% - Warren E. Buffett 1,33%
2004	90%	10%	None	None	- Warren E Buffet 1,33% - Credit Suisse Group 1,5%
2005	88,21%	11,79 %	None	None	- Warren E Buffet 1,31% - Morgan Chase 0,94%
2006	88,21%	11,79%	None	None	- Warren. E. Buffet 1,311% - JP Morgan Chase 1,12%
2007	86,29%	11,44%	None	None	None
2008	86,42%	11,4%	None	None	- JP Morgan Chase 1,37
2009	86,29%	11,38%	None	None	None
2010	86,2%	11,37%	None	None	- JP Morgan Chase 1,09%
2011	86,35%	11,37%	None	None	- J.P.Morgan Chase 1,19%
2012	86,35%	11,38%	None	None	- J.P.Morgan Chase 1,39%
2013	86,35%	11,38%	None	None	- Aberdeen Asset Management Plc and its Associates (together the "Group"), on behalf of Accounts Managed by the Group 1,14% - JP Morgan 1,43%
2014	86,35%	11,38%	None	None	- JP Morgan Chase 1,7%

2015	86,35%	11,38%	None	None	- JPMorgan Chase 1,54%
------	--------	--------	------	------	------------------------

Note. Adapted from PetroChina Annual Reports and Form-20 reports, 2000-2015

*Prior to 2007 State-owned shares were represented by CNPC; after listing in 2007 they were turned into A-shares

Even though some big private shareholders may possess double-digits amount of H-shares, that does not climb up to 3% of shareholdings of the company and potentially does not influence their ability of decision-making in a NOC. On the other hand, within the development of PetroChina's corporate governance practices, even 1% of an overall amount of shares would grant certain rights. I discuss these developments and the rights granted by the amended Corporate Law and Company's Articles of Association in Chapter 6.

5.2. Share capital and shareholders of Sinopec Corp.

In February 2000 the Sinopec Group initiated the affiliation of China Petroleum and Chemical Corporation, forming Sinopec Corp. Sinopec Corp. is a vertically integrated company with a wide range of downstream and upstream operations. These include: research and development in the oil and gas industry; oil exploration, production, and transportation; storage and sale of petroleum and petrochemical products; international trade of petroleum, petrochemical products, and natural gas; and also acting as an oil and gas import/export agency. Sinopec Corps receives full support from Sinopec Group on the matters of facilities, software and technology, training of personnel, insurance, audit, property, and service stations. Sinopec Group is itself directly subordinate to the State-owned Assets Supervision and Administration Commission (SASAC) (Jia & Tomasic, 2009).

By October 2000 Sinopec Corp. had undergone a successful IPO on the Hong Kong, New York, and London stock exchanges with 16.78 billion H-shares; a year later in 2001, it listed on a domestic market (Shanghai Stock Exchange) with 2.8 billion A-shares. In the

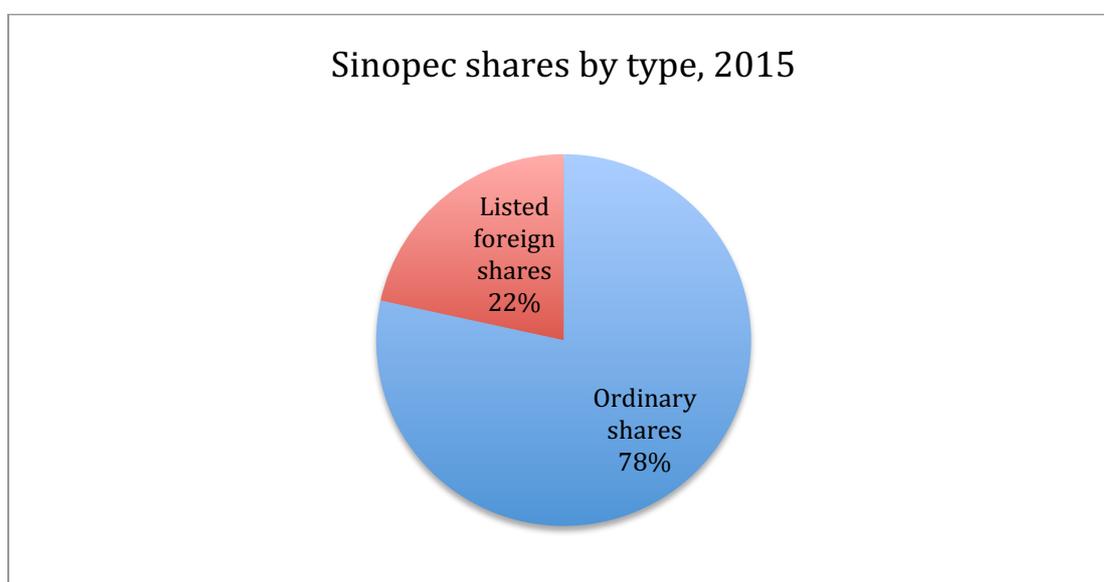
following years Sinopec Corp. concentrated mainly acquiring assets from the Sinopec Group and issuing convertible bonds (in 2007 for foreign market and in 2008 for domestic market).

As of June 2014 Sinopec Group owned 73.39% of Sinopec Corp. shares, including 553,150,000 H-shares (0.47%) owned through a foreign subsidiary of CNC, Sinopec Century Bright Capital Investment (the ownership goes through HKSCC Nominees Ltd.). CPC is a joint stock limited company and is listed on the New York, London, and Shanghai stock exchanges as a controlling shareholder of Sinopec. Sinopec also has several 'sisters', i.e. other subsidiaries of CPC: Sinopec Finance Company Ltd., Sinopec Asset and Management Corporation, Sinopec Asset and Management Corporation Yizheng Branch (the former Yihua Company Corporation), and the foreign sister Sinopec Century Bright Capital Investment.

In 2015 shares reached 118 billion, among them 78.43% ordinary shares and 21.57% listed foreign shares. Sinopec trades no other types of shares.

Figure 15

Sinopec shares by type



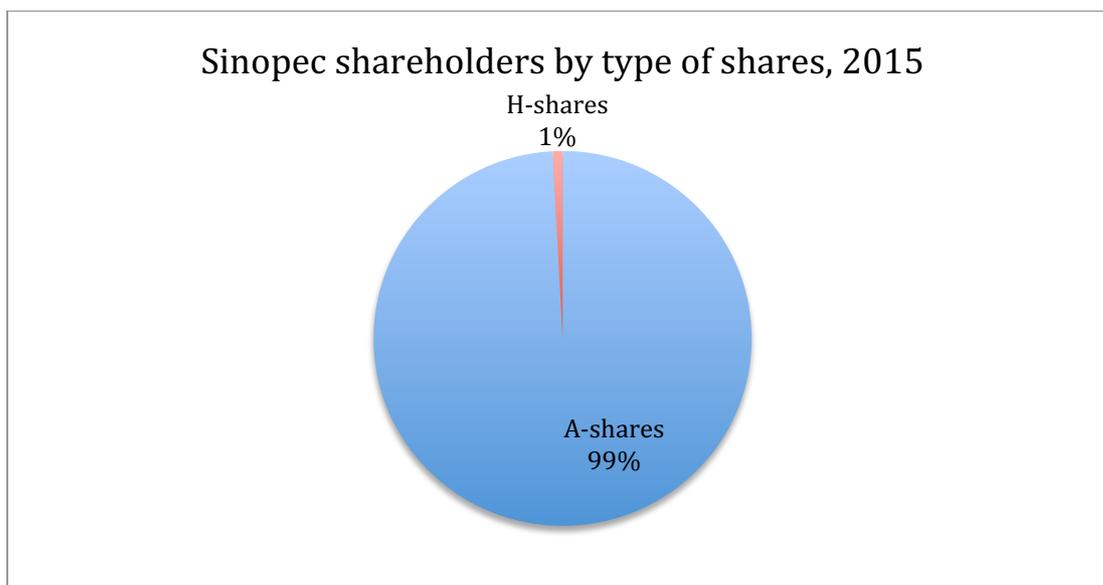
Note: Adapted from Sinopec Annual Report, 2015.

The total number of shareholders in Sinopec is 748,210 (Sinopec Annual Report, 2015). Among them 741,935 hold domestic A-shares and 6,275 hold foreign H-shares. That

means that 1% of shareholders hold 22% of shares whereas other 78% of state-owned shares is held by 99% of shareholders. In Figure 16 I present the structure of shareholders as for 2015.

Figure 16

Sinopec shareholders by type

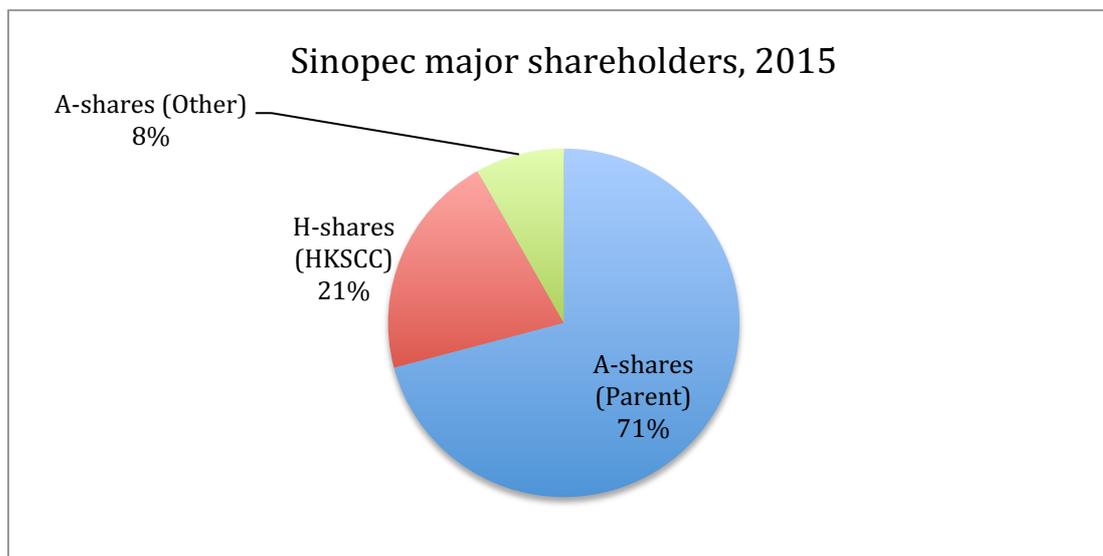


Note. Adapted from Sinopec Annual Report, 2015.

State-owned China Petrochemical Corporation (CPC) and HKSCC Nominees Ltd. are two major shareholders of Sinopec, with 70.86% and 20.96% respectively. All other shareholders combined possess only 8% of shares. Analyzing the holdings reveals that 99% of shareholders possess 79% of A-shares; the remaining 21% of shares belong to just 1% of shareholders.

Figure 17

Sinopec shareholders by type of possessed shares



Note. Adapted from Sinopec Annual Report, 2015.

Basically Sinopec has two major shareholders. The shareholders in the third and lower places each possess individually less than 1% of shares¹². As corporate governance regulations of Sinopec allocate voting rights according to shares, any shareholders who own less than 1% of shares cannot be officially regarded as principals. In Table 9 I present the shareholdings of two major shareholders of Sinopec – the State and the Hong Kong Securities Clearing Company (HKSCC). The HKSCC as a shareholder is presented in details in the next Chapter. Originally Sinopec placed an IPO with an unprecedentedly big amount of non-state share of almost 50%. However, except the HKSCC there are only big governmental organizations that held more than 10% of shares – the China Development Bank with 10.46% and China Xinda Assets Management (also known as a China Cinda – it is also a Chinese bank) with 10.39%. These big assets would be sold, or better to say, transferred back to the State in 2004. After

¹² 中國證券金融股份有限公司 got 1.46% of A-shares in 2015

that transfer other big shareholders only had a significant number of H-shares that actually did not influence over the voting or any other decision-making in a Company.

Table 9

Sinopec State and Private Shareholders and their shares

Year	CPC*	HKSCC** (H-shares)	Other shareholders by holdings possessed**		
			>10% ***	>3%	>1%
2000	56.9%	10.5%	- China Development Bank 10.46% - China Xinda Assets Management Corp. 10.39%	All other < 1%	All other < 1%
2001	55.06%	10.33%	- China Development Bank 10.12% - China Xinda Assets Management Corp. 10.05%	- Exxon Mobil Far East Holdings (H-shares) 3.65%	- Shell Eastern (PTE) Ltd. 2.27% - BP Oil Espana S.A. 2.11% - China Orient Asset Management Corp. 1.5%
2002	55.06%	10.32%	- China Development Bank 10.12% - China Xinda Assets Management Corp. (A-Shares) 10.06%	- Exxon Mobil Far East Holdings (H-shares) 3.65%	- Shell Eastern (PTE) Ltd. 2.27% - BP Oil Espana S.A. 2.11% - China Orient Asset Management Corp. 1.5%
2003	55.06%	13.42%	- China Development Bank 10.12%	- Exxon Mobil Far East Holdings (H-shares) 3.65%	- China Orient Asset Management Corp 1.5%

Year	CPC*	HKSCC** (H-shares)	Other shareholders by holdings possessed**		
			>10% ***	>3%	>1%
			- China Xinda Assets Management Corp. 10.06%		- BP Oil Espana S.A. 2.11%
2004	67.92%	19.24% (tradable)	All other <1%	- China Development Bank 3.04% (A-Shares, non-tradable) - China Xinda Assets Management Corp. (A-Shares, non-tradable) 4.29%	- China Orient Asset Management Corp 1.5%
2005	71.2%	19.2%	All other <1%	- China Xinda Assets Management Corp. (A-Shares, non-tradable) 3.3%	- China Orient Assets Management Corp. (A-Shares, non-tradable) 1.5%
2006	75.84%	19.24%	All other <1%	All other <1%	All other <1%
2007	75.84%	19.26%	All other <1%	All other <1%	All other <1%
2008	75.84%	19.25%	All other <1%	All other <1%	All other <1%
2009	75.84%	19.23%	All other <1%	All other <1%	All other <1%
		- JP Morgan Chase 8.4% - Blackrock 7.2%			
2010	75.84%	19.21%	All other <1%	All other <1%	All other <1%
		- JP Morgan Chase 8.4% - Blackrock 7.6% - Tempelton Asset Management Ltd. 6.01%			

Year	CPC*	HKSCC** (H-shares)	Other shareholders by holdings possessed**		
			>10% ***	>3%	>1%
2011	75.84%	19.23% - JP Morgan Chase 9.09% - Blackrock 7.5% - Tempelton Asset Management Ltd. 5.98%	All other <1%	All other <1%	All other <1%
2012	75.79%	19.21% - JP Morgan Chase 8.5% - Blackrock 11% - Tempelton Asset Management Ltd. 6% - Gov't of Singapore Investment Corporation Pte. Ltd. 5% - Citigroup Inc. 5.62%	All other <1%	All other <1%	All other <1%
2013	73.41%	21.77% - JP Morgan Chase 11.77% - Blackrock 8.19% - Schroders Plc. 5.15%	All other <1%	All other <1%	All other <1%
2014	73.47%	21.48% - JP Morgan Chase 10.71% - Blackrock 8.04% - Schroders Plc.	All other <1%	All other <1%	All other <1%

Year	CPC*	HKSCC** (H-shares)	Other shareholders by holdings possessed**		
			>10% ***	>3%	>1%
		5.99%			
2015	70.86%	20.96% - JP Morgan Chase 8.1% - Blackrock 7.02% - Schroders Plc. 5%	All other <1%	All other <1%	All other <1%

Note. Adapted from Sinopec Annual Reports and Form-20 reports, 2000-2015

*A-shares from 2001 on

**Calculated based on Sinopec Annual Reports

***All possess A-shares.

5.3. Share capital and shareholders of Chinese National Offshore Oil

Corporation

It is remarkable that the listed NOCs own other listed and non-listed subsidiaries (Naughton et al., 2015). During its 2001 IPO CNOOC issued 1.64 billion shares, with the parent company CNOOC Group possessing 67.5% of shares (Guo, 2007). Already in 2001 CNOOC Group owned 70.61% of CNOOC's shares through two subsidiaries: Overseas Oil and Gas Corporation (OOGC) and CNOOC (BVI) Limited. The parent CNOOC Group owned OOGC, and OOGC owns CNOOC (BVI) Limited. At its turn, CNOOC (BVI) Limited owned 70.61% of CNOOC Corp. (CNOOC Annual Report, 2003). Table 10 presents the structure of shares of CNOOC at the Initial Public Offering.

Table 10

CNOOC structure of shares by IPO

State-owned (listed from 2001), billion	1.15*	70.61%
Foreign-invested (H and ADS)	0.48	29.39%

Total	1.63	
-------	------	--

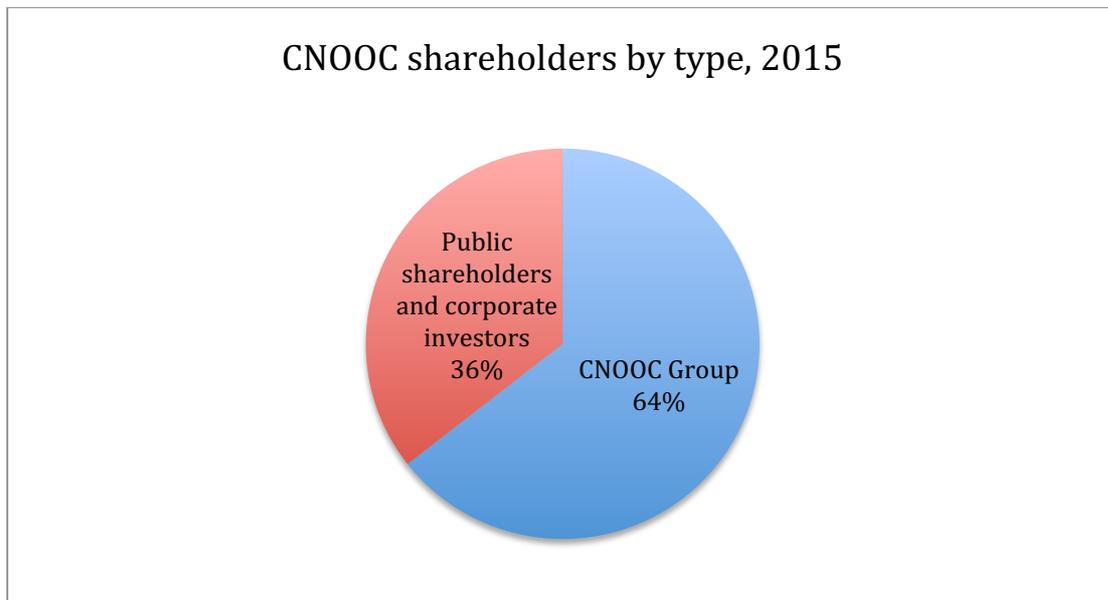
Note. Adapted from CNOOC Annual Report, 2001

* Calculated according to the data provided in Guo, 2007.

In 2015 the total amount of CNOOC shares was around 4.45 billion.¹³ In its annual reports, including one of 2015, CNOOC discloses only the amount of parent company shares (CNOOC Group), which total to 64.44%. Therefore the other 35.56% belong to non-parent shareholders. Those shareholders include the owners of convertible bonds issued by the CNOOC in various years and 56 individuals possessing ADS in the US. However, there is no any employee or institution in possession of more than 1% of CNOOC's shares (CNOOC Annual Report, 2016).

Figure 18

CNOOC shareholders by type



Note. Adapted from CNOOC Annual Report, 2015

¹³ Calculated according to the data provided in Annual Report 2015 – that 262,592,000 share options represent approximately 0.59% of issued shares

During the existence of the CNOOC Ltd. several share options (Convertible Bonds) were issued. The options were granted to employees and directors as a motivational tool and way to recognize achievement in the company. As of 2015, two executive directors, seven non-executive directors, and five independent, non-executive directors held share options. The proportion of shares granted within the options scheme is restricted to 10% of shares; payouts should not exceed 1% of the company's share capital. Convertible bonds were issued in 2000, 2001, 2002, and 2005, in total 311,184 million shares (see the Table). The pre-IPO share options and those issued in 2001 terminated in 2011. In turn, the share options granted in 2005 terminated the guarantee of share options issued in 2002. The 2005 share options themselves have a 10 years grant liability. Altogether, after four share options schemes 311,184 million shares have been issued with a price of 1-1.2 HK dollar (CNOOC Annual Reports, 2001-2015). Table 11 presents the overview of possession of CNOOC shares with no single shareholder holding a 'decisive' amount of shares of more than at least 1%.

Table 11

CNOOC State and Private Shareholders and their shares

Year	CNOOC Group	Other (including ADHs-shares)	Other shareholders by holdings possessed		
			>10%	>3%	>1%
2000	70.61%	29.39%	none	none	none
2001	70.61%	29.39%	none	none	none
2002	70.61%	29.39%	none	none	none
2003	70.61%	29.39%	none	none	none
2004	70.64%	29.39%	none	none	none
2005	66.41%	33.59%	none	none	none
2006	66.41%	33.59%	none	none	none
2007	66.41%	33.59%	none	none	none
2008	66.41%	33.59%	none	none	none
2009	66.41%	35.59%	none	none	none

Year	CNOOC Group	Other (including ADHs-shares)	Other shareholders by holdings possessed		
			>10%	>3%	>1%
2010	64.45%	35.55%	none	none	none
2011	64.45%	35.55%	none	none	none
2012	64.45%	35.55%	none	none	none
2013	64.44%	35.56%	none	none	none
2014	64.44%	35.56%	none	none	none
2015	64.44%	35.56%	none	none	none

Note. Adapted from CNOOC Annual Reports and Form-20 reports, 2000-2015

The structure of shares and the amount of shareholders of three listed NOCs reveal a picture of the position of minor shareholders in the industry. Even though there are enough minor shareholders with big amount of shares – sometimes up to 20% of the H-shares of the company, this possession hardly open any chance for the decision-making in a company. According to an insider's information¹⁴ the City Group Inc. decided to off-load their shares in Sinopec (s. Table 9, year of 2012) because there were no any opportunities for shareholder's participation in any of NOCs' decision-making process. As to 2015, it is only minor shareholders of PetroChina and Sinopec that could by any means (voting, nominating candidates for the Supervisory board, etc.) participate in a decision-making process of NOCs. In all three NOCs, however, that participation could have been executed if the owners of H-shares would unite for a collateral voting. Theoretically this opportunity exists due to two reasons. First, there are enough of non-state owned shares of the Companies. In 2015 the mother company CNPC holds 86.35% of PetroChina, Sinopec Group – 70.86% of Sinopec and CNOOC only 64.44% of Sinopec. The minor shareholders are for no doubt present in

¹⁴ An employee of the Citi-Bank, who asked to stay anonymous

NOCs, the problem is only their fragmentation. The second reason is that neither a Corporate Law, nor Articles of Association of the NOCs forbid minor shareholders to unite for voting and other corporate governance activities in a NOC.

From the perspective of an agency theory at the moment the second principal ‘reigns, but does not rule’. Minor shareholders have regularly been mentioned in Annual and Form-20 Reports, their economic well-being have been pronounced as one of the main goals of listed NOCs and so on. However, if not for Articles of Association of NOCs, there have been hardly mentioned any minor shareholders’ rights. So ‘on a paper’ minor shareholders exist and get profits (in fact they do from dividends, but this is the only way), in theory I see a typical Second Principal that does not have any decision-making power and has only to follow the will of the First Principal. Therefore one may claim, that the second principal in listed NOCs has got the role of the Stakelberg follower, who has to act according to actions of the Stakelberg leader, i.e. Chinese State. The Corporate Governance of NOCs, seen from this perspective, is been only determined from the First Principal. The Agent, i.e. the management of NOCs, however, is proven to also be capable to act in favor of one or the other Principal. Of course, one does not assume, that the Agent would go completely against the settings of the First Principal, but in a situation of NOCs’ corporate governance one can see certain favoritism towards minor shareholders as well. Some rights that NOCs themselves grant to minor shareholders through the Company’s Articles of Association manifest this. The rights of minor shareholders that are granted by the Articles of Association, but are not vivid in an amended Corporate Law, are going to be presented in discussed in a next chapter.

Chapter 6. Minor shareholders of NOCs: rights, participation, and risks

This chapter deals specifically with the topic of NOCs' minor shareholders. I present in detail the biggest non-state shareholder of all three NOCs' foreign-traded shares—the Hong Kong Securities Clearing Company Nominees Ltd. (HKSCC Nominees Ltd.). I discuss the subject of voting shares, and the topics and process of voting for minor shareholders. I analyze the Articles of Association of all three NOCs for the first 15 years of listing in order to determine the progression of inclusion of minor shareholders in the decision-making process according to the number of shares. In the final section, I present the risks that minor shareholders accept when obtaining the Chinese NOC's shares.

6.1. Minor shareholders of NOCs

There are three fundamental topics connected to good corporate governance—transparency of ownership, shareholder communication, and voting (Holzner & Holzner, 2006). Transparency is understood as the right of the owner to know the identity of shareholders, and as the right of the shareholder to obtain information about the owner (as prescribed by law). Shareholder communication is mostly related to the information revealed in shareholders meetings and the way this information is disseminated to investors. Depending on the particular case, owners may or may not be able to communicate directly to shareholders. Normally, direct communication is impossible due to intermediaries between the share issuers and investors. Shareholders voting may also be either direct or indirect. Whereas direct voting is normally straightforward and based on technical procedures, shareholders who possess shares through intermediaries may encounter obstacles. Shareholder voting is also a subject of providing indirect shareholders with their shareholding rights considering opacity and uncertainty about investors' identity.

China is a so called "domestic investors market" with all domestic investors being registered directly. Normally, controlling shares of Chinese listed companies belong to the

Chinese State. The state possesses shares through a Central Securities Depository, in China, this is the state-owned institution China Securities Depository and Clearing Co Ltd. (SD&C). SD&C holds shares of domestic investors directly in the name of an investor, without 'filtering it out' through intermediary bodies. This direct registration is confidential, never revealed to the public, and ensures high transparency of domestic investors' identities. However, the owner of the company can request and, given convincing reasons, receive a full list of its shareholders.

China requires State approval of any potential foreign investors. Candidates must meet strict requirements in order to be awarded permission to invest. Foreign investors can only obtain shares through the Qualified Foreign Institutional Investor (QFII) body or by trading B shares, which are traded in USD or in HKD. QFII is often a foreign agent or institution, and is always a registered investor. From 2001, in addition to foreign buyers, Chinese citizens have also been permitted to purchase B shares on a secondary market (Chan et al. 2007).

Owners release relevant information to shareholders through public circuits including media. However, primary responsibility lies with individual shareholders to track events in the investee company.

The biggest non-parent shareholder of Chinese listed NOCs is Hong Kong Securities Clearing Company Nominees Ltd.

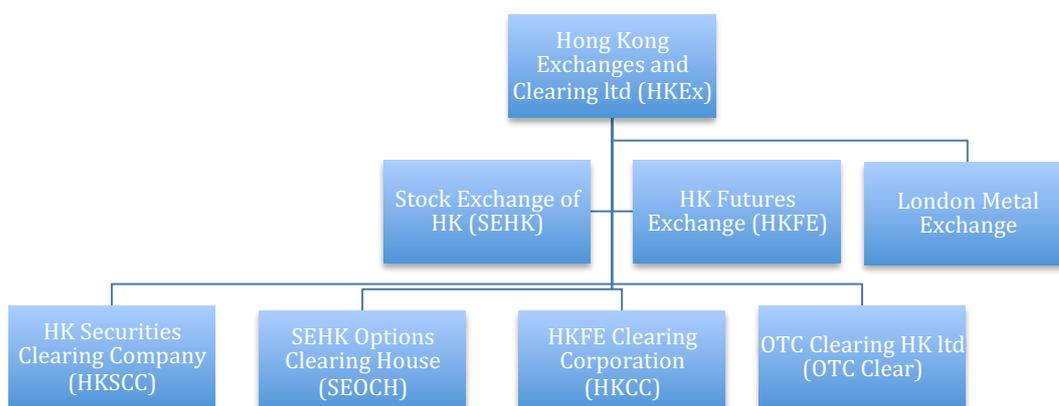
There are two ways of keeping shares for investors in HK—directly on the register or through the HK Exchange proxy. Hong Kong Exchange Clearing Ltd. (HKEx) owns several subsidiaries—the Stock Exchange of Hong Kong Ltd. (SEHK), Hong Kong Futures Exchange Ltd. (HKFE), London Metal Exchange, and HKEx Information Services Ltd. The information about shares held directly on the register is publicly accessible. HK Central Securities Depository is called the Central Clearing and Settlement System (CCASS), and is operated by Hong Kong Securities Clearing Company Limited (a subsidiary of the Hong Kong Stock Exchange); its nominee is HKSCC Nominees Ltd., which is a fully owned

clearing house of the Hong Kong Exchange Clearing Ltd. Apart from HKSCC, the company owns another three clearing houses: HKFE Clearing Corporation Limited (HKCC), the SEHK Options Clearing House Limited (SEOCH) and OTC Clearing Hong Kong Ltd. (OTC Clear) (Hong Kong Exchanges and Clearing Limited, 2013).

HKEx stores over 70% of its shares in CCASS; all the shares of CCASS are registered under the name HKSCC Nominees Limited. Therefore, HKCSS Nominees Ltd. is a registered shareholder of most Hong Kong listed companies. HKCSS Nominees Ltd. is a special case of trust. It possesses a small number of very large shareholdings. Basically it owns the lion's share of foreign-traded shares of most large Chinese listed companies (Sacklyn, 2013).

Figure 19

HKSCC ownership structure



Note. Adapted from Hong Kong Exchanges and Clearing Limited, 2013.

HKEx introduced two ways to stimulate market transparency—by using CCASS Shareholding Disclosure Service and by following Securities and Futures Ordinance (SFO). The CCASS Shareholding Disclosure Service provides any market member the opportunity to know the number of shares of any Hong Kong listed company. The problem with this service is that the disclosure of information by CCASS Investor participants is voluntary. Thus, it is

not assured that the wish of market participants for information concerning the HK listed companies' shareholders will be transparently and completely fulfilled. It is a different story for the Securities and Futures Ordinance (SFO). It is a requirement that SFO must be informed about any shareholder with the holdings equaling 5% or greater. Such a shareholder is an substantial shareholder and must be forthcoming concerning that status. Directors and chief executives possessing any shares of their company are also obliged to disclose their interest. Therefore, through HKSCC Nominees, shareholders can theoretically camouflage their ownership by investing without a disclosure by limiting their holdings to less than the SFO's 5% limit (Bian, 2014).

Issuers of shares can request (upon a fee) information about its investors. Moreover, issuers can require information about beneficial owners who possess their shares through intermediaries. Issuers have the right to request the identity of shareholders down to the beneficial owner. The procedure of informational disclosure is quite complicated. Though it is understood it should be submitted in written form, there is neither a defined template nor certain time for response. Especially in instances where there are many intermediary owners, the time of response may grow proportionally (Banks, 2005).

Still, there is a strict policy on non-compliance for informational disclosures. Issuers may request the disclosure of any information for a date within three years, and findings are obliged to be published on the HK Stock Exchange Website. Investors who choose to withhold information in the face of a disclosure request may be subject to monetary and even criminal punishment. However, due to the general complexity of disclosure requests and the lack of defined procedures, it often becomes impossible to trace the ultimate beneficial owner of the shareholdings. Also CCASS can immobilize ownership of shares on the register through HKSCC Nominees Ltd.; even though CCASS is a transparent depository with publicly disclosed positions, most of the participants of CCASS are proxies (Bian, 2014).

Issuers of shares are required to reveal corporate information (i.e. annual reports) to registered shareholders or, upon request, to CCASS participants. The corporate information is normally sent to the official address of the registered investor in hard copy; investors can choose the language of the report—either English or Chinese (or both). The communication between the issuer and investors is normally conducted in written form, either by paper or e-mail correspondence. In cases when information is published on the HK Website the investor may also receive notification via e-mail or mail (Kleinbrot, 2008).

If there are intermediaries between the beneficial owner and the issuer there is a degree of risk concerning whether the corporate information will reach the ultimate owner. It may well stay at the level of nominee, whose notification is guaranteed. The investor can also make a request about the issuer, but only through CCASS (Wang & Jiang, 2004).

6.2. Minor shareholders' participation in a decision-making process

As a result of indirect revelation of information concerning company affairs to shareholders—i.e. through public release in newspapers or other media—minor shareholders bear the burden to execute their voting rights.

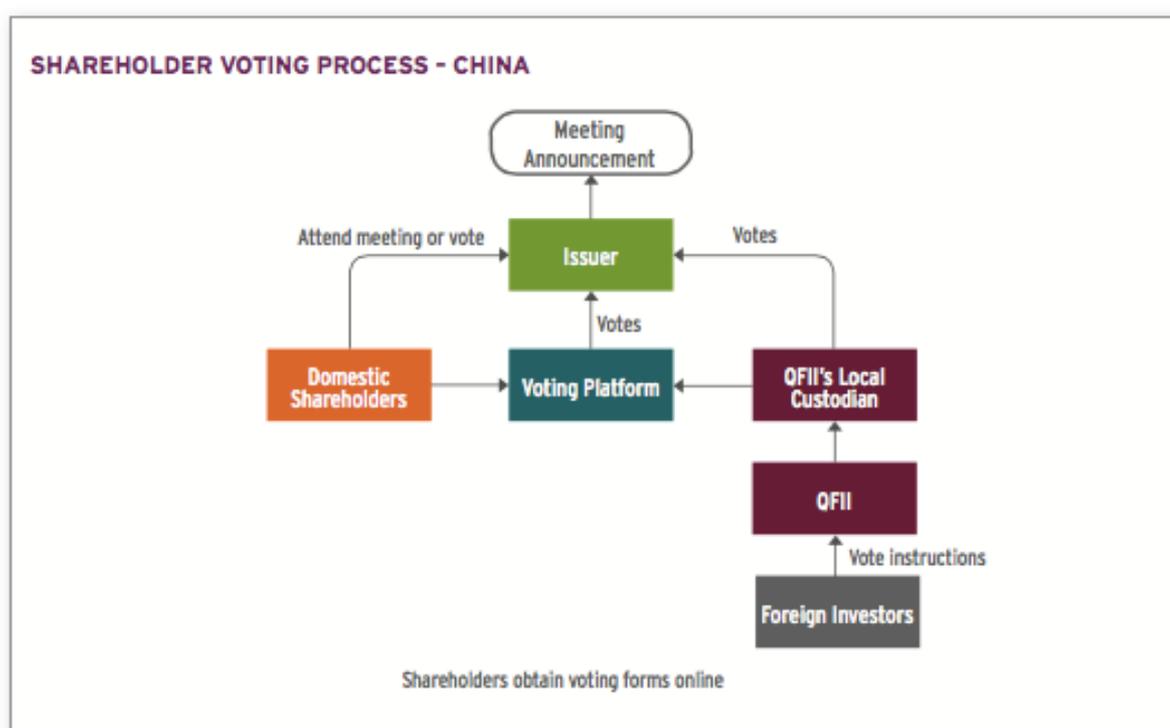
There are several means for voting, namely electronic, paper, and personal voting. Electronic voting should be made available for special resolutions, whereas paper and personal voting are for general cases. The Shanghai and Shenzhen Stock Exchanges as well as Securities Depository and Clearing Co. Ltd. provide voting platforms; the owner of the company and issuer of shares choose the online platform and sticks to it. The voting platform distinguishes in person or paper votes and separates them from the online tally (the votes that come earlier will be counted). In order to vote, the shareholders (or their agents) should be seen directly on the share register (Sacklyn, 2013).

For foreign investors the voting process is organized through the Qualified Foreign Institutional Investor program (QFII). The QFII requests a local institution (a domestic bank)

to promote communication and organize the voting process. In cases in which an agent represents the shareholder in the meeting, the domestic bank should receive verification instruction prior to the vote. After receiving the instruction, the bank contacts the listed company to prepare the documentation required for voting. After the completion of the documentation, it is faxed back to the listed company. The representative (the agent) of the shareholder collects the documentation and brings it to the meeting. The voting process in Chinese stock exchanges is efficient and transparent. Nevertheless, minority shareholders are discouraged to propose shareholders initiatives because the prevailing number of state-controlled shareholdings can easily block them out (China Stock Market Handbook, 2008).

Figure 20

Voting of foreign investors



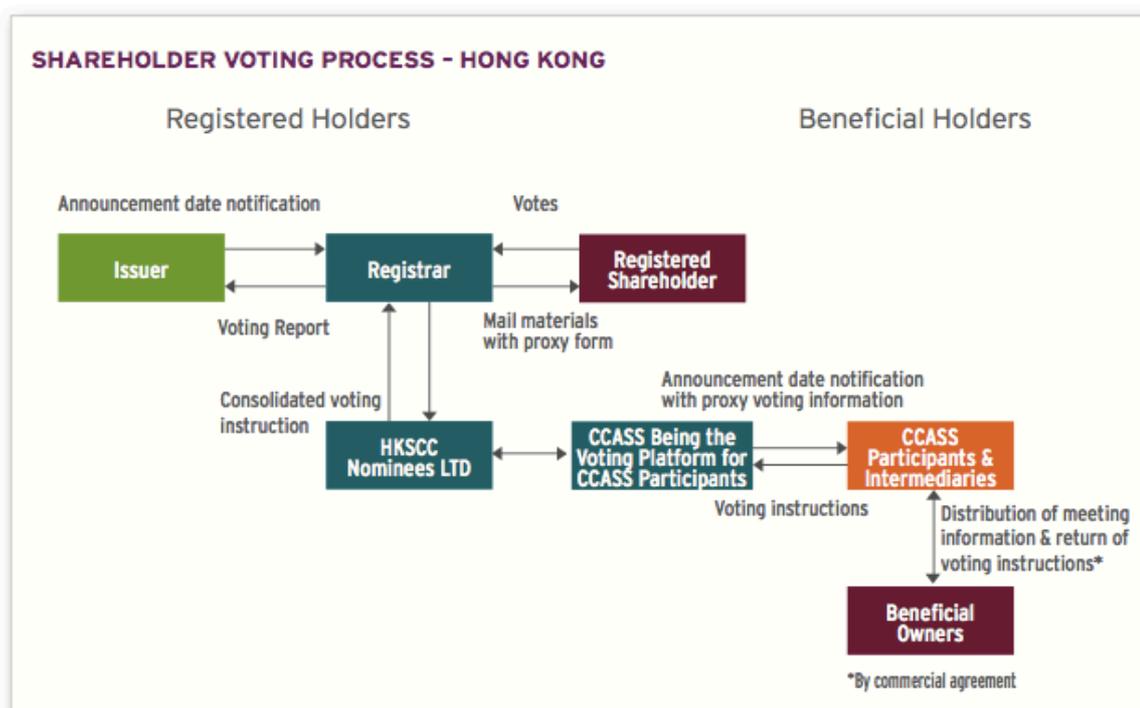
Note. Reproduced from Hong Kong Exchanges and Clearing Limited, 2015.

There are two ways for the participants of HKSCC to vote—personally/through an agent at the meeting or by Internet platform. The shareholders who vote through

intermediaries should vote either by submitting a paper form or through a CCASS voting platform. Only the CCASS participants can vote via the platform, which gathers all the votes from agents and reveals them to an issuer. HKSCC Nominees Ltd. can also appoint a CCASS participant to attend the meeting (Chan et al., 2007).

Figure 21

Voting of the shareholders represented by HKSCC



Note. Reproduced from: Hong Kong Exchanges and Clearing Limited, 2015.

In a system designed to be fair to both non-executive and general directors, ownership of each share has a number of votes equal to the number of candidates to be elected. If the shareholder possesses 1 million shares and there are 9 candidates to be elected, the number of his/her voting shares then equals 9 million. All voting shares can be cast for a single candidate or dispersed among several or even all candidates. If the shareholder places more votes than allotted by his shares, his voting is withdrawn (Hong Kong Exchanges and Clearing Limited, 2015).

Two conditions must be fulfilled to elect a candidate as director or independent non-executive director. First, the general amount of voting shares in participation must exceed half of all voting shares. Second, the affirmative votes must exceed the negative votes. As many rounds of voting are held as are needed to fill the number of directors to be elected, and the voting shares recounted for each round. For example, if there billets to elect nine directors and four independent directors, a shareholder with 1 million shares will obtain 9 millions voting shares to elect directors and 4 millions voting shares to elect independent directors (Voting form of Sinopec, 2015, available upon request).

The voting takes place at the Annual general meeting. It concerns:

- Electing directors and independent non-executive directors
- Authorizing the Secretary of the Board
- Approving administrative procedures concerning applications, registrations, admissions, and filing during the election of directors
- Approving administrative procedures concerning regulations of supervisors' meeting and amendments (including those required by regulatory authorities) to the articles of association of Sinopec Corp.
- Approving the Report of the Board of Directors and Supervisory Committee
- Approving the annual audited financial report
- Approving reappointment of external auditors (for all Chinese NOCs—Pricewaterhouse Coopers Zhong Tian LLP and Pricewaterhouse Coopers)
- Approving the annual profit distribution plan for the previous year
- Authorizing the board's profit distribution plan for the following year
- Authorizing the board to manage debt financing instruments
- Authorizing the board to issue domestic and foreign listed shares of Sinopec Corp.

(Voting form of Sinopec, 2015, available upon request).

6.3. Risks for minor shareholders

The Boards of all three NOCs notify their shareholders about different kinds of risks. These risks include general industry-related and economic, risks and China-specific investment risks. Industry-related risks are those inherent to operations within the oil industry, and include: production and consumption cycles that depend on output and consumers' demand; oil and gas reserves and discovery of new production fields; capital intensity of the industry, that sometimes relates to heavy investments with no dividends; etc. Economic risks relate to the global macroeconomic situation, i.e. global economy development or crises, international price for raw materials, and changes in world oil production and output. As China is an oil import-dependent country, the company profits depend on oil retail prices in exporting countries.

China-specific investment risks relate to the state's national policies. Even though the Chinese state claims to have liberalized the oil market, there are still some specific limitations for its participants. The most significant is state intervention in price setting for retail of oil products. In addition to price manipulation the company must also take care to comply with the complex Chinese environmental regulations and tax code.

6.4. Minor shareholders' rights

PetroChina Ltd. was the first listed NOCs to publish the Articles of Association. First officially published in 2004, they have been amended nine times since. The amendments mostly concerned minor shareholders' rights. In Articles of Association of PetroChina there are eleven articles concerning minor shareholders' participation in a NOCs' decision-making process based on the proportion of shares they hold, either individually or collectively. Those are: Article 51, Article 53 (3), Article 55, Article 56, Article 64, Article 67 (3), Article 73 (1),

Article 76, Article 82, Article 106 and Article 184 (PetroChina's Annual Reports and Form-20 reports, 2000-2015).

Article 51 grants shareholders with a minimum of 1% shares the right to initiate a court investigation concerning suspicion of the violation of the law by any of the company senior administrators; minor shareholders may request the investigation in writing in front of the Supervisory Committee or Board of Directors. Shareholders with at least 5% of shares may propose a resolution to the General Meeting.

Article 53 (3) gives Shareholders who (individually or collectively) possess at least 10% of the shares the right to request an extraordinary board meeting or a class meeting.

Article 55 concerns shareholders with at least 5% of shares. With this proportion, holders may propose motions at the General Meeting. The motions should be taken into an agenda of the meeting. Article 56 adds that if the shareholder with at least 5% of A-shares pledges them, the company should be informed about that in writing. Article 64 consider the shareholders with at least 3% of shares and reiterates the stipulation of Article 55, giving shareholders with at least 5% of shares the right to propose motions at the General Meeting that should be taken into an agenda.

Article 67 (3) makes shareholders who (individually or collectively) possess at least 10% of shares equal with the Chairman in terms of voting rights at the General Meeting. The Article 73 (1) and Article 82 grant shareholders who (individually or collectively) possess at least 10% of shares the right to request an Extraordinary Board Meeting or a Class Meeting, and further entitles them to state the objective of that meeting. Under Article 82 the Board of Directors is obliged to react to such a request by either convening the meeting or formally refusing to convene it; declinations must be explained in writing within 10 days of the request. If the meeting is neither convened nor formally declined, shareholders may address the Supervisory Committee. If the Supervisory Committee fails to act within 5 days, the shareholders may organize and administrate the extraordinary board meeting themselves.

Article 106 reiterates the right of 10% holders to convene this meeting, adding that during its session they are equal to the Chairman of the Board and one third of directors

Also effecting shareholders with a 10% or greater proportion of shares, Article 76 entitles these holders to vote together with the chairman and at least two other shareholders at a General Meeting. Finally, Article 184 gives them the right to request the liquidation of the company in cases of serious organizational, administrative, or financial difficulties deemed unresolvable by any other means (Articles of Association of PetroChina in PetroChina Annual Reports and Form-20 Reports, 2000-2015).

In Table 12 I present the progress of granting the voting and other rights to minor shareholders. I should specify that those rights have been granted by the NOC itself, without having them mentioned in a Corporate Law. That means that the NOC as an Agent was granting Second Principal certain rights that could have been executed starting from 1% of shareholding possession. First time the shareholders with at least 1% of shares are mentioned in 2007, they are entitled to initiate a court investigation about the NOC's operations or a Chairman. This right is quite specific because could potentially harm the shareholders, negatively resulting the dividends of the Company. Logically, there is no record that any of shareholders ever used this right, but it is remarkable, that it has been granted to the holders of the lowest amount of 'influential' shares. The same year PetroChina grants rights to the shareholders with at least 3% of shares. They are entitled to propose topics for the General Meeting that should be taken into agenda. A year before this right has been only granted to the shareholders with at least 5% of the shares.

Table 12

Minor shareholders participation rights conferred by the Articles of Association, PetroChina

Year of amendment	Amount of shares of minor shareholders				
	>1%	>3%	>5%	>10%	>30%
1999	Not published	Not published	Not published	Not published	-

Year of amendment	Amount of shares of minor shareholders				
2000	Not published	Not published	Not published	Not published	-
2004	No rights	No rights	Article 51 (13)	Article 53 (3) Article 67 (3) Article 73	Considered as controlling shareholders (2004, Form 20 p. 111)
2005	No rights	No rights	Article 51 (13) Article 55	Article 53 (3) Article 67 (3) Article 73	-
2006	No rights	No rights	Article 51 (13) Article 55	Article 53 (3) Article 67 (3) Article 73	Considered as controlling shareholders (2006, Form 20 p. 118)
2007	Article 51	Article 64	Article 51 (13) Article 55	Article 53 (3) Article 67 (3) Article 73	Considered as controlling shareholders (2007, Form 20 p. 95)
2013	Article 51	Article 64	Article 51 (13) Article 56	Article 76 Article 82 Article 106 Article 184	-

Note. Adapted from Articles of Association of PetroChina in Annual Reports and Form-20 Reports of PetroChina, 2004-2015

Generally, Table 12 very well reveals the progress of corporate governance in listed NOCs. It is especially remarkable that the Company itself, without major changes in the Corporate Law, has initiated this progress. Up to 2004 one does not see taking minor shareholders into a big consideration reflected in voting rights or other motions. From 2004 the NOC only regards shareholders with at least 5% of shares, and names those with 30% as a ‘controlling shareholder’. Of course, this 30% is merely a theoretical number – in 2004 PetroChina would hardly have those with 5%, but the fact that they are regarded as shareholders with rights, is already a big step in a development of corporate governance of the

NOC. Furthermore, in 2007 the NOC grants rights to the shareholders with 1% of shares, and keeps it up to the next amendment in 2013. The last to the record amendment in 2013 develops a new Article 184, that grants those who possess 10% of shares the right to initiate the process of liquidation of the company in case of serious organizational or other difficulties that can not be resolved by other means.

Two other major NOCs refer to the same Articles in their own Articles of Association. However, the proportion of shares that grant different rights vary slightly from year to year and from the company to company. Examining the data reveals a trend towards increasing participation of minor shareholders in the decision-making process. Beginning from near complete exclusion at the time of the IPO, the NOCs have all moved to grant and expand rights of shareholders at all levels beginning with a little as 1% of holdings. Table 13 illustrates this process for the CNOOC and Sinopec.

Table 13

Additions and expansions of minor shareholders rights by minimum proportion of voting shares

Year	CNOOC	Sinopec
2000	No record; no second principal mentioned	No record; no second principal mentioned
2001	No record; no second principal mentioned	10%: “independent” shareholders approve the acquisition of Sinopec Nation Star
2002	No record; no second principal mentioned	5%: voting rights: no record of participation
2003	No record; no second principal mentioned	5%: nominate non-independent and independent directors
2004	10%: present and vote at the Board Meeting	10%: vote on resolutions 5%: named as main shareholder (along with Sinopec Group) (“Performance and commitments by CPC, which has over 5% of Sinopec Group shares”)

Year	CNOOC	Sinopec
2005	No change	5%: voting rights, not specified (“Except for the balances ..., there is no amount due from shareholders who hold 5% or more voting right of the company included in the balance of trade accounts receivable”)
2006	No change	No change
2007	No change	No change
2008	No change	1%: nominate independent directors
2009	No change	3%: nominate directors
2010	No change	No change
2011	No change	No change
2012	No change	10%: convene a General Meeting
2013	No change	3%: present a temporary proposal to the General Meeting
2014	No change	No change
2015	No change	No change

Note. Adapted from Sinopec and CNOOC Articles of Association, 2000-2015

The Articles of Association of Sinopec starts granting rights for the shareholders of 10% in 2001 and 5% - in 2002. If one refers to the earlier Table 9 that presents the structure of shareholders of Sinopec, one sees that the State directly owned not more than 55% of shares, whereas there existed other shareholders with at least around 10% of shares. Mentioning shareholders with 5% of shares in this situation was already a sign of a potential inclusion of minor shareholders in a Company’s participation. On the other hand, those 10% of shares were held by other governmental institutions (China Development Bank, Xinda Asset Management), so one does not claim there could have been any big movements towards Sinopec regulation. Shareholders with 5% of shares were granted a right to nominate independent and non-independent directors as well as voting rights (however, there is no any

record of executing these rights). From 2008 on Sinopec acknowledged shareholders with at least 1% and 3% of shares. Those with at least 1% and 3% were entitled to nominate independent and other directors respectively. From 2013 those with at least 3% of shares obtained a right to present a proposal to the General Meeting and those with 10% - to convene a General Meeting.

Considering the overview of the rights granted to minor shareholders by all three NOCs one sees a tendency towards granting the second principal more opportunities for participation in a decision-making process of NOCs. The rights that have been granted to minor shareholders (those with less than 10%) include the right to initiate a court investigation against the NOC, the right to nominate independent and non-independent directors, the right to vote at a General Meeting and convey motions at the General Meeting.

One may claim that within the time of listing (from 2007 for the PetroChina, 2002 for Sinopec, and 2004 for CNOOC) Chinese NOCs got real voice for their shareholders, transferring them from the ‘Cournot’ Second Principal into a full-grade Stackelberg follower who can influence the operations of the company (as in case of initiation of the court investigation) or the on-going discussions – as for proposing the motions for the General Meeting agenda. Even though some of the rights were not meant to be executed due to a low probability of gaining some ‘big’ minor shareholders, i.e. for example, with 30% of shares, the other were developed quite realistically for the existing amount of minor shareholders (those with 1%, 3% and 5% of shares). Even though there can be seen certain developments of corporate governance in terms of granting minor shareholders voting and other rights, there is no any evidence that those rights have been executed. None of the Annual or Form-20 reports reveal any information about minor shareholders’ real participation in corporate governance of NOCs. On the other hand, the fact, that the Second Principal exists and is getting stronger through federal and local legislation, brings the idea that minor shareholders might influence other facets of corporate governance of NOCs. Such as the policies

concerning employees, dividends, earnings and, finally, net profits of the NOCs. As soon as the topic of listing, i.e. privatization, is strongly interrelated with the process of marketization, I decided to analyze both financial and social indicators of marketization of NOCs. These financial and non-financial indicators of minor shareholders' possible influence of the Company are going to be discussed and measured in a next two chapters – data analysis and interviews.

Chapter 7. Data Analysis

In the following chapter I present multiple regressions based on several parameters that are essential for understanding the role and influence of minor shareholders in NOCs. For each of the NOCs I present two types of regressions: multivariate and multiple. The multivariate regressions concern non-financial and financial parameters of the NOC, and are followed by explanatory multiple regressions. First type of multivariate regressions (one independent-two dependent variables) models the influence of the amount of Non-State Shareholders (Private Shareholders, the holders of H-Shares, Corporate Shareholders possessing their shares through HKSCC Ltd.) over the Number of Employees and Expenses for Social Services. The second type (one independent and three dependent variables) states the interrelation between the amount of Non-State Shareholders and Dividends per share, Diluted earnings per share and Net Profits of the Company. The later is elaborated with the study over the influence of the amount of Non-State Shareholders and OPEC oil price over the Net Profits of the Company (multiple regression with one dependent and two independent variables). The detailed statistics of all nine regressions is presented in the Appendix of the Thesis.

The amount of private shareholders of all three NOCs was slightly growing throughout the years of listing. It is important to note that most annual reports represent high quantities of private shareholdings (i.e. 20% of PetroChina held by BP Investments China Ltd.)(for a detailed presentation see Chapter 5). However, the given percentage reflects only the big part of H-shares that some company owns, but not the part of the whole shareholdings of the company. For example, these 20% of H-shares of BP hardly make 1% of all shares of NOC, and do not influence voting rights of the private shareholder.

Under the dividend per share I count the total Dividend Per Share (total DPS = interim DPS + final DPS). Therefore, I calculate dividends per share according to the data on

interim DPS and final DPS provided in annual reports of corresponding years. I take the diluted earning per share as a more accurate parameter than the basic earning per share due to the relatively regular issuing of convertible bonds, share options, etc. Considering Dividends per Share I expect either the negative or the positive, or no correlation with the amount of private shareholders. In case of negative correlation I would assume the slowing down (or limitation) of the marketization process – I see that with the increased amount of private shareholders the NOC decreases the paying out of dividends in order to re-invest in itself to increase the cost of shares. The positive correlation would mean that major shareholders of NOC do not see the need in increasing the cost of the shares, and ready to pay out an increased amount of dividends for a higher amount of shareholders. No correlation would mean that private shareholders do not have any influence on the financial decision-making process in the NOC. The positive influence of the amount of private shareholders on Diluted Earnings per Share would mean the low issue of additional shares and convertible bonds that would mean the high level of protection of the price of each share and therefore the protection of private shareholders and their profits. The negative correlation and no correlation would mean the intention of the NOC to increase the amount of shares and convertible bonds regardless the losses that private shareholders would have.

The parameter of net profits attributable to equity shareholders represents the income available to shareholders after the company's expenses are paid. Expenses may include transfers to preferred shareholders (i.e. holders of stock options), suppliers, creditors, employees, etc. Therefore, this parameter represents the distributable income the company will disburse to holders of the common stock (ordinary shareholders of A- and H-shares).

One could assume that the net profits of the NOC would be interrelated to the amount of private shareholders. If so, depending on the relation, one could conclude on the possible influence of private shareholders over the net profits. Same way, it was needed to check if the amount of private shareholders (as it has been presented in Chapter 6 some of

them do have voting rights) anyhow influenced the amount of employees and spending to the social services. Presumably, private shareholders as a part of a marketization of socialistic NOCs would be interested in reducing the spending on social services and the amount of employees. It is widely acknowledged¹⁵ that most of SOEs are overpopulated and hence not efficient, and that would be to change due to a marketization process. In most NOCs, however, I see the decrease in amount of employees right after the IPO, with the following increase as soon as listed NOCs become financially successful.

7.1. PetroChina

During the time of listing PetroChina slightly decreased the amount of state-owned shares from 90% in 2000 to 86,35% in 2015. The biggest amount of private shareholders (11,79%) came to the 2005-2006 with the following decrease that stayed up to 2015. Net profits of the Company were predictably strongly interrelated to OPEC oil prices and showed a stable growth within listing apart from two big drops in 2009 and 2015 (s. Table 16 for OPEC oil price 2000-2015). Dividend per share were growing correlated to net profits of the company and dropping during the oil price decrease. Same picture with the diluted earnings per share – the fact that it was growing together with the net profits shows that the Company was not doing any major issues of shares (for details please s. Chapter 5 on Share Capital of NOCs), therefore keeping the price of existing shares at a stable level, protecting its shareholders. In Table 14 I sum up main PetroChina development indicators – the amount of A- and H-shares, the net profits of the Company, Dividends and Diluted earnings per share, as well as the number of employees and the percentage of net profits spent for employees' social services.

¹⁵ For a discussion, please, see Chapter 2

Table 14*Corporate governance financial and non-financial indicators, PetroChina*

Year	CNPC, per cent*	H-shares, per cent	Net profits (RMB billion)	OPEC oil price (USD)	Dividend per share (RMB)**	Diluted earning per share, (RMB)	Employees	Social services as % of net profit***
2000	90	10	55,23	27,6	0,13	0,32	441,612	12
2001	90	10	46,8	23,12	0,12	0,27	422,554	13
2002	90	10	46,91	24,36	0,11	0,27	419,598	9
2003	90	10	69,614	28,1	0,17	0,4	417,229	8
2004	90	10	103,843	36,05	0,26	0,59	424,175	6
2005	88,21	11,79	134,381	50,59	0,33	0,76	439,220	6,7
2006	88,21	11,79	143,498	61	0,35	0,8	446,290	6,5
2007	86,29	11,44	146,796	69,04	0,35	0,82	466,502	1,5
2008	86,42	11,4	114,453	94,1	0,28	0,63	477,780	2
2009	86,29	11,38	103,387	60,86	0,25	0,56	539,168	2
2010	86,2	11,37	139,992	77,38	0,34	0,76	552,698	2,6
2011	86,35	11,37	132,961	107,46	0,32	0,73	552,810	2,8
2012	86,35	11,37	115,326	109,45	0,28	0,63	548,355	3,9
2013	86,35	11,38	129,599	105,87	0,31	0,71	544,083	2,9
2014	86,35	11,38	107,172	96,29	0,25	0,59	534,652	3
2015	86,35	11,38	35,517	49,49	0,09	0,19	521,566	3

Note. Adapted from PetroChina Annual Reports and Form-20 Reports, 2000-2015

* Prior to 2007 State-owned shares were represented by CNPC; after listing in 2007 they were turned into A-shares, **Calculated as a sum of interim and final dividends,

***Calculated according to net profits of PetroChina.

It is remarkable, that at the beginning of IPO PetroChina announced a major cut-off of the employees (a ‘soft’ variant, though, that meant mostly not hiring new workers at the places of those retired). However, during the listing, PetroChina increased the number of workers to almost 80,000 people (for the details and effect s. Chapter 4 on corporate

governance of NOCs), ending up with almost half a million of employees in 2015. The expenses for social services, however, dropped from 12% in 2000 to 3% in 2015 that might be a sign of reducing costs to employees' benefits like housing and further education. If there is a correlation with the number of private shareholders, one may claim that these two processes are interrelated and show a stronger attitude towards marketization of the NOC. I run three multiple regressions to detect the interrelation among the amount of private shareholders and the financial and non-financial parameters given in a Table 14. Table 15 presents the results of the first multivariate analysis of variance (MANOVA) – the multivariate regression model on the amount of Private Shareholders as an independent variable, the Expenses for Social Services and the Number of Employees as two dependent variables.

Table 15

Multivariate Analysis of Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, PetroChina

Term	Wilk's Lambda	df	F	p	Partial η^2
H-Shares	0,009	(10, 18)	17,22	<0,001	0,905

The results of the MANOVA were statistically significant, Wilk's Lambda = 0,009, $F(10, 18) = 17,22$, $p < 0,001$, Partial $\eta^2 = 0,905$, indicating that there were significant differences in of Employees and Social Expenses by the amount of Private Shareholders. Table 16 present the results of the univariate Analysis of Variance (ANOVA) for each of dependent variables.

Table 16

Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders of PetroChina

Variable	$F(5, 10)$	p	partial η^2
Employees	130,53	<0,001	0,985
Social	2,603	$p = 0,093$	0,565

Results of the univariate ANOVA for the number of Employees were statistically significant, $F(5, 10) = 130,53$, $p < 0,001$, Partial $\eta^2 = 0,985$, indicating that there were significant differences in the number of employees explained by the changes in the amount of Private Shareholders. Up to 2008 PetroChina practiced an employee reduction plan. As the percentage of non-parent shareholders remained unchanged (10%), one may conclude that an employee reduction plan was part of the corporatization/privatization process, but not a result of the IPO.

Results of the univariate ANOVA for Social Expenses didn't show statistical significance with $F(5, 10) = 2,603$, $p = 0,093$, Partial $\eta^2 = 0,565$, indicating that there were no significant differences in Social Expenses resulted by the changes of the amount of Private Shareholders. So we may not conclude that the IPO and the will of private shareholders led to exclusions in the social (or, more important, socialistic) component of PetroChina.

Additionally, I present Descriptive Statistics of the regression:

Table 17

Descriptive Statistics for the number of Employees and Social Expenses by the amount of Private Shareholders, PetroChina

Variable	Employees			Social		
	n	M	SD	n	M	SD
10,00	5	425033,60	9646,06	5	9,60	2,88
11,37	3	551287,66	2540,38	3	3,10	0,70
11,38	4	524867,25	9667,74	4	4,97	4,70
11,40	1	477780,00	-	1	2,00	-
11,44	1	466502,00	-	1	1,50	-

11,79	2	442755,00	-	2	6,60	0,14
-------	---	-----------	---	---	------	------

Table 18 presents the results of the MANOVA of the amount of Private Shareholders as an independent variable and the Dividends per Share, Diluted Earnings per share and Net Profits as three dependent variables.

Table 18

Multivariate Analysis of Variance for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, PetroChina

Term	Wilk's Lambda	df	F	p	Partial η^2
H-Shares	0,025	(15, 22,486)	4,22	0,001	0,709

Results of the MANOVA were statistically significant, Wilk's Lambda = 0,025, $F(15, 22,486) = 4,22$, $p = 0,001$, Partial $\eta^2 = 0,709$, indicating that there were significant differences in Dividend Per Share, Diluted Earnings Per Share, and Net Profits dependent on the amount of Private Shareholders. The next Table presents the results of univariate ANOVAs for each dependent variable:

Table 19

Univariate Analysis for Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, PetroChina

Variable	$F(5, 10)$	p	partial η^2
Dividend Per Share	3,81	0,034	0,656
Diluted Earnings Per Share	3,62	0,039	0,645
Net Profit by H-Shares	3,80	0,034	0,655

The results of the univariate ANOVA for Dividend Per Share were statistically significant, $F(5, 10) = 3,819$, $p = 0,034$, Partial $\eta^2 = 0,656$, indicating that there were significant differences in Dividend Per Share by the amount of Private Shareholders. Results of the univariate ANOVA for Diluted Earnings Per Share also were statistically significant, $F(5, 10) = 3,629$, $p = 0,039$, Partial $\eta^2 = 0,645$, indicating that there were significant

differences in Diluted Earnings Per Share by the amount of Private Shareholders. Results of the univariate ANOVA for Net Profit by H-Shares were statistically significant, $F(5, 10) = 3,803$, $p = 0,034$, Partial $\eta^2 = 0,655$, indicating that there were significant differences in Net Profit by the amount of Private Shareholders. In Table 20 I present descriptive statistic of the regression.

Table 20

Descriptive Statistics for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, PetroChina

Variable	Dividend Per Share RMB			Diluted Earnings Per Share			Net Profit by H-Shares		
	n	M	SD	n	M	SD	n	M	SD
10,00	5	0,15	0,06	6	0,37	0,13	6	64,47	23,88
11,37	3	0,31	0,03	1	0,70	0,68	1	129,42	12,70
11,38	4	0,22	0,09	1	0,51	0,22	1	93,91	40,61
11,40	1	0,28	-	1	0,63	-	1	114,45	-
11,44	1	0,35	-	1	0,82	-	1	146,79	-
11,79	2	0,34	0,01	1	0,78	0,28	1	138,93	6,44

Statistical significance together with large Partial η^2 suggests that Private Shareholders have considerable influence over main financial parameters of PetroChina. However, the Net Profits of the Oil Company is expected to be correlated with the OPEC oil price rather than a type of Shareholders. To determine the interrelation within those parameters I run a multiple linear regression with the amount of Private Shareholders and OPEC oil price as independent variables and the Net Profits of PetroChina as a dependent one. The results are presented in a following Table.

Table 21

Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, PetroChina

Term	B	SE	β	t	p
Oil Price	0,394	0,32	0,32	1,21	0,247
H-Shares	25,515	14,40	0,47	1,77	0,100

Note. Collective model: $F(2, 13) = 7,935$, $p = 0,006$, $R^2 = 0,55$

Results of the overall model of the multiple regression were significant, $F(2, 13) = 7,935$, $p = 0,006$, $R^2 = 0,55$, indicating that there was a significant predictive relationship between Oil Price and H-Shares on Net Profit. The coefficient of determination, R^2 , indicates that 55% of the variance in Net Profit can be explained by Oil Price and H-Shares. However, neither Oil Price ($B = 0,394$, $t = 1,21$, $p = 0,247$), nor the amount of Private Shareholders ($B = 0,394$, $t = 1,21$, $p = 0,100$) were a significant predictor of the Net Profit Outcome.

Looking at the statistical outcome of the regressions, one may argue that the Second Principal does not play any significant role in PetroChina, being only a beneficiary for Company's success or receiving decreased dividends in case of losses. However, it was shown in a previous chapter, that there existed shareholders with at least 1% of shares, who could have taken part in voting or other activities at a General Meeting (proposing motions or nominating directors). Apparently, none of that has been done, but one cannot argue that there has not been a chance. The next NOC to analyze on the topic of minor shareholders' influence and participation is Sinopec.

7.2. Sinopec

From the beginning of IPO Sinopec was the company with the highest amount of non- state-owned shares. Even though the biggest amount of shares belonged to Chinese banks (for details s. Chapter 5), there were 43% of private shares distributed among a number of private shareholders. Net profits of the Company almost doubled within 15 years of listing, showing the correlation with the OPEC oil price. Dividends per share and diluted earnings per share grew accordingly showing the drop in 2008 and 2015. According to Sinopec employee reduction plan there were laid-off or not substituted after the retirement around 150,000 workers. It is remarkable, that the expenses for social services stayed at a relatively high level of around 13% of the net profits, then dropped to 3% in 2007-2008, and were

increasing again from 2013. Table 22 presents key Corporate Governance parameters of Sinopec.

Table 22

Corporate governance financial and non-financial indicators, Sinopec

Year	CPC*, per cent	H- shares, per cent	Net profits (RMB billion)	OPEC oil price (USD)	Dividend per share (RMB)**	Diluted earning per share, (RMB)	Employees	Social services as % of net profits***
2000	56,9	43,1	19,584	27,6	0,08	0,19	506,168	12,7
2001	55,06	44,94	16,025	23,12	0,08	0,16	443,808	12,5
2002	55,06	44,94	14,121	24,36	0,08	0,16	418,871	13,8
2003	55,06	44,94	19,011	28,1	0,09	0,21	400,513	9,4
2004	67,92	32,08	32,275	36,05	0,12	0,37	389,451	5,4
2005	71,2	28,8	39,558	50,59	0,12	0,48	364,528	4,5
2006	75,84	24,16	50,664	61	0,15	0,62	340,886	3,1
2007	75,84	24,16	54,947	69,04	0,16	0,63	334,377	2,8
2008	75,84	24,16	29,689	94,1	0,12	0,3	358,304	5,3
2009	75,84	24,16	61,258	60,86	0,16	0,7	371,333	5,3
2010	75,84	24,16	70,713	77,38	0,19	0,8	373,375	5,1
2011	75,84	24,16	71,697	107,46	0,3	0,79	377,235	5,3
2012	75,79	24,21	63,496	109,45	0,3	0,7	376,201	6,3
2013	73,41	26,59	67,179	105,87	0,24	0,54	368,953	10,1
2014	73,47	26,53	47,430	96,29	0,2	0,4	358,571	14,2
2015	70,86	29,14	32,207	49,49	0,15	0,26	351,019	21,0

Note. Adapted from Sinopec Annual Reports and Form-20 Reports, 2000-2015

*A-shares from 2001, **Calculated as a sum of interim and final dividends,

*** Calculated according to net profits of PetroChina.

I run two multivariate and one multiple regression to check financial and non-financial ('social') parameters for interrelation with the amount of private shareholders in order to see any influence of the former on corporate governance indicators of Sinopec. Sinopec started

granting voting rights for the holders of less than 10% already in 2002 (for details s. Chapter 5). However, the shareholders of 1% and 3% of shares got any rights only in 2008, that was a crisis year, but still a half-way for 15 years of listing that are in focus. So there is expected a correlation between the number of private shareholders and number of employees (a negative, as a sign of marketization) and spending for social services (negative as well). Table 23 presents results of Multivariate Analysis of Variance for the number of Employees and Social Expenses by the amount of Private Shareholders in Sinopec

Table 23

Multivariate Analysis of Variance for the number of number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec

Term	Wilk's Lambda	<i>df</i>	<i>F</i>	<i>p</i>	Partial η^2
H-Shares	0,002	(16, 12)	16,02	< 0,001	0,955

Results of the MANOVA were statistically significant, Wilk's Lambda = 0,002, $F(16, 12) = 16,02$, $p < 0,001$, Partial $\eta^2 = 0,955$, indicating that there were significant differences in the number of Employees and Social Expenses dependent on the amount of Private Shareholders. Table 24 presents the results of the univariate ANOVA for each of dependent variables.

Table 24

Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec

Variable	$F(8, 7)$	<i>p</i>	partial η^2
Employees	8,56	0,005	0,907
Social	18,66	<0,001	0,955

Results of the univariate ANOVA for the number of Employees were statistically significant, $F(8, 7) = 8,56$, $p = 0,005$, Partial $\eta^2 = 0,907$, indicating that there were significant

differences in employees by H-shares. Results of the univariate ANOVA for Social Expenses were statistically significant, $F(8, 7) = 18,66, p < 0,001$, Partial $\eta^2 = 0,955$, indicating that there were significant differences in Social Expenses by the amount of Private Shareholders. The privatization process usually leads to massive employee lay-offs (i.e. one expects a negative correlation) (Gallagher, 2009). The analysis of Sinopec Annual reports shows that, at the time of the IPO, Sinopec practiced a strong employees reduction plan that reduced the staff by 40% within 15 years. At the same time, there was a near parallel decrease in non-parent shareholders. Thus, the result is a positive correlation, so in this situation one cannot assume the influence of private shareholders at the decision of hiring new employees.

Apparently, the expenses dedicated to Employee Welfare and Social Services are influenced by the process of privatization. The expenses are not cut throughout the years of listing, proportional to the income and are to be transferred regularly on request (for details on social welfare payments of all three NOCs, please, s. Chapter 4). Descriptive Statistic is presented in a Table:

Table 25

Descriptive Statistics for the number of Employees and Social Expenses by the amount of Private Shareholders, Sinopec

Variable	<i>n</i>	Employees		<i>n</i>	Social	
		<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>
24,16	6	359251,67	18032,04	6	4,50	1,19
24,21	1	376201,00	-	1	6,32	-
26,53	1	358571,00	-	1	14,24	-
26,59	1	368953,00	-	1	10,06	-
28,80	1	364528,00	-	1	4,53	-
29,14	1	351019,00	-	1	20,97	-
32,08	1	389451,00	-	1	5,39	-
43,10	1	506168,00	-	1	12,73	-
43,10	3	421064,00	21730,65	3	11,88	2,26

Table 26 presents the results of the MANOVA of the amount of Private Shareholders as an independent variable and the Dividends per Share, Diluted Earnings per share and Net Profits as three dependent variables.

Table 26

Multivariate Analysis of Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, Sinopec

Term	Wilk's Lambda	df	F	p	Partial η^2
H-Shares	0,004	(24, 15,10)	3,46	0,008	0,836

Results of the MANOVA were statistically significant, Wilk's Lambda = 0,004, $F(24, 15,10) = 3,46$, $p = 0,008$, Partial $\eta^2 = 0,836$, indicating that there were significant differences in Dividend per Share, Diluted Earnings per Share, and Net Profit by H-Shares.

The next Table presents the results of univariate ANOVAs for each dependent variable:

Table 27

Univariate Analysis for Variance for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, Sinopec

Variable	F (8, 7)	p	partial η^2
Dividend per Share	2,52	0,120	0,743
Diluted Earnings per Share	3,22	0,070	0,786
Net Profit by H-Shares	3,60	0,054	0,805

Results of the univariate ANOVA for Dividend per Share were not statistically significant, $F(8, 7) = 2,52$, $p = 0,120$, Partial $\eta^2 = 0,743$, indicating that there were no significant differences in Dividend per Share RMB by Private shareholders. Results of the univariate ANOVA for Diluted Earnings Per Share were not statistically significant, $F(8, 7) = 3,22$, $p = 0,070$, Partial $\eta^2 = 0,786$, indicating that there were not significant differences in Diluted Earnings per Share by Private Shareholders. Results of the univariate ANOVA for Net Profit by H-Shares were not statistically significant, $F(8, 7) = 3,60$, $p = 0,054$, Partial $\eta^2 =$

0,805, indicating that there were not significant differences in Net Profit by Private Shareholders. Descriptive Statistic is presented in a Table:

Table 28

Descriptive Statistics for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, Sinopec

Variable	Dividend Per Share RMB			Diluted Earnings Per Share			Net Profit by H-Shares		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
24,16	6	,18	,06	6	,64	,18	6	56494,67	15562,11
24,21	1	,30	-	1	,70	-	1	63496,00	-
26,53	1	,20	-	1	,40	-	1	47430,00	-
26,59	1	,24	-	1	,54	-	1	67179,00	-
28,80	1	,12	-	1	,48	-	1	39558,00	-
29,14	1	,15	-	1	,26	-	1	32207,00	-
32,08	1	,12	-	1	,37	-	1	32275,00	-
43,10	1	,08	-	1	,19	-	1	19584,00	-
43,10	3	,08	,01	3	,18	,03	3	16385,67	2464,87

The amount of dividends per share is strongly interrelated with diluted earnings per share and the net profits of the company. The regression analysis of the interrelation of the proportion of private shareholders and financial indicators of Sinopec didn't show a statistically significant outcome. The Net Profits of the Oil Company is expected to be correlated with the OPEC oil price rather than a type of Shareholders. To determine the interrelation within those parameters I run a multiple linear regression with the amount of Private Shareholders and OPEC oil price as independent variables and the Net Profits of Sinopec as a dependent one. The results are presented in a following Table.

Table 29

Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, Sinopec

Term	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Oil Price	236,56	152,01	0,37	1,56	0,144
H-Shares	-1293,88	558,81	-0,54	-2,32	0,038

Note. Collective model: $F(2, 13) = 19,27, p < ,001, R^2 = ,748$

The results of the overall model of the multiple regression were significant, $F(2, 13) = 19,27$, $p < 0,001$, $R^2 = 0,748$, indicating that there was a significant predictive relationship between Oil Price and H-Shares on Net Profit. The coefficient of determination, R^2 , indicates that 74,8% of the variance in Net Profit can be explained by Oil Price and H-Shares. Oil Price was not a significant predictor of Net Profit ($B = 236,56$, $t = 1,56$, $p = 0,144$). H-Shares was a significant predictor of Net Profit ($B = -1293,88$, $t = -2,32$, $p = 0,038$), indicating that for every one-percentage increase in H-Shares, Net Profit decreased by approximately \$1293,88.

We may assume a chain of influence: oil price and the amount of private shareholders influence the net profits of Sinopec; the amount of private shareholders, at its turn, influences net profits and, consequently, diluted earnings paid out to the investors. Also, this situation probably reflects the little or no influence of private shareholders over the decision-making process concerning the policy of shares issue (no statistical significance over Dividends per Share).

7.3. CNOOC

During the time of listing CNOOC was increasing its net profits up to 7 times from the original IPO. It is remarkable, that the spending to social services remained at the same level of around 9,5% of net profits regardless the fact that the amount of employees increased almost 15 times from one thousand in 2000 to fifteen thousand in 2015. The number of private shareholders was slightly increasing during the IPO making almost 36% of holders of H-shares. As soon as one sees only slight increase in a number of H-shares' holders (7% increase within 15 years), and such a significant increase in a number of employees, one may assume that there is no big influence between one another. The CNOOC does not disclose a lot of materials about its shareholders, so one may argue that the company was massively

increasing its off-shore operations without issuing more H-shares in order to keep the dividends in a room of A-shares, i.e. the State.

I present the key parameters of CNOOC corporate governance in a Table 30 in order to find out possible interrelation between the number of minor shareholders and movement in financial and non-financial indicators of corporate governance.

Table 30

Corporate governance financial and non-financial indicators, CNOOC

Year	CNOOC, per cent	H- shares, per cent	Net profits (RMB billion)	OPEC oil price (USD)	Dividend per share (RMB)*	Diluted earning per share, (RMB)	Employees	Social services as % of net profit**
2000	70,61	29,39	10,297	27,6	0,98	1	1,007	9,5
2001	70,61	29,39	7,958	23,12	0,11	1,63	1,081	9,5
2002	70,61	29,39	9,207	24,36	0,28	0,22	2,047	9,5
2003	70,61	29,39	11,497	28,1	0,038	0,28	2,447	9,5
2004	70,64	29,39	16,139	36,05	0,05	0,39	2,524	9,5
2005	66,41	33,59	25,323	50,59	0,052	0,61	2,696	9,5
2006	66,41	33,59	30,926	61	0,123	0,73	2,929	9,5
2007	64,41	35,59	31,258	69,04	0,159	0,72	3,288	9,5
2008	64,41	35,59	44,375	94,1	0,176	0,99	3,584	9,5
2009	64,41	35,59	29,485	60,86	0,176	0,66	4,019	9,5
2010	64,45	35,55	54,409	77,38	0,25	1,22	4,650	9,5
2011	64,45	35,55	70,255	107,46	0,28	1,57	5,377	9,5
2012	64,45	35,55	63,691	109,45	0,32	1,42	10,063	9,5
2013	64,44	35,56	56,641	105,87	0,32	1,26	17,553	9,5
2014	64,44	35,56	60,199	96,29	0,32	1,35	21,046	9,5
2015	64,44	35,56	20,246	49,49	0,25	0,45	14,956	9,5

Year	CNOOC, per cent	H- shares, per cent	Net profits (RMB billion)	OPEC oil price (USD)	Dividend per share (RMB)*	Diluted earning per share, (RMB)	Employees	Social services as % of net profit**
------	--------------------	------------------------------	------------------------------------	----------------------------	---------------------------------	--	-----------	--

Note. Adapted from CNOOC Annual Reports and Form-20 Reports, 2000-2015

*Calculated as a sum of interim and final dividends, ** Calculated according to net profits of CNOOC

Table 31 presents the results of MANOVA regression over the ‘social’ parameters defined by the number of Private Shareholders. One should point attention that we do not expect to establish a correlation between the number of Private Shareholders and the expenses for Social Services, because the later stayed at the same level within all 15 years of listing.

Table 31

Multivariate Analysis of Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC

Term	Wilk’s Lambda	df	F	p	Partial η^2
H-Shares	0,065	(5, 10)	28,98	< 0,001	0,935

Results of the MANOVA were statistically significant, Wilk’s Lambda = 0,065, $F(5, 10) = 28,98$, $p < 0,001$, Partial $\eta^2 = 0,935$, indicating that there were significant differences in Employees and Social by H-shares. As soon as the number of Social Expenses stayed 9,5% of Net Profits within 15 years of listing, we have a look at the univariate ANOVA for the Number of Employees:

Table 32

Univariate Analysis for Variance for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC

Variable	F(5,10)	p	partial η^2
Employees	28,98	< 0,001	0,935
Social	-	-	-

Results of the univariate ANOVA for Employees were statistically significant, $F(5,10) = 28,98$, $p < 0,001$, Partial $\eta^2 = 0,935$, indicating that there were significant differences in employees by H-shares. Results of the univariate ANOVA for Social Expenses were statistically insignificant, with no results, as soon as the variable is homogeneous and stayed at the measure of 9,5% throughout all 15 observations. We conclude there is no indication for significant differences in Social Expenses dependent on Private Shareholders.

The next Table presents Descriptive statistic for both variables:

Table 33

Descriptive Statistics for the number of Employees and Social Expenses by the amount of Private Shareholders, CNOOC

Variable	Employees			Social		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
29,36	1	2524,00	-	6	9,50	-
29,39	4	1645,50	714,13	1	9,50	0,00
33,59	2	2812,50	164,75	1	9,50	0,00
35,55	3	6696,66	2937,90	1	9,50	0,00
35,56	3	17851,66	3055,96	1	9,50	0,00
35,59	3	3630,33	367,69	1	9,50	0,00

In spite of the process of privatization the number of employees was steadily growing – from around 1000 in the beginning of IPO to almost 15000 in 2015. Obviously this is connected to the growing of the business and inter-industrial and institutional developments (for example, the amendments to Corporate Law of 2005 and 2006).

In Table 34 I present the results of multivariate regression for financial (Dividends per Share, Diluted Earnings per Share, Net Profits of CNOOC) parameters as a function from the amount of Private Shareholders.

Table 34

Multivariate Analysis of Variance for Dividend Per Share, Diluted Earnings Per Share, and Net Profit by the amount of Private Shareholders, CNOOC

Term	Wilk's Lambda	<i>df</i>	<i>F</i>	<i>p</i>	Partial η^2
H-Shares	0,117	(15, 22,486)	1,765	0,108	0,511

Results of the MANOVA were statistically insignificant, Wilk's Lambda = 0,117, $F(15, 22,486) = 1,765$, $p = 0,108$, Partial $\eta^2 = 0,511$, indicating that there no were significant differences in Dividend per Share, Diluted Earnings per Share, and Net Profit determined by the amount of Private Shareholders. Except for the Net Profits, univariate ANOVA also hasn't shown a significant influence between variables:

Table 35

Univariate Analysis of Variance for Dividend Per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, CNOOC

Variable	<i>F</i> (5,10)	<i>p</i>	partial η^2
Dividend Per Share	0,57	0,719	0,223
Diluted Earnings Per Share	1,23	0,342	0,392
Net Profit by H-Shares	8,95	0,002	0,817

Results of the univariate ANOVA for Dividend per Share were statistically insignificant, $F(5,10) = 0,575$, $p = 0,719$, Partial $\eta^2 = 0,223$, indicating that there were no significant differences in Dividend per Share determined by the holders of H-shares. Results of the univariate ANOVA for Diluted Earnings per Share were not statistically significant, $F(5,10) = 1,228$, $p = 0,342$, Partial $\eta^2 = 0,392$, indicating that there were no significant differences in Diluted Earnings per Share determined by the holders of H-shares. Results of

the univariate ANOVA for Net Profit by holders of H-Shares were statistically significant, $F(5, 10) = 8,95, p = 0,002, \text{Partial } \eta^2 = 0,817$, indicating that there were significant differences in Net Profit by determined by holders of H-shares. Descriptive statistic for these parameters is presented in a Table:

Table 36

Descriptive Statistics for Dividend per Share, Diluted Earnings per Share, and Net Profit by the amount of Private Shareholders, CNOOC

Variable	Dividend per Share RMB			Diluted Earnings per Share			Net Profit by H-Shares		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
29,36	1	0,05	-	1	0,39	-	1	16139,00	-
29,39	4	0,35	0,43	4	0,78	0,66	4	9739,75	1511,83
33,59	2	0,08	0,05	2	0,67	0,08	2	28124,50	3961,91
35,55	3	0,28	0,03	3	1,40	0,17	3	62786,00	7961,75
35,56	3	0,30	0,04	3	1,02	0,49	3	45695,33	22111,45
35,59	3	0,17	0,01	3	0,79	0,17	3	35039,33	8133,38

The amount of paid dividends per share has predictably shown the correlation with oil price changes and energy market crisis in 2008. Yet, there is no any connection with the number of non-parent shareholders, that was significantly (more than 3%) changing only two times for 15 years – in 2005 (Corporate law amendment) and 2007. CNOOC was introducing Share Options schemes four times in 15 years. Still, the number of shares released within these schemes could not significantly influence earnings per share.

In order to elaborate on the effect of Private Shareholders over Net Profits I run a multiple regression of determination of Net Profits by the holders of H-Shares and OPEC Oil Price:

Table 37

Multiple Linear Regression between Oil Price, the amount of Private Shareholders, and Net Profits, CNOOC

Term	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Oil Price	717,95	81,96	1,05	8,76	< 0,001
H-Shares	-749,95	902,36	-0,10	-0,83	0,421

Note. Collective model: $F(2, 13) = 112,645, p < 0,001, R^2 = 0,945$

Results of the overall model of the multiple regression were significant, $F(2, 13) = 112,645$, $p < 0,001$, $R^2 = 0,945$, indicating that there was a significant predictive relationship between Oil Price and H-Shares on Net Profit. The coefficient of determination, R^2 , indicates that 94,5% of the variance in Net Profit can be explained by Oil Price and H-Shares. Oil Price was a significant predictor of Net Profit ($B = 717,95$, $t = 8,76$, $p < 0,001$), indicating that for every one-percentage increase in H-Shares Net Profit increased by approximately \$717,95. H-Shares was not a significant predictor of Net Profit ($B = -749,95$, $t = -0,83$, $p = 0,421$).

Both MANOVAs showed a statistical significance only over the Number of Employees. However, there is no strong evidence of minor shareholders' participation or influence over the decision-making process considering the employment policies of NOCs and/or spending on social and welfare programs. The regression analysis did not reveal determination among the number of Private Shareholders and key financial parameters of CNOOC.

In terms of an agency theory data analysis showed that the Second Principal acts purely in a manner of a Cournot framework. It does not have an information that can be obtained at a General Meeting because it does not execute its right to propose motions there or initiate any other activities. The interesting part is the First Principal, i.e. the State is moving toward giving the Second Principal an opportunity to become the player in a manner of a Stackelberg follower. Moreover, it is an Agent (the management of NOCs that publish and amends the Articles of Association) that provides the Second Principal such an opportunity, by giving a chance of the shareholders with as little as 1% of shares to participate in a decision-making process. Apparently, it is up to the Second Principal neither to use this opportunity, nor seeking the bigger chances for participation – through possible uniting at the HKSCC.

For the corporate governance of NOCs that means, that although there exist a relative big amount of the holders of H-shares, and they have an ability to participate in a decision-making process, there is no or little influence over the NOCs' main parameters of corporate governance – the number of employees, the expenses for social services, the amount and price of dividends and so on. One should not forget, that in case the shareholders of H-shares would unite for the voting (that is forbidden neither by HKSCC nor by the Corporate Law), they could have become a sound voice in a corporate governance of NOCs. Up to the 2015 that did not happen, however, there are certain vivid signs of marketization that are presented by the industry insiders, academicians and employees of NOCs. In the next Chapter I discuss the interviews on key corporate governance topics of the Chinese NOCs.

Chapter 8. Interviews based on Data Analysis

I conducted interviews that contained open-end questions to the following subjects: the development of Corporate Governance in NOCs, the position of private (minor) shareholders in listed NOCs, the perspectives of further NOCs' marketization. Factors in assessing the NOCs' corporate governance are presented using several topics: NOCs' management, social responsibilities, protection of minor shareholders' interests, institutions for corporate governance in China.

8.1. Corporate Governance of NOCs

8.1.1. Management of NOCs

On the topic of the NOCs' management, respondents concentrated their answers into what I identify as various problem trends.

The first trend is a lack of a sound hierarchy at the highest level of decision-making in the companies:

“Neither shareholders nor Chairman of a NOC have got real decision-making power in a listed company.” (Guo Jie, PhD, researcher at Chinese Oil University)

The problem arises due to a paralleling of senior NOC managers to the highest party officials (e.g. a party secretary) at the same level of a decision-making power as a result of the institutional settings of Chinese NOCs. SASAC is the main shareholder of most of the petrochemical and petroleum companies in China; it also appoints higher management. This creates a circumstance in which the companies are driven as governmental bureaus (Xieshuang Ling, MA from Chinese Oil University, Sinopec employee). It is a common for the general manager of the mother NOC to become CEO of a newly listed company, as in the case of CNPC and PetroChina (Pang Changwei, research professor at Chinese Oil University).

The real control of oil industry belongs to party members appointed by the General Secretary through SASAC, as demonstrated by instances like the former chairman of Sinopec, who was the party secretary of a Fujian province or the former chairman of PetroChina, who became the head of SASAC (Xieshuang Ling). When contradictions between the interests or opinions of the executive and higher officials (SASAC) arise, the higher officials' way that is implemented. Moreover, NOC CEOs are state-appointed and share the same path of governmental officials, even while they do not belong to the government in an official capacity while in the role. However, leaders appointed to these positions can be (and are frequently) transferred to official governmental jobs at anytime. Basically, there is a merging of the ownership and management of NOCs (Guo Jie).

SASAC exercises management functions over the petroleum industry through the Chinese Resources Management Committee. This Committee is in charge of the NOCs' operational resources, including setting financial goals and evaluation criteria of performance, charge of resources allocation, developing regulations on behalf of SASAC, and appointing company leaders (Dong Xiu-cheng, Director at Chinese Oil and Gas Industry Development Research Center, Energy economist, Professor of Business Administration at China Oil University). One does not expect much flexibility from the state bureau with government officials on top. Requirements are directed from the top and fulfilled without hesitation or question. This structure can be both cumbersome and counterproductive when implementing new policies that may impede proper function of the operational processes. The chain of command flows from SASAC to top management to employee implementers. No one expressed a possibility for any entity or person except for SASAC to make decisions about the company (Dong Xiu-cheng).

All of this adds up to the absence of any large gap between major shareholders and agents in Chinese listed NOCs, because the state shareholder's decisions are implemented

directly and controlled through an internally directed system of i(Li Wen, department director for CSR at PetroChina Kunlun, former PetroChina Economics Research Institute employee).

The second issue trend I identified is an overlapping responsibility of governmental officials and managers:

“There is a set of connections between the CEO and board members and other senior managers. The CEO is very often also a shareholder of the company, so he should outbalance different interests.” (Dong Xiu-cheng)

Chinese SOEs are a breeding ground for corruption and dysfunctional networking:

“This is one of the hardest problems of such huge enterprises, because where business and politics are too close to each other, one inevitably becomes corrupt as a result.” (Ming, PhD, postdoc at Chinese Oil University)

In the opinion of Ling, an oil refinery employee, the best solution would be to split the business and politics, as was done with the Ministry of Railways, where the chairman and managing director divided their responsibilities. The managing director became responsible for a market portion (i.e., increasing profits) and the chairman for the political portion.

Respondents also pointed out that different shareholders have got different goals in a NOC.

“Government seeks big-scale goals, whereas private shareholders are mostly determined just to get profits” (Guo Jie).

“The state as a shareholder is interested in maintaining the system of socialistic social welfare (i.e. good facilities and infrastructure for workers, pensions, and kindergartens, etc.)”
(Xieshuang Ling)

There are both a governing level and a management level of goal-setting within NOCs. Personnel at the governing level must prevent an agency problem, whereas those at the management level should take care about optimal resource use in order to gain and maximize profits. In this case, both shareholders' interests are met, however private shareholders are closer and espouse more similar interests to the management level (Zhouzhong Bing, PhD, researcher at Chinese Oil University). The State too sets high economic goals for NOCs. First, it strives for profits and to fulfill the national plan for domestic consumption and oil reserves. Second, it must pursue policies to remain competitive in a world market. Considering that NOCs have to perform in a mature and global oil market, being competitive becomes a big challenge (Ming).

The NOCs also carry political responsibility, as they represent the Chinese state worldwide in the markets in which they operate. Unpopular decisions made abroad may result not only in harming the international image of China, but also produce tensions at home.
(Baisuo Zhu, manager at China National Petroleum Corporation)

8.1.2. Social responsibilities of NOCs

All interview respondents agreed that the social responsibilities of Chinese NOCs and their listed subsidiaries is a thorny issue. As SOEs, NOCs are providers of working places and are restricted in terms of employee lay-offs, thus forcing problems with overstaffing and a lack of managerial motivation.

“The mother NOCs' profits could have been gained by private sector with many fewer workers involved. As soon as employees' income is guaranteed, NOC employees are not motivated for a better performance.” (Xieshuang Ling)

“Because of overstaffing, labor costs are a main expenses of NOCs; this money could rather have been used for efficiency improvement.” (Cheng Shiwen, Sinopec employee).

The NOCs' three main duties as seen by the State are: to gain profits, to ensure social stability, and to pay taxes, though of course, those exist beyond the monolithic target to provide a huge country with sustainable energy resources and security (Xieshuang Ling). Social responsibility is a vast issue for Chinese NOCs given the size of their workforces. Ma Dongping, an employee of the Chinese Aviation Oil Company, juxtaposes the American examples of Shell with 100,000 employees and a Chinese NOC, which may employ as many as 1.5 million workers. With such a large labor force NOCs become much more responsible for maintaining social stability, which they achieve by ensuring employment:

“International oil companies can afford themselves major layoffs for the sake of operational optimization. That scenario would be impossible for socialistic economy. Chinese NOCs have to take care about a vast majority of employees, providing social services, welfare and so on.” (Ma Dongping, an employee of the Chinese Aviation Oil Company)

Apart from the human resource aspects relating to stability and security, NOCs also contribute to these goals by aggressive compliance to high standards of environmental protection:

“Due to the complicated environmental situation in China, NOCs have to meet high state requirements for oil refineries” (Zhou Ji, PhD, employee at Chinese Aviation Oil Company)

NOCs are expected to comply with China’s strict environmental regulations. Compliance produces a double pressure for the company with implications at the international level. Many international NGOs play watchdog, while more mature oil companies can contribute optimal environmental solutions (Dong Xiu-cheng).

However, Sinopec’s Cheng Shiwen presents the issue in a different perspective. First, in pursuit of environmental sustainability and compliance NOC are expected to stay abreast of new technologies in order to prevent pollution as much as possible. Second, the companies should proactively fulfill new state policies and regulations on environmental protection in the short term. Third, despite these expectations, the state makes it difficult to invest in technical development due to complexities in funds transfers between listed NOCs, parent NOCs, and local governments. All those factors lead to a situation of a window-dressing when it comes to environmental protection. Officials designing national standards of environmental protection set the standards very low; in the situation of imported technologies or equipment, domestic engineers very often are under trained or untrained to address technical problems. All of this leads to a higher level of pollution that is written into technical documentation (Cheng Shiwen).

Technology and technical support is generally an issue for Chinese NOCs. A large proportion of core technological parts for petrochemical plants, such as compressors, reactors, and pumps are imported. This foreign equipment often needs foreign specialists. In attempts to build these skills in house, project leaders and technicians are often sent to the US, Germany, and other source countries in order to get train.

While a huge part of petroleum industry is research and development, the efficiency of these institutes are often quite low. At some point it makes more sense to buy and copy the technology, rather than to invest the considerable time and financial resources for homegrown but market redundant developments (Yuan Juan, Sinopec employee).

8.2. Institutions for Corporate Governance in China

Compared to the above topics, concerning institutional development of corporate governance in China my interview respondents were less unified in their opinions.

“The concept of Corporate Governance as it is understood in developed countries, so far can not be applied to Chinese listed firms.” (Dong Xiu-cheng)

Considering development of corporate governance of NOCs it was mentioned that as soon as the Chinese oil market is import-oriented, NOCs are forced to adapt (at least to some degree) to international management system. The state has to at once foster domestic markets while also adjusting the companies' operations to be inline with international corporate governance rules (Pang Changwei, research professor at Chinese Oil University). As quoted above, Dong Xiu-cheng claims that the concept of Corporate Governance—as it is understood in developed countries—is ill adapted to application within Chinese listed firms for the general reason that the market is still immature. Essentially, there are no effective institutions that can provide all levels of "Good Corporate Governance" (e.g. protecting minor shareholders' rights, providing operational and financial transparency, taking care about all stakeholders of the company, etc).

Guo Jie's remarks support this argument. He additionally notes that Chinese NOCs are latecomers to the international market, so one cannot expect rapid institutional learning. It

is possible to have separated Board and Supervisory Committee meetings, but one can never be sure this in fact means they are fulfilling the terms of good corporate governance. Also, nowadays in Chinese listed firms governmental-level shareholders are mostly busy keeping control over managers rather than trying to improve corporate governance in general. This struggle for internal control has been the most important issue besetting not just NOCs, but Chinese SOEs in general, whereas the issue of improving corporate governance is more isolated and has not been elevated to the federal level. While scrutiny concerning corporate governance practices has gained some weight within the last decade, it is not yet strong enough to be identified as an industry wide, let alone national trend.

Moreover, there are no common measurements for corporate governance or for measuring improvement in corporate governance; in order to make such conclusions concerning its quality or progress one should look at each company's case individually (Pang Changwei). While in comparison with international oil companies such as BP, Shell, or Exxon, Chinese companies have recognizably poorer performance on corporate governance practices, in comparison with their own former practices, there has been a leap forward (Dong Xiu-cheng).

Baisuo Zhu posits that Chinese corporate governance practices are being rapidly developed and improved under the pressure to keep pace with international standards. However, there is still a need for increased transparency in the high-level management decision-making process. Currently, top company managers can participate in decision-making in SASAC or NDRC, but for minor shareholders this opportunity remains closed. With state ownership consistently more than 51% (even up to 80%, as in the majority of companies) one expects restrictions on project or strategic decision-making. PetroChina's project portfolio contains more than 80 endeavors in more than 60 countries. For each of these, negotiations are conducted under the premise of full control by the company, i.e. of the Chinese state, as all profits are in the end handed over to the state for further allocation. Of course, the

corporate governance of Chinese NOCs so far cannot compete with corporate governance of international NOCs. There are considerable gaps that should be mended and are moving towards progress under the stressful circumstances of constant competition.

Zhouzhong Bing, PhD, a researcher at Chinese Oil University, claims that nowadays one may speak about a rather successful integration of Chinese NOCs with mature oil companies in the international market. That is a good sign for corporate governance. On the one hand, it is good enough to bring companies forward and keep them on internationally competitive level. On the other hand, it continues to be a powerful stimulus for further development. At least in comparison with other SOEs, NOCs have advanced towards a more efficient system of corporate governance and higher profitability.

Considering the administrative function of the NOCs, the managers have obtained decision-making freedom. However, the strategic operational functions still reside fully with the state. In the domestic market Chinese SOEs have gained ground in technology and management, but are not yet competitive on the international market, especially in the field of management.

During his interview concerning this topic, Sinopec employee Yuan Juan commented that it is operational scale and (considerable) state support, not good corporate governance or investors' money, that keep most of the NOCs profitable.

As listed companies are expected to produce profits, the state is invested in corporate governance development in order to keep them competitive. There is no "Chinese way" of corporate governance; the main goal of corporate governance development is align as closely as possible to international corporate governance practices (Pang Changwei). In the case of the NOCs, the main factor for developing corporate governance is internationalization itself, not the IPO (Zhou).

8.3. Protection of minor shareholders' interests

“At the moment, top company managers can participate in the decision-making process in SASAC or NDRC, but for minor shareholders this opportunity is closed.” (Baisuo Zhu)

Prof. Dong names some distinctive features of Chinese corporate governance, like the strong system of internal control of state shareholders over the managers. He also claims that within this constellation of participants, the government as a major shareholder sometimes contradicts its own goals when giving more rights to minor shareholders in order to allow them to participate in the decision-making process. A complex situation ensues in which the government serves simultaneously as both the state and a shareholder (Dong Xiu-cheng).

Zhou Ji, PhD, an employee of the Chinese Aviation Oil Company, claims that the opinion of minor shareholders in big Chinese NOCs largely ignored. First of all, their holdings are still very small, not even approaching 50%. Second, listing is just one of the channels for NOCs' profits. With a reserve of other, bigger, potential revenue sources, smaller shareholders are not a priority for NOCs. Third, the stock market regulation is quite immature. Executives have ample opportunity to influence the rules; minor shareholders can only follow the majority decisions.

Despite these restrictions and risks, listed subsidiaries still fulfill their main function—to bring dividends to their shareholders. Although protection for minor shareholder is weak, there is no lack of investors. Foreign investors do agree to buy shares on what first appear as quite poor conditions because NOCs, being Chinese SOEs, do make money and turn profits, which are more important factors than rights in many investors' calculations (Zhouzhong Bing).

Still, as minor shareholders buy the company's stakes, it is one of the state's primary tasks to provide these risk-taking investors with a favorable investment climate. Having a monopoly over natural resources, the state intercedes to create a friendly environment for investors of listed companies. However, as a monopolist it must also retain control over listed companies in order to be able to react properly to world market prices and other fluctuations. In case of severe price fluctuations, the state is able to massage the effect on the listed companies to mitigate the effects, especially when the prices go down (Li Wen). Baisuo Zhu of China National Petroleum Corporation supports this argument, saying that NOCs' listed subsidiaries are created solely for fund-raising purposes; the full control over the oil and gas industry remains the state's prerogative.

8.4. Corporate Governance at the employee level

At for the employee level, several distinctive features characterize corporate governance. First, it motivates employees. One third of the salary is fixed, leaving two-thirds for performance-related bonuses; top management and some workers can also boost income from employees shares, but middle management generally cannot. Second, it leads to an unhealthy work-life balance. Employees and senior management experience strong pressure to work long hours in an environment in which 'workaholism' is essentially required.

Third, it is catalyzing a brain-drain. Those NOC's workers that have the resources to pursue employment in an international oil company prefer to leave the domestic sector. It is common for many workers to resign once they have gained additional expertise from company-sponsored technical training abroad. In case of economic recession, the Chinese NOCs would support their employees, but compensation is dramatically dependent on performance, a situation diametrically different from most international oil companies, which appear far more attractive to employees (Cheng Shiwen). Also a factor, as SOEs are generally

overstaffed, competition for good positions is extremely high. For example, for more than 200 departments in Sinopec there are only three directors, one of whom is a party secretary. Most employees prefer to work in companies with career advancement potential; while relatively safe from lay-off NOCs offer little chance for promotion.

Another issues is that the energy industry is still very inflexible and the reformation process slow. Overall, the industry lacks young leaders with fresh views on management and personal responsibility for a decision-making. Where they are appearing, the new leaders are more broad-minded than their predecessors, efficiency-oriented, and open to new solutions. However, at the NOC employee level not much has changed since listing. Employees are aware company has gone through an IPO, but at the management level no there have been no seismic shifts, merely a small salary raise and an increase in international projects (Yuan Juan).

Sinopec conducts labor cost optimization mostly in two ways: by reducing the number of workers and not recruiting new staff. Worker lay-offs are perceived very negatively and companies try to avoid them (Xieshuang Ling)).

The positive effect of internationalization of NOCs is also felt at the domestic level. For example, one CNOOC employee shared an observation of increasing fair recruitment competition. Employees also have more opportunity for international training and promotion. For SOEs with years-long histories of recruitment and promotion based on connections, this is a big move forward (Zhou Ji).

Considering efficiency, higher profits after 2000 are not necessarily connected to listing. All three NOCs restructured in the late 90s, and increased efficiency is more likely to be linked to that than listing. However, due to a confluence of both restructure and listing, it is clear that NOCs have become more competitive and efficiency-oriented (Guo Jie).

8.5. Distinctive features of marketization of Chinese National Oil Companies

According to Pang Changwei, research professor at Chinese Oil University, the original intention of a socialist market economy was to implement the market model of resource allocation while maintaining state control of the industry on the macro level. It is now clear that this model did not work well for the Chinese oil industry, as the country's oil industry is concentrated within three major NOCs.

The state controls downstream and upstream initiatives, as well as transportation and infrastructure. The state sets high quotas for import; 80% of import should go through the three major NOCs. Also, it is the NOCs and their subsidiaries (Chinese United Oil, Zhuhai etc.) that receive state investments. Independent from the source (i.e. local production or import) profits are first directed to NOCs.

The Chinese NOCs form a monopoly on natural resources, the important source of income for the Chinese State. On the state level, NOCs and the Chinese state (represented by NDRC Energy Bureau of Land and Resources) act as a common front—the NOCs enjoy state support in profitable M&As, hedging, and other capital enriching activities. A profits-increasing strategy for listed companies is also a part of a national policy. Even though the NOCs each have many subsidiaries, it is listed companies that bring the highest profits to the state. However, Zhou Ji states that the IPO is only one—and not even a primary one—of various sources of capital.

Prof. Dong Xiu-cheng believes that the full marketization of NOCs is highly unlikely, linking his assessment to the general institutional and legislative immaturity of the Chinese market, as well as the government's aversion to give up its control over these powerful companies.

One cannot discount, however, that it is also profitable for NOCs to remain state-owned. Large SOEs become large investments from the state, whereas private or corporatized enterprises have to be independent. NOCs are subject to differential sources of financing, i.e.

subsidiaries, bank loans on preferable conditions, and so on (Zhouzhong Bing). The China Energy Fund Committee encompasses approximately 200 private energy companies, among them Shanghai Huaxin Petroleum, Beijing DHC Oil, and others, yet these companies are backward, unable to compete with three major NOCs as they are unwilling to fall under governmental policies (Pang Changwei).

Guo Jie notices that it is more comfortable for oil companies to be state-owned rather than private also. This is because the constitution basically protects them from bankruptcy—the state covers almost any big losses of an SOE. The state can also invest on virtually level and at any time needed. For an oil industry, that investment is usually downstream in oil refineries, exploration, and logistics. Exploration is traditionally very capital-intensive market, related to high risks. It makes sense that the Chinese State is taking responsibility for the NOC on these levels. Bo supports this, saying that in the oil industry the upstream is profitable and downstream is very capital-intensive; in a situation of state ownership the state cushions the more difficult functions and positions of NOCs' operations. Energy is a backbone industry of China. It will be protected and supported by the state regardless oil price fluctuations and market distortions. For the NOC, this kind of symbiosis is desirable (Ming).

Prof. Dong states that there is no competition in the petrochemical industry, because the threshold for entry is too high for private companies. Therefore, a state monopoly situation gains all the profits and does not motivate industry players to increase operational efficiency. Players are, of course, also not strongly motivated to move towards marketization which would disrupt the monopoly for petrochemical goods and processes. The Chinese state heavily to keep NOCs competitive, sometimes pulling money from other industries, but this does not seem to concern the NOCs.

In the opinion of Prof. Pang, the conditions for private enterprise market entry are unrealistically steep. Smaller private corporations just cannot compete with three major

NOCs. The marketization of Chinese NOCs should benefit from letting these enterprises into the market, because they should be supported by the state in order to make profits.

The purpose of NOCs' listed subsidiaries is to gain profits. If a stock is not profitable the mother company abort its offer on the stock exchange. That places pressure on the listed NOCs to perform, though this factor is mitigated by the fact that when facing sizable losses the parent company will step in to refinance the listed company. If these companies were independent or had autonomy, they would not have such financial support. Also, the parent company governs share issue timing, again assisting the listed company to gain more profits.

Taking all of this into account, the listed company benefits substantially from its relationship to the parent and the state. Some profits goes back to SASAC, but some also are allocated for use within the NOC, i.e. for covering debts of less successful subsidiaries, corporate social responsibility projects, or other investments (Li Wen). Within the past decade SASAC introduced a new return on a revenue rate of 10%, reflecting part of the process to make the state-owned sector competitive and profitable (Ma Dongping).

With hundreds of subsidiaries with constant money flows between them it is of utmost importance that listed firms do, in fact, earn money. For the mother company it makes little difference a subsidiary is listed or not; they have hundreds of subsidiaries. What is ultimately important concerning the listed companies, however, is to maximize shareholders value (Dong Xiu-cheng).

A Sinopec employee sees the state-determined resource allocation as a difficult issue for every Chinese NOC. In particular, it does not matter how much money the company brings to the country, this money is taken from it. To receive state investment, companies must request funds from the state, and this process is neither easy nor quick, as Sinopec employees Cheng Shiwen and Yuan Juan both cite.

One example of successful SOE marketization is the transformation of the Ministry of Railways into a railway corporation. The transition was a fully state-run gradual marketization

during which the state promoted marketization, fostered multi-component business-models, private enterprises, and joint ventures, but also ensured that the SOEs were competitive in the market environment (Pang Changwei)

China has undertaken marketization very slowly. In this pursuit, the globalizing world economy is an obstacle forcing companies to keep up despite a lack of institutional and management resources (Dong Xiu-cheng). Baisuo Zhu stresses that after China joined the WTO there was a trend towards marketization of NOCs. Now, however, it mostly concerns the many and various foreign projects of NOCs, which now number nearly as many as the domestic projects. Marketization, in the sense of independence from state policies, is a question of gradual and careful reform that is not currently possible.

Chinese NOCs are vertically integrated companies, meaning they integrate downstream and upstream lines of operation. Upstream activity is capital intensive; immature private enterprises would hardly be able to afford it. Downstream activity is closely connected to sales and marketing, pushing NOCs to seek market-oriented mechanisms for effective distribution. In terms of NOC marketization, there is potential for reintegration, i.e. marketization of downstream activities while leaving upstream to state control and state support. This would make sense as distribution does need large investment and is very close to market with its potential for competition and privatization. Marketization of downstream industries would also benefit consumers by injecting competition in consumer price for petroleum (Zhou Ji).

According to Dong Xiu-Cheng, the marketization of SOEs up to a market opening is unlikely. It would be related to too many issues - from national resources security up to workers lay-offs because in case of marketization SOEs should put more attention at the quality of workers, rather than quantity. If not for some extreme measures, NOCs would not be able to be competitive with mature international oil companies. At the moment I may observe the competition between two NOCs - Sinopec and PetroChina - for downstream

market in China. Each tries to be more effective in order to gain greater profits (Dong Xiu-cheng).

In terms of methods of marketization, Prof. Pang Changwei expressed an opinion that it was not correct to divide an enterprise into the "successful" part that could go for a listing and the "low efficient" one, that would have been to be left apart. This strategy would not have helped developing corporate governance in China. The best would have been to run the low efficient enterprises through the corporatization as well, so that they could have got a chance to change the corporate governance practices and increase efficiency.

Dong Xiu-cheng, adds that the hardest issue of marketization of modern SOEs is property rights. There is no protection of property right of a listed SOE that would be performed on an institutional level. And if there is no clear understanding who owns the assets and in what proportion can participate in a decision-making process, marketization cannot move forward.

One particular problem is domestic oil pricing mechanism. NOCs have to balance between fully liberalized market oil prices and state-controlled domestic oil prices. There is a vivid marketization towards domestic oil pricing mechanism, it gets easily and faster adjusted towards international prices. The original oil pricing mechanism provided by NDRC contained the regulation of adjusting domestic oil price in case of market price 4% fluctuation within the 22 days period. Nowadays there are only 10 days period and no strict fluctuation percentage. Still there is a price cap, i.e. the highest price possible is still determined by the state. This is linked to a high interrelation among oil and other industries, i.e. automotive, construction (Zhou Ji). The Chinese government was committed to loose the control over the oil prices as a part of the WTO request. However, the liberalization that took place in 1998 concerned only the crude oil prices. The price for refineries products and petroleum products remained under the state control. That led to a major losses of the refinery companies due to the high international oil prices (that they needed to adjust to) and low domestic prices that

they were prescribed to sell their products for. The State was regularly covering these losses by major subsidies, but that could hardly do any good to the marketization process (De Jongi, 2008).

Considering employees level, in case of full marketization of SOEs lots of employees will have to deal with market uncertainties such as price fluctuations and so on and will not anymore be protected by socialistic state. Considering a huge number of people employed by major SOEs that can become a very dangerous outcome of a privatization (Xieshuang Ling).

Baisuo Zhu believes that there is some process of a very slow marketization, but it will take many years before SOEs in general and NOCs in particular will be competitive on a domestic market. Dong Xiu-cheng also agrees that NOCs are moving towards marketization. This marketization, however, is a part of governmental reforms that started back in 90s and slowed down with the crisis. The economic crisis of 2008 lead to strengthening of governmental control over NOCs. Private sector got a higher negative impact of the crisis, but the governmental intervention into NOCs operations let them stay relatively stable during the economic recession. And as soon as SOEs in general and NOCs in particular secure social stability, it was especially important to keep them operational (Baisuo Zhu).

The marketization, however, manifested not only by higher profits of NOCs, but also by changes in corporate governance and pricing mechanisms. In corporate governance there is a stronger separation between owners and managers, petrol prices are also getting more market-oriented (even though there still exist certain challenges in this sphere, see De Jongi, 2008). These signs of marketization in an energy sector are very vivid.

Chapter 9. Findings and conclusion

In this chapter I present answers to my research questions and conclude the results of my research. First I discuss the role of private shareholders in NOCs in terms of agency theory—what are the variants that exist for the shareholders in a role of a second principal along with the main shareholder (a mother NOC).

9.1. Private shareholders and the decision-making process

The number of private shareholders in Chinese listed NOCs has steadily increased since their IPOs. There now exist several possibilities for private shareholders participate in the decision-making process of NOCs. The Corporate Law of 2005 was amended to grant minor shareholders more rights, which were interpreted and elaborated in each NOCs Articles of Association and Annual Reports. I observe that the NOCs themselves award more rights to their minor shareholders than the Corporate Law (Wang, 2018).

In theory, is interesting that it is only the Corporate Law that codifies the shareholders' rights according to the number of shares. In practice, however, there are three sources that mention shareholders' rights and all mention different amounts of shares. For instance, in 2004 the Chinese Corporate Law states 5% of shares as the minimal amount for participation in a decision-making process and 30% as the margin to be considered a controlling shareholder. In 2007 for the first time the Corporate Law includes participation rights for shareholders with 1% and 3% of shares. However, the NOCs Articles of Association grant shareholders with 1% and 5% of shares nominating rights (i.e. the right to nominate the independent and non-independent director), not mentioning adding intermediate rights to those with 3% beginning in 2009. But even after mentioning the shareholders with 3% and 5% of shares, the Articles of Association do not list all rights for holders in those categories (for example making propositions to the Agenda of the General Meeting, or initiating a court

investigation). According to the NOCs' Articles of Association, private shareholders can nominate independent non-executive director (1%), nominate an executive director and make propositions at the Board Meeting (3%), present and vote at the Board Meeting (5%) and convey a Board Meeting (10%), rights not granted by the Corporate Law.

In the end, NOCs obviously cannot influence the Corporate Law, but they do grant additional rights for their private shareholders through the Articles of Association. At the same time, some rights encoded in the Corporate Law are omitted in the corporate Annual Reports. Altogether hardly any Annual Reports articulate the realization of those shareholders rights at the General Meeting, even though there are categories of shareholders that are qualified for participation in the decision-making process.

The Articles of Association of NOCs grant nominating rights for the shareholders with 1% and 3% of shares. That means that throughout the IPO there are enough shareholders (Warren Buffet, JP Morgan, Exxon Mobil, etc.) to execute those rights. However, there are no records of such a nomination.

The independent, non-executive directors normally present a quarter of all the directors at the Board and are mentioned almost in every Annual Report as an "approving power". They present their own reports that differ little from year to year, and only confirm the legal basis of deals and witnessing the money transfers back and forth between parent NOC and the listed daughter corporation. For this activity they receive a considerable payment compared to that of other directors, and a contract that is prolonged on a 3-5 year basis.

The voting system at the General Meeting has also been altered in favor of minor shareholders. Minor shareholders have their shares recounted according to the number of candidates to be elected. So the shareholders with 1 million shares that should have 5 candidates elected, vote with 5 million shares and take part in all rounds of voting. However,

the permission to exercise this action has also not shown any big response from minor shareholders either.

9.2. Private shareholders and the welfare of employees

Throughout the years of listing years all three NOCs showed different patterns for employee policy. The Sinopec Group planned to reduce its workforce, a plan fulfilled by cutting 30% of the original employees. The reduction decision was made in response to ‘market forces’, and provides a good illustration of marketization. However, the cutback was primarily achieved by enacting a hiring freeze while allowing numbers to attrite naturally through worker retirement; 87% of all lay-offs were fulfilled this way. The two other NOCs increased their labor force from the starting numbers of the listed period, which one may likewise consider a response to ‘market forces’ as increased activities required more workers.

Each NOC’s Public Welfare Fund represented the earmarked expenses to cover employees’ needs. Originally, the PRC Accounting Rules and Regulations required a transfer (upon approval of the Board) of 5%-10% of corporate profits to the Public Welfare Fund; constant 10% of profits was approved and transferred to the fund, with the transfers made before the pay out of shareholders’ dividends. This fund was exclusively reserved for employees’ needs, e.g. building dormitories, kindergartens, and so on. In 2006, however, the whole fund was transferred to another account on the balance of the company, the Statutory Surplus Welfare Fund. There is essentially no difference between the two funds regarding their basic purpose, but the Statutory Surplus Fund extends into a broader mandate, including to cover budget deficits in case of losses up to the ability to issue new shares. As a result, the only Article of Balance mentioned as allotted solely for employee needs becomes the “ancillary expenses”. The amounts allocated to the Ancillary Expenses are covered on demand and are substantially lower than the amount spent under the Public Welfare Funds.

All three NOCs showed different spending patterns for employees' needs. CNOOC did not change its policy regarding the Public Welfare Fund; it has continued to transfer 9,5% of profits for employee support from the beginning of listing up to 2015. PetroChina initially required the prescribed 5%-10% of profits to be transferred to the Public Welfare Fund, but cancelled the policy in 2006. The Ancillary Fund, which replaced it in the role to fulfill employee needs, received only 1,5-4% of profits, excepting an outstanding donation of 12% in 2015. Sinopec showed similar pattern of transfer, requiring 10% of profits allocation to the Public Welfare Fund up to 2007 then 3-12% to the Ancillary Services Fund thereafter.

The regression analysis of the relation between the number of Private Shareholders and the amount spent for the Public Welfare Fund showed different kinds of interrelation between these two indicators for each of the NOCs. In PetroChina there was no influence of the percentage of Private Shareholders detected over the expenses for Social Services, even though the general model with expenses for Social Services and Number of employees as a function from the amount of Private Shareholders was statistically significant. The Number of Employees was changing in line with the changes in a number of Private Shareholders, reflecting gradual marketization process in a NOC. In Sinopec, both the Number of Employees and the Expenses for Social Services showed dependence on the number of Private Shareholders. In CNOOC the Expenses for Social Services hasn't been changing within 15 years of listing, but the Number of Employees was gradually changing in line with the percentage of the Private Shareholders. This reveals a pattern of a gradual interdependence between successful listing (obtaining the Second Principal) and marketization process reflected by changing Employment plans in all three NOCs.

9.3. Private shareholders and agency theory

There are three ways to determine the second principal in a NOC. First, the second principal is the one who, together with the main principal, owns part of the company. At first

glance, all non-parent shareholders (up to 35% as in case of CNOOC) can automatically be identified as a second principal. However, this “Big Private Shareholder” consists of a number of unknown shareholders, each with less than 1% of shares and represented by Hong Kong Clearing House (HKSCC Nominees Ltd.). Theoretically, all these shareholders could form a collective shareholder and automatically obtain lots of rights, under the Corporate Law and the Articles of Association; both documents encode rights for requests and actions by collective shareholders. Still, there is no record that any private shareholders ever tried to present as a collective power at a General Meeting.

A second approach would be to identify a second principal by voting power. Each of the NOCs has shareholders qualified for voting. However, even though these shareholders have rights under both the Corporate Law and NOCs’ Articles of Association, there is again no record of shareholders choosing to manifest these rights. Nobody ever questioned the qualification and role of independent directors; there have been no requests for any legal procedures; and none of the NOCs’ deals have been disapproved.

One may not claim, however, that the second principal does not exist or is left completely out of decision-making process. On the contrary, there is a tendency for these second principals to gain more rights as granted by the Corporate Law and Articles of Association. However, there no record of the qualifying shareholders either using their existing rights or forming a collective shareholder. Therefore, though realized and endowed to act, the second principal chooses to stay passive.

There are two remarkable points considering the rights of a second principal: it appears to be protected and expanded by both the agent (the NOCs’ management) and the first principal (the major shareholder). Even though the second principal does not exercise its decision-making power or utilize existing opportunities for action, the agent grants the second principal these ‘extra’ rights. The first principal, i.e. the major shareholder, in its turn takes even more pronounced action for the second principal’s rights protection. First, by altering

the voting procedure to grant minor shareholder more voting power. Then, by changing the employee welfare fund. By ceasing the requirement for NOCs to transfer profits to employees but covering employee costs on demand, the profits that were formerly used internally are instead included in the dividends to minor shareholders. One may assume that this might be done to improve the investment climate in order to gain profits, but the regression analysis shows that dividends grows together with the oil price and NOCs' profits and are not connected to the emergence or expansion of private shareholders.

9.4. General patterns of NOCs' marketization

The non-parent shareholder of a NOC is a second principal de jure, but not de facto. In practice, the privatization of NOCs led to the formation of a class of owners that reign but do not rule. They are regularly and constantly mentioned in the company Annual Reports as the main target of corporate governance and financial enhancements. There are two main reasons that lead to this situation: strict regulations of the parent company when it comes to voting rights, and dispersed ownership.

Even though there have been some changes in the voting procedures, the shareholders—even those with more than 10% of shares—still do not have real influence over the decision-making process. Dispersed ownership by itself is a problem for an adequate decision-making and setting responsibilities. In the case of Sinopec and PetroChina I may speak about a collective shareholder represented by the HKSCC and in possession of more than 10% of shares. Theoretically, that a stake of that proportion could encourage all parties to act together at the Board Meeting of Shareholders and influence the decision-making process. However, that does not happen. Shareholders with the greatest proportion of shares usually possess no more than 3.5%, whereas other parties may have less than 1%. Even though a possibility that minor shareholders could decide to act together in front of the Board does exist, they do not exercise this opportunity.

This behavior corresponds to the opinion of one of the interviewees: that minor shareholders are not interested in obtaining decision-making rights, but invest merely to gain profits. However, the MANOVA for Dividend and Diluted Earnings per Share as well as for the Net Profits showed significant interdependence with the percentage of Private Shareholders only in PetroChina. Even though in Sinopec the overall model showed statistical significance, there was no sound influence over three financial indicators measured separately. Financially, CNOOC showed some influence of the percentage of Private Shareholders over the Net Profits, but almost linear interdependence between the Net Profits and OPEC oil price.

The 2005 amendments to the Corporate Law introduced to listed NOCs a new period of corporate governance. Its main characteristics are:

1. NOCs' partial release from socialistic duties. After 2006 Sinopec and PetroChina stopped making annual payments to the Employee Welfare Fund. Even though the regression analysis showed that this was unrelated to private shareholders in the companies, the action appears to have been in favor of private shareholders. The amount previously transferred to the fund was rolled into the dividends from which the shareholders were paid.

2. Increased rights in the decision-making process of listed SOEs for minor shareholders. In PetroChina the Articles of Association were approved in 1999 and have since been amended nine times. Still, there is a certain confusion regarding minor shareholders' rights. Some rights, mentioned in the Articles of Association are presented in neither the Annual Reports nor the Form-20 reports.

The regression analysis showed several trends for all three Chinese NOCs. First, there is no significant correlation between the number of non-parent shareholders and expenses for social services. Also, in two of three NOCs the number of employees increased. Second, there is a correlation between the number of private shareholders and net profits. However, a

stronger correlation overshadows this one, showing the relationship between net profits and the world oil prices. Thus, one may conclude that the rise in the number of non-parent shareholders and net profits are parallel but not consequential processes.

Although a separate company, the listed NOC is seen as a part of a parent NOC. This leads to a tendency to mix up the processes happening between the two entities. However, the processes are not the same. The state works on a marketization of listed companies, creating a better investment climate and encouraging progress towards good corporate governance (Lin, 2011). The companies themselves amend their Articles of Association in favor of private shareholders. This creates catalyzes change in corporate governance practices in the parent NOC.

One must differentiate the two entities to observe the interactive tendencies and relationship between parent NOCs (as SOEs) and listed NOCs. One may conclude that listed NOCs in fact become leaders for change for the marketization of their parent NOCs'. The corporate governance of listed NOCs, which navigate legislation in favor of their private shareholders, results in a positive effect on parent NOCs. This represents the meeting of two waves of corporate governance: the State runs IPOs and develops corporate governance in order to create a beneficent climate for investment, which in turn receives a positive effect from the listed NOCs. This positive effect manifests itself not only in increased value and profits of NOCs, but also by development of good management practices and employee efficiency.

Appendix

1. Detailed statistical analysis of multivariate and multiple regression models on various financial and non-financial parameters of PetroChina

1.1. Multivariate regression analysis on the number of Employees and Expenses for Social Services as a function from the number of Private Shareholders, PetroChina

1.1.1. Descriptive Statistics

Descriptive Statistics

H-shares		Mean	Std. Deviation	N
Employees	10,00	425033,6000	9646,06766	5
	11,37	551287,6667	2540,38114	3
	11,38	534867,2500	9667,74849	4
	11,40	477780,0000		1
	11,44	466502,0000		1
	11,79	442755,0000	4999,24494	2
	Total	484268,2500	55229,50878	16
Social services	10,00	9,6000	2,88097	5
	11,37	3,1000	0,70000	3
	11,38	4,9750	4,70487	4
	11,40	2,0000		1
	11,44	1,5000		1
	11,79	6,6000	0,14142	2
	Total	5,8688	3,92882	16

1.1.2. Box's Test of Equality of Covariance Matrices

Box's M	21,379
F	2,275
df1	6
df2	578,405
Sig.	0,035

Tests the null hypothesis that the observed covariance matrices of the dependent variables are

equal across
groups. a.
Design:
Intercept +
Hshares

1.1.3. Multivariate Tests

		Multivariate Tests ^a					
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	1,000	18603,403 ^b	2,000	9,000	0,000	1,000
	Wilks' Lambda	0,000	18603,403 ^b	2,000	9,000	0,000	1,000
	Hotelling's Trace	4134,090	18603,403 ^b	2,000	9,000	0,000	1,000
	Roy's Largest Root	4134,090	18603,403 ^b	2,000	9,000	0,000	1,000
Hshares	Pillai's Trace	1,367	4,324	10,000	20,000	0,003	0,684
	Wilks' Lambda	0,009	17,221 ^b	10,000	18,000	0,000	0,905
	Hotelling's Trace	68,631	54,905	10,000	16,000	0,000	0,972
	Roy's Largest Root	68,013	136,026 ^c	5,000	10,000	0,000	0,986

a. Design: Intercept + Hshares

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

1.1.4. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Employees	45063997516,383 ^a	5	9012799503,277	130,529	0,000	0,98
	Social services	130,927 ^b	5	26,185	2,603	0,093	0,56
Intercept	Employees	2558287658515,060	1	2558287658515,060	37050,746	0,000	1,00
	Social	234,960	1	234,960	23,354	0,001	0,70

	services						
shares	Employees	45063997516,383	5	9012799503,277	130,529	0,000	0,98
	Social services	130,927	5	26,185	2,603	0,093	0,56
error	Employees	690482090,617	10	69048209,062			
	Social services	100,608	10	10,061			
total	Employees	3798006286936,000	16				
	Social services	782,610	16				
corrected total	Employees	45754479607,000	15				
	Social services	231,534	15				

. R Squared = ,985 (Adjusted R Squared = ,977)

. R Squared = ,565 (Adjusted R Squared = ,348)

1.2. Multivariate regression analysis on the Diluted Earnings per Share, Dividends per Share and Net Profits as a function from the number of Private Shareholders, PetroChina

1.2.1. Descriptive Statistics

Descriptive Statistics

H-shares		Mean	Std. Deviation	N
Diluted earning per share (3)	10,00	0,3700	0,13398	5
	11,37	0,7067	0,06807	3
	11,38	0,5125	0,22456	4
	11,40	0,6300		1
	11,44	0,8200		1
	11,79	0,7800	0,02828	2
	Total	0,5644	0,20916	16
Dividend per share, RMB	10,00	0,1580	0,06140	5
	11,37	0,3133	0,03055	3
	11,38	0,2250	0,09434	4
	11,40	0,2800		1
	11,44	0,3500		1
	11,79	0,3400	0,01414	2
	Total	0,2463	0,09222	16
Net profits, bln rmb	10,00	64,4794	23,88856	5
	11,37	129,4263	12,70721	3

	11,38	93,9188	40,61667	4
	11,40	114,4530		1
	11,44	146,7960		1
	11,79	138,9395	6,44669	2
Total	101,5924	38,33299		16

1.2.2. Box's Test of Equality of Covariance Matrices

Box's Test of Equality of Covariance Matrices^a

Box's M	13,763
F	1,152
df1	6
df2	289,487
Sig.	0,332

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Hshares

1.2.3. Multivariate Tests

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0,951	52,309 ^b	3,000	8,000	0,000	0,951
	Wilks' Lambda	0,049	52,309 ^b	3,000	8,000	0,000	0,951
	Hotelling's Trace	19,616	52,309 ^b	3,000	8,000	0,000	0,951
	Roy's Largest Root	19,616	52,309 ^b	3,000	8,000	0,000	0,951
Hshares	Pillai's	1,764	2,855	15,000	30,000	0,007	0,588

Trace							
Wilks' Lambda	0,025	4,225	15,000	22,486	0,001	0,709	
Hotelling's Trace	12,799	5,688	15,000	20,000	0,000	0,810	
Roy's Largest Root	10,883	21,767 ^c	5,000	10,000	0,000	0,916	

a. Design: Intercept + Hshares

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

1.2.4. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Diluted earning per share (3)	,423 ^a	5	0,085	3,629	0,039	0,645
	Dividend per share, RMB	,084 ^b	5	0,017	3,819	0,034	0,656
	Net profits, bln rmb	14444,969 ^c	5	2888,994	3,803	0,034	0,655
Intercept	Diluted earning per share (3)	4,442	1	4,442	190,547	0,000	0,950
	Dividend per share, RMB	0,846	1	0,846	192,873	0,000	0,951
	Net profits, bln rmb	144171,126	1	144171,126	189,791	0,000	0,950
Hshares	Diluted earning per share (3)	0,423	5	0,085	3,629	0,039	0,645
	Dividend per share, RMB	0,084	5	0,017	3,819	0,034	0,656
	Net profits, bln rmb	14444,969	5	2888,994	3,803	0,034	0,655
Error	Diluted earning per share (3)	0,233	10	0,023			
	Dividend per share, RMB	0,044	10	0,004			
	Net profits, bln rmb	7596,301	10	759,630			
Total	Diluted earning per share (3)	5,753	16				

	Dividend per share, RMB	1,098	16			
	Net profits, bln rmb	187177,644	16			
Corrected Total	Diluted earning per share (3)	0,656	15			
	Dividend per share, RMB	0,128	15			
	Net profits, bln rmb	22041,270	15			

a. R Squared = ,645 (Adjusted R Squared = ,467)

b. R Squared = ,656 (Adjusted R Squared = ,484)

c. R Squared = ,655 (Adjusted R Squared = ,483)

1.3. Multiple Regression analysis on the Net Profits as a function from Oil Price and

Private Shareholders, PetroChina

1.3.1. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,741 ^a	0,550	0,480	27,63134

a. Predictors: (Constant), OPEC oil price, H-shares

1.3.2. ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12115,888	2	6057,944	7,935	,006 ^b
	Residual	9925,382	13	763,491		
	Total	22041,270	15			

a. Dependent Variable: Net profits, bln rmb

b. Predictors: (Constant), OPEC oil price, H-shares

1.3.3. Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-204,305	144,479		-1,414	0,181
	H-shares	25,515	14,402	0,473	1,772	0,100
	OPEC oil	0,394	0,325	0,324	1,213	0,247

a. Dependent Variable: Net profits, bln rmb

2. Detailed statistical analysis of multivariate and multiple regression models on various financial and non-financial parameters of Sinopec

2.1. Multivariate regression analysis on the number of Employees and Expenses for Social Services as a function from the number of Private Shareholders, Sinopec

2.1.1. Descriptive Statistics

Descriptive Statistics

H-shares		Mean	Std. Deviation	N
Employees	24.16	359251,6667	18032,03961	6
	24.21	376201,0000		1
	26.53	358571,0000		1
	26.59	368953,0000		1
	28.80	364528,0000		1
	29.14	351019,0000		1
	32.08	389451,0000		1
	43.10	506168,0000		1
	44.94	421064,0000	21730,65100	3
	Total	383349,5625	42984,53619	16
Social	24.16	4,5017	1,19339	6
	24.21	6,3200		1
	26.53	14,2400		1
	26.59	10,0600		1
	28.80	4,5300		1
	29.14	20,9700		1
	32.08	5,3900		1
	43.10	12,7300		1
	44.94	11,8767	2,25633	3
	Total	8,5550	5,07504	16

2.1.2. Box's Test of Equality of Covariance Matrices

Box's Test of Equality of Covariance Matrices^a

Box's M	5,933
F	1,161

df1	3
df2	280,624
Sig.	0,325

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Hshares

2.1.3. Multivariate Tests

Multivariate Tests ^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0,999	2786.944 ^b	2,000	6,000	0,000	0,999
	Wilks' Lambda	0,001	2786.944 ^b	2,000	6,000	0,000	0,999
	Hotelling's Trace	928,981	2786.944 ^b	2,000	6,000	0,000	0,999
	Roy's Largest Root	928,981	2786.944 ^b	2,000	6,000	0,000	0,999
Hshares	Pillai's Trace	1,882	13,997	16,000	14,000	0,000	0,941
	Wilks' Lambda	0,002	16.020 ^b	16,000	12,000	0,000	0,955
	Hotelling's Trace	56,835	17,761	16,000	10,000	0,000	0,966
	Roy's Largest Root	47,533	41.591 ^c	8,000	7,000	0,000	0,979

a. Design: Intercept + Hshares

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

2.1.4. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Employees	25144840622.604 ^a	8	3143105077,826	8,560	0,005	0,90
	Social	369.038 ^b	8	46,130	18,662	0,000	0,95
Intercept	Employees	1628862619028,150	1	1628862619028,150	4436,220	0,000	0,99
	Social	1094,891	1	1094,891	442,944	0,000	0,98
Hshares	Employees	25144840622,604	8	3143105077,826	8,560	0,005	0,90
	Social	369,038	8	46,130	18,662	0,000	0,95
Error	Employees	2570214649,333	7	367173521,333			
	Social	17,303	7	2,472			
Total	Employees	2379025248375,000	16				
	Social	1557,349	16				
Corrected Total	Employees	27715055271,938	15				
	Social	386,341	15				

a. R Squared = ,907 (Adjusted R Squared = ,801)

b. R Squared = ,955 (Adjusted R Squared = ,904)

2.2. Multivariate regression analysis on the Dilited Earnings per Share, Dividends per Share and Net Profits as a function from the number of Private Shareholders, Sinopec

2.2.1. Descriptive Statistics

	Descriptive Statistics			
	H-shares	Mean	Std. Deviation	N
Dividend per share, RMB	24.16	.1800	.06293	6
	24.21	.3000	.	1
	26.53	.2000	.	1
	26.59	.2400	.	1
	28.80	.1200	.	1
	29.14	.1500	.	1
	32.08	.1200	.	1
	43.10	.0800	.	1
	44.94	.0833	.00577	3
Total		.1588	.07173	16
Diluted earning per share	24.16	.6400	.18319	6
	24.21	.7000	.	1
	26.53	.4000	.	1
	26.59	.5400	.	1
	28.80	.4800	.	1
	29.14	.2600	.	1
	32.08	.3700	.	1

	43.10	.1900	.	1
	44.94	.1767	.02887	3
	Total	.4569	.23001	16
Net profit, RMB millions	24.16	56494.666 7	15562.1142 4	6
	24.21	63496.000 0	.	1
	26.53	47430.000 0	.	1
	26.59	67179.000 0	.	1
	28.80	39558.000 0	.	1
	29.14	32207.000 0	.	1
	32.08	32275.000 0	.	1
	43.10	19584.000 0	.	1
	44.94	16385.666 7	2464.87025	3
	Total	43115.875 0	20422.9341 2	16

2.2.2. Multivariate Tests

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0,964	45.123 ^b	3,000	5,000	0,000	0,964
	Wilks' Lambda	0,036	45.123 ^b	3,000	5,000	0,000	0,964
	Hotelling's Trace	27,074	45.123 ^b	3,000	5,000	0,000	0,964
	Roy's Largest Root	27,074	45.123 ^b	3,000	5,000	0,000	0,964
Hshares	Pillai's Trace	2,282	2,781	24,000	21,000	0,010	0,761
	Wilks' Lambda	0,004	3,457	24,000	15,103	0,008	0,836
	Hotelling's Trace	26,181	4,000	24,000	11,000	0,010	0,897

Roy's Largest Root	21,330	18.664 ^c	8,000	7,000	0,000	0,955
--------------------------	--------	---------------------	-------	-------	-------	-------

- a. Design: Intercept + Hshares
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

2.2.3. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Dividend per share, RMB	.057 ^a	8	0,007	2,524	0,120	0,743
	Diluted earning per share	.624 ^b	8	0,078	3,222	0,070	0,786
	Net profit, RMB millions	5033395405.750 ^c	8	629174425,719	3,601	0,054	0,805
Intercept	Dividend per share, RMB	0,289	1	0,289	101,980	0,000	0,936
	Diluted earning per share	1,882	1	1,882	77,724	0,000	0,917
	Net profit, RMB millions	18710953682,726	1	18710953682,726	107,090	0,000	0,939
Hshares	Dividend per share, RMB	0,057	8	0,007	2,524	0,120	0,743
	Diluted earning per share	0,624	8	0,078	3,222	0,070	0,786
	Net profit, RMB millions	5033395405,750	8	629174425,719	3,601	0,054	0,805
Error	Dividend per share, RMB	0,020	7	0,003			
	Diluted earning per share	0,169	7	0,024			
	Net profit, RMB millions	1223048168,000	7	174721166,857			
Total	Dividend per share, RMB	0,480	16				

	Diluted earning per share	4,133	16			
	Net profit, RMB millions	36000102406,000	16			
Corrected Total	Dividend per share, RMB	0,077	15			
	Diluted earning per share	0,794	15			
	Net profit, RMB millions	6256443573,750	15			

a. R Squared = ,743 (Adjusted R Squared = ,448)

b. R Squared = ,786 (Adjusted R Squared = ,542)

c. R Squared = ,805 (Adjusted R Squared = ,581)

2.3. Multiple Regression analysis on the Net Profits as a function from Oil Price and

Private Shareholders, Sinopec

2.3.1. Model Summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 ^a	0,748	0,709	11018,49928

a. Predictors: (Constant), H-shares, OPEC oil price

b. Dependent Variable: Net profit, RMB millions

2.3.2. ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4678148329,525	2	2339074164,763	19,266	.000 ^b
	Residual	1578295244,225	13	121407326,479		
	Total	6256443573,750	15			

a. Dependent Variable: Net profit, RMB millions

b. Predictors: (Constant), H-shares, OPEC oil price

2.3.3. Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF

1	(Constant)	67667,787	25729,488		2,630	0,021		
	OPEC oil price	236,557	152,008	0,365	1,556	0,144	0,352	2,837
	H-shares	-1293,878	558,812	-0,543	-2,315	0,038	0,352	2,837

a. Dependent Variable: Net profit, RMB millions

3. Detailed statistical analysis of multivariate and multiple regression models on various financial and non-financial parameters of CNOOC

2.2. Multivariate regression analysis on the number of Employees and Expenses for Social Services as a function from the number of Private Shareholders, CNOOC

2.2.1. Descriptive Statistics

Descriptive Statistics

Corporate and private shareholders		Mean	Std. Deviation	N
Social	29,36	9,5000		1
	29,39	9,5000	0,00000	4
	33,59	9,5000	0,00000	2
	35,55	9,5000	0,00000	3
	35,56	9,5000	0,00000	3
	35,59	9,5000	0,00000	3
	Total	9,5000	0,00000	16
Number of employees	29,36	2524,0000		1
	29,39	1645,5000	714,13047	4
	33,59	2812,5000	164,75588	2
	35,55	6696,6667	2937,90441	3
	35,56	17851,6667	3055,96570	3
	35,59	3630,3333	367,69598	3
	Total	6204,1875	6245,20296	16

2.2.2. Multivariate Tests

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0,922	119,031 ^b	1,000	10,000	0,000	0,922
	Wilks' Lambda	0,078	119,031 ^b	1,000	10,000	0,000	0,922
	Hotelling's Trace	11,903	119,031 ^b	1,000	10,000	0,000	0,922
	Roy's	11,903	119,031 ^b	1,000	10,000	0,000	0,922

	Largest Root						
Corporateandprivate shareholders	Pillai's Trace	0,935	28,981 ^b	5,000	10,000	0,000	0,935
	Wilks' Lambda	0,065	28,981 ^b	5,000	10,000	0,000	0,935
	Hotelling's Trace	14,490	28,981 ^b	5,000	10,000	0,000	0,935
	Roy's Largest Root	14,490	28,981 ^b	5,000	10,000	0,000	0,935

a. Design: Intercept + Corporateandprivateshareholders

b. Exact statistic

2.2.3. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Social	,000 ^a	5	0,000			
	Number of employees	547270490,938 ^b	5	109454098,188	28,981	0,000	0,935
Intercept	Social	1181,455	1	1181,455			1,000
	Number of employees	449553629,253	1	449553629,253	119,031	0,000	0,922
Corporateandprivate shareholders	Social	0,000	5	0,000			
	Number of employees	547270490,938	5	109454098,188	28,981	0,000	0,935
Error	Social	0,000	10	0,000			
	Number of employees	37767909,500	10	3776790,950			
Total	Social	1444,000	16				
	Number of employees	1200909481,000	16				
Corrected Total	Social	0,000	15				
	Number of employees	585038400,438	15				

a. R Squared = . (Adjusted R Squared = .)

b. R Squared = ,935 (Adjusted R Squared = ,903)

2.2. Multivariate regression analysis on the Dilited Earnings per Share, Dividends per Share and Net Profits as a function from the number of Private Shareholders, CNOOC

2.2.4. Descriptive Statistics

Descriptive Statistics

Corporate and private shareholders		Mean	Std. Deviation	N
Dividend per share, RMB	29,36	0,0500		1
	29,39	0,3520	0,43079	4
	33,59	0,0875	0,05020	2
	35,55	0,2833	0,03512	3
	35,56	0,2967	0,04041	3
	35,59	0,1703	0,00981	3
	Total	0,2428	0,22025	16
Diluted earning per share	29,36	0,3900		1
	29,39	0,7825	0,66695	4
	33,59	0,6700	0,08485	2
	35,55	1,4033	0,17559	3
	35,56	1,0200	0,49568	3
	35,59	0,7900	0,17578	3
	Total	0,9063	0,46307	16
Net profit, RMB millions	29,36	16139,0000		1
	29,39	9739,7500	1511,83230	4
	33,59	28124,5000	3961,91929	2
	35,55	62785,0000	7961,75584	3
	35,56	45695,3333	22111,45102	3
	35,59	35039,3333	8133,38099	3
	Total	33869,1250	21448,86027	16

2.2.5. Multivariate Tests

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0,922	31,682 ^b	3,000	8,000	0,000	0,922
	Wilks' Lambda	0,078	31,682 ^b	3,000	8,000	0,000	0,922
	Hotelling's Trace	11,881	31,682 ^b	3,000	8,000	0,000	0,922
	Roy's Largest Root	11,881	31,682 ^b	3,000	8,000	0,000	0,922
Corporateandprivateshareholders	Pillai's Trace	1,161	1,263	15,000	30,000	0,284	0,387
	Wilks' Lambda	0,117	1,765	15,000	22,486	0,108	0,511
	Hotelling's Trace	5,251	2,334	15,000	20,000	0,039	0,636
	Roy's Largest	4,781	9,563 ^c	5,000	10,000	0,001	0,827

a. Design: Intercept + Corporateandprivateshareholders

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

2.2.6. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Dividend per share, RMB	,162 ^a	5	0,032	0,575	0,719	0,223
	Diluted earning per share	1,260 ^b	5	0,252	1,288	0,342	0,392
	Net profit, RMB millions	5641334971,167 ^c	5	1128266994,233	8,958	0,002	0,817
Intercept	Dividend per share, RMB	0,559	1	0,559	9,890	0,010	0,497
	Diluted earning per share	9,295	1	9,295	47,508	0,000	0,826
	Net profit, RMB millions	14187382766,730	1	14187382766,730	112,646	0,000	0,918
Corporateandprivateshareholders	Dividend per share, RMB	0,162	5	0,032	0,575	0,719	0,223
	Diluted earning per share	1,260	5	0,252	1,288	0,342	0,392
	Net profit, RMB millions	5641334971,167	5	1128266994,233	8,958	0,002	0,817
Error	Dividend per share, RMB	0,565	10	0,057			
	Diluted earning per share	1,957	10	0,196			
	Net profit, RMB millions	1259469132,583	10	125946913,258			
Total	Dividend per share, RMB	1,671	16				
	Diluted earning per	16,357	16				

	share					
	Net profit, RMB millions	25254686156,000	16			
Corrected Total	Dividend per share, RMB	0,728	15			
	Diluted earning per share	3,217	15			
	Net profit, RMB millions	6900804103,750	15			

a. R Squared = ,223 (Adjusted R Squared = -,165)

b. R Squared = ,392 (Adjusted R Squared = ,088)

c. R Squared = ,817 (Adjusted R Squared = ,726)

2.3. Multiple Regression analysis on the Net Profits as a function from Oil Price and

Private Shareholders, CNOOC

2.3.1. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,972 ^a	0,945	0,937	5381,42410

a. Predictors: (Constant), OPEC oil price, Corporate and private shareholders

2.3.2. ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6524327674,157	2	3262163837,078	112,645	,000 ^b
	Residual	376476429,593	13	28959725,353		
	Total	6900804103,750	15			

a. Dependent Variable: Net profit, RMB millions

b. Predictors: (Constant), OPEC oil price, Corporate and private shareholders

2.3.3. Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Constant)	13092,496	25907,922	0,505	0,622

Corporate and private shareholders	-749,595	902,367	-0,100	-0,831	0,421
OPEC oil price	717,955	81,956	1,055	8,760	0,000

a. Dependent Variable: Net profit, RMB millions

References

Abdullah, H., & Valentine, B. (2009). Fundamental and Ethics Theories of Corporate Governance. *Middle Eastern Finance and Economics*, 4, 88-96.

Ahlstrom, D., & Bruton, G. D. (2009). *International Management: Strategy and Culture in the Emerging World*. Andover, Hampshire: Cengage Learning.

Alchian, A.A. and Demsetz, H. (1972). "Production, Information Costs and Economic Organization". *American Economic Review*, 62, 772-795.

American Psychological Association. (2010). *Publication manual of the American psychological association (6th Edition)*. Washington. DC: American Psychological Association.

Andrews-Speed, C. P. (2004). *Energy Policy and Regulation in the People's Republic of China*. Alphen aan den Rijn, Netherlands: Kluwer Law International.

Ang, J. S., Cole, R. A., & Lin, J. W. (2000). *Agency costs and ownership structure*. *The Journal of Finance*, 55(1), 81-106.

Antill, N., & Arnott, R. (2000). *Valuing Oil and Gas Companies: A Guide to the Assessment and Evaluation of Assets, Performance and Prospects*. Amsterdam, Netherlands: Elsevier.

Bai, C.-E., & Wang, Y. (1998). *Bureaucratic Control and the Soft Budget Constraint*. *Journal of Comparative Economics*, 26(1), 41–61.

Bai, C.-E., Liu, Q., Lu, J., Song, F. M., & Zhang, J. (2004). *Corporate governance and market valuation in China*. *Journal of Comparative Economics*, 32(4), 599–616.

Baker, G., Jensen, M. and Murphy, K. (2008). *Compensation and Incentives: Practice vs. Theory*. *The Journal of Finance*, 43, 593–616.

Bamberg, G., Ballwieser, W., Spremann, K., Bamberg, G., Beckmann, M. J., Bester, H., Firchau, V. (2012). *Agency Theory, Information, and Incentives*. New York: Springer Science and Business Media.

Banks, E. (2005). *Exchange-Traded Derivatives*. Singapore: Wiley.

Barham, S. & Braham, E. (2011). *The Practitioner's Guide to the Listing Rules of the Hong Kong Stock Exchange*. Voorburg, Netherlands: International Statistical Institute Seminars & Publications.

Becht, M., Bolton, P., & Roell, A. (2002). *Corporate Governance and Control*. *Handbook of the Economics of Finance*, 1, 1–109.

Broadman, Harry G. (2007). *Africa's silk road: China and India's new economic frontier*. Washington, D.C.: World Bank.

Cameron, A. C., & Windmeijer, F. A. (1997). An R-squared measure of goodness of fit for some common nonlinear regression models. *Journal of econometrics*, 77(2), 329-342.

Carney, D., & Farrington, J. (2005). *Natural Resource Management and Institutional Change*. Abingdon, Oxfordshire: Taylor & Francis.

Chan, K. C., Fung, H., & Liu, Q. (2007). *China's Capital Markets: Challenges from WTO Membership*. Edward Elgar Publishing, Incorporated.

Chandra, A., & Wimelda, L. (2018). *Opportunistic Behavior, External Monitoring Mechanisms, Corporate Governance, and Earnings Management*. *Corporate Governance, and Earnings Management*. *Accounting and Finance Review*, 3(1), 44-52.

Chen, J., & Shi, H. (2002). *The Evolution of the Stock Market in China's Transitional Economy*. Edward Elgar Publishing Limited.

Chen, J., & Thomas, S. C. (2003). *The ups and downs of the PRC securities market*. *China Business Review*, 30(1), 36-36.

Chen, Y., Chen, C., & Chen, W. (2009). *The impact of related party transactions on the operational performance of listed companies in China*. *Journal of Economic Policy Reform*, 12(4): 285–297.

Chen, Z., Xie, S., & Siquan, Z. (2000). *The Extent of Marketization of Economic Systems in China*. New York: Nova Science.

China Stock Market Handbook Editorial Board. (2008). *China stock market handbook*. Harvard: Business Press.

Chinese National Offshore Oil Corporation Company Limited. (2001-2015). *Annual Reports of Chinese National Offshore Oil Corporation Company Limited*. Beijing: Chinese National Offshore Oil Corporation.

Chinese National Offshore Oil Corporation Company Limited. (2001-2015). *Form 20-F Reports of Chinese National Offshore Oil Corporation Company Limited*. Beijing: Chinese National Offshore Oil Corporation.

Chiu, B., & Lewis, M. (2006). *Reforming China's State-owned Enterprises and Banks*. Edward Elgar Publishing.

Claessens, S. and Fan, J. P. H. (2002). *Corporate Governance in Asia: A Survey*. *International Review of Finance*, 3, 71–103.

Clarke, D. C. (2008). *China's Legal System: New Developments, New Challenges*. Cambridge University Press.

Clarke, T. (2003). *Theories of Corporate Governance: The Philosophical Foundations of Corporate Governance*. London and New York: Routledge.

Clarke, Thomas. (2007). *International corporate governance: A comparative approach*. London: Routledge.

Cook, R. D. (1994). On the interpretation of regression plots. *Journal of the American Statistical Association*, 89(425), 177-189.

Creswell, John W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches (4.th ed.)*. Los Angeles: Sage.

Cumming, G. (2013). *Understanding the new statistics: Effect sizes, confidence intervals, and meta-analysis*. Routledge.

Daily, C.M., Dalton, D.R. and Canella, A.A. (2003). "Corporate Governance: Decades of Dialogue and Data". *Academy of Management Review*, 28 (3), 371-382.

Dam, L., & Scholtens, B. (2013). *Ownership concentration and CSR policy of European multinational enterprises*. *Journal of Business Ethics*, 118(1), 117-126.

Dancer, D., & Tremayne, A. (2005). R-squared and prediction in regression with ordered quantitative response. *Journal of Applied Statistics*, 32(5), 483-493.

De Jonge, A. (2008). *Corporate Governance and China's H-share Market*. Cheltenham: Edward Elgar Publishing.

Demougin, D., & Fluet, C. (2001). *Monitoring versus incentives*. *European Economic Review*, 45(9);1741-1764.

Denis, D., McConnell, J. (2003). *International Corporate Governance*. *Journal of Financial and Quantitative Analysis*, 38 (1), 1-36.

Downs, E. S., Mesic, R., Kelley, C. T. J., Bowie, C. J., Buchan, G., & Levoux, H. P. (2000). *China's Quest for Energy Security*. Santa Monica: RAND Corporation.

EIA (U.S. Energy Information Administration; 2015): *China Energy Profile*. Retrieved from: <https://www.eia.gov/beta/international/analysis.cfm?iso=CHN>.

Evans, J. R. (2008). *Quality and Performance Excellence: Management, Organization, and Strategy*. Toronto: Thomson Business and Economics.

Forbes-Pitt, K. (2011). *The Assumption of Agency Theory*. Abingdon, Oxfordshire: Taylor & Francis.

Freedman, D. A. (2009). *Statistical models: theory and practice*. Cambridge University Press.

Gallagher, M. E. (2009). China's older workers: Between law and policy, between laid-off and unemployed. In *Laid-Off Workers in a Workers' State* (pp. 135-158). Palgrave Macmillan, New York.

Garnaut, R., Song, L., & Fang, C. (Eds.). (2018). *China's 40 years of reform and development: 1978–2018*. Canberra, Australia: ANU Press.

Gelman, A. (2016). The problems with p-values are not just with p-values (supplemental material to the ASA statement on p-values and statistical significance). *The American Statistician*, 70(10), 41-54.

Gelman, A., & Loken, E. (2014). The statistical crisis in science: data-dependent analysis - a "garden of forking paths" - explains why many statistically significant comparisons don't hold up. *American scientist*, 102(6), 460-466.

George, G., Dharwadkar, R., & Brandes, P. (2000). *Privatization in emerging economies: An agency theory perspective*. *Academy of Management Review*, 25(3), 650–669.

Goergen, M. (2018). *Corporate governance: a global perspective (1st edition)*. Andover, Hampshire: Cengage Learning EMEA.

Granick, David. (1990). *Chinese state enterprises: A regional property rights analysis*. Chicago: Univ. of Chicago Press.

Gugler, K., & Yurtoglu, B. (2003). *Corporate governance and dividend pay-out policy in Germany*. *European Economic Review*, 47(4), 731–758.

Guislain, P. (1997). *The privatization challenge: A strategic, legal, and institutional analysis of international experience*. Washington, D.C.: The World Bank.

Guo, C., Liangyuan, Y. and Changwen, K. (2007). *Understanding the Chinese stock market*. *Journal of Corporate Accounting and Finance*, 18, 13–20.

Heath, J. (2009). *The Uses and Abuses of Agency Theory*. *Business Ethics Quarterly*, 19(4), 497–528.

Hermalin, B., & Weisbach, M. (2003). *Boards of directors as an endogenously determined institution: a survey of the economic literature*. *Economic Policy Review*, 4, 7-26.

Hermalin, B., & Weisbach, M. (2017). *The Handbook of the Economics of Corporate Governance*. Amsterdam, Netherlands: Elsevier Science.

Holmstrom, B. and Milgrom, P. (1994). *The Firm as an Incentive System*. *The American Economic Review*, 84, 972-991.

Holzner, B., & Holzner, L. (2006). *Transparency in Global Change: The Vanguard of the Open Society*. Pittsburgh: University of Pittsburgh.

Hong Kong Exchanges and Clearing Limited (2015): HKEEx General Rules of CCASS, published on the Services Section of the HKEEx website. Retrieved from:

https://www.hkex.com.hk/Services/Rules-and-Forms-and-Fees/Rules/HKSCC/Rules?sc_lang=en.

Howie, F. J. T., & Walter, C. E. (2011). *Privatizing China: Inside China's Stock Markets*. Hoboken, New Jersey: John Wiley & Sons.

Hu, Y., & Izumida, S. H. (2008). *The Relationship between Ownership and Performance: A Review of Theory and Evidence*. *International Business Research*, 1(4), 72-78.

Huang, F. X., & Yeung, H. (2013). *Chinese Companies and the Hong Kong Stock Market*. Abingdon, Oxfordshire: Routledge.

Huse, M. (2007). *Boards, Governance and Value Creation: The Human Side of Corporate Governance*. Cambridge: Cambridge University Press.

Jensen, Michael C. and Meckling, William H. (1976). *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*. Harvard University Press; *Journal of Financial Economics (JFE)*, 3 (4), 305-360.

Jia, X., & Tomasic, R. (2009). *Corporate Governance and Resource Security in China: The Transformation of China's Global Resources Companies*. Abingdon, Oxfordshire: Routledge.

Jiang, Z.-Q., Zhou, W.-X., Sornette, D., Woodard, R., Bastiaensen, K., & Cauwels, P. (2010). *Bubble diagnosis and prediction of the 2005–2007 and 2008–2009 Chinese stock market bubbles*. *Journal of Economic Behavior & Organization*, 74(3), 149–162.

Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). *Corporate governance in the Asian financial crisis*. *Journal of Financial Economics*, 58(1), 141–186.

Kang, Y., Shi, L. & Brown, E. (2008). *Chinese Corporate Governance: History and Institutional Framework*. Santa Monica, CA: RAND Corporation.

King, M. R., & Santor, E. (2008). *Family values: Ownership structure, performance and capital structure of Canadian firms*. *Journal of Banking & Finance*, 32(11), 2423–2432.

Lemmon, M. L., & Lins, K. V. (2003). *Ownership Structure, Corporate Governance, and Firm Value: Evidence from the East Asian Financial Crisis*. *The Journal of Finance*, 58(4), 1445–1468.

Leng, Jing. (2009). *Corporate governance and financial reform in China's transition economy*. Aberdeen Hong Kong: Hong Kong Univ. Press.

Li, H. and Zhang, Y. (2007). *The role of managers' political networking and functional experience in new venture performance: Evidence from China's transition economy*. *Strat. Mgmt. J.*, 28, 791–804.

Li, W. (2008). *Corporate governance in China: Research and evaluation*. Singapore: Wiley.

Liao, C. (2009). *The Governance Structures of Chinese Firms. Innovation, Technology, and Knowledge Management*. New York: Springer.

Lin, C.-P., & Chuang, C.-M. (2011). *Principal–principal conflicts and IPO pricing in an emerging economy*. *Corporate Governance*, 19, 585– 600.

Lin, Y. (2001). *Between politics and markets: Firms, competition, and institutional change in post-Mao China*. Cambridge: Cambridge University Press.

Lind, J., & Press, D. G. (2018). *Markets or mercantilism? How China secures its energy supplies*. *International Security*, 42(04), 170-204.

Liu, L. (2014). *International Cross-Listing of Chinese Firms*. Hershey: IGI Global.

Mallin, C. (2013). *Corporate governance (4.th ed.)*. Oxford: Oxford Univ. Press.

Mallin, C. (Ed.), (2006). *International corporate governance: A case study approach*. Cheltenham: Elgar.

Mallin, C. (Ed.), (2011). *Handbook on international corporate governance: Country analyses (2.nd ed.)*. Cheltenham: Elgar.

Man, C. & Wong, B. (2013). *Corporate governance and earnings management: A survey of literature*. *Journal of Applied Business Research*, 29(2), 391–418.

Maury, B., & Pajuste, A. (2005). *Multiple large shareholders and firm value*. *Journal of Banking & Finance*, 29, 1813– 1834.

Milidonis, A., & Stathopoulos, K. (2014). *Managerial incentives, risk aversion, and debt*. *Journal of Financial and Quantitative Analysis*, 49(2), 453-481.

Ministry of Finance (2015). *Report of Ministry of Finance, China*. Retrieved from: <http://www.gov.cn/premier/index.htm>.

Nakamura, M. (Ed.), (2008). *Changing corporate governance practices in China and Japan: Adaptations of Anglo-American practices*. Basingstoke: Palgrave Macmillan.

Nathan, A. J., & Scobell, A. (2015). *China's Search for Security*. New York: Columbia University Press.

Naughton, B. & Tsai, K. (Eds.), (2015). *State capitalism, institutional adaptation, and the Chinese miracle*. Cambridge: Cambridge University Press.

OECD (2005). *Corporate governance of State-owned Enterprises*. Paris: OECD

OECD (2009). 'State Owned Enterprises in China: Reviewing the Evidence', Occasional Paper, OECD Working Group on Privatisation and Corporate Governance of State Owned Assets. Paris: OECD.

OECD. (2011). *Corporate Governance of Listed Companies in China. Self-Assessment by the China Securities Regulatory Commission*. Paris: OECD Publishing.

Oi, J. C. (Ed.), (2011). *Going Private in China: The Politics of Corporate Restructuring and System Reform*. Stanford: Walter H. Shorenstein Asia-Pacific Research Center.

OPEC (2016). *Annual Statistical Bulletin of 2015*. Vienna: Organization of the Petroleum Exporting Countries.

Padilla, A. (2000). *Can Agency Theory Justify the Regulation of insider Trading*. *The Quarterly Journal of Australian Economic*, 5(1), 3-38.

Panda, B., & Leepsa, N. M. (2017). *Agency theory: Review of theory and evidence on problems and perspectives*. *Indian Journal of Corporate Governance*, 10(1), 74–95.

PetroChina Company Limited (2001-2015). *Annual Reports of PetroChina Company Limited*. Beijing: PetroChina.

PetroChina Company Limited. (2001-2015). *Form 20-F Reports of PetroChina Company Limited*. Beijing: PetroChina.

Puchniak, D. W., Baum, H., & Nottage, L. (Eds.), (2017). *Independent directors in Asia: a historical, contextual and comparative approach*. Cambridge: Cambridge University Press.

Qi, D., Wu, W., & Zhang, H. (2000). *Shareholding structure and corporate performance of partially privatized firms: Evidence from listed Chinese companies*. *Pacific-Basin Finance Journal*, 8(5), 587–610.

Qian, Y. (1996). *Enterprise reform in China: agency problems and political control*. *Economics of Transition*, 4, 427–447.

Qiu, X. & Li, H. (2012). *Energy Regulation and Legislation in China*. *Environmental Law Reporter*, 42, 10678-693.

Rajagopalan, N., & Zhang, Y. (2008). *Corporate governance reforms in China and India: Challenges and opportunities*. *Business Horizons*, 51, 154-168.

Ramady, M. A. (2017). *Saudi Aramco 2030: Post IPO challenges*. New York: Springer International Publishing.

Renaud, O., & Victoria-Feser, M. P. (2010). A robust coefficient of determination for regression. *Journal of Statistical Planning and Inference*, 140(7), 1852-1862.

Sacklyn, R. (2013). *History of Hong Kong Stock Exchange: From Old Boys Club to World Class Bourse*. Hoboken, New Jersey: Wiley.

Schaffartzik, A., & Fischer-Kowalski, M. (2018). *Latecomers to the Fossil energy transition, frontrunners for change? The relevance of the energy ‘underdogs’ for sustainability transformations*. *Sustainability*, 10(8), 2650-2675.

Seber, G. A., & Lee, A. J. (2012). *Linear regression analysis* (Vol. 329). John Wiley & Sons.

Securities Depository and Clearing Corporation Limited (2015). *Annual Reports of SDCC Limited*. Beijing, Securities Depository and Clearing Corporation Limited.

Sellke, T., Bayarri, M. J., & Berger, J. O. (2001). Calibration of p values for testing precise null hypotheses. *The American Statistician*, 55(1), 62-71.

Sheng, H., Hong, S., & Zhao, N. (2012). *China's State-owned Enterprises: Nature, Performance and Reform*. Singapore: World Scientific.

Shi, C. (2012). *The Political Determinants of Corporate Governance in China*. Abingdon, Oxfordshire: Taylor & Francis.

Shleifer, A. and Vishny, R. W. (1997). *A Survey of Corporate Governance*. *The Journal of Finance*, 52, 737–783.

Shleifer, A., & Vishny, R. W. (1994). *Politicians and firms*. *The quarterly journal of economics*, 109(4), 995-1025.

Sinopec Company Limited. (2001-2015). *Annual Reports of Sinopec Company Limited*. Beijing: Sinopec.

Sinopec Company Limited. (2001-2015). *Form 20-F Reports of Sinopec Company Limited*. Beijing: Sinopec.

Solomon, J. (2007). *Corporate Governance and Accountability*. Hoboken, New Jersey: Wiley.

Sun, Q. and Tong, W. (2003). *China Share Issue Privatization: The Extent of its success*. *Journal of Financial Economics*, 70, 183-222.

Sun, Q., Tong, W., Tong, J. (2002). *How does government ownership affect firm performance? Evidence from China's privatization experience*. *Journal of Business Finance and Accounting*, 29(1), 1-27.

Tam, On Kit. (1999). *The development of corporate governance in China*. Cheltenham: Elgar.

Tomasic, R. (2016). *Routledge Handbook of Corporate Law*. Abingdon, Oxfordshire: Taylor & Francis.

Toninelli, P. M. (2000). *The Rise and Fall of State-Owned Enterprise in the Western World*. Cambridge: Cambridge University Press.

Tordo, S., S Tracy, B., & Arfaa, N. (2011). *National Oil Companies and Value Creation. Volume I*. Washington, D.C.: The World Bank.

Tosi, H. (Ed.), (2009). *Theories of organization*. Los Angeles, Calif.: SAGE.

Tricker, Robert I. (2012). *Corporate governance: Principles, policies, and practices (2.nd ed.)*. Oxford: Oxford University Press.

Tsamenyi, M., & Uddin, S. (2008). *Corporate Governance in Less Developed and Emerging Economies*. Stamford: JAI Press.

Tunsjø, Ø. (2013). *Security and Profit in China's Energy Policy: Hedging Against Risk*. New York: Columbia University Press.

Tylecote, A., & Cai, J. (2004). *China's SOE reform and technological change: a corporate governance perspective*. *Asian Business & Management*, 3(1), 57-84.

Victor, D. G., Hults, D. R., & Thurber, M. C. (2011). *Oil and Governance: State-Owned Enterprises and the World Energy Supply*. Cambridge: Cambridge University Press.

Walter, C. E., & Howie, F. J. T. (2003). *Privatizing China: the stock markets and their role in corporate reform*. New Jersey: Wiley (Asia).

Wang, H. (2005). *Stock Exchanges in China: Self-regulatory Organisations or CSRC's Branches*. *Canberra L. Rev.*, 8, 59-71.

Wang, J. Y. (2014). *Company Law in China: Regulation of Business Organizations in a Socialist Market Economy*. Cheltenham: Edward Elgar Pub. Limited.

Ward, D., & Filatotchev, I. (2010). *Principal–principal agency relationships and the role of external governance*. *Managerial and Decision Economics*, 31, 249– 261.

Wasserstein, R. L., & Lazar, N. A. (2016). The ASA statement on p-values: context, process, and purpose. *The American Statistician*, 70: 129-133.

Wei, G., & Geng, M. (2008). *Ownership structure and corporate governance in China: some current issues*. *Managerial Finance*, 34(12), 934–952.

Wolf, C., Pollitt, M. G., & Economics, U. of C. F. of. (2008). *Privatizing national oil companies: assessing the impact on firm performance*. Working Paper, University of Cambridge, Faculty of Economics.

Wu, Kang. (2013). *Energy economy in China: Policy imperatives, market dynamics, and regional developments*. Singapore: World Scientific.

Wymeersch, E. (1999). *A Status Report on Corporate Governance Rules and Practices in Some Continental European States*. Oxford: Clarendon Press.

Xu, X., & Wang, Y. (1999). *Ownership Structure and Corporate Governance in Chinese Stock Companies*. *China Economic Review*, 10 (1), 75-98.

Yao, L., & Chang, Y. (2014). *Energy security in China: a quantitative analysis and policy implications*. *Energy Policy*, 67, 595-604.

Yeh, Y. H., Shu, P. G., Lee, T. S., & Su, Y. H. (2009). *Non-tradable share reform and corporate governance in the Chinese stock market*. *Corporate Governance: An International Review*, 17(4), 457-475.

Yetiv, S. A. (2015). *Myths of the Oil Boom: American National Security in a Global Energy Market*. Oxford: Oxford University Press.

Yeung, Lixin Colin Xu, Fan, & Morck. (2007). *Does "Good Government" Draw Foreign Capital? Explaining China's Exceptional Foreign Direct Investment Inflow*. Washington, D.C.: The World Bank.

Yu, M. (2013). *State ownership and firm performance: Empirical evidence from Chinese listed companies*. *China Journal of Accounting Research*, 6(2), 75–87.

Yusuf, S., Nabeshima, K., & Perkins, D. H. (2006). *Under New Ownership: Privatizing China's State-owned Enterprises*. Washington, D.C.: The World Bank.

Zeng, J. (2013). *State-Led Privatization in China: The Politics of Economic Reform*. Abingdon, Oxfordshire: Taylor & Francis.

Zhang, L. (2011). *Venture Capital and the Corporate Governance of Chinese Listed Companies*. New York: Springer.

Zhou, J., & Lan, W. (2018). *Investor protection and cross-border acquisitions by Chinese listed firms: The moderating role of institutional shareholders*. *International Review of Economics & Finance*, 56, 438-450.

DuEPublico

Duisburg-Essen Publications online

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

ub | universitäts
bibliothek

Diese Dissertation wird über DuEPublico, dem Dokumenten- und Publikationsserver der Universität Duisburg-Essen, zur Verfügung gestellt und liegt auch als Print-Version vor.

DOI: 10.17185/duepublico/72701

URN: urn:nbn:de:hbz:464-20200914-121011-6

Alle Rechte vorbehalten.